
Hanford Federal Facility Agreement and Consent Order

by

Washington State
Department of Ecology

United States
Environmental Protection Agency

United States
Department of Energy

As Amended Through September 30, 2019

89-10 REV. 8

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**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, and Attachment 2, the Action Plan. 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.

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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 entered into this Agreement in anticipation that the Hanford Site would 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, 53 FR 4280 (Feb. 12, 1988). Four subareas of the Hanford Site were proposed by EPA for addition to the NPL, 53 FR 23988 (June 24, 1988). [Note: The four areas of the Hanford Site were officially listed on the NPL on November 3, 1989 (54 FR 41015, October 4, 1989)]. One area, the 1100 Area, has since been remediated and deleted from the NPL (61 FR 51019, September 30, 1996). In addition, portions of the 100 Area underwent partial deletion (63 FR 36861, July 8, 1998). 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 CERCLA and 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 the corrective action requirements of RCRA, and CERCLA. 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, RCW Chapters 70.105 and the Model Toxics Control Act (Initiative 97) as codified beginning March 1, 1989 (Chapter 70.105D RCW), 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 (42 U.S.C Sec. 6926). 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) 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” is waste that contains both hazardous waste subject to RCRA and/or HWMA 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.

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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 Management Division 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, except as provided in Article XXIV, Paragraph 89) 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 Deputy Director shall meet with the Deputy Manager of U.S. Department of Energy, Richland Operations Office (DOE-RL) or Deputy Manager of the U.S. Department of Energy, Office of River Protection (DOE-ORP) 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(c) (42 U.S.C Sec. 6961(c)).

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 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 80,000 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 concerning RCRA corrective action shall be resolved in accordance with Article VIII (Resolution of Disputes). Work undertaken at those operable units designated under the Action Plan as RCRA-CERCLA past-practice units is subject to both RCRA Corrective Action and CERCLA requirements including, but not limited to the provisions of Article IX, Article X, Article XX and Article XXI.

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. 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.

P. If a dispute arises under Part Three of this Agreement with DOE with respect to a matter for which Ecology is the lead regulatory agency and relating to an operable unit designated under the Action Plan as a RCRA-CERCLA past-practice operable unit, the dispute will be resolved as follows:

1. If there is a dispute on the selection of a CERCLA remedial action and a RCRA Corrective Action, dispute resolution processes will run concurrently under Article VIII with respect to the RCRA Corrective Action decision, and this Article and Article XXIV, Paragraph 89 with respect to selection of the CERCLA remedial action.

2. For all other disputes with DOE the matter will be resolved in accordance with Article VIII.

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.

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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 Deputy Director. 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.

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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 July 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. Ecology shall provide an itemization of changes from the preliminary statement to aid DOE-RL in their review of the final billing statement. DOE-RL shall promptly pay this billing.

3. Ecology shall by July 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 July 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. Reimbursement of other Department of Ecology Costs:

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. Minor field changes, 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. Reports or submittals pursuant to a schedule or deadline may be sent by plant mail, but the receipt date shall be date stamped by the lead regulatory agency project manager's correspondence control.

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 and in accordance with agency retention requirements, all of the records in its or its contractors possession related to sampling, analysis, investigations, and monitoring conducted in accordance with this Agreement. Administrative record copies may be a copy of the original document. 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 judgment 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, now known as the Public Involvement Plan (PIP) 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 PIP 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 PIP 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. SEVERABILITY

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. INCLUSION OF NONREGULATED NUCLEAR MATERIALS

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

¹ 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.

THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

THE UNITED STATES DEPARTMENT OF ENERGY:

THE WASHINGTON STATE DEPARTMENT OF ECOLOGY

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.

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

c: R. Russell
M. Lawrence

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

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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. DOE has phased out the defense production missions of Hanford. The current emphasis of the Site is cleanup of waste units resulting from past operations, achieving compliance with Federal and State laws, and research and development.

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.

Treatment, Storage or Disposal (TSD) Groups/Units on the Hanford Site (see Appendix B) must be permitted and/or closed in accordance with the State of Washington HWMA. The State of Washington administers and enforces its hazardous waste program in lieu of the Federal program, as authorized by EPA. 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-1940s. These operations resulted in numerous past-practice units (see Appendix C) 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 contaminants 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.

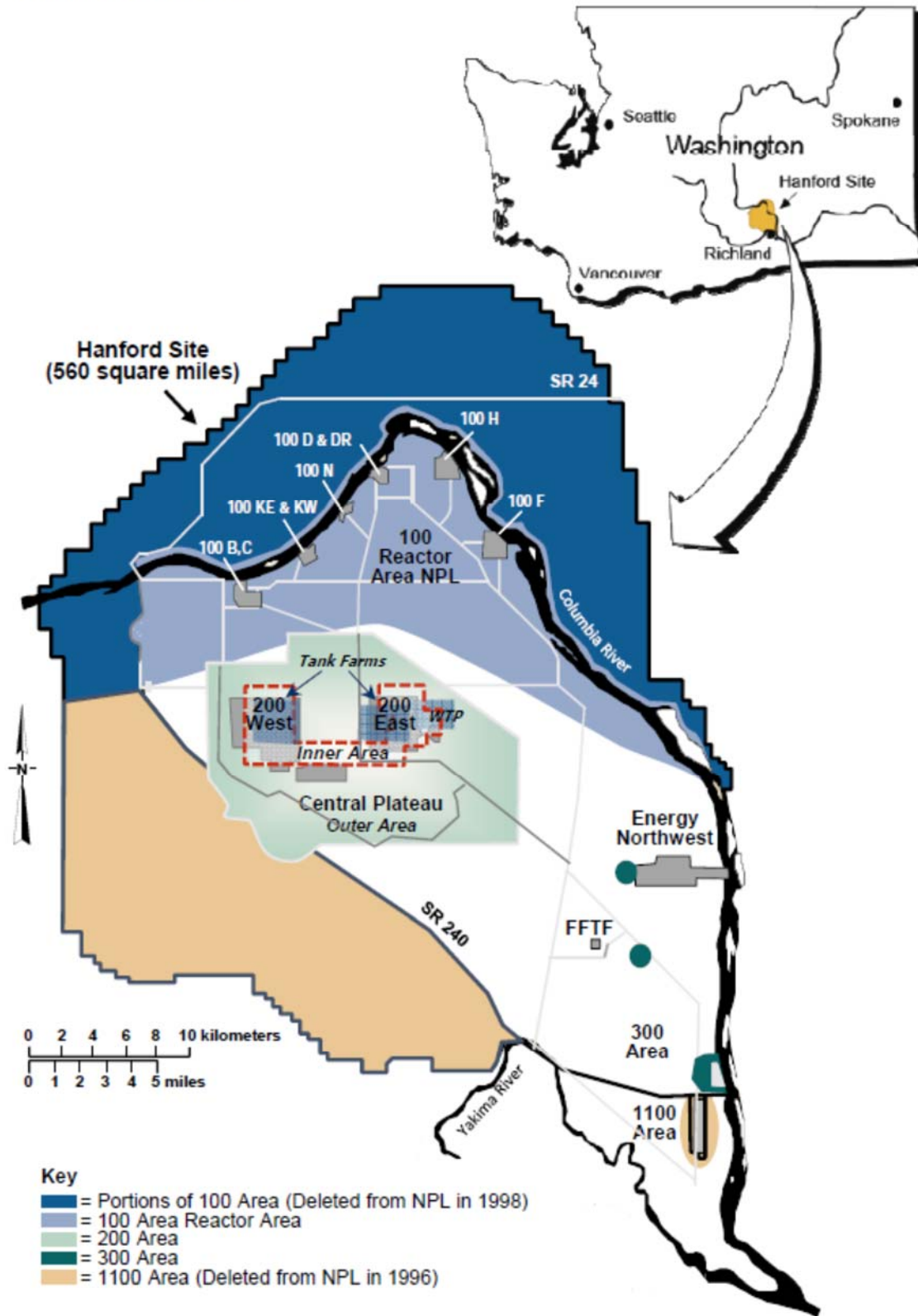
The State of Washington has received authorization to carry out a portion of the *Hazardous and Solid Waste Amendments of 1984* (HSWA) including corrective actions. For that portion, Ecology's authorized program operates in lieu of the Federal requirements. However, some HSWA provisions are yet to be 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 (54 FR 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 1100 Area has since been remediated and deleted from the NPL (61 FR 51019, September 30, 1996). In addition, portions of the 100 Area underwent partial deletion (63 FR 36861, July 8, 1998).

The Hanford Site



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 TSD groups on the Hanford Site identified in Appendix B are those that are permitted to continue operation. The TSDs are subject to closure requirements under the HWMA. 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.

Past-practice units are identified in Appendix C. They have been grouped into 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 hold monthly meetings, unless the Parties agree otherwise, 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 CERCLA units or as RCRA corrective action and 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

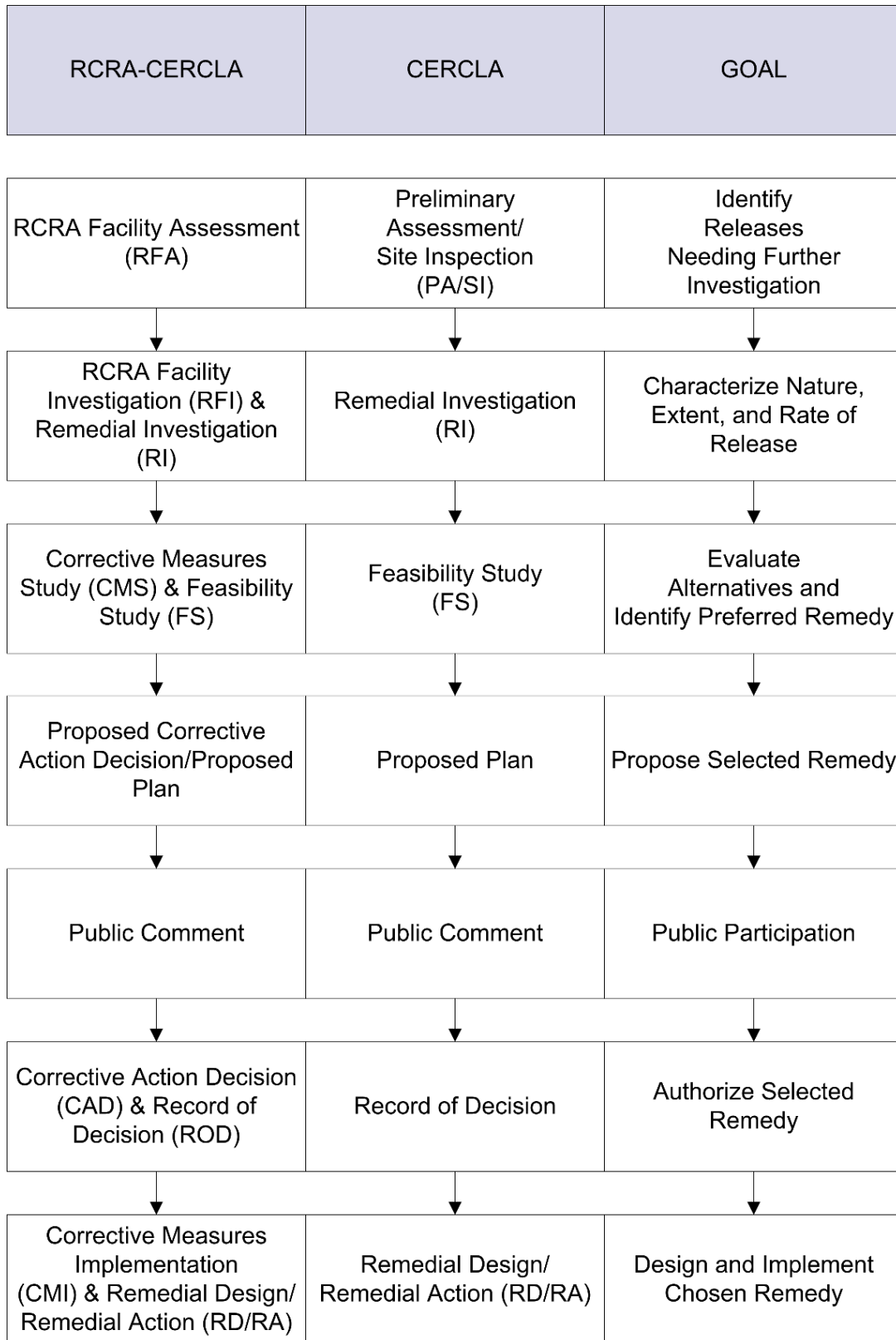
Since the Hanford Site is designated as a single RCRA facility one hazardous waste permit will be issued and maintained, and will address the treatment, storage and disposal of hazardous wastes. The initial permit will be issued for less than the entire facility, recognizing that not all of the TSD groups 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 both the RCRA corrective action and CERCLA remedial action processes will be used for the past-practice operable units. Under either approach, 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, corrective action decision or RCRA permit modification. The administrative record files will be available to the public for review by internet at www.hanford.gov and during normal business hours at the following location:

- Hanford Administrative Record
2440 Stevens Center
Room 1101
Mail Stop: H6-08
Richland, Washington 99352

The State of Washington is responsible for assembling and maintaining the official RCRA Permit Administrative Record. The RCRA Permit Administrative Record Requirements are pursuant to WAC 173-303-840(2)(e), and not this agreement. The RCRA Permit Administrative Record is available to the public for review during normal business hours at the following location:

- Department of Ecology
3100 Port of Benton Blvd
Richland, Washington 99354

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, now known as the Public Involvement Plan (PIP) has been developed that meets the requirements for having such a plan at NPL sites, and also supports all the community relations needs of the Agreement, including RCRA public involvement requirements.

The following summarizes the key elements of the PIP:

- Public information repositories will be maintained in Seattle, Richland, and Spokane, Washington, as well as Portland, Oregon. Documents, during the appropriate public comment period, will be placed in the public information repositories.
- At least one public information meeting on the DOE budget formulation will be held in the spring, or on a date agreed to by the Parties based on the availability of budget information. 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, to meet HWMA requirements.
- 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 PIP.
- An active system of keeping the public informed will be implemented. A mailing list will be maintained for distribution of fact sheets and other mailings.
- 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.

Action Plan

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.

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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 site cleanup schedules established in accordance with the HFFACO.

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 the requirements and schedules established pursuant 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 to cleanup may 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 designation of operable units across the Hanford Site (see Appendix C). Each of the operable units will be subject to an investigation in the form of either a CERCLA or a RCRA-CERCLA 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 Unit 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-CERCLA 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.

The Hanford Site Waste Management Units Report shall be generated, in a format agreed upon by the Parties, as a calendar year report and issued annually by the DOE by the end of February 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, and specific milestone to be completed under this Agreement. Project managers will only be identified for those areas where effort is ongoing or planned. 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 will 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 shall have oversight as defined in Section 5.6 of all activities required by this action plan for completion of the milestone as agreed to by the project managers.

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 and lead regulatory agency project managers have the authority to jointly determine and agree on what information shall be provided at the meeting; any such agreements will be documented and approved by the IAMIT, as a Determination.

Absent such Determination, DOE 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). For any anticipated delays in meeting work schedules, the reason(s) for such delay and actions taken to prevent or mitigate the delay shall be provided, along with any potential problems that may result in a departure from the requirements and work schedule. These schedules will be provided to all parties and reviewed at the meeting.

The TPA milestone review reports shall 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 project managers can modify the content of the reports if a Determination has been approved by the IAMIT.

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) or alternative meeting materials agreed to by the project managers
- Any approved changes signed off at the meeting in accordance with Section 12.2

The project managers will jointly decide which documents are appropriate for inclusion in the administrative record.

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, the project manager shall notify DOE of that fact in a timely manner. Such notification shall be in writing and shall provide the project manager's detailed rationale 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 the Central Plateau, 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 summarizing the

discussion at the meeting will be issued to the lead regulatory agency and the administrative record by the DOE. The minutes will include, as discussed, 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-CERCLA past-practice (R-CPP) 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-CERCLA 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. Releases of CERCLA hazardous substances would also be addressed. The releases will be addressed using both the state HWMA corrective action

program and CERCLA authority and process. 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-CERCLA 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 R-CPP units, under both the authorized state corrective action program and CERCLA (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 regardless of a unit's designation as a CPP or R-CPP, all CERCLA hazardous substances and all of the wastes regulated under the State Dangerous Waste Program (173-303 WAC) shall be addressed as part of any CERCLA or RCRA-CERCLA response 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.

All past-practice units within an operable unit will be designated as either R-CPP 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). The past practice process selected for each operable unit shall be sufficiently comprehensive to satisfy the technical requirements of both statutory authorities and the respective regulations. For R-CPP operable units there will be both a Corrective Action Decision under RCRA and a Record of Decision under CERCLA.

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

Currently assigned R-CPP 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 as an R-CPP or CPP unit. Such designation may be changed due to the discovery of additional information concerning the operable unit. If a change in management (e.g. change from R-CPP to CPP unit) 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 Units

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 or RI/FS 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.

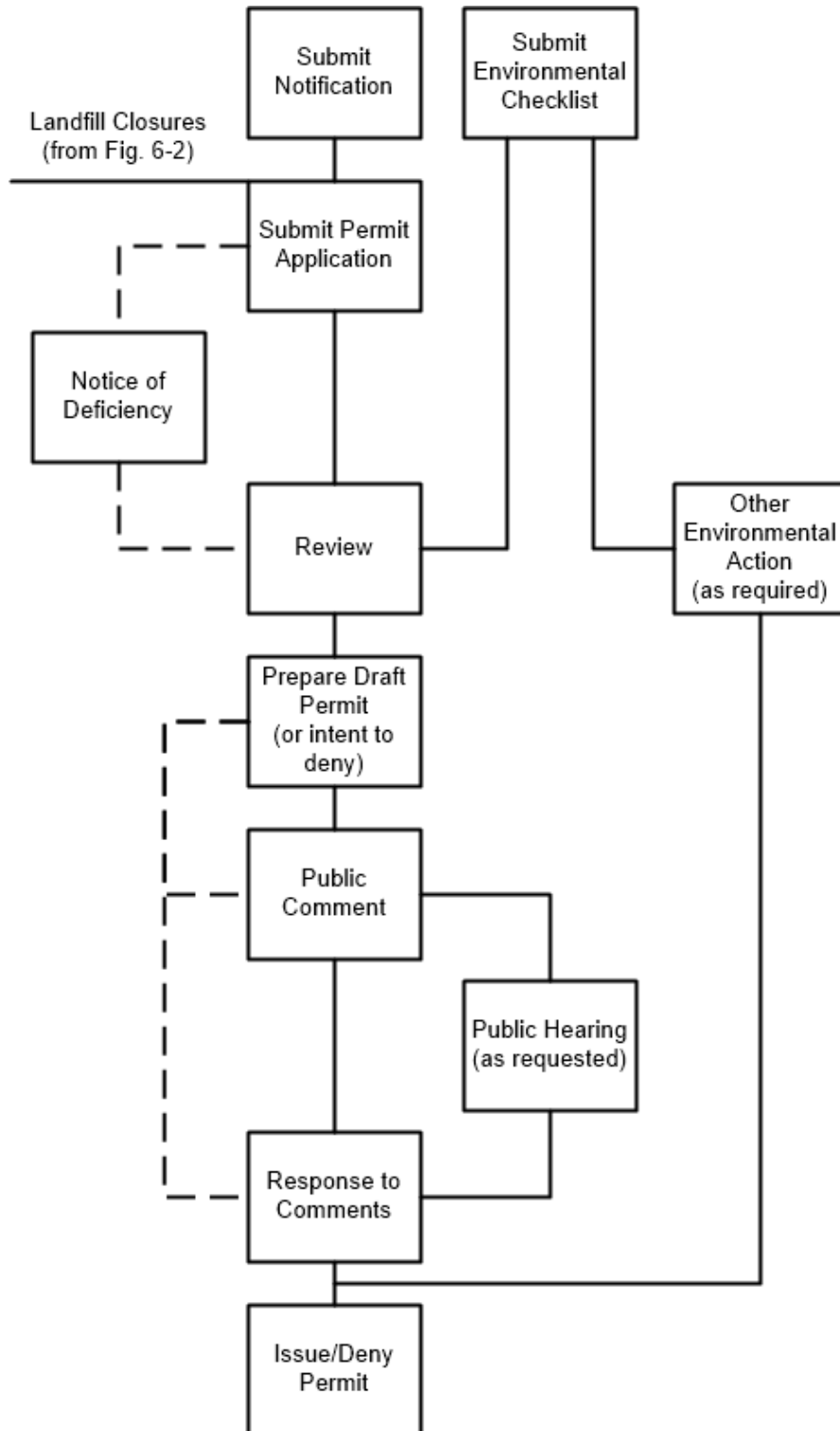


Figure 6-1. Permitting Process Flowchart

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.

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).

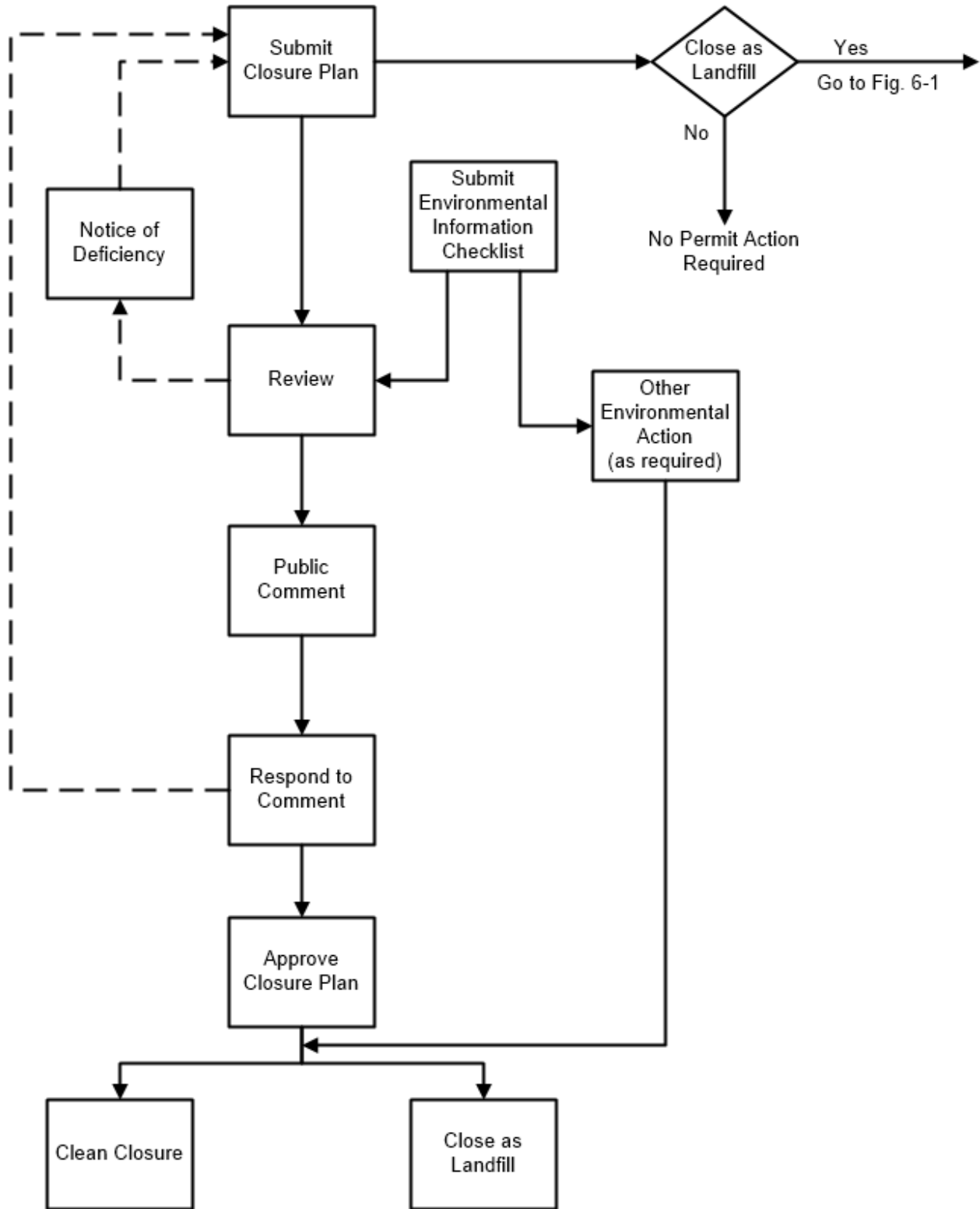


Figure 6-2. Closure Process Flowchart

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.

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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 R-CPP 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 R-CPP unit process (Section 7.4).
- Describe the process for setting cleanup standards for any CPP or R-CPP 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).

Numerous waste management units have been identified within the boundaries of the Hanford Site. 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 (54 FR 41015, October 4, 1989). The 1100 Area has since been remediated and deleted from the NPL (61 FR 51019, September 30, 1996). In addition, portions of the 100 Area underwent partial deletion (63 FR 36861, July 8, 1998). 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 under both RCRA and CERCLA processes (Section 7.4). Figure 7-2 highlights the major steps involved in both the CPP and R-CPP programs and indicates how each of these steps is related to a comparable step in the other program. It shows that the steps are functionally equivalent. Accordingly, the investigative process at any operable unit can proceed under either the CPP or the R-CPP program.

In accordance with Section 3.1, and discussed in Section 8, the parties may elect to disposition facilities (as the term “facility” is defined in Section 8) outside of Section 8.0 requirements and include the disposition of facilities under the past-practice processes. Such actions will proceed under the CPP Program.

The Hanford Site

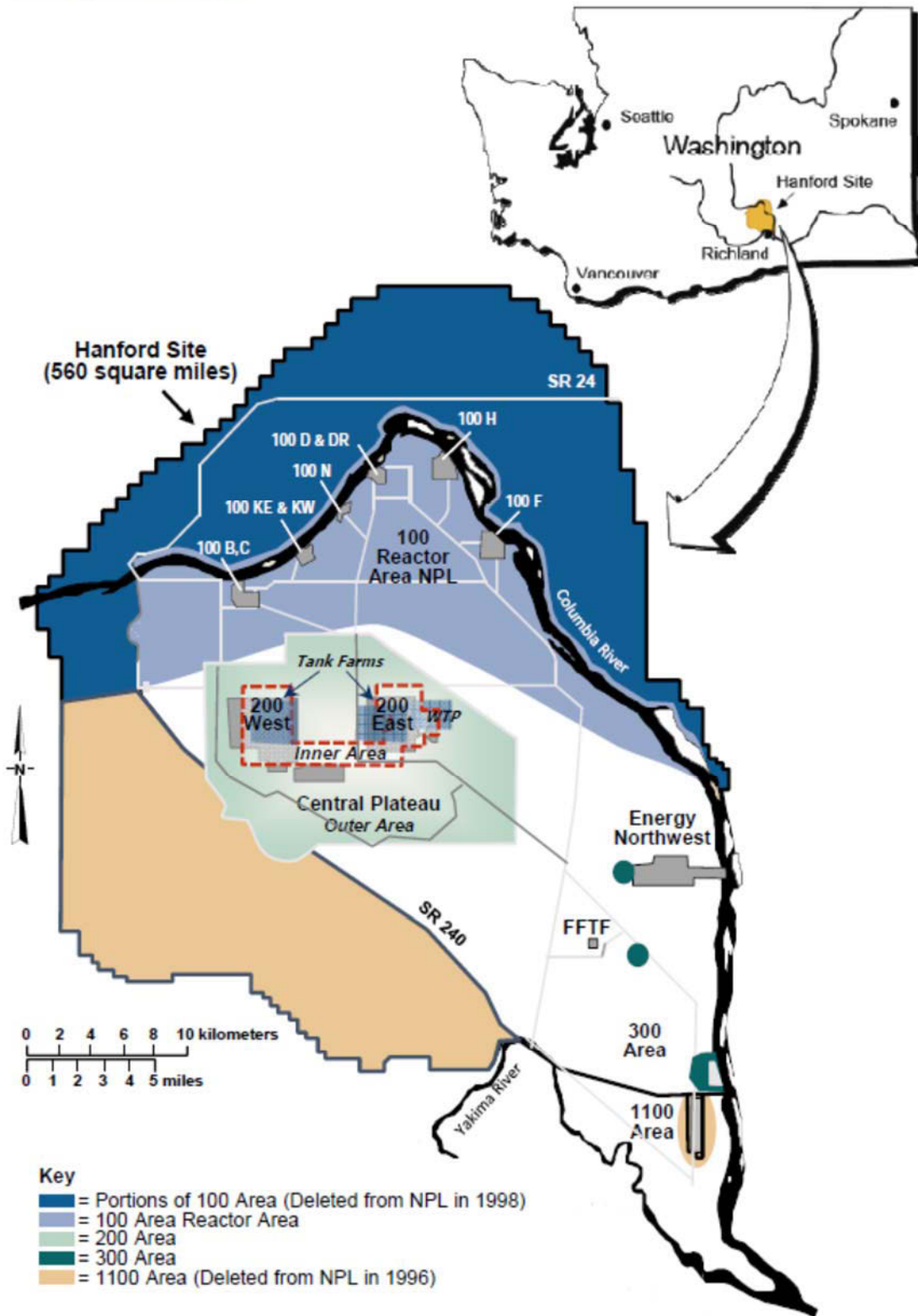
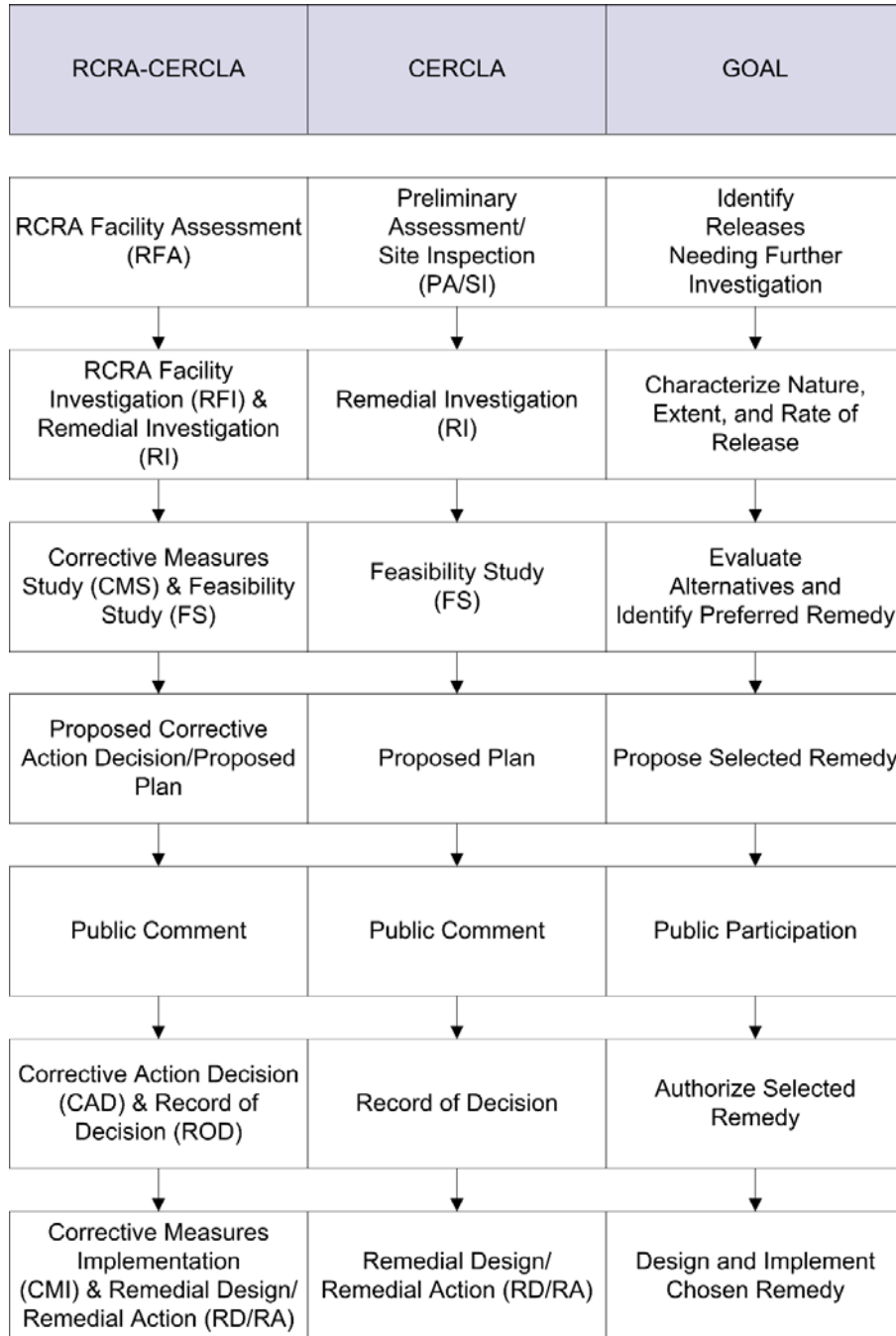


Figure 7-1. Aggregate Areas



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 measures process.

Figure 7-2. Comparison of Joint Resource Conservation and Recovery Act Corrective Measure and Comprehensive Environmental Response, Compensation, and Liability Act Remedial Action Process with that of CERCLA Alone

7.2 Preliminary Processes

Section 5.4 describes the rationale for managing operable units under either the CPP or the R-CPP category. The following processes apply to all past-practice units, regardless of whether they are classified as R-CPP 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 waste units and their associated operable unit. 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 (as defined in Section 8) dispositioning activities which will be integrated with this process. Canyon buildings on the Central Plateau are grouped with associated waste sites into canyon area operable units, defined in Appendix C, for disposition under the CPP program. 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 104 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 R-CPP procedures, the lead regulatory agency will choose the authority (RCRA and/or CERCLA) under which to address the imminent and substantial endangerment. If the operable unit has not yet been assigned to either the CPP or R-CPP 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 and remedial action (for R-CPP 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 R-CPP procedures, the IM and/or IRA proposal shall be submitted to the lead regulatory agency, and the IM and/or IRA shall be conducted in accordance with applicable regulations of the authority through which action is implemented. If the operable unit has not yet been assigned to either the CPP or R-CPP 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 and remedial action (for R-CPP 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.

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).

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.

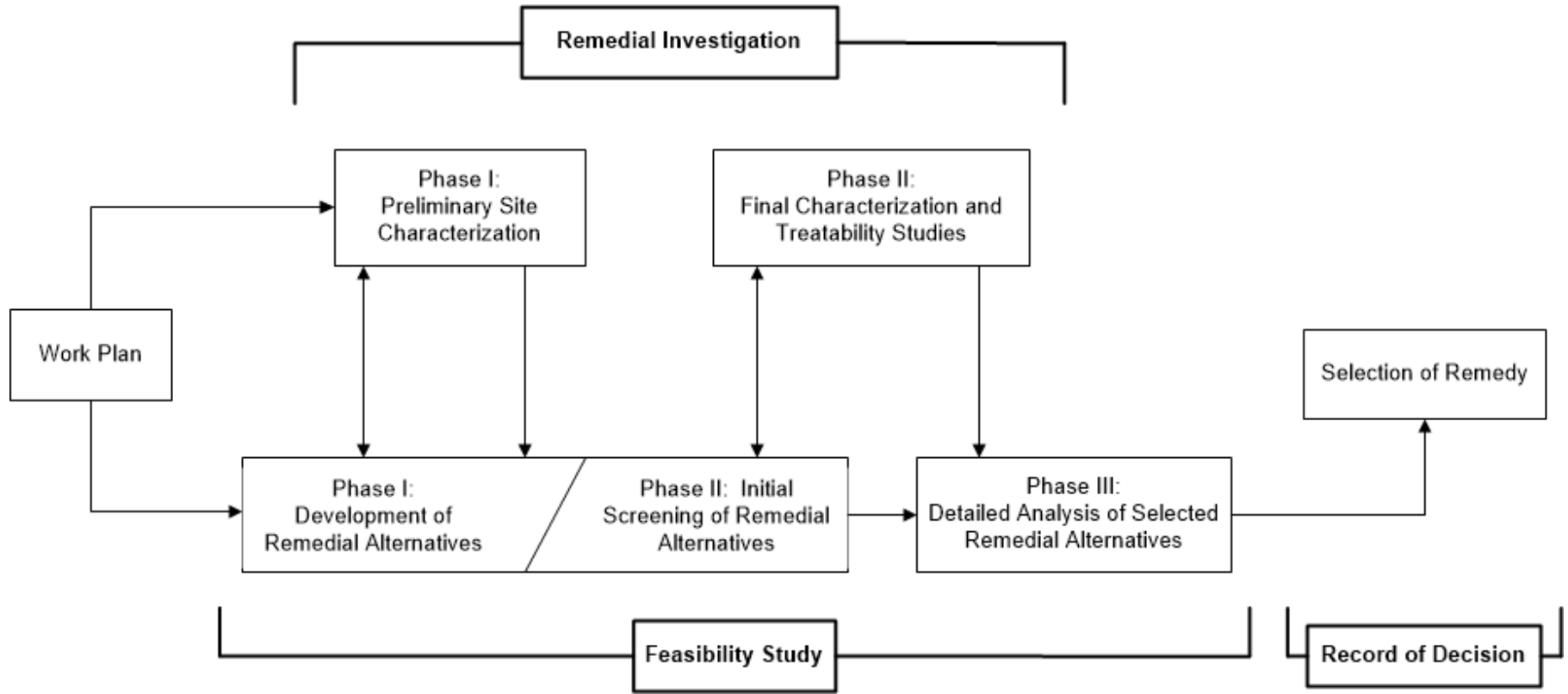


Figure 7-3. Overview of the Remedial Investigation/Feasibility Study Process

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.

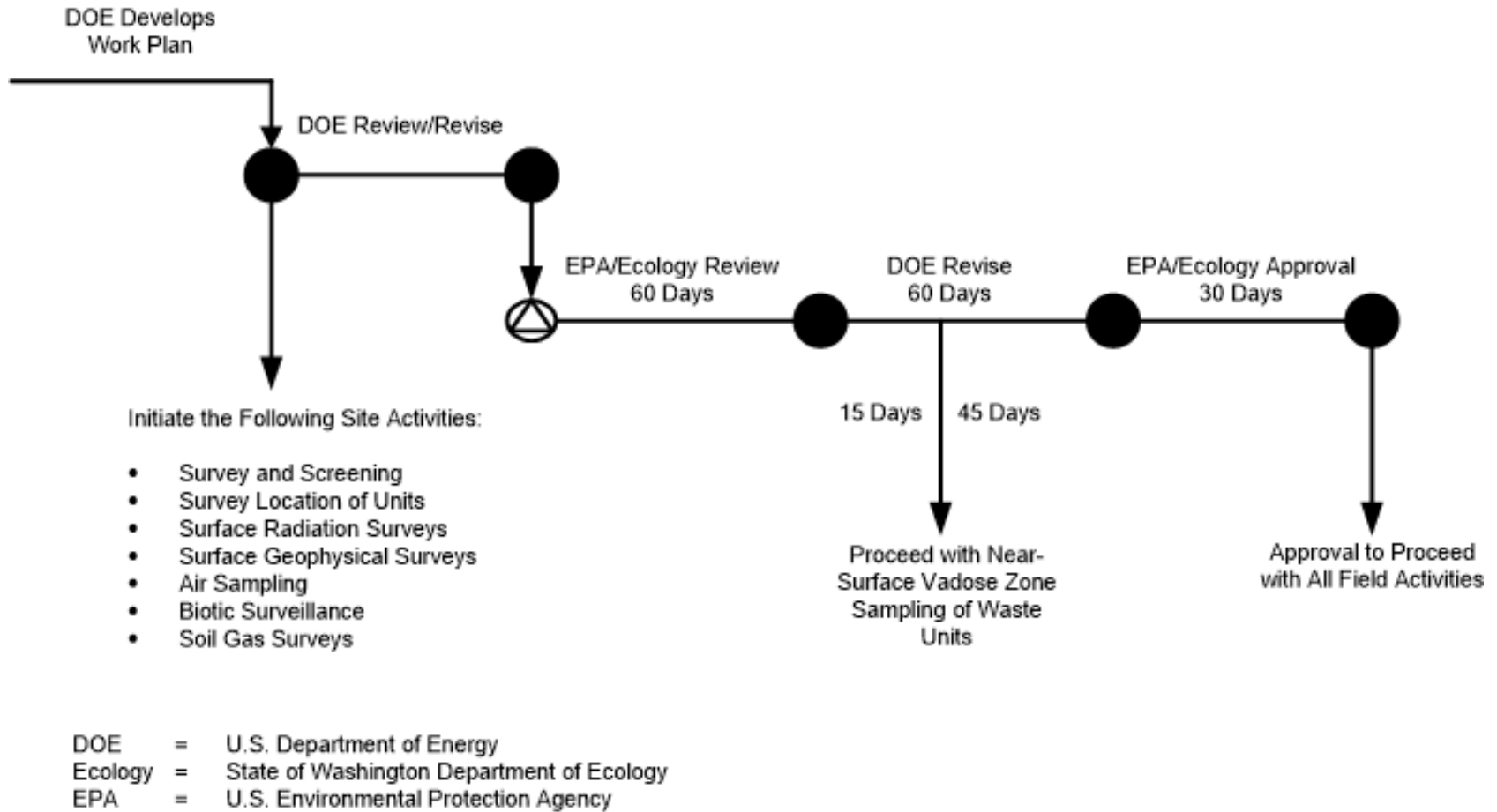


Figure 7-4. Remedial Investigation/Feasibility Study (Resource Conservation and Recovery Act Facility Investigation/ Corrective Measures Study) Work Plan Review and Approval

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 Report and the Proposed Plan has closed the Record of Decision (ROD) process will begin. A draft ROD will be prepared by the EPA (or jointly by EPA and Ecology, if Ecology is the lead regulatory agency). The lead regulatory agency, working in cooperation with DOE (and EPA if Ecology is the lead regulatory agency), will finalize the ROD. The goal of the Parties is to finalize the ROD within 180 days of the close of the public comment period. The ROD will describe the decision making process for remedy selection, summarize the alternatives developed, screened, and evaluated in accordance with CERCLA and the NCP and include a responsiveness summary addressing comments provided on the Proposed Plan. Although all of the RI/FS documents and preliminary determinations leading up to the ROD will be the responsibility of DOE and the lead regulatory agency, the ROD must be signed by EPA. The ROD will become part of the administrative record. 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 shall contain at least a 90% design. If less than 90% design submission is required by the lead regulatory agency, it will be documented in the RD/RA work plan. 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.

A RD/RA work plan will be developed for each operable unit (or group of OUs as agreed to by the Parties) detailing the plans for RD and RA. The RD/RA work plan is a primary document as described in Section 9.0. The schedule for conducting the RD and RA phases will be specified for each operable unit in the work schedule (Appendix D). Submittal of RD/RA work plans shall be consistent with Section 11.6. The RD/RA work plan shall include a conceptual-level design.

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 and Comprehensive Environmental Response, Compensation, and Liability Act Past Practice Unit Process

The R-CPP processes are the subject of this Section and are governed by the authorized state corrective action program and CERCLA.

7.4.1 Resource Conservation and Recovery Act Facility Assessment

For those units that are defined as R-CPP units, 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 R-CPP units within that operable unit. The need for an RFA is based on whether sufficient knowledge exists to determine if an RFI and RI 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 R-CPP 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 and RI 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 and RI 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 and RI/FS. 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 and Remedial Investigation

Each RCRA Facility Investigation (RFI) and Remedial Investigation (RI) will address all units within a specific operable unit, as identified in the RFI/CMS and RI/FS 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 and RI/FS documents as discussed in Section 5.5. Timing for submittal of the work plan will be in accordance with the work schedule (Appendix D).

An RFI and RI report will be prepared by the DOE, and it will document the results of the RFI and RI. The RFI and RI report is a primary document as described in Section 9.0. The schedule for conducting the RFI and RI will be specified for each operable unit in the work schedule (Appendix D) and integrate any planned facility dispositioning in accordance with

Section 8. The information obtained through the RFI and RI must include information gathered in the CERCLA process through the RI Phases I and II, as described in Sections 7.3.3 and 7.3.6.

Based on the results of the RFI and RI, the lead regulatory agency may determine that no further investigation or corrective action is required for each R-CPP 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 and FS based on results of the RFI.

Alternatively, a CERCLA RI prepared as described in Section 7.3.2, 7.3.3 and 7.3.6 may substitute for an RFI and RI.

7.4.3 Corrective Measures Study and Feasibility Study and Proposed Corrective Action Decision/Proposed Plan

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

A CMS and FS report documenting the results of the study will be prepared by the DOE. The CMS and FS report is a primary document as described in Section 9.0. The schedule for conducting the CMS and FS will be specified for each operable unit in the work schedule (Appendix D). The information obtained through the CMS and FS must include 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.

Alternatively, a CERCLA FS prepared as described in Sections 7.3.4, 7.3.5, and 7.3.7 may substitute for a CMS and FS, provided that the FS includes an assessment of (or a basis on which to assess) satisfaction of state corrective action standards in evaluating alternatives.

With consideration of all information generated through the preceding investigative and study processes, the DOE shall prepare a proposed corrective action decision/proposed plan in accordance with the schedule specified in the work schedule (Appendix D). The proposed corrective action decision/proposed plan is a primary document as described in Section 9.0. The proposed corrective action decision/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 state corrective action decision criteria and written CERCLA guidance and criteria.

Once the lead regulatory agency has approved the CMS and FS Report and the proposed corrective action decision/proposed plan, 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 corrective action decision/proposed plan will provide opportunity for consideration of an additional criterion in preparation of the Corrective Action Decision and Record of Decision. This criterion is community preference or concerns about the proposed alternatives.

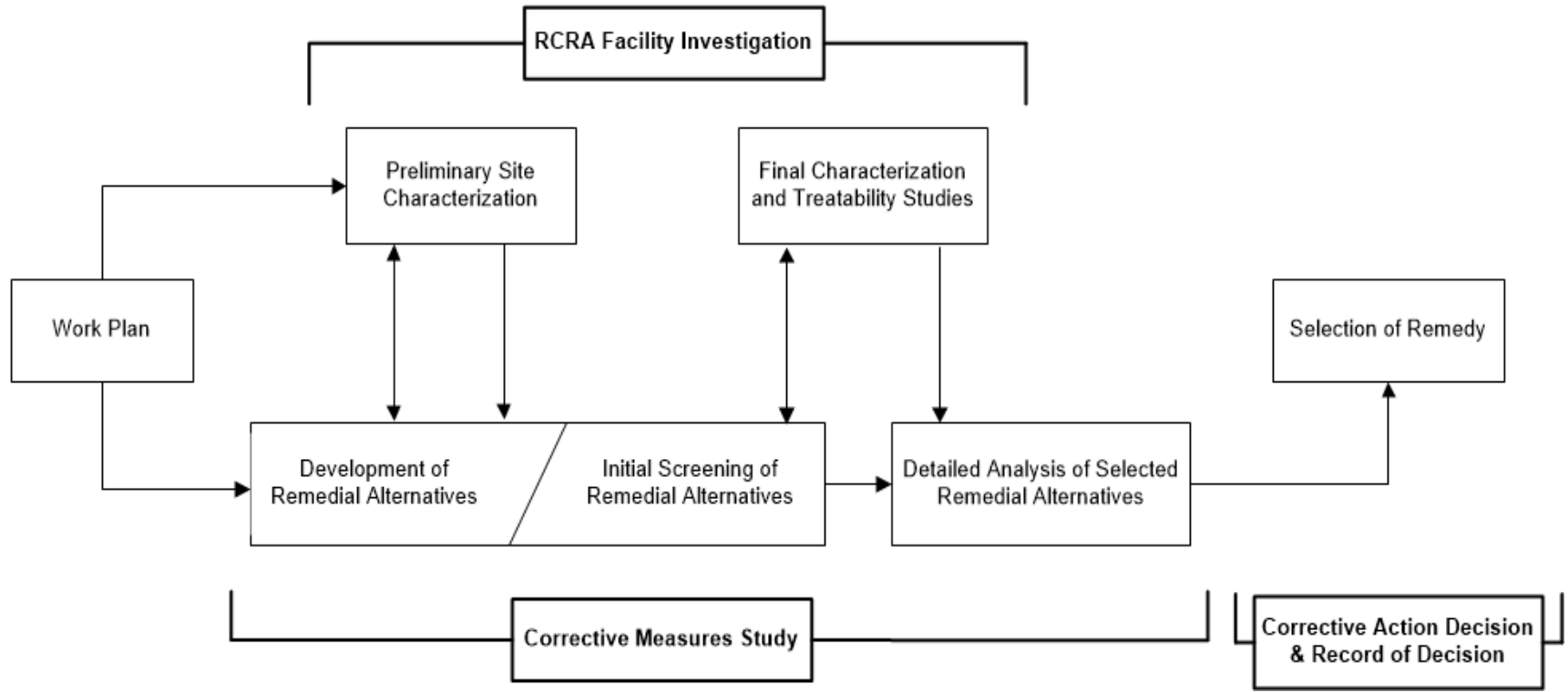


Figure 7-5. Overview of RCRA Facility Investigation/Corrective Measures Study Process

7.4.4 Corrective Action Decision and Record of Decision

After the public comment period has closed on the CMS and FS report and the proposed corrective action decision/proposed plan, the corrective action decision/record of decision (CAD/ROD) process will begin.

A draft CAD will be prepared by Ecology and will describe the decision making process for corrective measures selection, and summarize the alternatives developed, screened, and evaluated in accordance with state corrective action requirements, incorporating by reference, as appropriate, the ROD discussion of the same topics. The CAD must be signed by Ecology. See TPA Action Plan Section 7.3.8 for development of a ROD. The goal of the lead regulatory agency (Ecology), working in cooperation with DOE and EPA, is to finalize both the CAD and the ROD within 180 days of the close of the public comment period on the CMS and FS report and the proposed corrective action decision/proposed plan. Any disputes between Ecology and DOE during development of the final CAD will be resolved in accordance with the dispute resolution procedures in Article VIII, Resolution of Disputes. Any disputes with DOE during development of the final ROD will be resolved in accordance with the dispute resolution procedures in Article XVI, Resolution of Disputes. The Article VIII and Article XVI dispute resolution processes on selection of a CERCLA remedial action and a RCRA corrective action will run concurrently in accordance with Paragraph 59(P). The CAD and ROD will both become part of their respective administrative record. The lead regulatory agency shall continue its role after issuance of the CAD and ROD, including oversight of the remedial design and remedial action phases, as described below.

7.4.5 Corrective Measures and Remedial Design/Remedial Action Implementation

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

Following issuance of the CAD and ROD, the CMI and RD/RA phase will be initiated as provided under Section 11.6, in accordance with a schedule agreed to by the project managers. Milestone change requests shall be processed in accordance with Section 12.0.

The DOE will initiate, maintain progress toward completion of, and complete any necessary corrective and remedial action for all R-CPP units within each operable unit in accordance with a CMI and RD/RA work plan and corrective measures and RD design (CMD and RD) report. The CMD and RD report will satisfy the requirements of Section 7.3.9. This work will be done in accordance with current applicable regulations, guidance documents, and written policy available at any time during the corrective and remedial action process. The CMI and RD/RA work plan will satisfy the requirements of an RA work plan described in Section 7.3.10.

The CMI and RD/RA work plan and the CMD and RD report, which are produced as part of the CMI and RD/RA phase, are primary documents as described in Section 9.0. The schedule for developing the CMI and RD/RA work plan and conducting the CMI and RD/RA will be specified for each operable unit in the work schedule (Appendix D). The CMI and RD/RA phase

will be conducted in accordance with the schedule of compliance specified in the work schedule (Appendix D).

Upon satisfactory completion of the CMI and RD/RA phase as described in the CMI and RD/RA 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 and RD/RA phase for an operable unit.

7.4.6 Operation and Maintenance

The operation and maintenance (O&M) phase will be initiated at each operable unit when the CMI and RD/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 CMI and RD/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 CMI and RD/RA is required. The lead regulatory agency may conduct more frequent evaluations should data indicate this is necessary to ensure effective implementation of the CMI and RD/RA. All O&M data and records obtained to that date, along with any additional information provided by 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 is specified for each operable unit in the work schedule (Appendix D).

7.4.7 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 all past practice units 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 and RI/FS) process. The detailed documentation of ARARs shall be provided in an appendix to the FS Phase III Report (or CMS and FS report).

The lead regulatory agency for each CERCLA and RCRA-CERCLA operable unit shall prepare a summary of the rationale for selection of ARARs for the ROD.

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-CERCLA 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 prepare permit applications consistent with “Technical Guidance Document: Construction Quality Assurance for Hazardous Waste 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 Disposition Process

8.1 Introduction

The facility disposition 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 Order 430.1B, *U.S. Department of Energy Real Property Asset Management*, September 24, 2003 and The Decommissioning Handbook (DOE/EM-0383, January 2000) 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 disposition 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 disposition 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. When Section 8.0, Facility Decommissioning Process, (now Facility Disposition Process) was initially included in the Tri-Party Agreement in 1995, many of the significant processing and operational facilities were awaiting a defined disposition process. The purpose of Section 8.0 was to establish a process that coordinated the requirements of DOE's decommissioning processes with the requirements of environmental regulations, such as RCRA and CERCLA, as they relate to disposition of facilities. As part of this effort, the parties identified "Key" facilities, or those that were determined to present sufficient potential environmental concern that coordination of the decommissioning process with cleanup activities under the Tri-Party Agreement was deemed necessary.

8.1.2 Applicability

Section 8.0 was applied to the transition, the S&M and/or the disposition of key facilities located on the Hanford Site that were not fully addressed under Section 6.0, TSD Process, or Section 7.0, Past-Practice Process, of this Action Plan. As used in Section 8, the term “facility” is defined to mean buildings and structures used for material handling and processing, storage, maintenance, administrative, or support activities on the Hanford Site and is not to be confused with the term “facility” as defined under WAC 173-303-040, CERCLA or RCRA. Facilities may be above or below grade and may be contaminated or uncontaminated.

Key Facilities subject to this Section 8.0 process identified by the parties included the following: PUREX, PFP (234-5Z and 236Z), B Plant, FFTF, UO3 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). As of February 2010, the Key facilities have been retired from active operation and are either (1) in S&M mode pending final disposition (e.g. B Plant, REDOX, and PUREX), (2) have final disposition decisions that are being implemented (U Plant and PFP), or (3) have completed their primary disposition phase and are being monitored in interim safe storage (e.g. most of the reactor buildings). The status of each of the Key facilities is described in Table 8-1.

Table 8-1. Status of “Key Facilities” as of March 2010

| Facility | Status |
|-------------------------|--|
| Canyon Buildings | |
| PUREX | Deactivated in accordance with PUREX/UO3 Deactivation Project Management Plan (WHC-SP-1011D) and PUREX Deactivation End Point Criteria (WHC-SD-TPP-053). S&M performed in accordance with Surveillance and Maintenance Plan for the PUREX Facility (DOE/RL-98-35). Final disposition to be addressed using CERCLA remedial action coordinated with RCRA closure. Completion schedules to be established with RI/FS Work Plans and RD/RA Work Plans in accordance with Action Plan Section 11.6 (M-85 milestones) and closure conditions/schedules established in the Hanford Facility Dangerous Waste Permit. |
| B Plant | Deactivated in accordance with B Plant End Points Document (WHC-SD-TPP-054). S&M performed in accordance with Surveillance and Maintenance Plan for the 221-B Facility (B Plant) (DOE/RL-99-24). Final disposition to be addressed using CERCLA remedial action coordinated with RCRA closure. Completion schedules to be established with RI/FS Work Plans and RD/RA Work Plans in accordance with Action Plan Section 11.6. (M-85 milestones) |
| U Plant | Retired from active operations in approximately 1964; not formally deactivated. Final disposition and interim S&M in accordance with the Record of Decision for the 221-U [EPA 2005] and Remedial Design/Remedial Action Work Plan (DOE/RL-2006-21). (M-16 milestones) |

Table 8-1. Status of “Key Facilities” as of March 2010

| Facility | Status |
|-------------------------------------|---|
| Canyon Buildings (continued) | |
| REDOX | Retired from active operations in 1967; limited deactivation. S&M performed in accordance with Surveillance and Maintenance Plan for the REDOX Facility (DOE/RL-98-19). Final disposition to be addressed using CERCLA remedial action. Completion schedules to be established with RI/FS Work Plans and RD/RA Work Plans in accordance with Action Plan Section 11.6. (M-85 milestones) |
| Production Reactor Buildings | |
| 105-B | S&M performed in accordance with Surveillance And Maintenance Plan For 105-B Reactor Facility (DOE/RL-2001-68). Because the reactor was designated a National Historic Landmark in August 2008, further management and disposition to be addressed in accordance with Nation Park Service requirements. No further CERCLA response action is anticipated. |
| 105-C | In Interim safe storage with S&M performed in accordance with Surveillance and Maintenance Plan For 105-C Reactor Safe Storage Enclosure (DOE/RL-98-44). Final disposition to be determined (M-93 milestones). |
| 105-D | In Interim safe storage with S&M performed in accordance with Surveillance and Maintenance Plan For 105-D Reactor Safe Storage Enclosure (DOE/RL-2004-59). Final disposition to be determined (M-93 milestones). |
| 105-DR | In Interim safe storage with S&M performed in accordance with Surveillance and Maintenance Plan For 105-DR Reactor Safe Storage Enclosure (DOE/RL-2002-28). Final disposition to be determined (M-93 milestones). |
| 105-F | In Interim safe storage with S&M performed in accordance with Surveillance and Maintenance Plan For 105-F Reactor Safe Storage Enclosure (DOE/RL-2003-45). Final disposition to be determined (M-93 milestones). |
| 105-H | In Interim safe storage with S&M performed in accordance with Surveillance and Maintenance Plan For 105-H Reactor Safe Storage Enclosure (DOE/RL-2005-67). Final disposition to be determined (M-93 milestones). |
| 105-KE 105-KW | To be dispositioned in accordance with Removal Action Work Plan for 105-KE/KW Reactor Facilities and Ancillary Facilities (DOE/RL-2005-26). Completion schedules to be established in accordance with Action Plan Section 11.6. (M-93 milestones) |
| 105/109-N | In Interim safe storage with S&M performed in accordance with Surveillance and Maintenance Plan for the 105-N/109-N Reactor Safe Storage Enclosure (DOE/RL-2011-06). Final disposition to be determined (M-93 milestones). |
| Others | |
| PFP (234-5Z and 236Z) | Demolition of above ground structures in accordance with Non-Time Critical Removal Action Memorandum for PFP Above Ground Structures (DOE/RL-2005-13). Completion schedules have been established in accordance with Action Plan Section 11.6. (M-83 milestones) |

Table 8-1. Status of “Key Facilities” as of March 2010

| Facility | Status |
|---------------------------|--|
| Others (continued) | |
| FFTF | S&M being performed in accordance with Surveillance and Maintenance Plan for the Fast Flux Test Facility (DOE/RL-2009-26) in accordance with milestone M-081-00A. |
| UO3 Plant | <p>Deactivated in accordance with PUREX/UO3 Deactivation Project Management Plan (WHC-SP-1011D).</p> <p>Disposition in progress in accordance with Action Memorandum for Non-Time Critical Removal Action For U-Plant Ancillary Facilities (DOE/RL-2004-67) and U Plant Ancillary Facilities Removal Action Work Plan (DOE/RL-2004-83).</p> <p>Completion schedules have been established in accordance with U Plant Ancillary Facilities Removal Action Work Plan (DOE/RL-2004-83).</p> |

8.1.3 Disposition of Other Facilities

Other facilities that the parties agree are subject to Section 8.0 will be dispositioned 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:

- 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.
- Any facility which is fully addressed as part of a past practice operable unit under Section 7.0 of this action plan (i.e., N-area pilot project).

Additional facilities will be identified by the parties for CERCLA response actions 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 either physical closure actions or waste unit remediation must be performed in conjunction with facility disposition, and/or
- Central Plateau facilities identified during the graded approach (Facility Evaluation) identified and incorporated into Appendix J of the Action Plan.

Facilities on the Central Plateau will be characterized to determine the hazards and risks. A Facility Evaluation, described in Section 8.1.4 will be completed for these facilities to determine how the graded approach will be applied. The Facility Evaluation will place a facility into one of the following tiers:

- **Tier 1 facilities** are facilities historically designated as “Key” (Section 8.1.2) or other complex facilities that played a major role in Hanford’s primary mission activities related to nuclear materials. Tier 1 facilities are generally large heavily shielded metal and concrete structures containing tanks, heavily shielded gloveboxes or hot cells, underground vaults, piping etc. that are integral to the facility structure which pose a threat of release of hazardous substances to the environment during disposition. Tier 1 facilities will be dispositioned under CERCLA as either a remedial action or a removal action, coordinated with closure of RCRA TSD units as needed.
- **Tier 2 facilities** are facilities not identified as Tier 1 that require a CERCLA response action. The disposition of Tier 2 facilities will be coordinated with closure of RCRA TSD units as needed.
- **Other facilities** not designated as Tier 1 or Tier 2. These facilities do not have a release or substantial threat of release of hazardous substances and will be dispositioned through the appropriate DOE processes.

8.1.4 Disposition Documentation

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 Department of Energy Facilities under CERCLA, and b) will be prepared in accordance with Section 6.0 for any necessary RCRA TSD closure plans. The decision documents (e.g., Action Memoranda, Records of Decision, or Closure Plans) will be issued by the lead agency in accordance with Sections 6.0 or 7.0. Completion Schedules will be developed in accordance with the requirements of Section 11.6.

The Facility Evaluation is prepared to evaluate each facility in regards to a graded approach to identify facilities subject to removal or remedial action under CERCLA. Facilities are placed in Tier 1 or Tier 2 based on their past history of releases or substantial threat of release. DOE will conduct the Facility Evaluation process for the Central Plateau facilities. A lead regulatory agency will be identified in Appendix J corresponding with the lead regulatory agency for operable units located in the same geographic area as the facility, unless otherwise agreed to by EPA and Ecology. The lead regulatory agency’s concurrence with the designation of facilities as Tier 1 or Tier 2, and the selection of response action for Tier 1 facilities, will be obtained by approval of a change to the Tri-Party Agreement Appendix J to be completed in accordance with Tri-Party Agreement Section 12.0, Changes to the Agreement. The designation will be based on the Facility Evaluation document and other documents or inspection as appropriate. The Facility Evaluation documents supporting Tier 1 or Tier 2 designations will be processed as secondary documents as defined in Action Plan Section 9, Documentation and Records.

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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. 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 |
| Proposed Corrective Action Decision/Proposed Plan |
| Remedial design (RD) report |
| Remedial action (RA) work plan |
| Remedial design and remedial action (RD/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) & Remedial Investigation/Feasibility Study work plan |
| RCRA facility investigation (RFI) and Remedial Investigation (RI) report (final) |
| Corrective measures study (CMS) and Feasibility Study report (preliminary and final) |
| Corrective measures implementation (CMI) work plan |
| Corrective measures implementation and Remedial Design/Remedial Action Work plan (CMI and RD/RA) |
| Corrective measures design (CMD) and Remedial Design report |
| Interim response action (IRA) proposal |
| Interim measure (IM) proposal |
| Waste/Material Stream Project Management (Work) Plans (see Action Plan Section 11.5) |
| Catch tank assumed leak response plan |
| Report on all catch tanks and associated pipelines identified in the SST System |
| Part A or that have otherwise been known to be used for SST tank system operations |
| Temporary Waste Transfer Line Management Plan |
| Other work plans (as specified in Section 11.6) |
| Other documents as specified elsewhere in the Agreement |

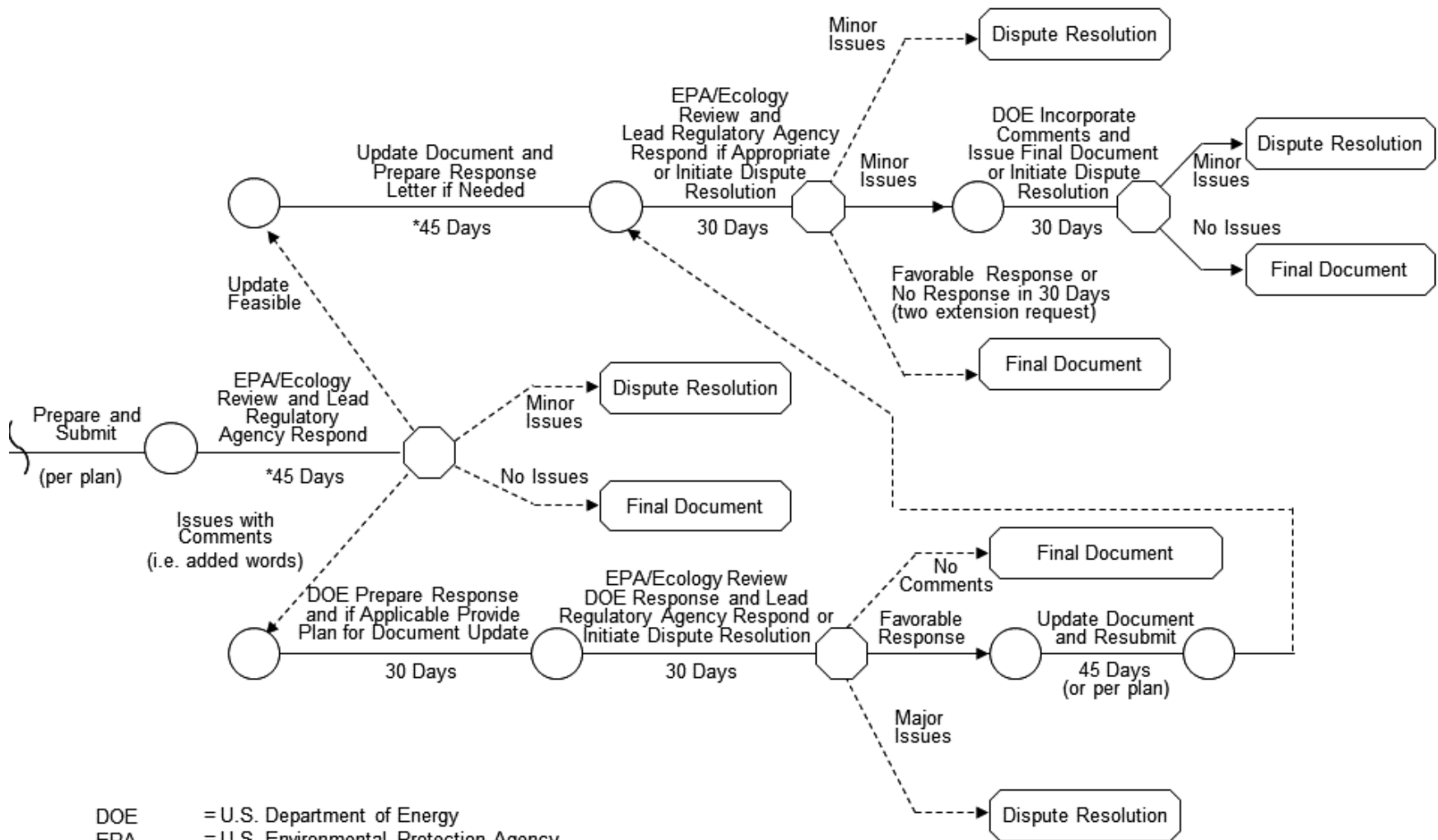
Table 9-2. Secondary Documents

| |
|---|
| 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.

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. 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.



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/FIS 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)

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.

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.

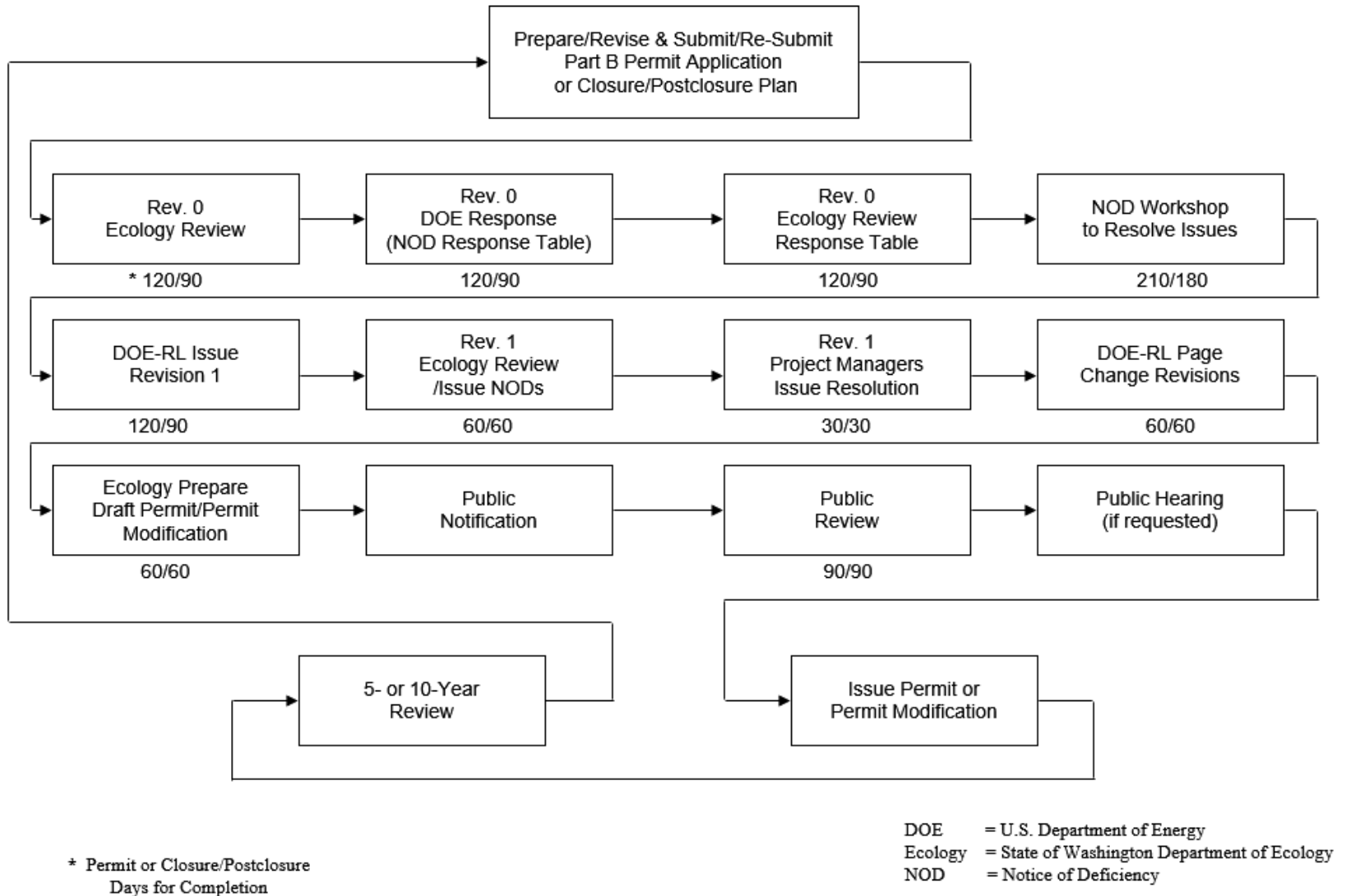


Figure 9-2. Part B Permit Application and Closure/Postclosure Plan Process Flowchart

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 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.

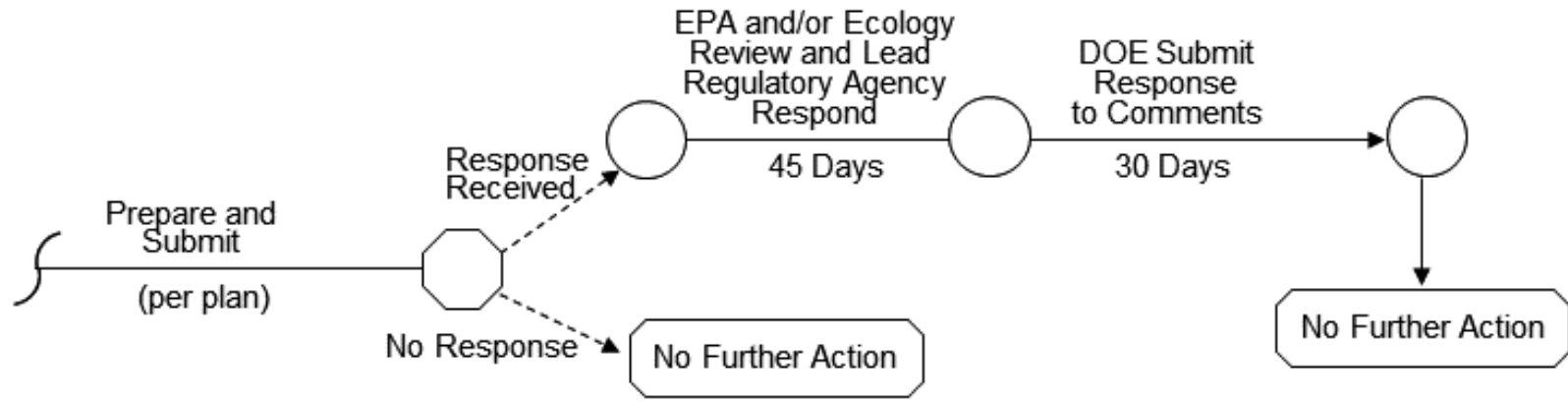
The requirements governing the administrative record for a CERCLA response action are found in Section 113(k) of the CERCLA. Executive Order 12580 and CERCLA guidance documents provide that the administrative record is to be maintained by the regulated Federal facility (i.e., the DOE). The RCRA requirements 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 within the Hanford Administrative Record for each operable unit and TSD group and will contain the documents that form the basis for the selection of a response action. The Hanford Administrative Record files will be available to the public for review by internet at www.hanford.gov and during normal business hours at the following location:

- Hanford Administrative Record
2440 Stevens Center
Room 1101
Mail Stop: H6-08
Richland, Washington 99352

The State of Washington is responsible for assembling and maintaining the official RCRA Permit Administrative Record. The RCRA Permit Administrative Record Requirements are pursuant to WAC 173-303-840(2)(e), and not this agreement. The RCRA Permit Administrative Record is available to the public for review during normal business hours at the following location:

- Department of Ecology
3100 Port of Benton Blvd
Richland, Washington 99354



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

The DOE will compile and maintain the administrative record file at Richland, Washington. 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 location through Internet access or hard copies.

A hard copy of the administrative records will be maintained by the DOE, except for data packages, technical literature, engineering designs, maps, computer models and technical databases.¹ After one year following the CERCLA record of decision 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 or according to agency retention schedules. The final decision documentation (i.e., CERCLA proposed plan and record of decision) will be maintained in hard copy through completion of all remedial actions. Current versions of all general documents (e.g., guidance and applicable procedures) will be maintained in hard copy throughout the RI/FS process.

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.

¹ They will be maintained as electronic records in accordance with “Revised Guidance on Compiling Administrative Records for CERCLA Response Actions” EPA, September 20, 2010.

Table 9-3. Administrative Record Documents

| 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 |

Table 9-3. Administrative Record Documents

| Decision Documents |
|--|
| Record of Decision |
| Responsiveness summary |
| Letters of approval |
| Action memoranda |
| Waiver requests and regulatory agency responses |
| Final determination pursuant to dispute resolution |
| 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 (now referred to as the Public Involvement 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 electronic search capability for any and all documents entered into the administrative record. This search capability will be available to the public and each of the parties via the internet at www.hanford.gov.

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.

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 m³/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, now known as the Public Involvement Plan (PIP) be approved by the EPA prior to initiation of field work related to an RI/FS. The parties have agreed that the PIP 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 PIP is the overall plan for community relations and public involvement. The following sections highlight key elements of the PIP.

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
Government Information
Branford Price Millar Library
1875 SW Park Avenue
Portland, Oregon 97207-1151
(503) 725-4542
- Gonzaga University
Foley Center
East 502 Boone
Spokane, Washington 99258-0001
(509) 323-3834

The Public Information Repositories will provide electronic access to documents open for public comment and administrative record files during normal working hours (see Section 9.4 for discussion and location of administrative records). Internet access to the administrative record files is available at www.hanford.gov.

10.3 Mailing Lists

DOE will maintain the Hanford Site postal mailing list(s) and Ecology will maintain the Hanford electronic mailing list 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.

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 Tri-Parties 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 be accessed electronically through the Hanford Event Calendar at www.hanford.gov.

Copies of all public comments received and the agencies' responses to comments will become part of the administrative record. 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 PIP, 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.
- **Public Involvement Plan (PIP)**. Any major revisions to the PIP 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 PIP.
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 PIP. The public information repositories are further discussed in Section 10.2 and in the PIP. The specific list of documents that will be sent directly to each repository is included in the PIP. 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.

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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) an 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 work plans, including operable unit (OU) work plans 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
- Remedial Design and Remedial Action (RD/RA) work plan
- Closure plan
- RFI/CMS and RI/FS work plan
- CMI and RD/RA work plan
- LFI work plan
- ERA work plans/EECA's.

Within 180 days of the last ROD signature for CPP units, or CAD and ROD signature for R-CPP units, or an alternative period designated in the ROD or in the CAD and ROD, an RD/RA (or CMI and RD/RA) work plan including schedule, along with a milestone change package, shall be submitted for lead regulatory agency review and approval as specified above.

ERA work plans/EECAs 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.

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.

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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 | | Date ③ |
| Originator ② | Phone | | |
| Class of Change ④ | <input type="checkbox"/> I - Signatories <input type="checkbox"/> II - Executive Manager <input type="checkbox"/> III - Project Manager | | |
| Change Title ⑤ | | | |
| Description/Justification of Change ⑥ | | | |
| Impact of Change ⑦ | | | |
| Affected Documents ⑧ | | | |
| Approvals ⑨ | | | ⑩ |
| _____ | _____ Date | Approved____ Disapproved____ | |
| DOE | | | |
| _____ | _____ Date | Approved____ Disapproved____ | |
| EPA | | | |
| _____ | _____ Date | Approved____ Disapproved____ | |
| Ecology | | | |

Figure 12-1. Change Control Sheet

- 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 or electronic mail is acceptable, but must be followed up with a signature on the original change control form 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 or electronic mail, 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 or electronic mail. Documents transmitted by electronic facsimile or electronic mail that are illegible, or that are not received in their entirety, shall not be deemed received. Transmittal of Class II and III signed change control forms may also be by plant mail, but the receipt date shall be the date stamped by the receiving agency's correspondence control.

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. 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.

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.

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.

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.

14.0 Signature

The original signatories of the action plan signed May 15, 1989 were Robie G. Russell, Regional Administrator, Region 10, U.S. Environmental Protection Agency; Michael J. Lawrence, Manager, Richland Operations Office, U.S. Department of Energy; and Christine O. Gregoire, Director, Washington State Department of Ecology. The following are the titles of the current signatories:

For the United States Environmental Protection Agency:

Regional Administrator, Region 10
U.S. Environmental Protection Agency

For the United States Department of Energy:

Manager, Richland Operations Office
U.S. Department of Energy
(For RL major milestones and changes affecting the RL Office)

Manager, Office of River Protection
U.S. Department of Energy
(For ORP major milestones and changes affecting the ORP Office)

For the Washington State Department of Ecology:

Director,
Department of Ecology

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Appendix A

Definition of Terms and Acronyms

- Acronyms
- Definition of Terms Used in the Action Plan
- Definition of Other Technical Terms

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Appendix A

Definition of Terms and Acronyms

Acronyms

| | |
|-----------|---|
| 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 | Corrective Action Management Unit |
| CDR | Conceptual Design Report |
| CERCLA | <i>Comprehensive Environmental Response, Compensation and Liability Act</i> |
| CFR | <i>Code of Federal Regulations</i> |
| 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 |

Acronyms

| | |
|--------|---|
| 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 | <i>Hazardous and Solid Waste Amendments of 1984</i> |
| HSWMUR | Hanford Site Waste Management Units Report |
| HWMA | <i>Hazardous Waste Management Act</i> |
| HWVP | Hanford Waste Vitrification Plant |
| 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 | <i>National Oil and Hazardous Substances Contingency Plan</i> |
| NCRW | Neutralized Cladding Removal Waste |
| NEPA | <i>National Environmental Policy Act</i> |
| 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 |

Acronyms

| | |
|---------|---|
| 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) |
| PIP | Public Involvement Plan |
| PNRS | Preliminary Natural Resource Survey |
| PUREX | Plutonium/Uranium Extraction |
| QA | Quality Assurance |
| QA/QC | Quality Assurance/Quality Control |
| QC | Quality Control |
| QAPP | Quality Assurance Project Plan |
| R&D | Research and Development |
| RA | Remedial Action |
| R-CPP | RCRA-CERCLA Past Practice |
| RCRA | <i>Resource Conservation and Recovery Act</i> |
| RCW | <i>Revised Code of Washington</i> |
| RD | Remedial Design |
| RD/RA | Remedial Design and Remedial Action |
| RD&D | Research, Development, and Demonstration |
| REDOX | Reduction-Oxidation (Facility) |
| 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 |
| SAFER | Streamlined Approach for Environmental Restoration |
| SAP | Sampling and Analysis Plan |
| SARA | <i>Superfund Amendments and Reauthorization Act of 1986</i> |
| 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 |

Acronyms

| | |
|--------|---|
| TRUEX | Transuranic Extraction (process) |
| TRUSAF | Transuranic Waste Storage and Assay Facility |
| TSD | Treatment, Storage, and Disposal |
| TWAP | Tank Waste Analysis Plan |
| TWINS | Tank Waste Information Network System |
| TWRS | Tank Waste Remediation System |
| U.S.C. | <i>U.S. Code</i> |
| USDOE | United States Department of Energy |
| USEPA | United States Environmental Protection Agency |
| USQ | Unreviewed Safety Questions |
| WAC | <i>Washington Administrative Code</i> |
| 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 |

Definition of Terms Used in the Action Plan

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.

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.

Definition of Terms Used in the Action Plan

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 its 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.

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)

Definition of Terms Used in the Action Plan

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.

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.)

Definition of Terms Used in the Action Plan

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.

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 Disposition Process [Section 8]): Buildings and structures used for material handling and processing, storage, maintenance, administrative, or support activities. Facilities may be above or below grade and may be contaminated or uncontaminated. (Note: This definition differs substantially from "facility" as defined under WAC 173-303-040, Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] or RCRA).

Definition of Terms Used in the Action Plan

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.

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.

Definition of Terms Used in the Action Plan

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.

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 served as a test tool for advanced reactor technology, 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.

Definition of Terms Used in the Action Plan

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.

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.

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.

Definition of Terms Used in the Action Plan

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.

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.

Definition of Terms Used in the Action Plan

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.

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.

Definition of Terms Used in the Action Plan

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.

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.

Definition of Terms Used in the Action Plan

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.

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)

Definition of Terms Used in the Action Plan

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-CERCLA Past Practice (R-CPP): A process by which a past practice unit containing hazardous wastes or hazardous constituents and hazardous substances will be addressed for RCRA corrective action and CERCLA Cleanup, regardless of the date waste was received or discharged at a unit. (see Section 7 for the process)

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 as follows: DOE – the Manager, Richland Operations Office and/or the Manager, Office of River Protection, as appropriate. EPA – the Regional Administrator for Region X. State of Washington Department of Ecology – 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.

Definition of Terms Used in the Action Plan

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.)

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.

Definition of Terms Used in the Action Plan

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. The effective date for mixed waste is August 19, 1987, and the effective date for State-only dangerous waste is March 10, 1982.

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.

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)

Definition of Other Technical Terms

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.

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.

Definition of Other Technical Terms

Byproduct Material: Any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material, and the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content. (Definition is from Atomic Energy Act of 1954, as amended, 42 USC 2014(e)).

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 to 37 billion disintegrations 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.

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.

Definition of Other Technical Terms

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): Radioactive waste that is not high-level radioactive waste, spent nuclear fuel, transuranic waste, byproduct material, or naturally occurring radioactive material.

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 or alkalinity. A pH of 7 is neutral, with lower numbers being acidic and higher numbers being alkaline.

Definition of Other Technical Terms

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.

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.

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.

Definition of Other Technical Terms

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 are underground.

Transuranic (TRU) Waste: Waste contaminated with long-lived transuranic elements in concentrations within 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.

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.

Definition of Other Technical Terms

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

This Appendix B was current as of the printing date. For the most current Appendix B, go to <http://www.hanford.gov/files.cfm/ap-App-B.pdf>

Appendix B

Listing of Treatment, Storage, and Disposal Groups/Units (sheet 1 of 13)

| Treatment, Storage, and Disposal | | | Planned Action | |
|----------------------------------|---|-------------------------------|----------------|------------------|
| Group Number | Group/Units | Operable Unit (if applicable) | Closure* | Operating Permit |
| D-1-2 | 1301-N/1325-N Liquid Waste Disposal Facilities 116-N-1 Crib 116-N-3 Crib | 100-NR-1 | X | |
| T-1-2 | 1324-N/1324-NA Liquid Waste Facilities 120-N-1 Pond 120-N-2 Neutralization Unit | 100-NR-1 | X | |
| T-1-3** | 1706-KE Treatment Facility (116-KE-6 A-D): 1706-KE Waste Accumulation Tank 1706-KE Ion Exchange Column 1706-KE Solidification Unit (Evaporator) 1706-KE Condensate Tank | 100-KR-2 | X | |
| T-1-4 | 183-H Solar Evaporation Basins (116-H-6) | | X | |
| S-2-8 | 200 East Area Liquid Effluent Retention Facility (LERF) | | | Storage |
| T-2-3 | 204-AR Waste Unloading Station | | | Treatment |
| S-2-7 | 207-A South Retention Basin | 200-EA-1 | X | |
| D-2-3 | 216-A-29 Ditch | 200-EA-1 | X | |
| D-2-4 | 216-A-36B Crib | 200-EA-1 | X | |
| D-2-10 | 216-A-37-1 Crib | 200-EA-1 | X | |
| D-2-5 | 216-B-3 Pond System: 216-B-3 Pond 216-B-3-3 Ditch | 200-CW-1 200-OA-1 | X | |

Current as of 1/17/2018

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Action Plan Appendix B, Listing of Treatment, Storage, and Disposal Groups/Units

Appendix B

Listing of Treatment, Storage, and Disposal Groups/Units (sheet 2 of 13)

| Treatment, Storage, and Disposal | | | Planned Action | |
|----------------------------------|---|-------------------------------|----------------|------------------|
| Group Number | Group/Units | Operable Unit (if applicable) | Closure* | Operating Permit |
| S-2-3 | Double-Shell Tanks 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 | | | Storage |
| S-2-9 | 241-CX Tank System 241-CX-70 Tank 241-CX-71 Tank 241-CX-72 Tank | 200-IS-1 | X | |
| D-2-6 | 216-B-63 Trench | 200-EA-1 | X | |
| D-2-7 | 216-S-10 Pond and Ditch 216-S-10D Ditch 216-S-10P Pond | 200-OA-1 | X | |

Current as of 1/17/2018

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Action Plan Appendix B, Listing of Treatment, Storage, and Disposal Groups/Units

Appendix B

Listing of Treatment, Storage, and Disposal Groups/Units (sheet 3 of 13)

| Treatment, Storage, and Disposal | | | Planned Action | |
|----------------------------------|---|-------------------------------|----------------|-------------------|
| Group Number | Group/Units | Operable Unit (if applicable) | Closure* | Operating Permit |
| D-2-9 | Low-Level Burial Grounds | | | |
| | 218-E-10 | 200-SW-2 | | Landfill |
| | 218-E-12B | 200-SW-2 | | Landfill |
| | 218-W-3A | 200-SW-2 | | Landfill |
| | 218-W-3AE | 200-SW-2 | | Landfill |
| | 218-W-4B | 200-SW-2 | | Landfill |
| | 218-W-4C | 200-SW-2 | | Landfill |
| | 218-W-5 | 200-SW-2 | | Landfill |
| S-2-1 | PUREX Tunnels 1 and 2 | | | Storage |
| | 218-E-14 | | | |
| | 218-E-15 | | | |
| TS-2-1 | 222-S Laboratories Treatment Tanks and Storage Building | | | |
| | 222-S Dangerous and Mixed Waste Storage Area (DMWSA) | | | Storage |
| | 222-S Room 2-B Northern Portion | | | Storage |
| | 222-S Room 4-E | | | Storage |
| | 219-S Waste Handling Facility | | | Storage/Treatment |
| | Tank 101, 102, 104 | | | |
| | Tank 103 (inactive) | | | |
| T-8 Tunnel Alcove | | | X | |
| 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 | | |

Current as of 1/17/2018

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Action Plan Appendix B, Listing of Treatment, Storage, and Disposal Groups/Units

Appendix B

Listing of Treatment, Storage, and Disposal Groups/Units (sheet 4 of 13)

| Treatment, Storage, and Disposal | | | Planned Action | |
|----------------------------------|--|-------------------------------|----------------|------------------|
| Group Number | Group/Units | Operable Unit (if applicable) | Closure* | Operating Permit |
| | 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 | | |

| Operable Units | 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 |

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Action Plan Appendix B, Listing of Treatment, Storage, and Disposal Groups/Units

Appendix B

Listing of Treatment, Storage, and Disposal Groups/Units (sheet 5 of 13)

| Operable Units | Title of Units | Unit Type |
|--------------------------------------|--------------------------------|-------------------|
| S-2-4 Single Shell Tanks (continued) | | |
| 200-BP-7 (continued) | 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 |
| | UN-200-E-79 | Unplanned Release |
| | UN-200-E-101 | Unplanned Release |
| | UN-200-E-105 | Unplanned Release |
| UN-200-E-109 | Unplanned Release | |
| 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 |

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Action Plan Appendix B, Listing of Treatment, Storage, and Disposal Groups/Units

Appendix B

Listing of Treatment, Storage, and Disposal Groups/Units (sheet 6 of 13)

| Operable Units | Title of Units | Unit Type |
|--------------------------------------|-------------------------------|-------------------|
| S-2-4 Single Shell Tanks (continued) | | |
| 200-PO-3 (continued) | 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 |
| | 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 |

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Action Plan Appendix B, Listing of Treatment, Storage, and Disposal Groups/Units

Appendix B

Listing of Treatment, Storage, and Disposal Groups/Units (sheet 7 of 13)

| Operable Units | Title of Units | Unit Type |
|--------------------------------------|-------------------------------|-------------------|
| S-2-4 Single Shell Tanks (continued) | | |
| 200-PO-3 (continued) | 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 |
| 200-R0-4 | 241-S Tank Farm (12 Units) | Single-Shell Tank |
| | 241-S-152 | Diversion Box |
| | 241-S-302B | Catch Tank |
| | | |

Current as of 1/17/2018

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Action Plan Appendix B, Listing of Treatment, Storage, and Disposal Groups/Units

Appendix B

Listing of Treatment, Storage, and Disposal Groups/Units (sheet 8 of 13)

| Operable Units | Title of Units | Unit Type |
|--------------------------------------|--------------------------------|-------------------|
| S-2-4 Single Shell Tanks (continued) | | |
| 200-RO-4 (continued) | 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 |

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Action Plan Appendix B, Listing of Treatment, Storage, and Disposal Groups/Units

Appendix B

Listing of Treatment, Storage, and Disposal Groups/Units (sheet 9 of 13)

| Operable Units | Title of Units | Unit Type |
|--------------------------------------|--------------------------------|-------------------|
| S-2-4 Single Shell Tanks (continued) | | |
| 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 |
| 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 |

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Action Plan Appendix B, Listing of Treatment, Storage, and Disposal Groups/Units

Appendix B

Listing of Treatment, Storage, and Disposal Groups/Units (sheet 10 of 13)

| Operable Units | Title of Units | Unit Type |
|--------------------------------------|-------------------------------|-------------------|
| S-2-4 Single Shell Tanks (continued) | | |
| 200-TP-6 (continued) | 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 |

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Action Plan Appendix B, Listing of Treatment, Storage, and Disposal Groups/Units

Appendix B

Listing of Treatment, Storage, and Disposal Groups/Units (sheet 11 of 13)

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Action Plan Appendix B, Listing of Treatment, Storage, and Disposal Groups/Units

| Operable Units | | Title of Units | Unit Type | |
|--------------------------------------|--|-------------------------------|-------------------|------------------|
| S-2-4 Single Shell Tanks (continued) | | | | |
| 200-UP-3 (continued) | | 2607-WUT | Septic Tank | |
| | | UN-200-W-6 | Unplanned Release | |
| | | UN-200-W-71 | Unplanned Release | |
| Treatment, Storage, and Disposal | | | Planned Action | |
| Group Number | Group/Units | Operable Unit (if applicable) | Closure* | Operating Permit |
| T-2-6 | 242-A Evaporator | | | Treatment |
| TS-2-2 | Hexone Storage and Treatment | 200-IS-1 | X | |
| | 276-S-141 Tank | | | |
| | 276-S-142 Tank | | | |
| | Railcar Storage Tanks (Future) | | | |
| | Distillation System (Future) | | | |
| | Incinerator (Future) | | | |
| 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 |
| D-6-1 | 600 Area Nonradioactive Dangerous Waste Landfill | 200-SW-1 | X | |
| TS-2-3 | B Plant | | | |
| | B Plant Waste Concentrator | | | Treatment |
| | B Plant Settle and Decant Tank | | | Treatment |
| | B Plant Filter | | | Treatment |

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Appendix B

Listing of Treatment, Storage, and Disposal Groups/Units (sheet 12 of 13)

| Treatment, Storage, and Disposal | | | Planned Action | |
|----------------------------------|---|-------------------------------|----------------|--------------------|
| Group Number | Group/Units | Operable Unit (if applicable) | Closure* | Operating Permit |
| | B Plant Radioactive Organic Waste Solvent Tank #1 | | | Storage |
| | 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 Solvent Tank #6 | | | Storage |
| | B Plant Radioactive Organic Waste Solvent Tank #7 | | | Storage |
| | B Plant Storage Area | | | Storage |
| | B Plant Waste Pile | | | Storage |
| 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 |
| 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 |

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Action Plan Appendix B, Listing of Treatment, Storage, and Disposal Groups/Units

Appendix B

Listing of Treatment, Storage, and Disposal Groups/Units (sheet 13 of 13)

| Treatment, Storage, and Disposal | | | Planned Action | |
|----------------------------------|--------------------------|-------------------------------|----------------|------------------|
| Group Number | Group/Units | Operable Unit (if applicable) | Closure* | Operating Permit |
| | Neutralization Tank F-15 | | | Treatment |
| | Neutralization Tank F-16 | | | Treatment |
| | Neutralization Tank U3 | | | Treatment |
| | Neutralization Tank U4 | | | Treatment |
| | PUREX Waste Piles | | | Storage |
| T-2-7 | T Plant Treatment Tank | | | Treatment |

*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.

Current as of 1/17/2018

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Action Plan Appendix B, Listing of Treatment, Storage, and Disposal Groups/Units

Appendix C

Listing by Operable Unit

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This Appendix C was current as of the printing date. For the most current Appendix C, go to <http://www.hanford.gov/files.cfm/ap-App-C.pdf>

Appendix C, Listing by Operable Unit (Sheet 1 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|------------------------------|------------------------------|
| 1100-EM-1 | EPA | CPP | |
| 1100-1 | 1100-1; 1171 Building Sandpit Spills; Battery Acid Pit; 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; 1171 Building Spills; Antifreeze Tank Site; UN-1100-4; 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; Gravel Pit 4; Gravel Pit 5; Horn Rapid Landfill (HRL); Horn Rapids Disposal; ITT Waste Disposal Landfill | Sanitary Landfill | Deleted from NPL (9/30/1996) |
| UPR-1100-5 | UPR-1100-5; 1171 Parking Lot; UN-1100-5 | 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 Underground Waste Solvent Tank; 700 Area 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 Hazardous Waste Storage Area; 1100 Area HWSA | Storage Pad (<90 day) | Deleted from NPL (9/30/1996) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 2 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-----------------------|------------------------------|
| 1100 UOT4 | 1100 UOT4; 1100 Area Underground Used Oil Tank (Tank #4); 1100 Area Used Oil Tank 4; 1171-4 | Storage Tank | Deleted from NPL (9/30/1996) |
| 1100 UOT5 | 1100 UOT5; 1100 Area Underground Used Oil Tank (Tank #5); 1100 Area Used Oil Tank 5; 1171-5 | Storage Tank | Deleted from NPL (9/30/1996) |
| 1100 UOT6 | 1100 UOT6; 1100 Area Underground Used Oil Tank (Tank #6); 1100 Area Used Oil 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 Hazardous Waste Storage Area; 3000 Area Jones Yard HWSA; 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 Building Hazardous Waste Storage Area; 3000 Area 1208 HWSA; Hazardous Waste Storage Area (1208) | Storage Pad (<90 day) | Deleted from NPL (9/30/1996) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 3 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-----------------------|------------------------------|
| 3000/1226 HWSA | 3000/1226 HWSA; 3000 Area 1226 Building Hazardous Waste Storage Area; 3000 Area 1226 HWSA; Hazardous Waste Storage Area (1226) | Storage Pad (<90 day) | Deleted from NPL (9/30/1996) |
| 3000/1234 | 3000/1234; 1234 Building Storage Yard; 1234 Laydown Yard; 3000 Area 1234 Storage Yard | Storage | Deleted from NPL (9/30/1996) |
| 3000/1240 HWSA | 3000/1240 HWSA; 3000 Area 1240 Building Hazardous Waste Storage Area; 3000 Area 1240 HWSA; Hazardous Waste Storage Area (1240) | Storage Pad (<90 day) | Deleted from NPL (9/30/1996) |
| UPR-3000-1 | UPR-3000-1; Release from the Physical Science Laboratory; 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 Space Science Laboratory Active Septic Tank; 6652-C SSL Active Septic Tank; 6652-C SSLAST | Septic Tank | Deleted from NPL (9/30/1996) |
| 600-113 | 600-113; 6607-15; 6652-C Space Science Laboratory Inactive Septic Tank; 6652-C SSL Inactive Septic Tank; 6652-C SSLIST | Septic Tank | Deleted from NPL (9/30/1996) |
| 600-114 | 600-114; 6607-14B; 6652-G ALE Field Storage Building Septic Tank; 6652-G ALEFSBST | Septic Tank | Deleted from NPL (9/30/1996) |
| 600-115 | 600-115; 6607-14; 6652-I ALE Headquarters Septic Tank; 6652-I ALEHST; 6652-I Arid Lands Ecology (ALE) Headquarters Septic Tank | Septic Tank | Deleted from NPL (9/30/1996) |
| 600-116 | 600-116; 6652 buildings; Rattlesnake Mountain Nike Missile Base; RMNMB | Military Compound | Deleted from NPL (9/30/1996) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 4 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|---------------------------------|
| 100-BC-1 | EPA | CPP | |
| 100-B-2 | 100-B-2; 181-B Backwash Trench; Backwash Trench; Miscellaneous Stream #73; Undocumented Liquid Waste Site | Trench | No Action (11/18/2004) |
| 100-B-3 | 100-B-3; Hot Thimble Burial Ground; Undocumented Solid Waste Site | Burial Ground | No Action (4/2/2003) |
| 100-B-5 | 100-B-5; 105-B Effluent Vent Trench; 116-B-9; Effluent Vent Disposal Trench | Trench | Interim Closed Out (9/11/2003) |
| 100-B-8 | 100-B-8; 100-B Reactor Cooling Water Effluent Underground Pipelines | Radioactive Process Sewer | Interim Closed Out (4/20/2004) |
| 100-B-10 | 100-B-10; 107-B Basin Leak and Warm Springs | Unplanned Release | No Action (4/11/2002) |
| 100-B-11 | 100-B-11; 115-B Tank; 115-B/C Caisson Site; 115-B/C Caisson Valve Pit; 115-BC Drywell; 115-BC Sump | Storage Tank | No Action (7/15/2004) |
| 100-B-12 | 100-B-12; Filter Box Radiological Materials Area (RMA) | Storage | Interim Closed Out (5/31/2001) |
| 100-B-14 | 100-B-14; 100-B Area Process and Sanitary Sewer Underground Pipelines | Process Sewer | Interim Closed Out (3/1/2007) |
| 100-B-15 | 100-B-15; 100BC River Effluent Pipelines; 100BC River Lines | Radioactive Process Sewer | |
| 100-B-16 | 100-B-16; Utility Poles and Fixtures Debris Pile | Dumping Area | Interim Closed Out (6/29/2005) |
| 100-B-18 | 100-B-18; 184-B Powerhouse Debris Pile | Dumping Area | Interim Closed Out (11/30/2007) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 5 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-----------------------|--------------------------------|
| 100-B-19 | 100-B-19; 100B/C Chemical Contaminated Surface Soil Areas; 100-B/C Stained Soil Sites | Unplanned Release | Interim Closed Out (1/13/2010) |
| 100-B-20 | 100-B-20; 1716-B Maintenance Garage Underground Tank | Maintenance Shop | Interim Closed Out (9/27/2006) |
| 100-B-21 | 100-B-21; 100-B/C Miscellaneous Pipelines | Process Sewer | Interim Closed Out (2/9/2010) |
| 100-B-22 | 100-B-22; 100-B Water Treatment Facilities, Pipelines, and Surrounding Soils | Dumping Area | Interim Closed Out (3/22/2010) |
| 100-B-24 | 100-B-24; 116-B-7 Spillway (Flume) | Outfall | No Action (9/18/2006) |
| 100-B-25 | 100-B-25; 132-B-6 Spillway (Flume) | Outfall | Interim Closed Out (1/13/2010) |
| 100-B-26 | 100-B-26; 132-C-2 Spillway (Flume) | Outfall | No Action (9/18/2006) |
| 100-B-27 | 100-B-27; Sodium Dichromate Spill | Unplanned Release | Interim Closed Out (4/12/2010) |
| 100-B-28 | 100-B-28; 183-C Headhouse to 183-B Pumphouse Sodium Dichromate Transfer Pipeline | Product Piping | Interim Closed Out (3/22/2010) |
| 100-B-32 | 100-B-32; SCA #1; Soil Contamination Area Associated with Legacy Waste | Unplanned Release | Interim Closed Out (1/13/2010) |
| 100-B-33 | 100-B-33; SCA #2; Soil Contamination Area 2 Associated with Legacy Waste | Unplanned Release | Interim Closed Out (1/13/2010) |
| 100-B-35 | 100-B-35; 151-B Primary Substation and 152-B1 Secondary Electrical Substation | Electrical Substation | Interim Closed Out (7/7/2015) |
| 116-B-1 | 116-B-1; 107-B Liquid Waste Disposal Trench; Process Effluent Trench | Trench | Interim Closed Out (12/8/1999) |
| 116-B-2 | 116-B-2; 105-B Storage Basin Trench; B-Storage Basin Crib | Trench | Interim Closed Out (2/24/2000) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 6 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|------------------------|--------------------------------|
| 116-B-3 | 116-B-3; 105-B Pluto Crib | Crib | Interim Closed Out (2/24/2000) |
| 116-B-4 | 116-B-4; 105-B Dummy Decontamination Disposal Crib; 105-B Dummy Decontamination French Drain | French Drain | Interim Closed Out (2/24/2000) |
| 116-B-5 | 116-B-5; 108-B Crib; 116-B-5 Crib; 116-B-5 Trench | Crib | Interim Closed Out (1/14/1997) |
| 116-B-6A | 116-B-6A; 111-B Crib No. 1; 116-B-6-1 | Crib | Interim Closed Out (5/17/2000) |
| 116-B-6B | 116-B-6B; 111-B Crib No. 2; 116-B-6-2 | Crib | Interim Closed Out (2/24/2000) |
| 116-B-7 | 116-B-7; 1904-B1; 1904-B-1 Outfall Structure | Outfall | Interim Closed Out (7/25/2002) |
| 116-B-9 | 116-B-9; 104-B-2 French Drain | French Drain | Interim Closed Out (2/24/2000) |
| 116-B-10 | 116-B-10; 108-B Dry Well; Quench Tank | Injection/Reverse Well | Interim Closed Out (2/24/2000) |
| 116-B-11 | 116-B-11; 107-B Retention Basin; 116-B-11 Retention Basin | Retention Basin | Interim Closed Out (12/8/1999) |
| 116-B-12 | 116-B-12; 117-B Crib; 117-B Seal Pit Crib | Crib | Interim Closed Out (2/24/2000) |
| 116-B-13 | 116-B-13; 107-B #2 Grave; 107-B South Sludge Trench; 116-B-8; Basin Sludge Burial Pit | Trench | Interim Closed Out (7/22/1999) |
| 116-B-14 | 116-B-14; 107-B #1 Grave; 107-B Liquid Waste Disposal Trench No. 1; 107-B North Sludge Trench; 116-B-2 | Trench | Interim Closed Out (7/22/1999) |
| 116-B-15 | 116-B-15; 105-B Fuel Storage Basin Cleanout Percolation Pit; 105-B Fuel Storage Discharge Pond; 105-B Pond | Pond | No Action (12/8/2003) |
| 116-B-16 | 116-B-16; 111-B Fuel Examination Tank | Storage Tank | Interim Closed Out (5/17/2000) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 7 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|--------------------|---------------------------------|
| 118-B-5 | 118-B-5; Ball 3X Burial Ground | Burial Ground | Interim Closed Out (5/24/2004) |
| 118-B-9 | 118-B-9; 104-B-1 Tritium Vault and 104-B-2 Tritium Laboratory; 104-B2 Storage Building | Storage | No Action (7/15/2004) |
| 118-B-10 | 118-B-10; Ball 3X Storage Vault | Storage Tank | Interim Closed Out (5/24/2004) |
| 120-B-1 | 120-B-1; 105-B Battery Acid Sump | Sump | Interim Closed Out (9/25/2006) |
| 126-B-2 | 126-B-2; 183-B Clearwells | Dumping Area | No Action (3/20/2007) |
| 126-B-3 | 126-B-3; 184-B Coal Pit | Dumping Area | Interim Closed Out (8/8/2006) |
| 128-B-2 | 128-B-2; 100-B Burn Pit #2 | Burn Pit | Interim Closed Out (12/21/2005) |
| 128-B-3 | 128-B-3; 100-B Dump Site; 128-B-3 Burning Pit Site; 128-B-3 Coal Ash and Demolition Waste Site; 600-57 | Burn Pit | Interim Closed Out (11/17/2006) |
| 132-B-1 | 132-B-1; 108-B Tritium Separation Facility | Process Unit/Plant | No Action (3/1/2004) |
| 132-B-3 | 132-B-3; 108-B Tritium Pilot Facility; 108-B Ventilation Exhaust Stack Site; Ventilation Exhaust Stack Site | Burial Ground | No Action (12/8/2003) |
| 132-B-4 | 132-B-4; 117-B Filter Building | Process Unit/Plant | No Action (4/2/2003) |
| 132-B-5 | 132-B-5; 115-B/C Gas Recirculation Facility | Process Unit/Plant | No Action (1/5/2004) |
| 132-B-6 | 132-B-6; 116-B-8; 1904-B2; 1904-B-2 Outfall Structure Site | Outfall | Interim Closed Out (7/25/2002) |
| 1607-B1 | 1607-B1; 124-B-1; 1607-B1 Sanitary Sewer System; 1607-B1 Septic Tank System | Septic Tank | No Action (8/30/2007) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 8 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|---|
| 1607-B2 | 1607-B2; 124-B-2; 1607-B2 Sanitary Sewer System; 1607-B2 Septic Tank System | Septic Tank | Interim Closed Out (3/13/2007) |
| 1607-B5 | 1607-B5; 124-B-4; 1607-B4; 1607-B4 Sanitary Sewer System; 1607-B4 Septic Tank System; 1607-B5 Septic Tank System | Septic Tank | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 1607-B7 | 1607-B7; 124-C-1; 1607-B7 Sanitary Sewer System; 1607-B7 Septic Tank System | Septic Tank | Interim Closed Out (7/27/2003) |
| 116-C-1 | 116-C-1; 107-C Liquid Waste Disposal Trench | Trench | Interim Closed Out (1/21/1999) |
| 116-C-5 | 116-C-5; 107-C Retention Basins; 116-C-5 Retention Basins | Retention Basin | Interim Closed Out (12/8/1999) |
| 132-C-2 | 132-C-2; 116-C-4; 1904-C Outfall | Outfall | Interim Closed Out (7/25/2002) |
| 600-230 | 600-230; RCRA General Inspection 200WFY97 Item #4 Historic Disposal Site | Dumping Area | No Action (5/25/2006) |
| 100-BC-2 | EPA | CPP | |
| 100-B-1 | 100-B-1; Laydown Yard; Surface Chemical and Solid Waste Dumping Area | Dumping Area | Interim Closed Out (4/26/2006) |
| 100-B-23 | 100-B-23; 100-B/C Surface Debris | Dumping Area | Interim Closed Out (6/16/2008) |
| 100-B-31 | 100-B-31; Garnet Sand Located at 183-C Clearwell Pads | Unplanned Release | Interim Closed Out (1/13/2010) |
| 118-B-1 | 118-B-1; 105-B Burial Ground; 105-B Solid Waste Burial Ground; 108-B Burial Ground; Ext. to BG No. 1; Operations Solid Waste Burial Ground | Burial Ground | Interim Closed Out (1/9/2008) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 9 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|--------------------------------|
| 118-B-2 | 118-B-2; Construction Burial Ground No. 1; Minor Construction Burial Ground No. 1 | Burial Ground | Interim Closed Out (4/5/2005) |
| 118-B-3 | 118-B-3; Construction Burial Ground No. 2 | Burial Ground | Interim Closed Out (4/5/2005) |
| 118-B-4 | 118-B-4; 105-B Dummy Burial Ground; 105-B Spacer Burial Ground | Burial Ground | Interim Closed Out (4/5/2005) |
| 118-B-6 | 118-B-6; 108-B Solid Waste Burial Ground; 108-B Solid Waste Burial Ground No. 2 | Burial Ground | Interim Closed Out (6/8/2006) |
| 1607-B8 | 1607-B8; 124-C-2; 1607-B8 Sanitary Sewer System; 1607-B8 Septic Tank System; Septic Tank & Disposal Field for 190-C Pumphouse | Septic Tank | Interim Closed Out (7/29/2003) |
| 1607-B9 | 1607-B9; 124-C-3; 1607-B9 Sanitary Sewer System; 1607-B9 Septic Tank System | Septic Tank | Interim Closed Out (8/28/2003) |
| 1607-B10 | 1607-B10; 1607-B10 Septic Tank System; Sewage Disposal Field | Septic Tank | Interim Closed Out (7/29/2003) |
| 1607-B11 | 1607-B11; 1607-B11 Septic Tank System | Septic Tank | Interim Closed Out (7/29/2003) |
| 100-C-3 | 100-C-3; 119-C French Drain; 119-C Sample Building French Drain | French Drain | Interim Closed Out (7/28/2003) |
| 100-C-6 | 100-C-6; 100-C Reactor Cooling Water Effluent Underground Pipelines | Radioactive Process Sewer | Interim Closed Out (9/19/2011) |
| 100-C-7 | 100-C-7; 183-C Filter Building /Pumproom Facility Foundation and Demolition Waste; 183-C Monolith | Dumping Area | Interim Closed Out (3/24/14) |
| 100-C-9 | 100-C-9; 100-C Area Process and Sanitary Sewer Underground Pipelines | Process Sewer | Interim Closed Out (7/11/2007) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 10 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|--------------------|--------------------------------|
| 116-C-2A | 116-C-2A; 105-C Crib; 105-C Pluto Crib; 116-C-2 | Crib | Interim Closed Out (3/15/2000) |
| 116-C-2B | 116-C-2B; 105-C Pluto Crib Pump Station; 116-C-2-1; 116-C-2B Pump Station | Pump Station | Interim Closed Out (3/15/2000) |
| 116-C-2C | 116-C-2C; 105-C Pluto Crib Sand Filter; 116-C-2-2; 116-C-8 | Sand Filter | Interim Closed Out (3/15/2000) |
| 116-C-3 | 116-C-3; 105-C Chemical Waste Tanks | Storage Tank | Interim Closed Out (1/31/2008) |
| 116-C-6 | 116-C-6; 105-C Fuel Storage Basin Cleanout Percolation Pit; 105-C Pond | Process Pit | Interim Closed Out (12/8/2003) |
| 118-C-1 | 118-C-1; 105-C Burial Ground; 105-C Solid Waste Burial Ground; 118-C-1 Burial Ground | Burial Ground | Interim Closed Out (7/19/2007) |
| 118-C-2 | 118-C-2; 105-C Ball Storage Tank; Ball 3X Storage Tank | Storage Tank | Interim Closed Out (7/30/2004) |
| 118-C-4 | 118-C-4; 105-C Horizontal Control Rod Storage Cave | Storage | Interim Closed Out (9/11/2003) |
| 128-C-1 | 128-C-1; 100-C Burning Pit | Burn Pit | Interim Closed Out (8/10/2005) |
| 132-C-1 | 132-C-1; 105-C Reactor Stack Site; 116-C Reactor Exhaust Stack Site | Burial Ground | No Action (9/11/2003) |
| 132-C-3 | 132-C-3; 117-C Filter Building | Process Unit/Plant | No Action (9/11/2003) |
| 600-232 | 600-232; 100B Electrical Laydown Area | Dumping Area | Interim Closed Out (1/27/2005) |
| 600-233 | 600-233; Vertical Pipe Near 100B Electrical Laydown Area | Product Piping | Interim Closed Out (12/8/2005) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 11 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------|---------------------------------|
| 100-DR-1 | Ecology | CPP | |
| 100-D-1 | 100-D-1; Contaminated Drain; Contaminated Storm Drain | Process Sewer | Interim Closed Out (1/27/2011) |
| 100-D-2 | 100-D-2; Lead Sheeting; Solid Waste Site | Foundation | Interim Closed Out (3/19/2008) |
| 100-D-3 | 100-D-3; Silica Gel; Solid Waste Burial Ground | Burial Ground | No Action (3/12/2009) |
| 100-D-4 | 100-D-4; 107-D5; 107-D-5; 107-DR Sludge Trench #5; Sludge Trench #5 | Trench | Interim Closed Out (3/25/1999) |
| 100-D-5 | 100-D-5; Undocumented Solid Waste Site; Undocumented Solid Waste Site Near 103-D; Waste Site Near 103-D | Burial Ground | Interim Closed Out (4/23/2001) |
| 100-D-6 | 100-D-6; 118-D-4D; Burial Ground 4D; Buried VSR Thimble; Minor Construction Burial Ground #1 | Burial Ground | Interim Closed Out (4/23/2001) |
| 100-D-7 | 100-D-7; Undocumented Solid Waste Site | Dumping Area | Interim Closed Out (10/10/2011) |
| 100-D-8 | 100-D-8; 105-DR Process Sewer Outfall Site; 1907-DR; Undocumented Liquid Waste Site | Outfall | Interim Closed Out (8/2/2012) |
| 100-D-9 | 100-D-9; 184DA; 184-DA Boiler Oil Tank | Storage Tank | Interim Closed Out (8/10/2006) |
| 100-D-18 | 100-D-18; 107-D Sludge Trench #4; 107-D4; 107-D-4; Sludge Trench #4 | Trench | Interim Closed Out (9/26/2000) |
| 100-D-19 | 100-D-19; 107-D Sludge Trench #6; Sludge Trench #6 | Trench | Interim Closed Out (3/26/2001) |
| 100-D-20 | 100-D-20; 107-D Sludge Trench #3; 107-D3; 107-D-3; Sludge Trench #3 | Trench | Interim Closed Out (3/25/1999) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 12 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|---|
| 100-D-21 | 100-D-21; 107-D2; 107-D-2; 107-DR Sludge Trench #2; Sludge Trench #2 | Trench | Interim Closed Out (3/25/1999) |
| 100-D-22 | 100-D-22; 107-D1; 107-D-1; 107-DR Sludge Trench #1; Sludge Trench #1 | Trench | Interim Closed Out (3/25/1999) |
| 100-D-24 | 100-D-24; 119-D Sample Building Drywell | French Drain | No Action (9/19/2006) |
| 100-D-25 | 100-D-25; Unplanned Release - 116-DR-9 (107-DR) Retention Basin Leaks | Unplanned Release | Interim Closed Out (1/6/2000) |
| 100-D-29 | 100-D-29; Effluent Line Leak #2 | Unplanned Release | Interim Closed Out (3/25/2010) |
| 100-D-30 | 100-D-30; 185-D; 185-D Sodium Dichromate Trench & Sump; 189-D Decontamination & Demolition Project; 190-D Sodium Dichromate Soil Contamination | Unplanned Release | Interim Closed Out (6/3/2015) |
| 100-D-31 | 100-D-31; 100-D Water Treatment Facilities Underground Pipelines | Process Sewer | Interim Closed Out (5/28/2015) |
| 100-D-32 | 100-D-32; Minor Construction Burial Ground #6 | Burial Ground | Interim Closed Out (12/10/2009) |
| 100-D-42 | 100-D-42; Buried VSR Thimble Site | Burial Ground | Interim Closed Out (5/13/2010) |
| 100-D-45 | 100-D-45; 118-D-4B; Burial Ground 4B; Buried VSR Thimble Site | Burial Ground | Interim Closed Out (5/13/2010) |
| 100-D-48 | 100-D-48; 100-D Reactor Cooling Water Effluent Underground Pipelines | Radioactive Process Sewer | Interim Closed Out (4/23/2001) |
| 100-D-49 | 100-D-49; 100-DR Reactor Cooling Water Effluent Underground Pipelines | Radioactive Process Sewer | Interim Closed Out (1/15/2004) |
| 100-D-50 | 100-D-50; 100-DR Water Treatment Facilities Underground Pipelines | Process Sewer | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (2/2004) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 13 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|---------------------------------|
| 100-D-52 | 100-D-52; 105-D Downcomer Insulation Space Dry Well | French Drain | Interim Closed Out (11/8/2000) |
| 100-D-56 | 100-D-56; 100-D Area Sodium Dichromate Underground Supply Lines | Product Piping | Interim Closed Out (4/5/2012) |
| 100-D-60 | 100-D-60; 100D River Lines; 100D/DR River Effluent Pipelines | Radioactive Process Sewer | |
| 100-D-61 | 100-D-61; Utility Pole and Fixture Debris Piles | Dumping Area | Interim Closed Out (10/22/2009) |
| 100-D-63* | 100-D-63; 100-D/DR Clean Water Pipelines; 100-D/DR Service Water Pipelines | Product Piping | Interim No Action (4/10/2013) |
| 100-D-65 | 100-D-65; 100-D-60:1 Flume; 116-D-5 Outfall Spillway; 1904D Spillway | Outfall | Interim Closed Out (1/9/2013) |
| 100-D-66 | 100-D-66; 100-D-60:1 Flume; 116-DR-5 Outfall; 1904-DR Spillway | Outfall | Interim Closed Out (1/7/2013) |
| 100-D-67 | 100-D-67; D Island; D Island Contamination | Unplanned Release | Interim No Action (4/1/2014) |
| 100-D-69 | 100-D-69; Sodium Dichromate Found Near Pacific Avenue and Paddock Street | Unplanned Release | Interim Closed Out (4/2/2015) |
| 100-D-70 | 100-D-70; 184-DA Steam Generating Plant Dry Well | French Drain | No Action (7/7/2011) |
| 100-D-71 | 100-D-71; Vertical Safety Rod Tower Components | Laboratory | Interim Closed Out (9/3/2013) |
| 100-D-72 | 100-D-72; 183D Acid Facility | Process Unit/Plant | Interim Closed Out (5/28/2015) |
| 100-D-73 | 100-D-73; 108-D Chemical Pump House | Process Unit/Plant | Interim Closed Out (1/28/2013) |
| 100-D-74 | 100-D-74; Drywell Well | French Drain | No Action (6/15/2011) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 14 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|---------------------------------|
| 100-D-75 | 100-D-75; 151-D Primary Electrical Substation; 152-C1-D & 152-E1-D Secondary Electrical Substations | Electrical Substation | Interim Closed Out (6/17/2015) |
| 100-D-76 | 100-D-76; Potential Crib Next to 108D; Potential Former 116-D-3 Crib | Crib | Interim Closed Out (1/28/2013) |
| 100-D-78 | 100-D-78; 100D Yellow Stained Soils | Dumping Area | Interim Closed Out (8/21/2013) |
| 100-D-80 | 100-D-80; 100D Tar Stained Soils & Miscellaneous Debris | Dumping Area | Interim Closed Out (3/22/2013) |
| 100-D-81 | 100-D-81; 100D Burn Areas and Other Stained Areas | Dumping Area | Interim Closed Out (3/16/2015) |
| 100-D-82 | 100-D-82; 100D Garnet Sand Sites | Dumping Area | No Action (1/6/2011) |
| 100-D-83 | 100-D-83; 100D Treated Water Pipelines | Product Piping | Interim Closed Out (1/7/2015) |
| 100-D-84 | 100-D-84; 100D Sanitary Sewer Pipelines | Sanitary Sewer | Interim Closed Out (12/16/2014) |
| 100-D-85 | 100-D-85; 100D Reactor Effluent Pipelines | Radioactive Process Sewer | Interim Closed Out (6/9/2015) |
| 100-D-86 | 100-D-86; 100D Process Sewer Pipelines | Process Sewer | Interim Closed Out (6/16/2015) |
| 100-D-87 | 100-D-87; Spill Near Railroad Car Spot | Dumping Area | No Action (1/6/2011) |
| 100-D-88 | 100-D-88; 100D Miscellaneous Pipelines | Product Piping | No Action (5/16/2011) |
| 100-D-90 | 100-D-90; 100-D/DR Out of Service Transformers | Unplanned Release | No Action (1/6/2011) |
| 100-D-96 | 100-D-96; 100-D/DR Additional French Drains | French Drain | Interim Closed Out (2/18/2015) |
| 100-D-97 | 100-D-97; 184-DA 500-Gallon Fuel Tank | Storage Tank | Interim Closed Out (4/7/2015) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 15 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-----------------------|---|
| 100-D-98 | 100-D-98; 152D Substations | Electrical Substation | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 100-D-99 | 100-D-99; Two Suspect Features Identified by Ground Penetrating Radar | Septic Tank | Interim Closed Out (4/13/2015) |
| 100-D-101 | 100-D-101; 108-D Acid Pit and Sump; 108-D Car Spot; 108-D Sodium Silicate Sump; 108-D Storage Tanks; Miscellaneous Structures | Sump | Interim No Action (6/11/2013) |
| 100-D-102 | 100-D-102; Suspect Effluent Leak Adjacent to 107-DR Basin | Unplanned Release | Interim No Action (9/26/2012) |
| 100-D-103 | 100-D-103; Suspected Trench and French Drain from 116-D-8 Cask Pad | French Drain | Interim No Action (7/18/2013) |
| 100-D-104 | 100-D-104; Unplanned Release Near 185-D Sodium Dichromate Storage Tank and Acid Neutralization French Drain | Unplanned Release | Interim Closed Out (6/3/2015) |
| 100-D-105 | 100-D-105; D/DR-Area Pipelines Discovered During Remediation | Product Piping | Interim No Action (1/21/2014) |
| 100-D-107 | 100-D-107; Soil Beneath the 1713-DA Essential Materials Warehouse | Unplanned Release | Interim No Action (4/16/2014) |
| 116-D-1A | 116-D-1A; 105-D Storage Basin Trench #1 | Trench | Interim Closed Out (3/5/2001) |
| 116-D-1B | 116-D-1B; 105-D Storage Basin Trench #2 | Trench | Interim Closed Out (3/5/2001) |
| 116-D-2 | 116-D-2; 105-D Pluto Crib; 116-D-2A | Crib | Interim Closed Out (10/23/2000) |
| 116-D-3 | 116-D-3; 108-D Crib #1 | Crib | No Action (1/30/2003) |
| 116-D-4 | 116-D-4; 108-D Crib #2 | Crib | Interim Closed Out (10/23/2000) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 16 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------|---------------------------------|
| 116-D-5 | 116-D-5; 1904-D Outfall Structure | Outfall | Interim Closed Out (8/10/2011) |
| 116-D-6 | 116-D-6; 105-D Cushion Corridor French Drain | French Drain | Interim Closed Out (11/8/2000) |
| 116-D-7 | 116-D-7; 107-D; 107-D Retention Basin | Retention Basin | Interim Closed Out (8/15/2000) |
| 116-D-9 | 116-D-9; 117-D Crib; 117-D Seal Pit Crib | Crib | Interim Closed Out (3/19/2001) |
| 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 Closed Out (12/2/2010) |
| 120-D-2 | 120-D-2; 186-D Waste Acid Reservoir | Surface Impoundment | Interim Closed Out (7/28/2009) |
| 126-D-2 | 126-D-2; 184-D Coal Pit; Inert Landfill | Burial Ground | Interim Closed Out (10/14/2010) |
| 128-D-2 | 128-D-2; 128-D-2 Burn Pit | Burn Pit | Interim Closed Out (9/8/2011) |
| 130-D-1 | 130-D-1; 1706-D Gasoline Storage Tank; 1716-D Gasoline and Oil Storage Tanks | Storage Tank | Interim Closed Out (8/15/2011) |
| 132-D-1 | 132-D-1; 115-D/DR Gas Recirculating Facility | Process Unit/Plant | Interim Closed Out (12/5/2011) |
| 132-D-2 | 132-D-2; 117-D Filter Building | Process Unit/Plant | Interim Closed Out (5/9/2006) |
| 132-D-3 | 132-D-3; 1608-D Effluent Pumping Station; 1608-D Waste Water Pumping Station | Pump Station | Interim Closed Out (5/9/2006) |
| 1607-D2 | 1607-D2; 124-D-2; 1607-D2 Sanitary Sewer System; 1607-D2 Septic Tank; 1607-D2 Septic Tank and Associated Drain Fields | Septic Tank | Interim Closed Out (1/13/2015) |
| 1607-D4 | 1607-D4; 124-D-4; 1607-D4 Sanitary Sewer System; 1607-D4 Septic Tank; 1607-D4 Septic Tank and Associated Drain Field | Septic Tank | Interim Closed Out (2/23/2006) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 17 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|---------------------------------|
| 1607-D5 | 1607-D5; 124-D-5; 1607-D5 Sanitary Sewer System; 1607-D5 Septic Tank; 1607-D5 Septic Tank and Associated Drain Field | Septic Tank | Interim Closed Out (10/10/2011) |
| 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; Emergency Crib Trench | Trench | Interim Closed Out (9/26/2000) |
| 116-DR-5 | 116-DR-5; 1904-DR; 1904-DR Outfall Structure | Outfall | Interim Closed Out (1/6/2011) |
| 116-DR-9 | 116-DR-9; 107-DR; 107-DR Retention Basin | Retention Basin | Interim Closed Out (1/6/2000) |
| 628-3 | 628-3; 628-3 Burn Pit | Burn Pit | Interim Closed Out (5/11/2011) |
| UPR-100-D-1 | UPR-100-D-1; Oil Soaked Soil | Unplanned Release | No Action (4/13/2005) |
| UPR-100-D-2 | UPR-100-D-2; Effluent Line Leak #1 | Unplanned Release | Interim Closed Out (9/26/2000) |
| UPR-100-D-3 | UPR-100-D-3; Effluent Line Leak #3 | Unplanned Release | Interim Closed Out (9/26/2000) |
| UPR-100-D-4 | UPR-100-D-4; Unplanned Release: 107-D Basin Leaks | Unplanned Release | Interim Closed Out (3/26/2001) |
| UPR-100-D-5 | UPR-100-D-5; Effluent Line Leak #4 | Unplanned Release | No Action (10/14/2010) |
| 100-DR-2 | Ecology | CPP | |
| 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 Closed Out (10/23/2000) |
| 100-D-13 | 100-D-13; 100DR Area Sewage Disposal Unit; 124-DR-3; 1607-DR3; Septic Tank D-13; Unnumbered Septic System A | Septic Tank | Interim Closed Out (9/13/2012) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 18 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|--------------------|---------------------------------|
| 100-D-14 | 100-D-14; Unnumbered Septic System (b); Unnumbered Septic Tank #2 | Septic Tank | Interim Closed Out (10/17/2012) |
| 100-D-15 | 100-D-15; Debris North of 100-D Area Perimeter Road and Debris South of 100-D Perimeter Road Within Gravel Pit #21 (100-D-55); Debris Within Pit 21 | Dumping Area | Interim Closed Out (9/16/2010) |
| 100-D-23 | 100-D-23; 119-DR Sample Building Drywell | French Drain | Interim Closed Out (3/4/2004) |
| 100-D-27 | 100-D-27; 151-D Substation UPR; A-2 Substation Transformer #A401C Leak | Unplanned Release | Closed Out (8/4/2005) |
| 100-D-28 | 100-D-28; 190-DR Building Septic System | Septic Tank | Interim Closed Out (10/11/2011) |
| 100-D-43 | 100-D-43; 118-D-4C; Burial Ground 4C; Buried VSR Thimble Site | Burial Ground | Interim Closed Out (5/13/2010) |
| 100-D-46 | 100-D-46; 118-D-4A; Burial Ground 4A | Burial Ground | Interim Closed Out (3/1/2001) |
| 100-D-47 | 100-D-47; 118-D-4E; Burial Ground 4E; Construction C.G. 558-Rod Burial | Burial Ground | Interim Closed Out (1/15/2010) |
| 100-D-53 | 100-D-53; 117-DR Filter Building; 117-DR HEPA Filter Building | Process Unit/Plant | Interim Closed Out (3/4/2004) |
| 100-D-54 | 100-D-54; Drywell Near the Large Sodium Fire Facility Gravel Scrubber | French Drain | Interim Closed Out (3/4/2004) |
| 100-D-62 | 100-D-62; 183-DR Headhouse Septic Tank | Septic Tank | Interim Closed Out (10/16/2013) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 19 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|------------------------------|---------------------------------|
| 100-D-77 | 100-D-77; 183-DR Filter Building; 183-DR Flocculation Basins; 183-DR Head House; 183-DR Sedimentation Basins; Acid Facility; DR Reactor Water Treatment Facility; Sodium Dichromate Systems | Process Unit/Plant | Interim Closed Out (10/16/2013) |
| 100-D-94 | 100-D-94; Dichromate Contaminated Pit Associated with 187-DR | Depression/Pit (nonspecific) | No Action (3/31/2011) |
| 100-D-100 | 100-D-100; Sodium Dichromate Near Southern Portion of 100-D-56; Stained soil Near 183-DR Railroad Track | Unplanned Release | Interim Closed Out (8/3/2015) |
| 100-D-103 | 100-D-103; Suspected Trench and French Drain from 116-D-8 Cask Pad | French Drain | Interim No Action (7/18/2013) |
| 100-D-106 | 100-D-106; 1607-D1 Influent Pipelines | Sanitary Sewer | Interim Closed Out (2/5/2015) |
| 100-D-108 | 100-D-108; 182-D Remaining Pipeline Stubs | Process Sewer | |
| 100-D-109 | 100-D-109; 183-D Remaining Pipeline Stubs | Process Sewer | |
| 116-D-8 | 116-D-8; 100-D Cask Storage Pad | Storage | Interim Closed Out (8/10/2011) |
| 118-D-1 | 118-D-1; 100-D Burial Ground No. 1 | Burial Ground | Interim Closed Out (10/10/2011) |
| 118-D-2 | 118-D-2; 100-D Burial Ground No. 2 | Burial Ground | Interim Closed Out (9/27/2012) |
| 118-D-3 | 118-D-3; 100-D Burial Ground No. 3 | Burial Ground | Interim Closed Out (8/2/2012) |
| 118-D-4 | 118-D-4; 118-D-4F; Burial Ground 4F; Construction Burial Ground | Burial Ground | Interim Closed Out (10/14/2010) |

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Action Plan

Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 20 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------|---------------------------------|
| 118-D-5 | 118-D-5; 118-D-4G; Ball 3X Burial Ground; Burial Ground 4G; Minor Construction Burial Ground Number 3; Minor Construction Burial Ground Number 5 | Burial Ground | Interim Closed Out (2/1/2010) |
| 128-D-1 | 128-D-1; 100 D/DR Burning Pit | Burn Pit | No Action (4/12/2004) |
| 1607-D1 | 1607-D1; 124-D-1; 1607-D1 Sanitary Sewer System; 1607-D1 Septic Tank; 1607-D1 Septic Tank and Associated Drain Field | Septic Tank | Interim Closed Out (5/14/2012) |
| 116-DR-3 | 116-DR-3; 105-DR Storage Basin Trench | Trench | Interim No Action (9/26/2012) |
| 116-DR-4 | 116-DR-4; 105-DR Pluto Crib | Crib | Interim Closed Out (10/23/2000) |
| 116-DR-6 | 116-DR-6; 1608-DR Liquid Disposal Trench; Wash Pad Liquid Waste Site 3C | Trench | Interim Closed Out (10/23/2000) |
| 116-DR-7 | 116-DR-7; 105-DR Inkwel Crib | Crib | Interim Closed Out (9/26/2000) |
| 116-DR-8 | 116-DR-8; 117-DR Crib; 117-DR Seal Pit Crib (CERCLA) | Crib | Interim Closed Out (9/20/2010) |
| 116-DR-10 | 116-DR-10; 105-DR Fuel Storage Basin Cleanout Percolation; 105-DR Fuel Storage Discharge Pond; 105-DR Pond | Pond | Interim Closed Out (12/28/2010) |
| 118-DR-1 | 118-DR-1; 105-DR Gas Loop Burial Ground | Burial Ground | Interim Closed Out (6/10/2010) |
| 126-DR-1 | 126-DR-1; 100-DR Clearwells; 190-DR Clearwell Tank Pit | Dumping Area | Interim Closed Out (4/23/2009) |
| 132-DR-1 | 132-DR-1; 1608-DR Effluent Pumping Station; 1608-DR Waste Water Pumping Station | Pump Station | Interim Closed Out (9/22/2005) |
| 600-30 | 600-30; 100-DR Construction Lay-down Area | Dumping Area | Interim Closed Out (8/10/2011) |

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Action Plan

Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 21 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|-------------------------------|
| 100-FR-1 | EPA | CPP | |
| 141-C | 141-C; 100-F Experimental Animal Farm Large Animal Barn & Biology Laboratory; 141-C Animal Barn; Hog Barn | Laboratory | Final Closed Out (1/4/2016) |
| 100-F-4 | 100-F-4; 108-F Building 12-Inch French Drain | French Drain | Final Closed Out (1/4/2016) |
| 100-F-7 | 100-F-7; Underground Fuel Tank - 1705-F Building | Storage Tank | Final No Action (1/4/2016) |
| 100-F-9 | 100-F-9; French Drain at East End of 105-F Storage Room (Northeast Corner) | French Drain | Final No Action (1/4/2016) |
| 100-F-10 | 100-F-10; French Drain at East End of 105-F Storage Room (Southeast Corner) | French Drain | Final Closed Out (10/28/2015) |
| 100-F-11 | 100-F-11; 108-F Building 18-Inch French Drain | French Drain | Final Closed Out (1/4/2016) |
| 100-F-12 | 100-F-12; 36-Inch French Drain at 105-F Building | French Drain | Final No Action (1/4/2016) |
| 100-F-15 | 100-F-15; 108-F Building Ventilation French Drain | French Drain | Final Closed Out (11/17/2015) |
| 100-F-16 | 100-F-16; 108-F Building 30-Inch French Drain | French Drain | Final Closed Out (1/4/2016) |
| 100-F-18 | 100-F-18; 105-F Condensate Drain Field; Underground Tank at 105-F Building | Drain/Tile Field | Final No Action (1/4/2016) |
| 100-F-19 | 100-F-19; 100-F Reactor Cooling Water Effluent Underground Pipelines; 1904-F Process Sewer; Contaminated Underground Lines; Effluent Water System | Radioactive Process Sewer | Final Closed Out (10/28/2015) |
| 100-F-23 | 100-F-23; 100-F Experimental Animal Farm Drywell; 141-C Drywell | French Drain | Final Closed Out (1/4/2016) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 22 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|-------------------------------|
| 100-F-24 | 100-F-24; 145-F Drywell | French Drain | Final Closed Out (1/4/2016) |
| 100-F-25 | 100-F-25; 146-FR Drywells | French Drain | Final Closed Out (1/4/2016) |
| 100-F-26 | 100-F-26; 100-F Water Treatment Facility Underground Pipelines | Process Sewer | Final Closed Out (1/4/2016) |
| 100-F-29 | 100-F-29; 100-F Experimental Animal Farm Process Sewer Pipelines | Radioactive Process Sewer | Final Closed Out (10/28/2015) |
| 100-F-31 | 100-F-31; 144-F Sanitary Sewer System | Septic Tank | Final Closed Out (1/4/2016) |
| 100-F-33 | 100-F-33; 146-F Aquatic Biology Fish Ponds | Unplanned Release | Final Closed Out (1/4/2016) |
| 100-F-34 | 100-F-34; Biology Facility French Drain | French Drain | Final Closed Out (10/28/2015) |
| 100-F-36 | 100-F-36; 108-F Biological Laboratory; 108-F Chemical Pump House | Laboratory | Final No Action (1/4/2016) |
| 100-F-37 | 100-F-37; French Drain Discovered Near Hydrant F-2 | French Drain | Final No Action (1/4/2016) |
| 100-F-38 | 100-F-38; Yellow Stained Soil Near Hydrant F-2 | Unplanned Release | Final Closed Out (1/4/2016) |
| 100-F-39 | 100-F-39; 100F River Effluent Pipelines; 100F River Lines | Radioactive Process Sewer | Final No Action (10/28/2015) |
| 100-F-42 | 100-F-42; 100-F-39:1 Flume; 1904-F Spillway | Outfall | Final Closed Out (1/4/2016) |
| 100-F-43 | 100-F-43; 100-F-39:1; 116-F-16 PNL Outfall; Spillway for PNL Outfall | Outfall | Final Closed Out (1/4/2016) |
| 100-F-44 | 100-F-44; 100-F Miscellaneous Pipelines | Process Sewer | Final Closed Out (1/4/2016) |
| 100-F-45 | 100-F-45; Buried River Effluent Pipelines | Radioactive Process Sewer | Final Closed Out (1/4/2016) |

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Action Plan

Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 23 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-----------------------|-------------------------------|
| 100-F-46 | 100-F-46; 119-F Stack Sampling French Drain | French Drain | Final No Action (1/4/2016) |
| 100-F-47 | 100-F-47; 151-F Substation | Electrical Substation | Final Closed Out (1/4/2016) |
| 100-F-48 | 100-F-48; 184-F Coal Pit Debris | Dumping Area | Final Closed Out (1/4/2016) |
| 100-F-49 | 100-F-49; 1716-F Maintenance Garage Lubrication Pit | Foundation | Final Closed Out (1/4/2016) |
| 100-F-51 | 100-F-51; 146-F Fish Laboratory Soil | Unplanned Release | Final Closed Out (1/4/2016) |
| 100-F-52 | 100-F-52; 146-FR Radioecology/Aquatic Biology Laboratory Soil | Unplanned Release | Final No Action (1/4/2016) |
| 100-F-53 | 100-F-53; 108-F Septic System | Septic Tank | Final No Action (1/4/2016) |
| 100-F-54 | 100-F-54; 100-F Animal Farm Pastures | Unplanned Release | Final No Action (1/4/2016) |
| 100-F-55 | 100-F-55; 1607-F7 Contaminated Ash Layer | Unplanned Release | Final Closed Out (1/4/2016) |
| 100-F-56 | 100-F-56; 100-F Surface Debris/Stains | Dumping Area | Final Closed Out (1/4/2016) |
| 100-F-57 | 100-F-57; 190-F Process Water Pump House Debris | Foundation | Final Closed Out (1/4/2016) |
| 100-F-58 | 100-F-58; 100-F Surface Debris Potentially Containing Asbestos | Dumping Area | Final Closed Out (1/4/2016) |
| 100-F-59 | 100-F-59; Riparian Area Contamination Originating from 128-F-2 | Burn Pit | Final Closed Out (10/28/2015) |
| 100-F-60 | 100-F-60; Cast Iron Pipe | Product Piping | Final No Action (1/4/2016) |
| 100-F-61 | 100-F-61; Stained Soil Near 100-F-12 | Unplanned Release | Final Closed Out (1/4/2016) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 24 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|-------------------------------|
| 100-F-62 | 100-F-62; Animal Farm Septic Lines | Sanitary Sewer | Final Closed Out (1/4/2016) |
| 100-F-63 | 100-F-63; Animal Farm Radioactive Effluent Lines | Radioactive Process Sewer | Final Closed Out (1/4/2016) |
| 100-F-64 | 100-F-64; Yellow and Red Stained Soil Along Railroad Tracks Near 1713-FA | Unplanned Release | Final Closed Out (1/4/2016) |
| 100-F-65 | 100-F-65; Green Stained Area Near Tracks Immediately West of 190-F | Unplanned Release | Final Closed Out (1/4/2016) |
| 116-F-1 | 116-F-1; Lewis Canal | Trench | Final Closed Out (1/4/2016) |
| 116-F-2 | 116-F-2; 107-F Liquid Waste Disposal Trench | Trench | Final Closed Out (10/28/2015) |
| 116-F-3 | 116-F-3; 105-F Storage Basin Trench | Trench | Final Closed Out (1/4/2016) |
| 116-F-4 | 116-F-4; 105-F Pluto Crib | Crib | Final Closed Out (1/4/2016) |
| 116-F-5 | 116-F-5; Ball Washer Crib | Crib | Final Closed Out (1/4/2016) |
| 116-F-6 | 116-F-6; 105-F Cooling Water Trench; 1608-F Liquid Waste Disposal Trench | Trench | Final Closed Out (10/28/2015) |
| 116-F-7 | 116-F-7; 116-F-7 Seal Pit Water Crib and Pipeline; 117-F Crib and Pipeline | Crib | Final No Action (1/4/2016) |
| 116-F-8 | 116-F-8; 1904-F Outfall Structure | Outfall | Final Closed Out (1/4/2016) |
| 116-F-9 | 116-F-9; Animal Waste Leaching Trench | Trench | Final Closed Out (10/28/2015) |
| 116-F-10 | 116-F-10; 105 Dummy/Perf Decontamination Crib; 105-F Dummy Decontamination French Drain; 116-F-8; Perf Decontamination Drain | French Drain | Final Closed Out (1/4/2016) |
| 116-F-11 | 116-F-11; 105-F Cushion Corridor French Drain | French Drain | Final Closed Out (1/4/2016) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 25 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-----------------|-------------------------------|
| 116-F-12 | 116-F-12; 148-F French Drain | French Drain | Final Closed Out (10/28/2015) |
| 116-F-14 | 116-F-14; 107-F; 107-F Retention Basin | Retention Basin | Final Closed Out (10/28/2015) |
| 116-F-15 | 116-F-15; 108-F Radiation Crib | Sump | Final Closed Out (1/4/2016) |
| 116-F-16 | 116-F-16; PNL Outfall | Outfall | Final Closed Out (1/4/2016) |
| 126-F-2 | 126-F-2; 183-F Clearwells | Dumping Area | Final Closed Out (1/4/2016) |
| 128-F-2 | 128-F-2; 100-F Burning Pit | Burn Pit | Final Closed Out (1/4/2016) |
| 132-F-1 | 132-F-1; 132-F-1 Chronic Feeding Barn; 141-F; 141-F 100-F Experimental Animal Farm Sheep Barn | Laboratory | Final Closed Out (1/4/2016) |
| 132-F-3 | 132-F-3; 115-F Gas Recirculating Facility | Burial Ground | Final No Action (1/4/2016) |
| 132-F-4 | 132-F-4; 116-F Reactor Exhaust Stack; 116-F Reactor Stack; 132-F-4 Reactor Stack Demolition Site | Burial Ground | Final No Action (1/4/2016) |
| 132-F-5 | 132-F-5; 117-F Filter Building | Burial Ground | Final No Action (1/4/2016) |
| 132-F-6 | 132-F-6; 132-F-6 Lift Station; 1608-F Effluent Pumping Station; 1608-F Waste Water Pumping Station | Pump Station | Final No Action (1/4/2016) |
| 182-F | 182-F; 182-F Reservoir | Dumping Area | Final Closed Out (1/4/2016) |
| 1607-F2 | 1607-F2; 124-F-2; 1607-F2 Sanitary Sewer System; 1607-F2 Septic Tank | Septic Tank | Final Closed Out (1/4/2016) |
| 1607-F3 | 1607-F3; 124-F-3; 1607-F3 Sanitary Sewer System; 1607-F3 Septic Tank | Septic Tank | Final Closed Out (1/4/2016) |

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Action Plan

Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 26 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|-------------------------------|
| 1607-F4 | 1607-F4; 124-F-4; 1607-F4 Sanitary Sewer System; 1607-F4 Septic Tank | Septic Tank | Final Closed Out (1/4/2016) |
| 1607-F5 | 1607-F5; 124-F-5; 1607-F5 Sanitary Sewer System; 1607-F5 Septic Tank | Septic Tank | Final Closed Out (1/4/2016) |
| 1607-F6 | 1607-F6; 124-F-6; 1607-F6 Sanitary Sewer System; 1607-F6 Septic Tank | Drain/Tile Field | Final Closed Out (1/4/2016) |
| 1607-F7 | 1607-F7; 124-F-7; 141-M Building Septic Tank | Septic Tank | Final Closed Out (1/4/2016) |
| UPR-100-F-1 | UPR-100-F-1; 141 Building Sewer Line Spill; 141-C to 141-M Sewer Line Leak; UN-100-F-1 | Unplanned Release | Final Closed Out (10/28/2015) |
| UPR-100-F-2 | UPR-100-F-2; 100-F-3; 107-F Basin Leak Ditch; Basin Leak Ditch | Unplanned Release | Final Closed Out (1/4/2016) |
| UPR-100-F-3 | UPR-100-F-3; Mercury Spill | Unplanned Release | Final Closed Out (1/4/2016) |
| 100-FR-2 | EPA | CPP | |
| 100-F-2 | 100-F-2; PNL Ecological Study Strontium Garden; Strontium Garden | Laboratory | Final Closed Out (11/17/2015) |
| 100-F-14 | 100-F-14; 100-F Carpenter Shop Waste Site Vent; 100-FR-2 Vent Pipe | Storage Tank | Final No Action (1/4/2016) |
| 100-F-20 | 100-F-20; PNL Parallel Pits | Trench | Final Closed Out (11/17/2015) |
| 100-F-35 | 100-F-35; Soil Contamination Area Inside the 105-F Exclusion Area | Unplanned Release | Final Closed Out (11/17/2015) |
| 100-F-50 | 100-F-50; 100-F Railroad French Drain; Storm Water Run Off Culvert | French Drain | Final No Action (1/4/2016) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 27 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------|-------------------------------|
| 118-F-1 | 118-F-1; Burial Ground No. 1; Minor Construction Burial Ground No. 2; Solid Waste Burial Ground No. 2 | Burial Ground | Final Closed Out (11/17/2015) |
| 118-F-2 | 118-F-2; Burial Ground No. 2; Solid Waste Burial Ground No. 1 | Burial Ground | Final Closed Out (11/17/2015) |
| 118-F-3 | 118-F-3; Burial Ground No. 3; Minor Construction Burial Ground No. 1 | Burial Ground | Final Closed Out (11/17/2015) |
| 118-F-4 | 118-F-4; 115-F Crib; 115-F Pit | Crib | Final No Action (1/4/2016) |
| 118-F-5 | 118-F-5; Battelle Sawdust Pit; PNL Sawdust Pit; PNL Sawdust Repository | Burial Ground | Final Closed Out (11/17/2015) |
| 118-F-6 | 118-F-6; PNL Solid Waste Burial Ground | Burial Ground | Final Closed Out (10/28/2015) |
| 118-F-7 | 118-F-7; 100-F Miscellaneous Hardware Storage Vault; Concrete Box | Storage | Final Closed Out (11/17/2015) |
| 120-F-1 | 120-F-1; Glass Dump | Trench | Final Closed Out (11/17/2015) |
| 126-F-1 | 126-F-1; 184-F Powerhouse Ash Pit; 188-F Ash Disposal Area | Coal Ash Pit | Final Closed Out (11/17/2015) |
| 128-F-1 | 128-F-1; 100-F Burning Pit; 100-F Burning Pit No. 1 | Burn Pit | Final No Action (1/4/2016) |
| 128-F-3 | 128-F-3; PNL Burn Pit | Burn Pit | Final Closed Out (11/17/2015) |
| 1607-F1 | 1607-F1; 100-F Experimental Animal Farm Septic Tank; 124-F-1; 1607-F1 Sanitary Sewer System; 1607-F1 Septic Tank; 1607-F1 Septic Tank and Associated Drain Field | Septic Tank | Final Closed Out (11/17/2015) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 28 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|---------------------------------|
| 600-351 | 600-351; Stained Areas Outside of 100-F Area | Unplanned Release | Final Closed Out (1/4/2016) |
| 100-HR-1 | Ecology | CPP | |
| 100-H-1 | 100-H-1; Rod Cave | Storage | Interim Closed Out (3/26/2001) |
| 100-H-3 | 100-H-3; 1716-H Garage Fuel Tank Site | Storage Tank | Interim Closed Out (6/1/2011) |
| 100-H-4 | 100-H-4; 1717-H Hot Shop; Contaminated Storage Unit; French Drain | Maintenance Shop | Interim Closed Out (6/1/2011) |
| 100-H-5 | 100-H-5; 107-H Buried Sludge Site; 107-H Grave; 107-H Retention Basin Sludge Burial Site; Sludge Disposal Trench | Burial Ground | Interim Closed Out (12/18/2000) |
| 100-H-7 | 100-H-7; French Drain A | French Drain | No Action (7/28/2009) |
| 100-H-8 | 100-H-8; French Drain B | French Drain | No Action (12/3/2009) |
| 100-H-9 | 100-H-9; French Drain C | French Drain | Interim Closed Out (6/22/2006) |
| 100-H-10 | 100-H-10; French Drain D | French Drain | Interim Closed Out (6/22/2006) |
| 100-H-11 | 100-H-11; Expansion Box French Drain; French Drain E | French Drain | Interim Closed Out (6/22/2006) |
| 100-H-12 | 100-H-12; Expansion Box French Drain F and Shielding Lead | French Drain | Interim Closed Out (6/22/2006) |
| 100-H-13 | 100-H-13; French Drain G | French Drain | Interim Closed Out (6/22/2006) |
| 100-H-14 | 100-H-14; Surface Contamination Zone H | Unplanned Release | Interim Closed Out (6/22/2006) |
| 100-H-17 | 100-H-17; 116-H-2 Trench Overflow | Unplanned Release | Interim Closed Out (3/1/2001) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 29 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|---|
| 100-H-21 | 100-H-21; 100-H Reactor Cooling Water Effluent Underground Pipelines | Radioactive Process Sewer | Interim Closed Out (3/19/2001) |
| 100-H-22 | 100-H-22; Soil Contaminated by Effluent Line Leakage | Unplanned Release | Interim Closed Out (3/19/2001) |
| 100-H-24 | 100-H-24; 100-H-24 Substation; 151-H Electrical Facilities; 151-H Substation | Electrical Substation | Interim Closed Out (5/9/2001) |
| 100-H-28 | 100-H-28; 100-H Water Treatment Facilities Underground Pipelines | Process Sewer | Interim Closed Out (10/1/2015) |
| 100-H-30 | 100-H-30; 110-H Sanitary Sewer Trench | Trench | Interim Closed Out (3/1/2001) |
| 100-H-31 | 100-H-31; Polychlorinated Biphenyl in Soil on North Side of 105-H Reactor Building | Unplanned Release | Interim Closed Out (6/22/2006) |
| 100-H-33 | 100-H-33; 183-H Solar Evaporation Basins Radionuclide Components | Retention Basin | Interim No Action (4/12/2012) |
| 100-H-34 | 100-H-34; 100H River Effluent Pipelines; 100H River Lines | Radioactive Process Sewer | |
| 100-H-35 | 100-H-35; 100-H Clean Water Pipelines; 100-H Service Water Pipelines | Product Piping | No Action (2/28/2012) |
| 100-H-36 | 100-H-36; 100-H-34:1 Flume (Spillway) for the 116-H-5 Outfall Structure; 116-H-5 Spillway; 1904-H Spillway | Outfall | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 100-H-38 | 100-H-38; Trenches and Pit Southwest of 105-H | Burial Ground | Interim No Action (11/5/2013) |
| 100-H-40 | 100-H-40; Disposal Pit | Trench | No Action (5/20/2010) |

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Action Plan

Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|--------------------|--------------------------------|
| 100-H-41 | 100-H-41; Contaminated Area; Contaminated Vertical Pipe | Unplanned Release | Interim Closed Out (3/15/2011) |
| 100-H-42 | 100-H-42; 1906-H Drainage Lift Station | Pump Station | Interim Closed Out (10/1/2015) |
| 100-H-43 | 100-H-43; Maintenance Garage; Repair Shop | Maintenance Shop | Interim Closed Out (3/12/2015) |
| 100-H-44 | 100-H-44; 183-H Neutralization Pit; H-016 | Process Unit/Plant | Interim Closed Out (7/9/2015) |
| 100-H-45 | 100-H-45; 1717-H UST; H-015; Underground Propane Tank | Storage Tank | No Action (7/8/2010) |
| 100-H-46 | 100-H-46; 190-H Potential Contaminated Soil | Process Unit/Plant | Interim Closed Out (4/29/2014) |
| 100-H-48* | 100-H-48; 184-HA Underground Fuel Oil Tanks Associated Piping | Product Piping | Interim Closed Out (4/2/2014) |
| 100-H-49 | 100-H-49; Potentially Contaminated French Drains | French Drain | Interim Closed Out (3/18/15) |
| 100-H-50 | 100-H-50; 100-H Steam Condensate French Drains | French Drain | No Action (6/16/2011) |
| 100-H-51 | 100-H-51; Potentially Contaminated Pipeline Segments | Process Sewer | Interim Closed Out (7/9/2015) |
| 100-H-52 | 100-H-52; 184-HA Septic Drain Field and Associated Piping | Drain/Tile Field | Interim Closed Out (4/2/2014) |
| 100-H-53 | 100-H-53; Carbon Steel Pipe in River Bank | Process Sewer | No Action (4/12/2012) |
| 100-H-54 | 100-H-54; GPERS 100-H Shoreline Survey Unplanned Release | Unplanned Release | Interim No Action (3/3/2014) |
| 100-H-56 | 100-H-56; H-Area Miscellaneous Pipelines | Product Piping | Interim No Action (8/20/2014) |
| 100-H-57 | 100-H-57; Water Tower Foundations at 100H | Foundation | Interim No Action (10/21/2013) |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|---|
| 100-H-59 | 100-H-59; 100-H Area Railroad Track Soil Contamination Area; Soil Contamination and Debris Piles Near 100-H Area Railroad Track | Unplanned Release | Interim Closed Out (11/1/2015) |
| 116-H-1 | 116-H-1; 107-H Liquid Waste Disposal Trench | Trench | Interim Closed Out (4/3/2001) |
| 116-H-2 | 116-H-2; 1608-H Crib & Trench; 1608-H Liquid Waste Disposal Trench | Trench | Interim Closed Out (3/1/2001) |
| 116-H-3 | 116-H-3; 105-H Dummy Decontamination French Drain; Perf Decontamination Drain | French Drain | Interim Closed Out (4/3/2001) |
| 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 | Outfall | Interim Closed Out (5/3/2012) |
| 116-H-7 | 116-H-7; 107-H; 107-H Retention Basin | Retention Basin | Interim Closed Out (7/24/2001) |
| 116-H-9 | 116-H-9; 117-H Crib; 117-H Seal Pit Crib | Crib | Interim Closed Out (12/22/2010) |
| 126-H-2 | 126-H-2; 183-H Clearwells/Disposal Pit | Dumping Area | Interim Closed Out (10/18/2012) |
| 132-H-1 | 132-H-1; 116-H Reactor Exhaust Stack Burial Site | Burial Ground | Interim Closed Out (6/26/2007) |
| 132-H-3 | 132-H-3; 116-H-8; 1608-H Effluent Pumping Station Site; 1608-H Waste Water Pumping Station Site | Pump Station | Interim Closed Out (7/12/2012) |
| 1607-H2 | 1607-H2; 124-H-2; 1607-H2 Sanitary Sewer System; 1607-H2 Septic Tank; 1607-H2 Septic Tank and Associated Drain Field; Septic System | Septic Tank | Interim Closed Out (2/5/2001) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 32 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------------|--|
| 1607-H3 | 1607-H3; 124-H-3; 1607-H3 Sanitary Sewer System; 1607-H3 Septic Tank; 1607-H3 Septic Tank and Associated Drain Field | Septic Tank | Interim Closed Out (2/1/2011) |
| 1607-H4 | 1607-H4; 124-H-4; 1607-H4 Sanitary Sewer System; 1607-H4 Septic Tank; 1607-H4 Septic Tank and Associated Drain Field | Septic Tank | Interim Closed Out (2/26/2001) |
| 100-HR-2 | Ecology | CPP | |
| 100-H-2 | 100-H-2; Buried Thimble Site; Thimble Pit | Burial Ground | Interim Closed Out (3/1/2001) |
| 100-H-37 | 100-H-37; 100-H Mud Dauber Contamination Area | Contamination Migration | Interim Closed Out (8/5/2010) |
| 100-H-38 | 100-H-38; Trenches and Pit Southwest of 105-H | Burial Ground | No Action (11/5/2013) |
| 100-H-40 | 100-H-40; Disposal Pit | Trench | No Action (5/20/2010) |
| 100-H-58 | 100-H-58; Mud Dauber Nests On Active Powerlines In 100H Area | Contamination Migration | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 118-H-1 | 118-H-1; 100-H Burial Ground No. 1; 100-H-1 | Burial Ground | Interim Closed Out (10/12/2011) |
| 118-H-2 | 118-H-2; 100-H Burial Ground No. 2; H-1 Loop Burial Ground; P-13 Test Loop | Burial Ground | Interim Closed Out (11/15/2010) |
| 118-H-3 | 118-H-3; Construction Burial Ground | Burial Ground | Interim Closed Out (6/27/2011) |
| 118-H-4 | 118-H-4; Ball 3X Burial Ground | Burial Ground | Interim Closed Out (12/29/2010) |
| 118-H-5 | 118-H-5; 105-H Thimble Pit | Burial Ground | Interim Closed Out (1/5/2010) |
| 128-H-1 | 128-H-1; 100-H Burning Pit; 100-H Burning Pit No. 1 | Burn Pit | Interim Closed Out (5/8/2012) |
| 128-H-2 | 128-H-2; 100-H Burning Ground #2 | Burn Pit | No Action (1/25/2010) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 33 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|------------------------------|--|
| 128-H-3 | 128-H-3; 100-H Burning Ground #3 | Burn Pit | No Action (1/25/2010) |
| 132-H-2 | 132-H-2; 117-H Filter Building Site | Burial Ground | Interim Closed Out (8/1/2006) |
| 1607-H1 | 1607-H1; 124-H-1; 1607-H1 Sanitary Sewer System; 1607-H1 Septic Tank; 1607-H1 Septic Tank and Associated Drain Field | Septic Tank | Interim Closed Out (9/1/2011) |
| 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 Closed Out (10/27/2011) |
| 600-152 | 600-152; Military Septic Tanks | Septic Tank | Interim Closed Out (4/1/2010) |
| 600-380 | 600-380; Segment 4 Unknown Cylinder | Dumping Area | Interim Closed Out (2/25/2014) |
| 600-381 | 600-381; Segment 4 Underground Structure with Wooden Air Vents Feature | Depression/Pit (nonspecific) | No Action (12/3/2013) |
| 600-382 | 600-382; Segment 4 Oil Stains and Filter Area #3 | Unplanned Release | Interim Closed Out (8/20/2014) |
| 600-383 | 600-383; Segment 4 Battery Remnant Areas #2 | Dumping Area | Interim Closed Out (7/8/2014) |
| 600-384 | 600-384; Segment 4 Stained Soil Area #3 | Unplanned Release | Interim Closed Out (8/13/2014) |
| 600-385 | 600-385; Segment 4 Transite, Concrete, and Metal Debris Area | Dumping Area | 100 Area "Plug-In" and Candidate Waste Sites for Calendar Year 2011 (2/2012) |
| 100-IU-1 | EPA | CPP | |
| 600-44 | 600-44; 600-68; Enyert Well Empty Pesticide Container Dump; Herbicide/Pesticide Empty Container Pile | Dumping Area | Deleted From NPL (7/8/1998) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 34 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|------------------------------|------------------------------|
| 600-101 | 600-101; Riverland Railroad Car Wash Pit; RRCWP | 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) |
| 600-274 | 600-274; 2,4-D Can Site at McGee Ranch; Riverland | Dumping Area | Deleted From NPL (7/8/1998) |
| 100-IU-2 | EPA | CPP | |
| 600-5 | 600-5; Asphalt Heliport; White Bluffs Waste Oil Dump | Dumping Area | Final Closed Out (1/4/2016) |
| 600-52 | 600-52; White Bluffs Surface Basin | Drain/Tile Field | Final No Action (11/17/2015) |
| 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 | Final No Action (11/17/2015) |
| 600-99 | 600-99; J. A. Jones #2; JA Jones 2; JA JONES2 | Burial Ground | Final No Action (11/17/2015) |
| 600-100 | 600-100; 600-119; WBL; White Bluffs City Dump; White Bluffs City Landfill; White Bluffs Landfill | Sanitary Landfill | Final Closed Out (1/4/2016) |
| 600-120 | 600-120; Spare Parts Burn Pit; White Bluffs Spare Parts Burn Pit | Burn Pit | Final Closed Out (1/4/2016) |
| 600-124 | 600-124; Burn Site and Paint Disposal Area; White Bluffs Burn Site and Paint Disposal Area | Burn Pit | Final Closed Out (1/4/2016) |
| 600-125 | 600-125; Waste Disposal Trenches; White Bluffs Waste Disposal Trench 1 | Trench | Final Closed Out (1/4/2016) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 35 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|------------------------------|-----------------------------|
| 600-127 | 600-127; Fuel Storage Area; White Bluffs Loading Docks and Fuel Storage Area | Storage | Final Closed Out (1/4/2016) |
| 600-128 | 600-128; Oil and Oil Filter Dump Site; White Bluffs Oil and Oil Filter Dump Site | Dumping Area | Final Closed Out (1/4/2016) |
| 600-129 | 600-129; Pre-MED White Bluffs Community Dump Site (Oil Can Site); White Bluffs Pre-MED Community Dump Site 1 | Dumping Area | Final Closed Out (1/4/2016) |
| 600-131 | 600-131; Special Fabrication Shop and Warehouse; White Bluffs Water Station and Special Fabrication Shops and Warehouse | Dumping Area | Final Closed Out (1/4/2016) |
| 600-132 | 600-132; Construction Contractor Shop Landfill; White Bluffs Construction Contractor Shop Landfill | Depression/Pit (nonspecific) | Final Closed Out (1/4/2016) |
| 600-139 | 600-139; Automotive Repair Shop; White Bluffs Automotive Repair Shop and Associated Waste Sites | Dumping Area | Final Closed Out (1/4/2016) |
| 600-176 | 600-176; White Bluffs Paint Disposal Area | Dumping Area | Final Closed Out (1/4/2016) |
| 600-181 | 600-181; White Bluffs Oil Dump | Dumping Area | Final Closed Out (1/4/2016) |
| 600-182 | 600-182; White Bluffs Asbestos Pipe Lagging and Excess Piping | Dumping Area | Final Closed Out (1/4/2016) |
| 600-188 | 600-188; White Bluffs Waste Disposal Trench 2 | Trench | Final Closed Out (1/4/2016) |
| 600-190 | 600-190; White Bluffs Warehouse Tar and/or Paint Disposal Area | Dumping Area | Final Closed Out (1/4/2016) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 36 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|-------------------------------|
| 600-191 | 600-191; White Bluffs Pre-MED Community Dump Site 2 | Dumping Area | Final Closed Out (1/4/2016) |
| 600-201 | 600-201; White Bluffs Paint and Solid Waste Disposal Site | Dumping Area | Final No Action (11/17/2015) |
| 600-279 | 600-279; Vegetation Free Area Between White Bluffs and 100F | Dumping Area | Final Closed Out (10/28/2015) |
| 600-293 | 600-293; White Bluffs Service Station #1 | Unplanned Release | Final Closed Out (10/28/2015) |
| 600-294 | 600-294; White Bluffs Service Station #2 | Unplanned Release | Final Closed Out (10/28/2015) |
| 600-295 | 600-295; White Bluffs Paint Shop | Unplanned Release | Final Closed Out (1/4/2016) |
| 600-296 | 600-296; White Bluffs Fire Department Septic System | Sanitary Sewer | Final No Action (11/17/2015) |
| 600-297 | 600-297; White Bluffs Imhoff Tank | Sanitary Sewer | Final Closed Out (1/4/2016) |
| 600-298 | 600-298; Surface Debris and Stained Soil in 100-IU-2 | Unplanned Release | Final Closed Out (10/28/2015) |
| 600-299 | 600-299; Surface Debris and Batteries | Unplanned Release | Final Closed Out (10/28/2015) |
| 600-300 | 600-300; Miscellaneous Surface Debris Sites | Unplanned Release | Final Closed Out (10/28/2015) |
| 600-301 | 600-301; White Bluffs Sanitary Sewer Pipelines | Sanitary Sewer | Final Closed Out (10/28/2015) |
| 600-302 | 600-302; French Drain with Vent Pipe | French Drain | Final No Action (11/17/2015) |
| 600-303 | 600-303; Vertical Pipes | Unplanned Release | Final Closed Out (10/28/2015) |
| 600-305 | 600-305; Suspect Asbestos Containing Material Sites | Unplanned Release | Final Closed Out (1/4/2016) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 37 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|-------------------------------|
| 600-306 | 600-306; Burn Site #1 | Burn Pit | Final Closed Out (1/4/2016) |
| 600-307 | 600-307; Burn Site #2 | Burn Pit | Final Closed Out (1/4/2016) |
| 600-308 | 600-308; Garnet Sand | Unplanned Release | Final Closed Out (1/4/2016) |
| 600-309 | 600-309; Burn Site #3 | Unplanned Release | Final Closed Out (1/4/2016) |
| 600-310 | 600-310; Burn Site #4 | Burn Pit | Final Closed Out (1/4/2016) |
| 600-311 | 600-311; Burn Site #5 | Burn Pit | Final Closed Out (1/4/2016) |
| 600-312 | 600-312; Burn Site #6 | Burn Pit | Final Closed Out (1/4/2016) |
| 600-341 | 600-341; Inter Areas Battery Remnant Area #1 | Dumping Area | Final Closed Out (1/4/2016) |
| 600-342 | 600-342; Inter Areas Contaminated Clothing Area Near Susie Junction | Dumping Area | Final Closed Out (1/4/2016) |
| 600-343 | 600-343; Inter Areas Burn Site #1 | Dumping Area | Final Closed Out (1/4/2016) |
| 600-344 | 600-344; Inter Areas Stain Site #1 | Unplanned Release | Final Closed Out (1/4/2016) |
| 600-345 | 600-345; 100-BC Vicinity Oil Stain and Filter Area | Unplanned Release | Final Closed Out (1/4/2016) |
| 600-346 | 600-346; 100-BC Vicinity Ash and Debris Area | Unplanned Release | Final Closed Out (1/4/2016) |
| 600-370 | 600-370; Segment 4 Debris Area #1 | Dumping Area | Final Closed Out (10/28/2015) |
| 600-371 | 600-371; Segment 4 Chalky Material Area | Dumping Area | Final Closed Out (10/28/2015) |
| 600-372 | 600-372; Segment 4 Oil Stains and Filter Areas | Unplanned Release | Final Closed Out (10/28/2015) |
| 600-373 | 600-373; Segment 4 Bare Ground and White Stain Area | Dumping Area | Final Closed Out (10/28/2015) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 38 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|------------------------------|-------------------------------|
| 600-374 | 600-374; Segment 4 Drum Remnant Area | Dumping Area | Final Closed Out (10/28/2015) |
| 600-375 | 600-375; Segment 4 Dry Cell Battery Debris Area #1 | Dumping Area | Final Closed Out (10/28/2015) |
| 600-376 | 600-376; Segment 4 Stained Soil Area #2 | Unplanned Release | Final Closed Out (10/28/2015) |
| 628-1 | 628-1; White Bluffs Burn Pit | Burn Pit | Final Closed Out (1/4/2016) |
| 100-IU-3 | Ecology | CPP | |
| 600-8 | 600-8; 600-103 (Part); Control Center for Battery A Nike Missile; MIL - H-06C; Wahluke Slope Nike Missile Base; WSNMB | Military Compound | Deleted From NPL (7/8/1998) |
| 600-9 | 600-9; 600-103 (Part); Battery A Nike Missile Installation Launch Site; MIL - H-06L; Wahluke Slope Nike Missile Base; WSNMB | Military Compound | Deleted From NPL (7/8/1998) |
| 600-104 | 600-104; 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 Bluff Pickling Acid Cribs; White Bluffs 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 | Final Closed Out (11/17/2015) |
| 600-20 | 600-20; 615 Hot Mix Plant for Road Materials; Tank Cleaning Site | Depression/Pit (nonspecific) | Final Closed Out (9/1/2015) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 39 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|------------------------------|--------------------------------|
| 600-23 | 600-23; Dumping Area Within Gravel Pit #11; Gravel Pit 11 | Dumping Area | Final Closed Out (11/17/2015) |
| 600-107 | 600-107; 213-J & K Cribs; 213-J&K Cribs; Gable Mountain Plutonium Storage Vault Cribs | Crib | Final No Action (11/17/2015) |
| 600-108 | 600-108; 213-J & K Magazine Waste Storage Cavern; 213-J&K Storage Facility (SF); 213-K Vault; 218-E-16 | Storage | Final Closed Out (11/17/2015) |
| 600-109 | 600-109; Hanford Trailer Camp Landfill; HTCL | Sanitary Landfill | Final Closed Out (11/17/2015) |
| 600-110 | 600-110; Hanford Townsite Landfill; HTL | Sanitary Landfill | Final No Action (1/4/2016) |
| 600-111 | 600-111; P-11 Critical Mass Laboratory Complex (Buildings, Crib, 2 Septic Systems and Associated Piping) | Laboratory | Final Closed Out (11/17/2015) |
| 600-146 | 600-146; Steel Structure on Northwest Side of Gable Mountain | Dumping Area | Interim Closed Out (7/21/2010) |
| 600-149 | 600-149; 600-54; 661 Complex; Rifle and Pistol Range; Small Arms Range | Military Compound | Final Closed Out (11/17/2015) |
| 600-178 | 600-178; 213-J and 213-K Guard House Toilet Pit | Depression/Pit (nonspecific) | Final Closed Out (11/17/2015) |
| 600-186 | 600-186; Hanford Construction Camp Septic Tanks and Sewage Treatment Plants | Trench | Final No Action (11/17/2015) |
| 600-202 | 600-202; Hanford Townsite Four Burn and Burial Pits | Burn Pit | Final Closed Out (11/17/2015) |
| 600-204 | 600-204; Hanford Townsite Burn and Burial Trench | Burn Pit | Final Closed Out (11/17/2015) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 40 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|-------------------------------|
| 600-205 | 600-205; Hanford Townsite Landfill 2 | Dumping Area | Final Closed Out (11/17/2015) |
| 600-208 | 600-208; Hanford Construction Camp Boiler House Ponds | Pond | No Action (8/12/2004) |
| 600-235 | 600-235; Buried Lead Sheathed Telephone Cables | Dumping Area | Final No Action (1/4/2016) |
| 600-239 | 600-239; 615 Hot Mix Plant Debris; Debris in Pit 16; Hanford Aggregate Pit Debris | Dumping Area | Final No Action (11/17/2015) |
| 600-257 | 600-257; 213-J Magazine Waste Storage Cavern; 213-J Vault; 213-J&K Storage Facility | Storage | Final Closed Out (11/17/2015) |
| 600-280 | 600-280; Hardened Tar Site | Dumping Area | Final Closed Out (11/17/2015) |
| 600-313 | 600-313; Burned Area and Oil Stained Soil | Burn Pit | Final Closed Out (11/17/2015) |
| 600-314 | 600-314; Telecommunication Components | Unplanned Release | Final Closed Out (11/17/2015) |
| 600-315 | 600-315; Black Granular Stain | Unplanned Release | Final No Action (11/17/2015) |
| 600-316 | 600-316; Dry Cell Batteries | Unplanned Release | Final Closed Out (10/28/2015) |
| 600-317 | 600-317; Battery and Burn Area | Burn Pit | Final Closed Out (11/17/2015) |
| 600-318 | 600-318; Wet Cell Batteries | Unplanned Release | Final Closed Out (10/28/2015) |
| 600-319 | 600-319; Miscellaneous Debris | Unplanned Release | Final Closed Out (11/17/2015) |
| 600-320 | 600-320; Oil Stains | Unplanned Release | Final Closed Out (10/28/2015) |
| 600-321 | 600-321; Suspect Asbestos Containing Material and Debris | Unplanned Release | Final Closed Out (10/28/2015) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 41 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------|--|
| 600-322 | 600-322; Rail Spur Pipe | Unplanned Release | Final No Action (11/17/2015) |
| 600-323 | 600-323; Suspect Bermed Area | Unplanned Release | Final No Action (11/17/2015) |
| 600-324 | 600-324; Burnt Debris Area | Burn Pit | Final Closed Out (11/17/2015) |
| 600-325 | 600-325; Burned Roofing Materials | Burn Pit | Final Closed Out (11/17/2015) |
| 600-326 | 600-326; Odorous Black Material | Unplanned Release | Final Closed out (12/16/15) |
| 600-327 | 600-327; Suspect Dichromate Facility | Process Unit/Plant | Final No Action (11/17/2015) |
| 600-328 | 600-328; Lead Slag | Unplanned Release | Final Closed Out (10/28/2015) |
| 600-329 | 600-329; Concrete Outfall Structure | Unplanned Release | Final No Action (1/14/2016) |
| 600-331 | 600-331; Lime Sulfur Barrel Site | Unplanned Release | Final Closed Out (4/27/2015) |
| 600-332 | 600-332; Gable Mountain Firing Range Septic System | Sanitary Sewer | Final Closed Out (4/27/2015) |
| 600-334 | 600-334; CMX Building | Process Unit/Plant | Final Closed Out (11/17/2015) |
| 600-349 | 600-349; Unexploded Ordnance (UXO) Outside of 600-149 | Dumping Area | Record of Decision, 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-2, and 100-IU-6 Operable Units (9/2014) |
| 600-350 | 600-350; PNL Water Catchment Experiment | Experiment/Test Site | Final Closed Out (11/17/2015) |
| 600-356 | 600-356; Non-Operational Area Zone 2, Tar Deposit West of Susie Junction | Dumping Area | Final Closed Out (10/28/2015) |
| 600-358 | 600-358; Scattered Waste Areas in the Vicinity of the Gable Mountain Firing Range | Dumping Area | Final Closed Out (9/1/2015) |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|---|
| 600-368 | 600-368; Segment 4 Stained Soil #1 | Unplanned Release | Final Closed Out (10/28/2015) |
| 600-369 | 600-369; Segment 4 Bare Ground and Crusted Soil Areas | Dumping Area | Final Closed Out (10/28/2015) |
| 600-377 | 600-377; Segment 4 Oil Stain and Filter Area #2 | Unplanned Release | Final Closed Out (10/28/2015) |
| 600-378 | 600-378; 506 Telephone Exchange Emergency Generator Building Underground Fuel Storage Tank | Storage Tank | Final Closed Out (10/28/2015) |
| 600-379 | 600-379; Segment 4 Burn Area #1 | Dumping Area | Final Closed Out (10/28/2015) |
| JA JONES 1 | JA JONES 1; JA Jones 1; JA Jones Construction Pit #1; JA Jones Dumping Pit #1 | Dumping Area | Final Closed Out (11/17/2015) |
| UPR-600-11 | UPR-600-11; Contaminated Soil Dumped at JA Jones Pit #1 | Unplanned Release | Final Closed Out (11/17/2015) |
| UPR-600-16 | UPR-600-16; P-11 Fire and Contamination Spread; UN-600-16; UN-616-16 | Unplanned Release | Final Closed Out (11/17/2015) |
| 100-KR-1 | EPA | CPP | |
| 100-K-57 | 100-K-57; 107-KE Drainage Ditches | Ditch | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (2/2004) |
| 100-K-63 | 100-K-63; 100-KW Flood Plain Contamination Area; 100-KW Floodplain; UN-116-KW-1 | Unplanned Release | Interim Closed Out (9/7/2012) |
| 100-K-64 | 100-K-64; 100-KE Flood Plain Contamination Area; 100-KE Floodplain; UN-116-KE-1 | Unplanned Release | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (2/2004) |
| 100-K-78 | 100-K-78; Fenced Contamination Area | Unplanned Release | No Action (4/6/2011) |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|---|
| 100-K-80 | 100-K-80; 100KW River Effluent Pipeline; 100KW River Line; River Line (West) from 116-K-3 Outfall | Radioactive Process Sewer | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 100-K-81 | 100-K-81; Contamination Area West of 116-K-3 | Unplanned Release | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 100-K-83 | 100-K-83; 116-K-3; 1904-K Flume; 1904-K Outfall Structure; 1904-K Spillway | Outfall | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 100-K-94 | 100-K-94; 1702-KE and 1702-KW Guard House Dry Wells | French Drain | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 100-K-96 | 100-K-96; 100KE River Effluent Pipeline; 100KE River Line; River Line (East) from 116-K-3 Outfall | Radioactive Process Sewer | 100 Area "Plug-In" and Candidate Waste Sites for Calendar Year 2011 (2/2012) |
| 100-K-111 | 100-K-111; Effluent Seepage Area from 116-K-2 | Contamination Migration | 100 Area "Plug-In" and Candidate Waste Sites for Calendar Year 2011 (2/2012) |
| 100-K-113 | 100-K-113; 100KW Columbia River Effluent Pipeline; Portion of Effluent Piping Extending Beyond River Shore | Radioactive Process Sewer | |
| 100-K-114 | 100-K-114; 100KE Columbia River Effluent Pipeline; Portion of Effluent Piping Extending Beyond River Shore | Radioactive Process Sewer | |
| 116-K-1 | 116-K-1; 100-K Crib; 100-K Emergency Pond; 100-K Pond; 107-K Pond; 107-K(E) Sump; 116-K-1 Trench | Crib | Interim Closed Out (5/17/2004) |
| 116-K-2 | 116-K-2; 100-K Emergency Trench; 100-K Mile Long Trench; 107-K Effluent Trench; 116-K-2 Trench; Bypass Crib Ditch; K Trench | Trench | Interim Closed Out (3/28/2006) |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|--------------------|--|
| 116-K-3 | 116-K-3; 1904-K Outfall Structure; 1908-K Outfall Structure | Outfall | Interim Action Record of Decision, 100 Area Remaining Sites (1999)† |
| 116-KE-4 | 116-KE-4; 107-KE; 107-KE Retention Basins | Retention Basin | Interim Closed Out (6/30/2005) |
| 116-KW-3 | 116-KW-3; 107-KW; 107-KW Retention Basin | Retention Basin | Interim Closed Out (4/12/2004) |
| 100-KR-2 | Ecology | | |
| 116-KE-6A** | 116-KE-6A; 1706-KE Condensate Collection Tank; 1706-KE Waste Treatment System | Storage Tank | Interim Closed Out (8/4/2010) |
| 116-KE-6B** | 116-KE-6B; 1706-KE Evaporation Tank; 1706-KE Waste Treatment System | Storage Tank | Interim Closed Out (8/4/2010) |
| 116-KE-6C** | 116-KE-6C; 1706-KE Waste Accumulation Tank; 1706-KE Waste Treatment System | Storage Tank | Interim Closed Out (8/4/2010) |
| 116-KE-6D** | 116-KE-6D; 1706-KE Ion Exchange Column; 1706-KE Waste Treatment System | Process Unit/Plant | Interim Closed Out (8/4/2010) |
| 100-KR-2 | EPA | CPP | |
| 100-K-1 | 100-K-1; 100-K-45; 119-KW Exhaust Air Sample Building French Drain; 119-KW French Drain | French Drain | Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1997) |
| 100-K-3 | 100-K-3; 1706-KE Fish Pond Heat Exchanger Pit. Pump Pit and Associated Piping; Water Studies Semi-Works | Valve Pit | Interim Closed Out (10/23/2012) |
| 100-K-4 | 100-K-4; 1706-KE Wet Fish Studies Ponds and Valve Pit | Pond | Interim Closed Out (8/4/2010) |
| 100-K-5 | 100-K-5; 1705-KE French Drain | French Drain | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 100-K-6 | 100-K-6; 105-KE Vacuum Pit; Cyclone Separator; Vacuum Pit | Process Unit/Plant | Interim Closed Out (8/29/2012) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 45 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|--------------|---|
| 100-K-13 | 100-K-13; French Drain and Drain Pipe Located West of the 166-KW Oil Storage Tank Facility | French Drain | Interim Action 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 Action Record of Decision, 100 Area Remaining Sites (1999)† |
| 100-K-18 | 100-K-18; 183-KW Caustic Neutralization Pit | Sump | Interim Closed Out (6/27/2012) |
| 100-K-19 | 100-K-19; 183-KW Caustic Soda Storage Tank Site | Foundation | Interim Closed Out (6/27/2012) |
| 100-K-25 | 100-K-25; 183-KE Caustic Neutralization Pit | Sump | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 100-K-27 | 100-K-27; 183-KE Caustic Soda Storage Tank Site | Foundation | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 100-K-29 | 100-K-29; 183-KE Sandblasting Site | Dumping Area | Interim Closed Out (6/24/2004) |
| 100-K-30 | 100-K-30; 183-KE Sulfuric Acid Tank Bases (West Tank) | Storage Tank | Interim Closed Out (8/2/2004) |
| 100-K-31 | 100-K-31; 183-KE Sulfuric Acid Tank Bases (East Tank) | Storage Tank | Interim Closed Out (8/2/2004) |
| 100-K-32 | 100-K-32; 183-KW Sulfuric Acid Tank Bases (East Tank) | Storage Tank | Interim Closed Out (7/27/2004) |
| 100-K-33 | 100-K-33; 183-KW Sulfuric Acid Tank Bases (West Tank) | Storage Tank | Interim Closed Out (8/24/2004) |
| 100-K-34 | 100-K-34; 183-KW Acid Neutralization Pit | Sump | Interim Closed Out (7/10/2012) |
| 100-K-35 | 100-K-35; 183-KE Acid Neutralization Pit | Sump | Interim Action Record of Decision, 100 Area Remaining Sites (1999)† |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 46 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|---|
| 100-K-36 | 100-K-36; 1706-KE Chemical Storage Facility Dry Well | French Drain | Interim Closed Out (10/19/2012) |
| 100-K-37 | 100-K-37; 1706-KE Sulfuric Acid Tank | Storage Tank | Interim Closed Out (8/4/2010) |
| 100-K-38 | 100-K-38; 1706-KE Caustic Soda Tank | Unplanned Release | Interim Closed Out (8/4/2010) |
| 100-K-42 | 100-K-42; 100-K East Basin; 100-K-40; 100-KE Fuel Storage Basin; 105-KE Fuel Storage Basin; Irradiated Fissile Material Storage; KE Basin; Metal Storage Basin; Potential Asbestos in Soil | Storage | Interim Action Record of Decision, 100 Area Remaining Sites (1999)† |
| 100-K-43* | 100-K-43; 105-KW Fuel Storage Basin; Irradiated Fissile Material Storage; K West Basin; KW Basin | Storage | Interim Action Record of Decision, 100 Area Remaining Sites (1999)† |
| 100-K-46 | 100-K-46; 119-KE French Drain; Drywell | French Drain | Interim Closed Out (8/29/2012) |
| 100-K-47 | 100-K-47; 1904-K Process Sewer | Process Sewer | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 100-K-48 | 100-K-48; 100-KE Oil Contamination Areas | Unplanned Release | Interim Action Record of Decision, 100 Area Remaining Sites (1999)† |
| 100-K-49 | 100-K-49; 100-KW Oil Contamination Areas | Unplanned Release | Interim Action Record of Decision, 100 Area Remaining Sites (1999)† |
| 100-K-50 | 100-K-50, 1725-K & 1726-K Sanitary Sewer System Holding Tank | Storage Tank | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 100-K-53 | 100-K-53; 100-KE Glycol Heat Recovery Underground Pipelines | Product Piping | Interim Closed Out (8/29/2012) |
| 100-K-54 | 100-K-54; 100-KW Glycol Heat Recovery Underground Pipelines | Product Piping | Interim Action Record of Decision, 100 Area Remaining Sites (1999)† |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 47 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|---|
| 100-K-55 | 100-K-55; 100-KR-1 Pipelines; 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; 100-KR-1 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-60 | 100-K-60; 1904-K Process Sewer (165-KW) | Process Sewer | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (2/2004) |
| 100-K-61 | 100-K-61; 117-KW Filter Building and Duct Work | Process Unit/Plant | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 100-K-62 | 100-K-62; 117-KE Filter Building | Process Unit/Plant | |
| 100-K-66 | 100-K-66; 165-KW Power Control Building | Control Structure | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 100-K-67 | 100-K-67; 165-KE Power Control Building | Control Structure | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 100-K-68 | 100-K-68; 105-KE Pump Gallery and Catch Tank; D Sump | Catch Tank | Interim Closed Out (10/23/2012) |
| 100-K-69 | 100-K-69; 105-KE Sump C | Sump | Interim Closed Out (10/23/2012) |
| 100-K-70 | 100-K-70; 105-KE Waste Storage Tank; Holding Tank | Storage Tank | Interim Closed Out (10/23/2012) |
| 100-K-71 | 100-K-71; 105-KE Collection Box | Diversion Box | Interim Closed Out (10/23/2012) |
| 100-K-72* | 100-K-72; 105-KW Pump Gallery and Catch Tank; D Sump | Catch Tank | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 100-K-73 | 100-K-73; 105-KW Collection Box | Diversion Box | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 48 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|---|
| 100-K-74 | 100-K-74; 105-KW Waste Storage Tank; Holding Tank | Storage Tank | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 100-K-75 | 100-K-75; 105-KW Sump C | Sump | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 100-K-77 | 100-K-77; Underground Railroad Ties Southeast of 1706KE | Dumping Area | Interim Closed Out (10/4/2011) |
| 100-K-79 | 100-K-79; Sodium Dichromate and Sulfuric Acid Product Pipelines at 100-KE and 100-KW | Product Piping | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (2/2004) |
| 100-K-82 | 100-K-82; 105-KW Fuel Storage Basin Leak | Unplanned Release | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 100-K-84 | 100-K-84; Red Soil Found Southwest of 118-K-1 | Unplanned Release | Interim Closed Out (12/16/2013) |
| 100-K-85 | 100-K-85; 100-K Temporary Construction Pit | Trench | No Action (4/6/2011) |
| 100-K-86 | 100-K-86; 100-K Stain Areas; Four Areas of Stained Soil in 100-K Area | Unplanned Release | Interim Closed Out (12/16/2013) |
| 100-K-87 | 100-K-87; 100-K Asbestos Lagging | Unplanned Release | Interim Closed Out (12/16/2013) |
| 100-K-88 | 100-K-88; Yellow and White Granular Material | Unplanned Release | No Action (4/6/2011) |
| 100-K-89 | 100-K-89; 100-K Burn Site | Burn Pit | Interim Closed Out (8/15/2012) |
| 100-K-90 | 100-K-90; 100-K White Granular Material | Unplanned Release | No Action (4/6/2011) |
| 100-K-91 | 100-K-91; 100-K Battery | Unplanned Release | Interim Closed Out (12/16/2013) |
| 100-K-92 | 100-K-92; 100-K Reddish Stained Gravels | Unplanned Release | Interim Closed Out (12/16/2013) |
| 100-K-95 | 100-K-95; 100-K Tar Dump | Unplanned Release | Interim Closed Out (12/16/2013) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 49 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|------------------------------|--|
| 100-K-97 | 100-K-97; 183-KW French Drain and Rail Spur Unplanned Release | French Drain | Interim Closed Out (6/27/2012) |
| 100-K-98 | 100-K-98; 183-KE French Drain and Rail Spur Unplanned Release | French Drain | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 100-K-99 | 100-K-99; 116-KE-4 Contaminated Soil and Items; Radioactive Material Area Remaining After 107-KE Basin Removal | Unplanned Release | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 100-K-100 | 100-K-100; 116-KW-3 Remaining Contaminated Soil and Items; Radioactive Material Area Remaining After 107-KW Basin Removal | Unplanned Release | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 100-K-101 | 100-K-101; French Drains and Mercury Stained Soils Near the 183KE Sedimentation Basin | French Drain | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 100-K-102 | 100-K-102; French Drains and Mercury Stained Soils Near the 183KW Sedimentation Basin | French Drain | Interim Closed Out (7/10/2012) |
| 100-K-103 | 100-K-103; 1704-K and 1717-K Septic Systems; Additional Components of 1607-K4 | Settling Tank | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 100-K-104 | 100-K-104; 166-KE French Drain and Drain Piping | French Drain | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 100-K-105 | 100-K-105; Pit at Southeast Corner of 100K | Depression/Pit (nonspecific) | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 100-K-106 | 100-K-106; 182-K Fuel Oil Crib | Crib | Interim Closed Out (1/8/2013) |
| 100-K-107 | 100-K-107; 1706-KER Abandoned Drain Field | Drain/Tile Field | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 100-K-108 | 100-K-108; 1706-KER Septic System; 1706-KER Septic Tank; Crib and Sewer Line | Septic Tank | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|---------------------------------|
| 100-K-109 | 100-K-109; Unplanned Chemical Release Near 183.1KW Head House; Yellow Stained Soil Adjacent to 183.1KW Head House | Unplanned Release | Interim Closed Out (11/18/2011) |
| 100-K-110 | 100-K-110; 183KW; 183-KW; Soil Beneath 183.2-KW Flocculation and Sedimentation Basins; the 183.3-KW Sand Filter Basins | Unplanned Release | |
| 100-K-115 | 100-K-115; 1717-K Potential Asbestos in Soil | Dumping Area | |
| 100-K-116 | 100-K-116; 1720-K Potential Asbestos in Soil | Dumping Area | |
| 100-K-118 | 100-K-118; 183.1-KW; 183.1KW Headhouse Building Foundation; Potential Asbestos in Soil | Foundation | |
| 100-K-119 | 100-K-119; 182-K; 182K Potential Asbestos Hazard in Soil | Dumping Area | |
| 100-K-120 | 100-K-120; 110-KW; 110KW Potential Asbestos in Soil | Dumping Area | |
| 100-K-121 | 100-K-121; 115-KE; 115KE Potential Asbestos in Soil | Dumping Area | |
| 100-K-122 | 100-K-122; 1706-KE; 1706KE Potential Asbestos in Soil | Dumping Area | |
| 100-K-123 | 100-K-123; 183.1-KE; 183.1KE Potential Asbestos in Soil | Dumping Area | |
| 100-K-124 | 100-K-124; 183.5-KE; 183.5KE Potential Asbestos in Soil | Dumping Area | |
| 100-K-125 | 100-K-125; 183.6-KE; 183.6KE Potential Asbestos in Soil | Dumping Area | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 51 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|---|
| 100-K-126 | 100-K-126; 183.5-KW; 183.5KW Potential Asbestos in Soil | Dumping Area | |
| 100-K-127 | 100-K-127; 183.6-KW; 183.6KW Potential Asbestos in Soil | Dumping Area | |
| 100-K-128 | 100-K-128; 190-KE; 190KE Potential Asbestos in Soil | Dumping Area | |
| 100-K-129 | 100-K-129; 190-KW; 190KW Potential Asbestos in Soil | Dumping Area | |
| 100-K-130 | 100-K-130; 181KE; 181-KE Pump House Potential Asbestos in Soil | Dumping Area | |
| 100-K-131 | 100-K-131; 1908KE; 1908-KE Water Monitoring Station Potential Asbestos in Soil | Dumping Area | |
| 100-K-132 | 100-K-132; Deep Vadose Zone Contamination Below 118-K-1 Burial Ground | Unplanned Release | |
| 118-K-1 | 118-K-1; 100-K Burial Ground; 118-K | Burial Ground | Interim Closed Out (2/26/2014) |
| 128-K-1 | 128-K-1; 100-K Burning Pit | Burn Pit | Interim Closed Out (8/24/2004) |
| 128-K-2 | 128-K-2; 100-K Construction Dump | Burn Pit | Interim Closed Out (10/18/2012) |
| 130-K-2 | 130-K-2; 1717-K Waste Oil Storage Tank | Storage Tank | Interim Action Record of Decision, 100 Area Remaining Sites (1999)† |
| 1607-K1 | 1607-K1; 124-K-1; 1607-K1 Sanitary Sewer System; 1607-K1 Septic Tank; 1607-K1 Septic Tank and Associated Drain Field | Septic Tank | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 52 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|------------------------|--|
| 1607-K2 | 1607-K2; 124-KE-1; 1607-K2 Sanitary Sewer System; 1607-K2 Septic Tank; 1607-K2 Septic Tank and Associated Drain Field | Septic Tank | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 1607-K3 | 1607-K3; 124-KW-2; 1607-K3 Sanitary Sewer System; 1607-K3 Septic Tank; 1607-K3 Septic Tank and Associated Drain Field | Septic Tank | Interim Closed Out (7/10/2012) |
| 1607-K4 | 1607-K4; 124-K-2; 1607-K4 Sanitary Sewer System; 1607-K4 Septic Tank; 1607-K4 Septic Tank and Associated Drain Field | Septic Tank | Closed Out (3/5/2001) |
| 1607-K5 | 1607-K5; 124-KE-2; 1607-K5 Sanitary Sewer System; 1607-K5 Septic Tank; 1607-K5 Septic Tank and Associated Drain Field | Septic Tank | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 1607-K6* | 1607-K6; 124-KW-1; 1607-K6 Sanitary Sewer System; 1607-K6 Septic Tank; 1607-K6 Septic Tank and Associated Drain Field | Septic Tank | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 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 (1997) |
| 116-KE-2 | 116-KE-2; 1706-KER Waste Crib and Pipelines | Crib | Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1997) |
| 116-KE-3 | 116-KE-3; 105-KE Fuel Storage Basin Storage Basin French Drain; 105-KE 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 (1997) |
| 116-KE-5 | 116-KE-5; 150-KE Heat Recovery Station | Process Unit/Plant | Interim Closed Out (9/23/2005) |
| 118-KE-1 | 118-KE-1; 105-KE Reactor Building Footprint | Unplanned Release | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 53 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|--------------|---|
| 118-KE-2 | 118-KE-2; 105-KE Horizontal Control Rod Storage Cave; Rod Cave | Storage | |
| 120-KE-1 | 120-KE-1; 100-K-26; 100-KE-1; 183-KE Acid Neutralization Pit; 183-KE Filter Waste Facility Dry Well; 183-KE Filter Water Facility | Sump | Interim Action Record of Decision, 100 Area Remaining Sites (1999)† |
| 120-KE-2 | 120-KE-2; 100-KE-2; 183 KE Filter Water Facility; 183-KE Filter Waste Facility French Drain | French Drain | Interim Action 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 Action Record of Decision, 100 Area Remaining Sites (1999)† |
| 120-KE-4 | 120-KE-4; 183-KE1 Sulfuric Acid Storage Tank | Storage Tank | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 120-KE-5 | 120-KE-5; 183-KE2 Sulfuric Acid Storage Tank | Storage Tank | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 120-KE-6 | 120-KE-6; 183-KE Sodium Dichromate Tank | Foundation | Interim action Record of Decision, 100 Area Remaining Sites (1999)† |
| 120-KE-8 | 120-KE-8; 165-KE Brine Mixing Tank; 165-KE Brine Pit | Sump | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 120-KE-9 | 120-KE-9; 183-KE Brine Pit; 183-KE Salt Dissolving Pits and Brine Pump Pit | Sump | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 126-KE-2 | 126-KE-2; 183-KE Liquid Alum Storage Tank #2 | Storage Tank | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 130-KE-1 | 130-KE-1; 105-KE Emergency Diesel Fuel Tank; 105-KE Emergency Diesel Oil Storage Tank | Storage Tank | Interim Closed Out (6/23/2011) |
| 130-KE-2 | 130-KE-2; 166-KE Oil Storage Tank; Oil Bunker | Storage Tank | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 54 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|------------------------|--|
| 132-KE-1 | 132-KE-1; 116-KE Reactor Exhaust Stack | Stack | Interim Closed Out (8/29/2012) |
| 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 Basin Reverse Well; 105-KW Fuel Storage Basin Sub-Basin Drainage Disposal System Crib; 105-KW Storage Basin French Drain | Injection/Reverse Well | Amendment to the Interim Remedial Action Record of Decision, 100-BC-1, 100-DR-1, 100-HR-1 (1997) |
| 116-KW-4 | 116-KW-4; 150-KW Heat Recovery Station | Process Unit/Plant | Interim Closed Out (9/23/2005) |
| 118-KW-1 | 118-KW-1; 105-KW Reactor Building Footprint | Unplanned Release | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 118-KW-2 | 118-KW-2; 105-KW Horizontal Control Rod Storage Cave | Storage | Interim Closed Out (6/14/2011) |
| 120-KW-1 | 120-KW-1; 100-K-17; 100-KW-1; 183-KW Acid Neutralization Pit; 183-KW Filter Water Facility Dry Well | Sump | Interim Closed Out (10/28/2011) |
| 120-KW-2 | 120-KW-2; 100-KW-2; 183-KW Filter Water Facility French Drain | French Drain | Interim Closed Out (10/28/2012) |
| 120-KW-3 | 120-KW-3; 183-KW1 Sulfuric Acid Storage Tank | Storage Tank | Interim Closed Out (10/28/2011) |
| 120-KW-4 | 120-KW-4; 183-KW2 Sulfuric Acid Storage Tank | Storage Tank | Interim Closed Out (10/28/2012) |
| 120-KW-5 | 120-KW-5; 183-KW Sodium Dichromate Storage Tank | Foundation | Interim Closed Out (6/27/2012) |
| 120-KW-6 | 120-KW-6; 165-KW Brine Mixing Tank; 165-KW Brine Pit | Sump | Explanation of Significant Difference for the 100 Area Remaining Sites Interim ROD (8/2009) |
| 120-KW-7 | 120-KW-7; 183-KW Brine Pit; 183-KW Salt Dissolving Pits and Brine Pump Pit | Sump | Interim Closed Out (6/27/2012) |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|---|
| 130-KW-1 | 130-KW-1; 105-KW Emergency Diesel Fuel Tank; 105-KW Emergency Diesel Oil Storage Tank; 130-KW-1A/130-KW-1B Tanks | Storage Tank | Interim Action Record of Decision, 100 Area Remaining Sites (1999)† |
| 130-KW-2 | 130-KW-2; 166-KW Oil Storage Tank | Storage Tank | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 132-KW-1 | 132-KW-1; 116-KW Reactor Exhaust Stack | Stack | 100 Area "Plug-In" and Candidate Waste Sites for Fiscal Year 2010 (3/2011) |
| 600-29 | 600-29; 100-K Construction Lay-down Area; 100-K-41 | Dumping Area | Interim Closed Out (8/15/2012) |
| UPR-100-K-1 | UPR-100-K-1; 105-KE Fuel Storage Basin Leak; UN-100-K-1; UN-116-KE-2 | Unplanned Release | Interim Action Record of Decision, 100 Area Remaining Sites (1999)† |
| 100-NR-1 | Ecology | CPP | |
| 100-N-1 | 100-N-1; HGP Settling Pond; HGP SWMU #6 | Pond | Interim Closed Out (6/15/2004) |
| 100-N-3 | 100-N-3; HGP SWMU #9; Maintenance Garage French Drain; Maintenance Garage Waste Water Treatment Unit | French Drain | Interim Closed Out (6/15/2004) |
| 100-N-4 | 100-N-4; HGP SWMU #5; HGP Tile Field | Drain/Tile Field | Interim Closed Out (6/15/2004) |
| 100-N-5 | 100-N-5; HGP Bone Yard; HGP Disposal and Storage Area; HGP SWMU #10 | Storage | Interim Closed Out (6/15/2004) |
| 100-N-6 | 100-N-6; 128-N-1; 128N-FS-3 | Burn Pit | Interim Closed Out (4/10/2013) |
| 100-N-13 | 100-N-13; Contaminated Soil Solid Waste Site 1 | Unplanned Release | Interim Closed Out (5/16/2012) |
| 100-N-14 | 100-N-14; Contaminated Soil Solid Waste Site 2 | Dumping Area | Interim Closed Out (4/25/2012) |
| 100-N-16 | 100-N-16; 128N-FS-2; Burn Pit 1 | Burn Pit | Interim Closed Out (4/10/2013) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 56 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|---------------------------------|
| 100-N-17 | 100-N-17; 128N-FS-1; Burn Pit 2 | Burn Pit | Interim Closed Out (4/25/2012) |
| 100-N-18 | 100-N-18; Hanford Generating Plant Burn Pit; HGP Burn Pit | Burn Pit | Interim Closed Out (8/2/2012) |
| 100-N-22 | 100-N-22; 1705-N Septic Tank and Cesspool; 1706-NA Sanitary Sewer System | Septic Tank | Interim Closed Out (11/1/2012) |
| 100-N-23 | 100-N-23; Resin Disposal Pit Liquid Waste Site 1 | Process Pit | Interim Closed Out (7/18/2013) |
| 100-N-24 | 100-N-24; Hydrogen Dry Well Liquid Waste Site; Hydrogen Peroxide Drywell | French Drain | Interim Closed Out (7/24/2013) |
| 100-N-25 | 100-N-25; French Drain 1 Liquid Waste Site | French Drain | Interim Closed Out (12/11/2012) |
| 100-N-26 | 100-N-26; French Drain 2 Liquid Waste Site | French Drain | Interim Closed Out (9/26/2012) |
| 100-N-28 | 100-N-28; Resin Disposal Pit Liquid Waste Site 2 | Process Pit | Interim Closed Out (4/3/2013) |
| 100-N-29 | 100-N-29; Unplanned Release on 25-Centimeter (10-Inch) Blowdown Pipeline #1 | Unplanned Release | Interim Closed Out (7/24/2013) |
| 100-N-30 | 100-N-30; Unplanned Release on 10-Inch Blowdown Pipeline #2 | Unplanned Release | Interim Closed Out (7/24/2013) |
| 100-N-31 | 100-N-31; Unplanned Release on 30-Inch Pipe Line | Unplanned Release | Interim Closed Out (9/6/13) |
| 100-N-32 | 100-N-32; Unplanned Release on 25-Centimeter (10-Inch) Blowdown Pipeline #3 | Unplanned Release | Interim Closed Out (9/6/13) |
| 100-N-33 | 100-N-33; 100-N Military Installation Ash Pit | Coal Ash Pit | Interim Closed Out (8/2/2012) |
| 100-N-34 | 100-N-34; Debris Site | Dumping Area | Interim Closed Out (4/25/2012) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 57 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-----------------------|--------------------------------|
| 100-N-35 | 100-N-35; Oil Releases from Hanford Generating Plant (HGP) Substation Equipment | Electrical Substation | Final Rejected (10/8/2014) |
| 100-N-36 | 100-N-36; 107-N Oil Stained Pad | Unplanned Release | Interim Closed Out (4/3/2013) |
| 100-N-37 | 100-N-37; 109-N Asbestos Release | Unplanned Release | Interim Closed Out (7/24/2013) |
| 100-N-38 | 100-N-38; Unplanned Release at 1300-N | Unplanned Release | Interim Closed Out (9/6/13) |
| 100-N-41 | 100-N-41; 1701-NE Gate House Septic Tank; HGP SWMU #9 | Septic Tank | Interim Closed Out (6/15/2004) |
| 100-N-45 | 100-N-45; 1703-N Office Building Septic Tank; HGP SWMU #9 | Septic Tank | Interim Closed Out (6/15/2004) |
| 100-N-46 | 100-N-46; HGP Diesel Oil Storage Tank | Storage Tank | Interim Closed Out (6/15/2004) |
| 100-N-47 | 100-N-47; Military Artillery Site Solid Waste Site | Military Compound | Interim Closed Out (8/2/2012) |
| 100-N-50 | 100-N-50; HGP SWMU #4; Turbine Oil Cleaning System; Turbine Oil Filter Unit | Single-Shell Tank | Interim Closed Out (6/15/2004) |
| 100-N-51 | 100-N-51; 100-N-51A; HGP Building Oil Storage Area; HGP SWMU #2 | Storage | Interim Closed Out (6/15/2004) |
| 100-N-51B | 100-N-51B; HGP Building Floor Drains and Sumps; HGP SWMU #3 | Sump | Interim Closed Out (6/15/2004) |
| 100-N-52 | 100-N-52; HGP Gasoline Storage Tank | Storage Tank | Interim Closed Out (6/15/2004) |
| 100-N-53 | 100-N-53; 181-N Building Waste Oil Tank | Storage Tank | Interim Closed Out (7/24/2013) |
| 100-N-54 | 100-N-54; 151-N Building Drywell; Miscellaneous Stream #727 | French Drain | Interim Closed Out (6/26/2014) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 58 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|--|
| 100-N-55 | 100-N-55; 153-N Building Drywell; Miscellaneous Stream #728 | French Drain | Interim Closed Out (11/5/2012) |
| 100-N-57 | 100-N-57; 1304-N Emergency Dump Tank | Catch Tank | Interim Closed Out (3/20/2013) |
| 100-N-58 | 100-N-58; 120-N South Settling Pond; 1324-N South Settling Pond; South Pond | Pond | Closed Out (3/28/2002) |
| 100-N-59 | 100-N-59; Radioactively Contaminated Soil Northeast of 105-NB Building | Unplanned Release | Interim Closed Out (1/2/2013) |
| 100-N-60 | 100-N-60; 1314-N Drywell | French Drain | Interim Closed Out (3/27/2013) |
| 100-N-61 | 100-N-61; 100-N Water Treatment and Storage Facilities Underground Pipelines | Process Sewer | Interim Closed Out (9/6/2013) |
| 100-N-62 | 100-N-62; 100-N, 105-N, 109-N, 163-N, 182-N, 183-N and 184-N Underground Pipelines | Radioactive Process Sewer | Interim Closed Out (4/3/2013) |
| 100-N-63** | 100-N-63; 100-N Reactor (1314-N, 116-N-1 and 116-N-3) TSD Underground Pipelines | Radioactive Process Sewer | Interim Closed Out (10/10/2013) |
| 100-N-64 | 100-N-64; 100-N Reactor 105/109-N Cooling Water Effluent Underground Pipelines | Radioactive Process Sewer | Interim Closed Out (9/6/2013) |
| 100-N-65 | 100-N-65; Diesel Oil Interceptor Trench; UPR-100-N-17 Interceptor Trench | Trench | Interim Remedial Action Record of Decision, 100-NR-1 and 100-NR-2 (1999) |
| 100-N-66 | 100-N-66; 105-N/109-N Reactor Building Complex | Unplanned Release | |
| 100-N-67 | 100-N-67; HGP Dumping Area | Dumping Area | No Action (9/11/2000) |
| 100-N-68 | 100-N-68; N Basin Low Level Radioactive Water Spill | Unplanned Release | Interim Closed Out (9/6/13) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 59 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|---|
| 100-N-77 | 100-N-77; 100N River Effluent Pipeline; River Line from 1908-N Outfall | Radioactive Process Sewer | |
| 100-N-78 | 100-N-78; 1716-NE Maintenance Garage; HGP SWMU #8 | Maintenance Shop | Interim Closed Out (6/15/2004) |
| 100-N-79 | 100-N-79; 100-N-77:1 Flume; 1908 N Outfall Structure; 1908-N Spillway | Outfall | Interim Closed Out (2/12/2014) |
| 100-N-80 | 100-N-80; River Line from 1908-NE Outfall | Process Sewer | |
| 100-N-81 | 100-N-81; 100-N Kaiser Shops Garnet Sandblasting Material | Dumping Area | Interim Closed Out (5/7/2014) |
| 100-N-82 | 100-N-82; 100-N Decontamination Pad | Unplanned Release | Interim Closed Out (9/9/2014) |
| 100-N-83 | 100-N-83; Two Contamination Areas Found Near 116-N-1 | Unplanned Release | Explanation of Significant Differences for the 100-NR-1 and 100-NR-2 Interim ROD (3/2011) |
| 100-N-84 | 100-N-84; 100-N 100-N Miscellaneous Pipelines | Radioactive Process Sewer | Interim Closed Out (10/1/2014) |
| 100-N-85 | 100-N-85; Gas Station Fuel Tanks | Unplanned Release | Interim Closed Out (9/25/2015) |
| 100-N-86 | 100-N-86; 151-N Substation Transformer and Oil Circuit Breakers | Electrical Substation | Interim Closed Out (3/4/2014) |
| 100-N-87 | 100-N-87; 116-N Ventilation Stack Piping and French Drain | French Drain | Interim Closed Out (7/2/2013) |
| 100-N-88 | 100-N-88; 1143-N French Drain | French Drain | Interim Closed Out (7/2/2013) |
| 100-N-89 | 100-N-89; 117-NVH French Drain | French Drain | Interim Closed Out (10/22/2013) |
| 100-N-90 | 100-N-90; 100-N Reactor Rod Caves | Storage | Interim Closed Out (5/17/2013) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 60 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|--------------------------------|
| 100-N-91 | 100-N-91; 100-N Battery Debris | Dumping Area | Interim Closed Out (5/14/2014) |
| 100-N-92 | 100-N-92; 100-N Stain Area #1 | Dumping Area | No Action (4/5/2012) |
| 100-N-93 | 100-N-93; 100-N Stain Area #2 | Dumping Area | Interim Closed Out (9/9/2014) |
| 100-N-94 | 100-N-94; 100-N Oil Filters #1 | Dumping Area | Interim Closed Out (8/20/2014) |
| 100-N-95 | 100-N-95; Hanford Generating Plant (185-N) Septic Tank | Sanitary Sewer | Interim Closed Out (3/4/2014) |
| 100-N-96 | 100-N-96; 100-N Military Camp Disposal Pits | Dumping Area | Interim Closed Out (9/18/2015) |
| 100-N-97 | 100-N-97; 100-N Oil Filters #2 | Unplanned Release | Interim Closed Out (7/23/2014) |
| 100-N-98 | 100-N-98; 100-N Stain Area #3 | Unplanned Release | Interim Closed Out (4/10/2013) |
| 100-N-99 | 100-N-99; 100-N Oil Filters #3 | Unplanned Release | Interim Closed Out (8/20/2014) |
| 100-N-100 | 100-N-100; 100-N Oil Filters #4 | Unplanned Release | Interim Closed Out (6/23/2014) |
| 100-N-101 | 100-N-101; 100-N Stain Area #4 | Unplanned Release | Interim Closed Out (5/27/2014) |
| 100-N-102 | 100-N-102; 100-N Potentially Contaminated French Drains; Potentially Contaminated French Drains and Drain Lines | French Drain | Interim Closed Out (7/2/2013) |
| 100-N-103 | 100-N-103; 100-N Steam Condensate French Drains | French Drain | Interim No Action (7/9/2012) |
| 100-N-104 | 100-N-104; Raw Water Overflow Spillway | Outfall | Interim Closed Out (9/9/2014) |
| 100-N-106 | 100-N-106; Shallow Petroleum-Only Releases at 100-N; SPOR Releases | Unplanned Release | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 61 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-----------------------|--|
| 100-N-107 | 100-N-107; Bioventing Well Islands; Soil Contamination Adjacent to Bioventing Wells | Unplanned Release | |
| 116-N-1** | 116-N-1; 1301-N Crib and Trench; 1301-N Liquid Waste Disposal Facility | Crib | Interim Closed Out (4/14/2009) |
| 116-N-2 | 116-N-2; 1310-N Chemical Waste Storage Tank; 1310-N Waste Storage Area; The Golf Ball | Storage Tank | Interim Closed Out (5/7/2013) |
| 116-N-3** | 116-N-3; 1325-N Crib and Trench; 1325-N Liquid Waste Disposal Facility | Crib | Interim Closed Out (12/23/2002) Certification of Closure Submittal (4/19/2005) |
| 116-N-4 | 116-N-4; 1300-N Emergency Dump Basin | Retention Basin | Interim Closed Out (5/14/2013) |
| 118-N-1 | 118-N-1; 100-N Area Silos; 100-N Area Spacer Silos; 118-N; 1303-N Radioactive Dummy Burial Facility; 1303-N Spacer Silos | Silo | Interim Closed Out (8/16/2013) |
| 120-N-1** | 120-N-1; 1324-NA Percolation Pond | Pond | RCRA Closure Certification Submitted Feb., 2003 |
| 120-N-2** | 120-N-2; 1324-N Surface Impoundment | Surface Impoundment | RCRA Closure Certification Submitted Feb., 2003 |
| 120-N-3 | 120-N-3; 163-N Neutralization Pit and French Drain | French Drain | Interim Closed Out (3/20/2013) |
| 120-N-4 | 120-N-4; 1310-N Hazardous Waste Storage Area; 1310-N Non-Hazardous Waste Pad; 1310-N Waste Oil Storage Pad | Storage Pad (<90 day) | Interim Closed Out (5/27/2014) |
| 120-N-7 | 120-N-7; 108-N Acid Unloading Facility French Drain | French Drain | Interim Closed Out (7/2/2013) |
| 124-N-1 | 124-N-1; 100-N Sanitary Sewer System No. 1; 124-N-1 Septic Tank; 1607-N1 | Septic Tank | Interim Closed Out (7/2/2013) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 62 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------|--|
| 124-N-2 | 124-N-2; 100-N Sanitary Sewer System No. 2; 124-N-2 Septic Tank; 1607-N2 | Septic Tank | Interim Closed Out (8/21/2013) |
| 124-N-3 | 124-N-3; 100-N Sanitary Sewer System No. 3; 124-N-3 Septic Tank; 1607-N3 | Septic Tank | Interim Closed Out (7/18/2013) |
| 124-N-4 | 124-N-4; 100-N Sanitary Sewer System No. 4; 124-N-4 Septic Tank; 1607-N4 | Septic Tank | Interim Closed Out (7/9/2012) |
| 124-N-9 | 124-N-9; 100-N Sanitary Sewer System No. 9; 124-N-9 Septic Tank; 1607-N9 | Septic Tank | Interim Closed Out (8/5/2013) |
| 124-N-10 | 124-N-10; 100-N Sewage Lagoon; 124-N-10 Sanitary Sewer Lagoon System; 1607-N10; 1904-N 100-N Central Sewer System No. 10; 1904-NA Sanitary Lift Station No.1; Project H-677 | Sewage Lagoon | Interim Closed Out (1/15/2014) |
| 128-N-1 | 128-N-1; 100-N Burning Pit; 128-N-1 Burning Pit | Burn Pit | Interim Closed out (4/10/2013) |
| 130-N-1 | 130-N-1; 126-N-1; 183-N Backwash Discharge Pond; 183-N Filter Backwash Pond | Pond | Interim Closed Out (9/12/2013) |
| 1908-N | 1908-N; 1908-N Outfall | Outfall | Interim Closed Out (9/6/2012) |
| 1908-NE | 1908-NE; 1908-NE Building; HGP Outfall; HGP SWMU #7 | Outfall | Interim Closed Out (11/5/2012) |
| 2607-FSM* | 2607-FSM; 100 Area Fire Station Septic Tank; 1607-FSM; 609 Building Septic Tank 2607-FSM; 6607-FSM | Septic Tank | Explanation of Significant Differences for the 100-NR-1 and 100-NR-2 Interim ROD (3/2011) |
| 600-35 | 600-35; Debris Area Between 100-N and 100-D Areas | Dumping Area | Interim Closed Out (2/1/2012) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 63 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|---|
| 600-339 | 600-339; 100 Area Fire Station Dry Well | French Drain | Explanation of Significant Differences for the 100-NR-1 and 100-NR-2 Interim ROD (3/2011) |
| 600-340 | 600-340; 100 Area Fire Station Soil Stained Areas | Unplanned Release | Interim Closed Out (6/18/2014) |
| 600-347 | 600-347; 100 Area Fire Station Burn Pit | Burn Pit | No Action (11/21/2011) |
| 600-348 | 600-348; 100 Area Fire Station Underground Storage Tanks | Storage Tank | Explanation of Significant Differences for the 100-NR-1 and 100-NR-2 Interim ROD (3/2011) |
| 628-2 | 628-2; 100 Area Fire Station Burn Pit | Burn Pit | Interim Closed Out (4/2/2014) |
| UPR-100-N-1 | UPR-100-N-1; 100-N 1304-N Dump Tank; Emergency Dump Tank Inlet Valve Box Leak; UN-100-N-1 | Unplanned Release | Interim Closed Out (3/20/2013) |
| UPR-100-N-2 | UPR-100-N-2; 100-N FLV-858 Valve Leak; UN-100-N-2 | Unplanned Release | Interim Closed Out (3/20/2013) |
| UPR-100-N-3 | UPR-100-N-3; Dummy Fuel Transfer Line; Spacer Disposal System Transport Line Leak; UN-100-N-3; UN-116-N-3 | Unplanned Release | Interim Closed Out (9/6/13) |
| UPR-100-N-4 | UPR-100-N-4; 1322-A Sump Overflow; UN-100-N-4 | Unplanned Release | Interim Closed Out (8/13/2013) |
| UPR-100-N-5 | UPR-100-N-5; 116-N-2 Radioactive Chemical Waste Treatment Storage Facility; 1310-N Chemical Waste Storage Tank Leak; UN-100-N-5 | Unplanned Release | Interim Closed Out (5/7/2013) |
| UPR-100-N-6 | UPR-100-N-6; 1 1/2 Inch Chemical Decontam. Waste Drain Line Leaks; Chemical Decontamination Waste Drain Line Leak; UN-100-N-6; UN-116-N-6 | Unplanned Release | Interim Closed Out (1/2/2013) |
| UPR-100-N-7 | UPR-100-N-7; Ten-Inch Radioactive Drain Return Line Leak; UN-100-N-7; UN-116-N-7 | Unplanned Release | Interim Closed Out (9/6/13) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 64 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|---|
| UPR-100-N-8 | UPR-100-N-8; 1322-A Sump Overflow; UN-100-N-8 | Unplanned Release | Interim Closed Out (8/13/2013) |
| UPR-100-N-9 | UPR-100-N-9; 119-N Cooling Water Drain Line Leak; UN-100-N-9 | Unplanned Release | Interim Closed Out (7/2/2013) |
| UPR-100-N-10 | UPR-100-N-10; 100-N Area 105-N Check Valve; Lift Station Gravity Drain Line Leak; UN-100-N-10 | Unplanned Release | Interim Closed Out (9/6/13) |
| UPR-100-N-11 | UPR-100-N-11; 100-N Area Valve Bonnet; Five Hundred Pound Valve Bonnet Contamination in Uncontrolled Area; UN-100-N-11 | Unplanned Release | Interim Closed Out (1/26/2012) |
| UPR-100-N-12 | UPR-100-N-12; Spacer Transport Line Leak; UN-100-N-12 | Unplanned Release | Interim Closed Out (9/6/2013) |
| UPR-100-N-13 | UPR-100-N-13; 1314-N Drywell Overflow; 1314-N Loading Station; UN-100-N-13 | Unplanned Release | Interim Closed Out (3/28/2013) |
| UPR-100-N-14 | UPR-100-N-14; 119-N Drain System Leak; UN-100-N-14 | Unplanned Release | Interim Closed Out (7/2/2013) |
| UPR-100-N-17 | UPR-100-N-17; 166-N Diesel Oil Supply Line Leak; UN-100-N-17 | Unplanned Release | Interim Remedial Action Record of Decision, 100-NR-1 and 100-NR-2 (1999) |
| UPR-100-N-18 | UPR-100-N-18; 166-N Four-Inch Diesel Oil Supply Line to 184-N Leak and Affected French Drain; UN-100-N-18 | Unplanned Release | Interim Closed Out (8/16/2013) |
| UPR-100-N-19 | UPR-100-N-19; 184-N Day Tank Fuel Oil Spill; UN-100-N-19; UN-116-N-19 | Unplanned Release | Interim Closed Out (5/31/2013) |
| UPR-100-N-20 | UPR-100-N-20; 166-N Two-Inch Diesel Oil Return Line Leak; UN-100-N-20; UN-116-N-20 | Unplanned Release | Interim Closed Out (8/21/2013) |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 65 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|--------------------------------|
| UPR-100-N-21 | UPR-100-N-21; 184-N Diesel Oil Day Tank Overflow; UN-100-N-21; UN-116-N-21 | Unplanned Release | Interim Closed Out (5/31/2013) |
| 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 | Interim Closed Out (5/31/2013) |
| 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 | Interim Closed Out (5/31/2013) |
| UPR-100-N-24 | UPR-100-N-24; 166-N Fuel Oil Supply Line Leak; UN-100-N-24; UN-116-N-24 | Unplanned Release | Interim Closed Out (8/21/2013) |
| UPR-100-N-25 | UPR-100-N-25; UN-100-N-25; Uncontrolled Venting of 1310-N Tank | Unplanned Release | Interim Closed Out (5/7/2013) |
| UPR-100-N-26 | UPR-100-N-26; Backflow of Radioactive Waste in 1314-N Facility; UN-100-N-26 | Unplanned Release | Interim Closed Out (3/28/2013) |
| UPR-100-N-29 | UPR-100-N-29; 1304-N Dump Tank; Emergency Dump Tank Bypass Line Leak; UN-100-N-29 | Unplanned Release | Interim Closed Out (3/20/2013) |
| UPR-100-N-30 | UPR-100-N-30; 1304-N Dump Tank; Emergency Dump Tank Overflow; UN-100-N-30 | Unplanned Release | Interim Closed Out (3/20/2013) |
| UPR-100-N-31 | UPR-100-N-31; Radioactive Effluent Water Spill Near 116-N-1 (1301-N); UN-100-N-31 | Unplanned Release | Interim Closed Out (8/13/2013) |
| UPR-100-N-32 | UPR-100-N-32; 1304-N Dump Tank; Emergency Dump Tank Bypass Line Leak; UN-100-N-32 | Unplanned Release | Interim Closed Out (3/20/2013) |
| UPR-100-N-36 | UPR-100-N-36; 184N; 184N Annex; Diesel Generator Area Unplanned Release | Unplanned Release | Interim Closed Out (2/26/2013) |
| UPR-100-N-37 | UPR-100-N-37; HGP Transformer Yard Oil Stained Gravel; SWMU #1 | Unplanned Release | Interim Closed Out (6/15/2004) |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------|--------------------------------|
| UPR-100-N-39 | UPR-100-N-39; Corridor 22 Suspect Liquid Unplanned Release (Cleaned Up) | Unplanned Release | Interim Closed Out (9/6/2013) |
| UPR-100-N-42 | UPR-100-N-42; 184-N; 184-N Day Tank Area Liquid Unplanned Release; Day Tank Diesel Oil Spill | Unplanned Release | Interim Closed Out (1/29/2014) |
| UPR-100-N-43 | UPR-100-N-43; 166-N / 184-N Pipelines Liquid Unplanned Release 2 (4/26/89; Cleaned Up) | Unplanned Release | Interim Closed Out (5/31/2013) |
| 100-KR-2 | | | |
| 600-187 | 600-187; West Lake Honey Dump Station | Dumping Area | |
| 600-272 | 600-272; Petroleum-Contaminated Borehole; Well 699-43-2 | Unplanned Release | No Action (10/28/2015) |
| 600-288 | 600-288; Soil Corrosion Test Site | Experiment/Test Site | |
| 600-353 | 600-353; Non-Operational Property Evaluation Zone 1, Areas of Distressed Vegetation and Oil Filter Debris | Dumping Area | |
| 600-354 | 600-354; Non-Operational Property Evaluation Zone 1, Debris Field West of Army Loop Road | Dumping Area | |
| 600-355 | 600-355; Non-Operational Property Evaluation Zone 1, Ridgeline West of Army Loop Road | Dumping Area | |
| 600-359 | 600-359; Non-Operational Property Evaluation Zone 2, Location 1 Debris and Distressed Vegetation | Dumping Area | |
| 600-360 | 600-360; Non-Operational Property Evaluation Zone 2, Location 2 Debris Sites | Dumping Area | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|------------------------------|
| 600-361 | 600-361; Non-Operational Property Evaluation Zone 2, Location 3 Debris Areas | Dumping Area | |
| 600-362 | 600-362; Non-Operational Property Evaluation Zone 2, Location 4 Debris and Anomalies | Dumping Area | |
| 600-363 | 600-363; Non-Operational Property Evaluation Zone 2, Location 5 Debris; Walkdown Area 7 | Dumping Area | |
| 600-364 | 600-364; Non-Operational Property Evaluation Zone 2, Location 6, Electrical Parts Debris, Area 24 | Dumping Area | |
| 600-365 | 600-365; Non-Operational Property Evaluation Zone 2, Debris Landfill Adjacent to 600-228, H-40 Anti-Aircraft Gun Site Debris | Dumping Area | |
| 600-367 | 600-367; Burial Pit Near the Geotechnical Engineering and Development Facility (Little Egypt) | Burial Ground | |
| 600-386 | 600-386; Segment 5 Battery Remnant Area #1 | Dumping Area | Interim Closed Out (9/14/12) |
| 600-387 | 600-387; 212-R Railspur Legacy Contamination | Unplanned Release | |
| 600-388 | 600-388; Non-Operational Property Evaluation Zone 4, Debris Field South of Army Loop Road | Dumping Area | |
| 600-389 | 600-389; Non-Operational Property Evaluation Zone 4, Surface Debris Near 600-49 | Dumping Area | |
| 600-390 | 600-390; Non-Operational Property Evaluation Zone 3, Area of Dried Surface Material | Dumping Area | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-----------------------|-------------------------|
| 600-391 | 600-391; Dumping Area Southeast of H-40 Gun Site | Dumping Area | |
| 600-392 | 600-392; Debris and Radiological Signs West of 212-N | Dumping Area | |
| 600-393 | 600-393; Potential Battery Components Debris Area | Dumping Area | |
| 600-394 | 600-394; Debris and Glass Jars Near OCSA | Dumping Area | |
| 600-395 | 600-395; Bomb Fragments and DDT Canisters | Dumping Area | |
| 600-58 | 600-58; BPA SWMU #13; H.J. Ashe Substation Oil/Water Separator & Drywells | French Drain | |
| 600-59 | 600-59; BPA SWMU #12; Generator Storage Area Sump; H.J. Ashe Substation Storage Area | Storage | |
| 600-60 | 600-60; H.J. Ashe Substation Switchyard Facility | Electrical Substation | |
| 100-OL-1 | Ecology | CPP | |
| 300-FF-1 | Ecology | | |
| 316-5** | 316-5; 300 APT; 300 Area Process Trenches; 3904 Process Waste Trenches | Trench | Closed Out (8/13/1998) |
| 300-FF-1 | EPA | CPP | |
| 300 ASH PITS | 300 ASH PITS; 300 Area Ash Pits; 300 Ash Pits | Coal Ash Pit | Closed Out (12/17/1997) |
| 300 FBP | 300 FBP; 300 Area Filter Backwash Pond | Surface Impoundment | No Action (11/7/2000) |
| 300 RFBP | 300 RFBP; 300 Area Retired Filter Backwash Pond; East Bay of South Process Pond; Pond 5 | Pond | Closed Out (7/23/2003) |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|--------------------------------|
| 300-3 | 300-3; 300-FF-1 Aluminum Hydroxide | Burial Ground | No Action (7/9/1997) |
| 300-44 | 300-44; R-32; UN-300-FF-1; UPR-300-FF-1 | Unplanned Release | Closed Out (12/17/1997) |
| 300-49 | 300-49; Landfill 1a; UN-300-FF-1; UPR-300-FF-1 | Dumping Area | Closed Out (5/28/2003) |
| 300-50 | 300-50; Landfill 1b; UN-300-FF-1; UPR-300-FF-1 | Dumping Area | Closed Out (5/29/2003) |
| 300-51 | 300-51; Landfill 1c; UN-300-FF-1; UPR-300-FF-1 | Dumping Area | No Action (7/9/1997) |
| 300-52 | 300-52; 300 Area Sanitary Trenches | Trench | No Action (7/9/1997) |
| 300-275 | 300-275; Potential Landfill on River Edge | Sanitary Landfill | Interim Closed Out (8/13/2009) |
| 316-1 | 316-1; 300 Area South Process Pond; South (Old) Pond | Pond | Closed Out (7/23/2003) |
| 316-2 | 316-2; 300 Area North Process Pond; North (New) Pond | Pond | Closed Out (8/24/1999) |
| 618-4 | 618-4; 318-4; Burial Ground No. 4 | Burial Ground | Closed Out (7/12/2004) |
| 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 | Closed Out (7/1/2003) |
| 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 | Closed Out (7/23/2003) |
| 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) |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|------------------------|
| 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) |
| 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; Acid Leaks at the 333 Building | Unplanned Release | Closed Out (7/23/2003) |
| UPR-300-33 | UPR-300-33; Waste Leak at the 333 Building | Unplanned Release | Closed Out (7/23/2003) |
| UPR-300-34 | UPR-300-34; Release to the Process Pond | Unplanned Release | Closed Out (7/23/2003) |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|--|
| UPR-300-35 | UPR-300-35; Leak at the 333 Building | Unplanned Release | Closed Out (7/23/2003) |
| UPR-300-36 | UPR-300-36; Acid Leak at the 333 Building | Unplanned Release | Closed Out (7/23/2003) |
| UPR-300-37 | UPR-300-37; 333 Building Leaks | Unplanned Release | Closed Out (7/23/2003) |
| 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; Contaminated Material found at 618-4; UN-600-15 | Unplanned Release | No Action (7/12/2004) |
| 300-FF-2 | Ecology | | |
| 303-M SA** | 303-M SA; 303-M Building Storage Area; 303-M Storage Area | Storage | Interim Closed Out (6/29/2010) |
| 303-M UOF** | 303-M UOF; 303-M Uranium Oxide Facility | Process Unit/Plant | Interim Closed Out (6/29/2010) |
| 300-FF-2 | EPA | CPP | |
| 300 RLWS | 300 RLWS; 300 Area Radioactive Liquid Waste Sewer; 300 Area RLWS | Radioactive Process Sewer | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300 RRLWS | 300 RRLWS; 300 Area Retired Radioactive Liquid Waste Sewer System; 300 Area Retired RLWS; Contaminated Sewer; Crib Waste System; Intermediate Level Radioactive Liquid Waste System | Radioactive Process Sewer | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300 VTS | 300 VTS; 300 Area Vitrification Test Site; In-Situ Vitrification (ISV) Test Site | Process Unit/Plant | Interim Closed Out (3/6/2006) |
| 300-1 | 300-1; Old North Richland Automotive Maintenance Yard | Dumping Area | No Action (2/24/1999) |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|--|
| 300-2 | 300-2; Contaminated Light Water Disposal; Potential Trench Location #1 | Trench | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-4 | 300-4; DOE 351 Substation Soil Contamination | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-5 | 300-5; 300 Area Fire Station Fuel Tanks; 3709A Fire Station | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-6 | 300-6; 366/366A Fuel Oil Bunkers | Storage Tank | Explanation of Significant Difference for the 300-FF-2 Interim ROD (8/2009) |
| 300-7 | 300-7; Possible Early Burial Ground Site; Undocumented Solid Waste Burial Ground Adjacent to 618-8 | Burial Ground | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-8 | 300-8; Aluminum Recycle Storage Area; Aluminum Shavings Area; North of Railroad and North of 618-8 | Dumping Area | Interim Closed Out (10/28/2005) |
| 300-9 | 300-9; Possible Early Burial Ground Sites North of RR and North of 618-8; Solid Waste Burial Ground | Burial Ground | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-10 | 300-10; Burial Trench West of Process Trenches | Burial Ground | Closed Out (12/17/1997) |
| 300-11 | 300-11; 382 Pumphouse UGT; 382-1; Pumphouse Underground Gasoline Tank | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-15* | 300-15; 300 Area Process Sewer System | Process Sewer | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-16 | 300-16; Contamination Found During Utility Pole Replacements; Solid Waste Near 314 Building | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-18 | 300-18; SCA #4; Surface Contaminated Area #4 | Dumping Area | Interim Closed Out (8/25/2005) |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------|---|
| 300-22 | 300-22; 309 Building B-Cell Cleanout Leak | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-24 | 300-24; Soil Contamination at the 314 Metal Extrusion Building | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-28 | 300-28; Contamination Found Along Ginko Street; Solid Waste Site Near 303-G Building | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-29 | 300-29; 305-B Berm; Source Location of UPR-600-11 Contaminated Soil | Unplanned Release | No Action (1/18/2005) |
| 300-32 | 300-32; 333 Building; 333 Building Remaining Soils; 333 N Fuels Manufacturing Building; New Fuel Cladding Facility | Fabrication Shop | Explanation of Significant Difference for the 300-FF-2 Interim ROD (8/2009) |
| 300-33 | 300-33; 306W Metal Fabrication Development Building Releases | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-34 | 300-34; 300 Area Process Sewer Leak (Found During Project L-070 Excavation at Manhole PS-87) | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-40 | 300-40; Corrosion of Vitrified Clay Process Sewer Pipe | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-41 | 300-41; 306E Neutralization Tank; Underground Lime Tank and Valve Pit | Neutralization Tank | Explanation of Significant Difference for the 300-FF-2 Interim ROD (8/2009) |
| 300-43 | 300-43; Unplanned Release Outside the 304 Building | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-45 | 300-45; Location 3: Bird Droppings Area (Southwest Corner of the 316-5 Process Trenches Fence Line); SCA #1; Surface Contamination Area | Unplanned Release | Closed Out (12/17/1997) |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|---|
| 300-46 | 300-46; Soil Contamination and French Drains Surrounding 3706 Building | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-48 | 300-48; 3732 Building Foundation; Thorium Oxide and Fuel Fabrication Chemical Wastes Around 3732 Building | Unplanned Release | Explanation of Significant Difference for the 300-FF-2 Interim ROD (8/2009) |
| 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 | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-109 | 300-109; 333 Building Stormwater Runoff; Miscellaneous Stream #455 | Injection/Reverse Well | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-110 | 300-110; 333 Building Stormwater Runoff; Miscellaneous Stream #456 | Injection/Reverse Well | Interim Closed Out (6/29/2010) |
| 300-121 | 300-121; 3621D Building Stormwater Runoff; Injection Well #26; Miscellaneous Stream #403 | French Drain | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-123 | 300-123; 366 Building Fuel Oil Bunker Loading Station Steam Condensate French Drain; Miscellaneous Stream #342 | French Drain | Explanation of Significant Difference for the 300-FF-2 Interim ROD (8/2009) |
| 300-175 | 300-175; 3714 Building Steam Condensate; Miscellaneous Stream #434 | French Drain | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-214* | 300-214; 300 Area Retention Process Sewer; 300 RPS | Radioactive Process Sewer | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-218 | 300-218; 314; 314A and 314B Buildings; Engineering Development Laboratory | Fabrication Shop | Explanation of Significant Difference for the 300-FF-2 Interim ROD (8/2009) |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|---|
| 300-219 | 300-219; 300 Area Waste Acid Transfer Line | Process Sewer | Explanation of Significant Difference for the 300-FF-2 Interim ROD (8/2009) |
| 300-224 | 300-224; WATS and U-Bearing Piping Trench | Trench | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-251 | 300-251; Unplanned Release Outside the 303-K Building | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| 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 | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-256 | 300-256; 306E Fabrication and Testing Laboratory Releases | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-257 | 300-257; 309 Process Sewer to River | Process Sewer | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-258 | 300-258; Abandoned Pipe Trench Between 334 Tank Farm and 306E | Trench | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-259 | 300-259; Contamination Area Surrounding 618-1 Burial Ground | Unplanned Release | Interim Closed Out (5/11/2010) |
| 300-260 | 300-260; Contaminated Soil West of 313 Building | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-262 | 300-262; Contaminated Soil West of South Process Pond | Unplanned Release | Closed Out (7/23/2003) |
| 300-263 | 300-263; 324 Building Diversion Tank | Catch Tank | Interim Action Record of Decision, 300-FF-2 (2001) |
| 300-265 | 300-265; Pipe Trench Between 324 and 325 Buildings | Radioactive Process Sewer | |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|---|
| 300-268 | 300-268; 3741 Building Foundation; Box Storage Building Foundation; Special Machine Shop | Foundation | |
| 300-269 | 300-269; 331-A Virology Laboratory Foundation | Foundation | |
| 300-270 | 300-270; Unplanned Release at 313 Building | Unplanned Release | |
| 300-273 | 300-273; 366 Bunker Pipeline; Fuel Oil Transfer Pipeline | Product Piping | Explanation of Significant Difference for the 300-FF-2 Interim ROD (8/2009) |
| 300-274 | 300-274; Surface Debris | Dumping Area | Explanation of Significant Difference for the 300-FF-2 Interim ROD (8/2009) |
| 300-276 | 300-276; 300 Area Sanitary Sewer Disposal System; 3607 Sanitary Sewer System; 3607 Sanitary System Miscellaneous Components; 3707 | Sanitary Sewer | Explanation of Significant Difference for the 300-FF-2 Interim ROD (8/2009) |
| 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 Building East Site Storage Pad; 313 East Side Storage Pad | Storage | Interim Action Record of Decision, 300-FF-2 (2001) |
| 313 MT | 313 MT; 313 Building Underground Methanol Storage Tank; 313 Methanol Tank | Storage Tank | Closed Out (2/12/1999) |
| 316-3 | 316-3; 307 Disposal Trenches; Process Water Trenches | Trench | Interim Action Record of Decision, 300-FF-2 (2001) |
| 316-4 | 316-4; 300 North Cribs; 316-N-1; 321 Cribs; 616-4 | Crib | Interim Action Record of Decision, 300-FF-2 (2001) |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------|---|
| 331 LSLDF | 331 LSLDF; 331 Life Sciences Laboratory Drainfield; 331 LSL Drain Field | Drain/Tile Field | No Action (10/16/2008) |
| 331 LSLT1 | 331 LSLT1; 331 Life Sciences Laboratory Trench #1; 331 LSL Trench 1 | Trench | Interim Action Record of Decision, 300-FF-2 (2001) |
| 331 LSLT2 | 331 LSLT2; 331 Life Sciences Laboratory Trench #2; 331 LSL Trench 2 | Trench | Interim Action Record of Decision, 300-FF-2 (2001) |
| 333 ESHWSA | 333 ESHWSA; 333 Building East Side Hazardous Waste Storage Area; 333 East Side HWSA | Storage | Interim Closed Out (6/29/2010) |
| 340 COMPLEX* | 340 COMPLEX; 340 Radioactive Liquid Waste Handling Facility; 340 Vault | Storage Tank | Interim Action Record of Decision, 300-FF-2 (2001) |
| 400-37 | 400-37; Fuel Oil Tank South of 4732-B | Storage Tank | Explanation of Significant Difference for the 300-FF-2 Interim ROD (8/2009) |
| 400-38 | 400-38; Fuel Oil Tank East of 4722-A Building Slab | Storage Tank | Explanation of Significant Difference for the 300-FF-2 Interim ROD (8/2009) |
| 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 | Interim Closed Out (8/25/2005) |
| 600-63* | 600-63; 300-N Lysimeter Area; Buried Waste Test Facility; BWTF; Recharge Study Site; Vadose Zone Field Study - 300 North; VZFS300N | Experiment/Test Site | Interim Action Record of Decision, 300-FF-2 (2001) |
| 600-243 | 600-243; Bioremediation Pad Inside Gravel Pit #6; Oil Contaminated Soil; Petroleum Contaminated Soil Bioremediation Pad; Pit 6 | Surface Impoundment | Interim Closed Out (11/7/2008) |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------|--|
| 600-259 | 600-259; Grout Waste Test Lysimeter; Inactive Lysimeter Site East End; Special Waste Form Lysimeter | Experiment/Test Site | Interim Closed Out (2/6/2006) |
| 600-290 | 600-290; 300 West Storage Area; Contaminated Concrete Foundation West of 618-13; Pad and Loading Dock Near 618-13 | Foundation | |
| 618-1 | 618-1; 300 Area Burial Ground No. 1; 318-1; Solid Waste Burial Ground No. 1 | Burial Ground | Interim Closed Out (6/29/2010) |
| 618-2 | 618-2; 318-2; Solid Waste Burial Ground No. 2 | Burial Ground | Interim Closed Out (12/28/2006) |
| 618-3 | 618-3; 318-3; Burial Ground #3; Dry Waste Burial Ground No. 3; Solid Waste Burial Ground No. 3 | Burial Ground | Interim Closed Out (9/5/2006) |
| 618-5 | 618-5; 318-5; Burial Ground No. 5; Regulated Burning Ground | Burial Ground | Interim Closed Out (7/12/2004) |
| 618-7 | 618-7; 318-7; Burial Ground #7; Solid Waste Burial Ground No. 7 | Burial Ground | Interim Closed Out (1/7/2009) |
| 618-8 | 618-8; 318-8; Early Solid Waste Burial Ground; Solid Waste Burial Ground No. 8 | Burial Ground | Interim Closed Out (8/7/2006) |
| 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 | Interim Action Record of Decision, 300-FF-2 (2001) |
| 618-11 | 618-11; 300 Wye Burial Ground; 318-11; Y Burial Ground | Burial Ground | Interim Action Record of Decision, 300-FF-2 (2001) |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|--|
| 618-13 | 618-13; 303 Building Contaminated Soil Burial Site; 318-13; 618-13 Burial Ground | Burial Ground | Interim Closed Out (11/12/2009) |
| UPR-300-1 | UPR-300-1; 307-340 Waste Line Leak; 316-1A; UN-300-1 | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| UPR-300-2 | UPR-300-2; Releases at the 340 Facility; UN-300-2; UN-316-2 | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| UPR-300-4 | UPR-300-4; Contaminated Soil Beneath the 321 Building; UN-300-4 | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| UPR-300-5 | UPR-300-5; Spill at 309 Storage Basin; UN-300-5 | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| UPR-300-10 | UPR-300-10; Contamination Under 325 Building; UN-300-10 | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| UPR-300-11 | UPR-300-11; UN-300-11; Underground Radioactive Liquid Line Leak Near 340 Facility | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| UPR-300-12 | UPR-300-12; Contaminated Soil Beneath the 325 Building; UN-300-12 | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| UPR-300-17 | UPR-300-17; Metal Shavings Fire; UN-300-17 | Unplanned Release | Interim Closed Out (6/28/2010) |
| UPR-300-38 | UPR-300-38; 313 Slab; Demolished 313 Building Foundation; Soil Contamination Beneath the 313 Building | Unplanned Release | Action Memorandum: #1 for the 300 Area |
| UPR-300-39 | UPR-300-39; Sodium Hydroxide Leak at 311 Tank Farm; UN-300-39 | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| UPR-300-40 | UPR-300-40; Acid Release at the 303-F Pipe Trench; UN-300-31; UN-300-40; UPR-300-31 | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|---|
| UPR-300-41 | UPR-300-41; 300 Area #340 Building Phosphoric Acid Spill; UN-300-41 | Unplanned Release | Closed Out (2/24/1999) |
| UPR-300-42 | UPR-300-42; 300 Area Powerhouse Fuel Oil Spill; UN-300-42 | Unplanned Release | Explanation of Significant Difference for the 300-FF-2 Interim ROD (8/2009) |
| UPR-300-45 | UPR-300-45; 303-F Building Uranium-Bearing Acid Spill; UN-300-45 | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| UPR-300-46 | UPR-300-46; Contamination North of 333 Building | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| UPR-300-48 | UPR-300-48; 325 Building Basement Topsy Pit | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| UPR-600-22 | UPR-600-22; 600-21; WPPSS Windrow Site | Unplanned Release | Interim Action Record of Decision, 300-FF-2 (2001) |
| 200-BC-1 | EPA | CPP | |
| 200-E-14 | 200-E-14; 216-B-201; 216-BC-201 Flush Tank; 216-BC-201 Siphon Tank | Storage Tank | |
| 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-B-20 Trench; 216-BC-7 Trench | Trench | |
| 216-B-21 | 216-B-21; 216-B-21 Trench; 216-BC-8 Trench | Trench | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-----------|--------|
| 216-B-22 | 216-B-22; 216-B-22 Trench; 216-BC-9 Trench | Trench | |
| 216-B-23 | 216-B-23; 216-B-23 Trench; 216-BC-10 Trench | Trench | |
| 216-B-24 | 216-B-24; 216-B-24 Trench; 216-BC-11 Trench | Trench | |
| 216-B-25 | 216-B-25; 216-B-25 Trench; 216-BC-12 Trench | Trench | |
| 216-B-26 | 216-B-26; 216-B-26 Trench; 216-BC-13 Trench | Trench | |
| 216-B-27 | 216-B-27; 216-B-27 Trench; 216-BC-14 Trench | Trench | |
| 216-B-28 | 216-B-28; 216-B-28 Trench; 216-BC-15 Trench | Trench | |
| 216-B-29 | 216-B-29; 216-BC-16 Trench | Trench | |
| 216-B-30 | 216-B-30; 216-B-30 Trench; 216-BC-17 Trench | Trench | |
| 216-B-31 | 216-B-31; 216-B-31 Trench; 216-BC-18 Trench | Trench | |
| 216-B-32 | 216-B-32; 216-B-32 Trench; 216-BC-19 Trench | Trench | |
| 216-B-33 | 216-B-33; 216-B-33 Trench; 216-BC-20 Trench | Trench | |
| 216-B-34 | 216-B-34; 216-BC-21 Trench | Trench | |
| 216-B-52 | 216-B-52; 216-B-52 Trench; 216-BC-22 | Trench | |
| 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 | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|--|
| 216-B-58 | 216-B-58; 216-B-58 Trench; 216-B-59 Crib | Trench | |
| 200-CB-1 | Ecology | CPP | |
| 221-B | 221-B; B Plant Canyon; B Plant Facility | Process Unit/Plant | WIDS entry to be updated to reflect scope of this unit |
| 216-B-4 | 216-B-4; 216-B-4 Dry Well; 216-B-4 French Drain; 216-B-4 Reverse Well | Injection/Reverse Well | |
| 216-B-6 | 216-B-6; 216-B-6 Crib; 216-B-6 Dry Well; 222-B-110 Dry Well; 222-B-110 Reverse Well | Injection/Reverse Well | |
| 216-B-13 | 216-B-13; 216-B-13 Crib; 216-B-13 French Drain; 216-B-B; 291-B Crib | French Drain | |
| 216-B-60 | 216-B-60; 216-B-60 Crib | Crib | |
| 241-BX-154 | 241-BX-154; 241-BX-154 Diversion Box | Diversion Box | |
| 241-BX-302B | 241-BX-302B; 241-BX-302-B Catch Tank; Line V288 and V289 | Catch Tank | |
| 200-E-6 | 200-E-6; Sanitary Sewer Repair and Replacement 2607-E4; Septic Tank | Septic Tank | |
| 200-E-30 | 200-E-30; 221-B Stack Sand Filter; 291-B Sand Filter | Sand Filter | |
| 200-E-55 | 200-E-55; Effluent Drain East of 291-B Sand Filter; Miscellaneous Stream #322 | French Drain | |
| 200-E-214-PL | 200-E-214-PL; Pipeline from 291-B Sand Filter to the 200-E-55 French Drain | Radioactive Process Sewer | |
| 200-E-230-PL | 200-E-230-PL; Pipeline from 292-B to 216-B-4 Reverse Well | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|--------|
| 200-E-243-PL | 200-E-243-PL; Pipeline from 291-B-1 Stack to the 216-B-13 French Drain | Radioactive Process Sewer | |
| 2607-E4 | 2607-E4; 2607-E4 Septic Tank and Tile Field | Septic Tank | |
| UPR-200-E-1 | UPR-200-E-1; Waste Line Failure on South Side of 221-B | Unplanned Release | |
| UPR-200-E-2 | UPR-200-E-2; Spotty Contamination Around the B and T Plant Stacks; UN-200-E-2 | Unplanned Release | |
| UPR-200-E-3 | UPR-200-E-3; Line Leak from 221-B to 241-BX-154; UN-200-E-3 Line Failure | Unplanned Release | |
| UPR-200-E-44 | UPR-200-E-44; BCS Waste Line Leak South of 221-B; UN-200-E-44 | Unplanned Release | |
| UPR-200-E-52 | UPR-200-E-52; Contamination Spread Outside the North Side of 221-B; UN-200-E-52 | Unplanned Release | |
| UPR-200-E-54 | UPR-200-E-54; Contamination Outside 225-B Doorway; UN-200-E-54 | Unplanned Release | |
| UPR-200-E-55 | UPR-200-E-55; Contamination Spread South of B Plant; UN-200-E-55 | Unplanned Release | |
| UPR-200-E-80 | UPR-200-E-80; 221-B R-3 Line Break; R-3 Radiation Zone; UN-200-E-80; UN-216-E-8 | Unplanned Release | |
| UPR-200-E-85 | UPR-200-E-85; Line Leak at 221-B Stairwell R-13; UN-200-E-41; UN-200-E-85; UN-216-E-13; UPR-200-E-41 | Unplanned Release | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|--------------------|--|
| UPR-200-E-87 | UPR-200-E-87; 216-E-15; 224-B South Side Plutonium Ground Contamination; UN-200-E-87; UN-216-E-15 | Unplanned Release | |
| UPR-200-E-103 | UPR-200-E-103; BCS Line Leak South of R-17 at 221-B; UN-200-E-103 | Unplanned Release | |
| 200-CP-1 | Ecology | CPP | |
| 202-A | 202-A; PUREX Canyon; PUREX Facility | Process Unit/Plant | WIDS entry to be updated to reflect the scope of this unit |
| 216-A-2 | 216-A-2; 216-A-2 Cavern; 216-A-2 Crib | Crib | |
| 216-A-4 | 216-A-4; 216-A-4 Cavern; 216-A-4 Crib | Crib | |
| 216-A-5 | 216-A-5; 216-A-5 Cavern; 216-A-5 Crib | Crib | |
| 216-A-11 | 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 | |
| 216-A-14 | 216-A-14; French Drain - Vacuum Cleaner Filter Pit; Miscellaneous Stream #462 | French Drain | |
| 216-A-15 | 216-A-15; Miscellaneous Stream #461 | French Drain | |
| 216-A-21 | 216-A-21; 216-A-21 Crib | Crib | |
| 216-A-22 | 216-A-22; 216-A-22 Crib; 216-A-22 French Drain | Crib | |
| 216-A-28 | 216-A-28; 216-A-28 Crib; 216-A-28 French Drain | Crib | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 85 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|------------------------|--------|
| 216-A-32 | 216-A-32; 216-A-32 Crib | Crib | |
| 216-A-33 | 216-A-33; 216-A-26B; 216-A-33 Dry Well | French Drain | |
| 216-A-35 | 216-A-35; 216-A-35 Dry Well; 216-A-35 French Drain | French Drain | |
| 200-E-44 | 200-E-44; PUREX Railroad Cut | Unplanned Release | |
| 200-E-58 | 200-E-58; 216-A-5 Neutralization Tank; 216-A-5 NU; 270A; Tank A5 | Neutralization Tank | |
| 200-E-65 | 200-E-65; 202A Building Steam Condensate; Miscellaneous Stream #466 Injection Well (R) | Injection/Reverse Well | |
| 200-E-67 | 200-E-67; 202A Building Steam Condensate; Miscellaneous Stream #494 | Injection/Reverse Well | |
| 200-E-68 | 200-E-68; 291A Control House Steam Condensate; Injection Well (L); Miscellaneous Stream #59 | Injection/Reverse Well | |
| 200-E-70 | 200-E-70; Injection Well (Q); Line #8801 Steam Condensate; Miscellaneous Stream #64 | Injection/Reverse Well | |
| 200-E-71 | 200-E-71; Injection Well (O); Line #8801 Steam Condensate; Miscellaneous Stream #63 | Injection/Reverse Well | |
| 200-E-73 | 200-E-73; Injection Well (M); Line #8801 Steam Condensate; Miscellaneous Stream #61 | Injection/Reverse Well | |
| 200-E-74 | 200-E-74; Injection Well (N); Line #8801 Steam Condensate; Miscellaneous Stream #62 | Injection/Reverse Well | |
| 200-E-77 | 200-E-77; Injection Well (S); Line #8801 Steam Condensate; Miscellaneous Stream #65 | Injection/Reverse Well | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------|--------|
| 200-E-79 | 200-E-79; Injection Well (T); Line #8801 Steam Condensate; Miscellaneous Stream #66 | Injection/Reverse Well | |
| 200-E-84 | 200-E-84; 202A Building Steam Condensate; Injection Well (C); Miscellaneous Stream #58 | Injection/Reverse Well | |
| 200-E-102 | 200-E-102; Contaminated Soil Trench | Trench | |
| 200-E-103 | 200-E-103; PUREX Stabilized Area; Radiologically Controlled Area - South Side of PUREX | Unplanned Release | |
| 200-E-107 | 200-E-107; Contamination Area East of PUREX; PUREX E Field | Unplanned Release | |
| 200-E-189 | 200-E-189; 216-A-TK-1 Carbonate Neutralization Tank | Neutralization Tank | |
| 200-E-190 | 200-E-190; 216-A-TK-2 Catch Tank | Catch Tank | |
| 200-E-194-PL | 200-E-194-PL; Pipeline from 202-A to 216-A-32 Crib | Radioactive Process Sewer | |
| 200-E-224-PL | 200-E-224-PL; 241-A-151 Diversion Box Drain Line to 241-A-302A Catch Tank; Line V027 and Line V028 | Encased Tank Farm Pipeline | |
| 200-E-242-PL | 200-E-242-PL; Pipeline from 216-A-5 Sample Pit #4 to 216-A-15 French Drain | Radioactive Process Sewer | |
| 200-E-266-PL | 200-E-266-PL; Pipeline from PUREX Trap Pit #1 to 216-A-11 French Drain | Radioactive Process Sewer | |
| 200-E-267-PL | 200-E-267-PL; Pipeline from PUREX Trap Pit #3 to 216-A-12 French Drain | Radioactive Process Sewer | |
| 200-E-268-PL | 200-E-268-PL; Line T073; Pipeline from PUREX Vacuum Cleaner Filter Box to 216-A-14 French Drain | Radioactive Process Sewer | |
| 200-E-269-PL | 200-E-269-PL; Pipeline from 291-A Fan Building to 216-A-33 French Drain | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 87 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|--|
| 200-E-272-PL | 200-E-272-PL; Pipeline from 202-A to 216-A-35 French Drain | Radioactive Process Sewer | |
| 200-E-273-PL | 200-E-273-PL; Pipeline to 202-A Cooling Water Header and 216-A-13 French Drain | Radioactive Process Sewer | |
| 200-E-303 | 200-E-303; PUREX Nitric Acid Line Leak | Unplanned Release | |
| 218-E-14** | 218-E-14; PUREX Storage Tunnel; PUREX Tunnel No. 1 | Storage | |
| 218-E-15** | 218-E-15; PUREX Storage Tunnel; PUREX Tunnel No. 2 | Storage | |
| 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; Line V028 | Catch Tank | |
| 2607-EE | 2607-EE; 2607-EE Septic System | Septic Tank | |
| UPR-200-E-17 | UPR-200-E-17; Overflow at 216-A-22; UN-200-E-17 | 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-35 | UPR-200-E-35; 218-E-13; Buried Contaminated Pipe; UN-218-E-1 | Unplanned Release | |
| UPR-200-E-39 | UPR-200-E-39; Release from 216-A-36B Crib Sampler Shack (295-A); UN-200-E-39 | Unplanned Release | |
| UPR-200-E-96 | UPR-200-E-96; Ground Contamination SE of PUREX; UN-200-E-96; UN-216-E-24 | Unplanned Release | |
| 200-CR-1 | EPA | CPP | |
| 202-S | 202-S; 202-S REDOX; S Plant | Process Unit/Plant | WIDS entry to be updated to reflect the scope of this unit |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------------------------|--|
| 240-S-151** | 240-S-151; 240-S-151 Diversion Box | Diversion Box | |
| 240-S-302** | 240-S-302; 240-S-302 Catch Tank | Catch Tank | |
| 2904-S-170 | 2904-S-170; 2904-S-170 Control Structure; 2904-S-170 Weir Box | Control Structure | |
| 200-W-190-PL** | 200-W-190-PL; Drain Lines from 240-S-151 Diversion Box to 240-S-302 Catch Tank; Lines V554, V556 | Direct Buried Tank Farm Pipeline | |
| 218-W-7 | 218-W-7; 222-S Vault | Burial Ground | |
| UPR-200-W-43 | UPR-200-W-43; Contaminated Blacktop East of 233-S; UN-200-W-43 | 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; 233-S Fire; UN-200-W-57; UPR-200-E-120 (error in area number assignment) | Unplanned Release | |
| UPR-200-W-61 | UPR-200-W-61; REDOX Ground Contamination; UN-200-W-61 | Unplanned Release | |
| UPR-200-W-96 | UPR-200-W-96; 233-S Floor Overflow; 233-SA Floor Overflow; UN-216-W-4 | Unplanned Release | |
| 200-CU-1 | EPA | CPP | |
| 221-U | 221-U; 221-U Building; 221-U Canyon Building; 276-U; U Plant | Process Unit/Plant | WIDS entry to be updated to reflect the scope of this unit as defined in Record of Decision 221-U Facility (Canyon Disposition Initiative) |
| 271-U | 271-U; 271-U Building; 271-U Office Building | Office | WIDS entry to be updated to reflect the scope of this unit as defined in Record of Decision 221-U Facility (Canyon Disposition Initiative) |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|--------------------|--|
| 291-U | 291-U; 291-U Fan Control House | Process Unit/Plant | WIDS entry to be updated to reflect the scope of this unit as defined in Record of Decision 221-U Facility (Canyon Disposition Initiative) |
| 291-U-1 | 291-U-1; 221-U Stack; 291-U Stack; 291-U-1 Stack | Stack | WIDS entry to be updated to reflect the scope of this unit as defined in Record of Decision 221-U Facility (Canyon Disposition Initiative) |
| 292-U | 292-U; 291-U Stack Exhaust Monitoring Building; 292-U Stack Monitoring Station | Process Unit/Plant | WIDS entry to be updated to reflect the scope of this unit as defined in Record of Decision 221-U Facility (Canyon Disposition Initiative) |
| 200-CW-1 | EPA | CPP | |
| 216-A-25 | 216-A-25; 216-A-25 Swamp; Gable Mountain Pond; Gable Mountain Swamp; Gable Pond | Pond | |
| 216-B-3** | 216-B-3; 216-B-3 Main Pond; 216-B-3 Swamp; B Plant Swamp; B Pond; B Swamp; B-3 Pond; West Side Overflow Pond | Pond | |
| 216-B-3A RAD | 216-B-3A RAD; 216-B-3 1st Overflow Pond; 216-B-3A Expansion Lobe Residual Radioactive Waste; West Expansion Lobe | Pond | |
| 216-B-3B RAD | 216-B-3B RAD; 216-B-3B Expansion Lobe Residual Radioactive Waste; East Expansion Lobe | Pond | |
| 216-B-3C RAD | 216-B-3C RAD; 216-B-3C Expansion Lobe Residual Radioactive Waste | Pond | |
| 216-S-16P | 216-S-16P; 202-S Swamp #1; 202-S Swamp and Ditch; REDOX Pond #2 | Pond | |
| 216-S-17 | 216-S-17; 202-S REDOX Swamp; 202-S Swamp; 216-S-1; 216-S-1 REDOX Pond No. 1; REDOX Swamp | Pond | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|------------------------------|--|
| 216-U-9 | 216-U-9; 216-U-6; U Swamp-S Swamp Ditch | Ditch | |
| 216-U-10 | 216-U-10; 216-U-1; 216-U-10 Pond; 231 Swamp; U Pond; U Swamp | Pond | |
| 216-U-11 | 216-U-11; 216-U-11 (New Ditch); 216-U-11 (Old Ditch); 216-U-11 Ditch; 216-U-11 Trench; 216-U-12; U Swamp Extension Ditch | Ditch | |
| UPR-200-W-124 | UPR-200-W-124; Dike Break at the REDOX Pond; UN-200-W-124 | Unplanned Release | |
| 200-CW-3 | EPA | CPP | |
| 200-N-3 | 200-N-3; Ballast Pits | Depression/Pit (nonspecific) | |
| 216-N-1 | 216-N-1; 212-N Swamp; 216-N-1 Covered Pond; 216-N-1 Swamp | Pond | Interim Record of Decision, 100 Area Remaining Sites (1999)† |
| 216-N-2 | 216-N-2; 212-N #1 Trench; 212-N Storage Basin Crib #1; 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 #2 Grave; 212-N #2 Trench; 212-N Storage Basin Crib #2; 212-N-2 Trench; 216-N-3 Trench | Trench | Interim Record of Decision, 100 Area Remaining Sites (1999)† |
| 216-N-4 | 216-N-4; 212-P Swamp; 216-N-2; 216-N-4 Swamp | Pond | Interim Record of Decision, 100 Area Remaining Sites (1999)† |
| 216-N-5 | 216-N-5; 212-P Grave; 212-P Storage Basin Crib; 212-P Trench; 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 Grave; 212-R Storage Basin Crib; 212-R Trench; 216-N-7 Trench | Trench | Interim Record of Decision, 100 Area Remaining Sites (1999)† |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 91 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|--------|
| 2607-N | 2607-N; 2743-N Guard House Septic Tank and Tile Field | Septic Tank | |
| 2607-P | 2607-P; 2743-P Guard House Septic Tank and Tile Field | Septic Tank | |
| 2607-R | 2607-R; 2743-R Guard House Septic Tank and Tile Field | Septic Tank | |
| 600-285-PL | 600-285-PL; Pipeline from 212-N to 216-N-1 Pond | Radioactive Process Sewer | |
| 600-286-PL | 600-286-PL; Pipeline from 212-P to 216-N-4 Pond | Radioactive Process Sewer | |
| 600-287-PL | 600-287-PL; Pipeline from 212-R to 216-N-6 Pond | Radioactive Process Sewer | |
| UPR-200-N-1 | UPR-200-N-1; Unplanned Release at the 212-R Railroad Spur | Unplanned Release | |
| UPR-200-N-2 | UPR-200-N-2; 200-N-2; Unplanned Release Near Well Pumphouse No. 2; Well Pumphouse East of 212-R | Unplanned Release | |
| 200-CW-5 | EPA | CPP | |
| 216-Z-1D | 216-Z-1D; 216-Z-1; Drainage 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; 216-Z-19 Ditch; Z Plant Ditch | Ditch | |
| 216-Z-20 | 216-Z-20; Z-19 Ditch Replacement Tile Field | Crib | |
| UPR-200-W-110 | UPR-200-W-110; Contaminated Soil from 216-Z-1; UN-216-W-20 Spoil Trench | Trench | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|------------------------|--------|
| 200-DV-1 | Ecology | R-CPP | |
| 216-B-5 | 216-B-5; 241-B-361 Dry Well; 241-B-361 Reverse Well; 241-B-5 Dry Well; 299-E28-29 | Injection/Reverse Well | |
| 216-B-7A&B | 216-B-7A&B; 216-B-7 Crib; 216-B-7A & B; 216-B-7A Sump; 216-B-7B Sump; 241-B-1 and 2 Cribs; 241-B-201 Crib | Crib | |
| 216-B-8 | 216-B-8; 216-B-8TF; 241-B-3 Crib | Crib | |
| 216-B-9 | 216-B-9; 216-B-361 Crib; 216-B-9TF; 241-B-361 Crib; 5-6 Crib and Tile Field | Crib | |
| 216-B-11A&B | 216-B-11A&B; 216-B-11 Crib; 216-B-11A & B; 216-B-11B; 242-B-1 Crib | French Drain | |
| 216-B-35 | 216-B-35; 216-B-35 Trench; 216-BX-1 Trench; 241-BX-1 Grave | Trench | |
| 216-B-36 | 216-B-36; 216-B-36 Trench; 216-BX-2 Trench; 241-BX-2 Grave | Trench | |
| 216-B-37 | 216-B-37; 216-B-37 Trench; 216-BX-3 Trench; 241-BX-3 Grave | Trench | |
| 216-B-38 | 216-B-38; 216-B-38 Trench; 216-BX-4 Trench; 241-BX-4 Grave | Trench | |
| 216-B-39 | 216-B-39; 216-B-39 Trench; 216-BX-5 Trench; 241-BX-5 Grave | Trench | |
| 216-B-40 | 216-B-40; 216-B-40 Trench; 216-BX-6 Trench; 241-BX-6 Grave; 241-BX-6 Trench | Trench | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-----------|--------|
| 216-B-41 | 216-B-41; 216-B-41 Trench; 216-BX-7 Trench; 241-BX-7 Grave | Trench | |
| 216-B-42 | 216-B-42; 216-B-42 Trench; 216-BX-8 Trench; 241-BX-8 Grave | Trench | |
| 216-B-43 | 216-B-43; 216-BY-1 Cavern; 216-BY-1 Crib | Crib | |
| 216-B-44 | 216-B-44; 216-BY-2 Cavern; 216-BY-2 Crib | Crib | |
| 216-B-45 | 216-B-45; 216-BY-3 Cavern; 216-BY-3 Crib | Crib | |
| 216-B-46 | 216-B-46; 216-BY-4 Cavern; 216-BY-4 Crib | Crib | |
| 216-B-47 | 216-B-47; 216-BY-5 Cavern; 216-BY-5 Crib | Crib | |
| 216-B-48 | 216-B-48; 216-BY-6 Cavern; 216-BY-6 Crib | Crib | |
| 216-B-49 | 216-B-49; 216-BY-7 Cavern; 216-BY-7 Crib | Crib | |
| 216-B-50 | 216-B-50; 216-BY-8 Cavern; 216-BY-8 Crib | Crib | |
| 216-B-57 | 216-B-57; 200-BP-1 Prototype Barrier; 216-B-57 Enclosed Trench; Hanford Prototype Barrier | Crib | |
| 200-E-45 | 200-E-45; Contaminated Pump Run-in Caisson; Health Instrument Shaft; HI Shaft | Silo | |
| 216-S-9 | 216-S-9; 216-S-9 Crib | Crib | |
| 216-S-13 | 216-S-13; 216-S-6; 276-S Crib | Crib | |
| 216-S-21 | 216-S-21; 216-SX-1; 216-SX-1 Cavern or Crib | Crib | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|------------------------|--------|
| 216-T-3 | 216-T-3; 241-T-361-A Reverse Well; 361-T Reverse Well | Injection/Reverse Well | |
| 216-T-5 | 216-T-5; 216-T-12; 216-T-5 Grave; 216-T-5 Trench; 241-T-5 Trench | Trench | |
| 216-T-6 | 216-T-6; 216-T-5; 241-T-361 (1&2 Cribs); 361-T-1&2 Cribs | Crib | |
| 216-T-7 | 216-T-7; 216-T-7 Tile Field; 216-T-7TF; 241-T-3 Tile Field | Crib | |
| 216-T-14 | 216-T-14; 216-T-1 Grave; 216-T-13; 241-T-1 Trench | Trench | |
| 216-T-15 | 216-T-15; 216-T-14; 216-T-15 Crib; 241-T-2 Grave; 241-T-2 Trench | Trench | |
| 216-T-16 | 216-T-16; 216-T-15; 216-T-16 Crib; 241-T-3 Grave; 241-T-3 Trench | Trench | |
| 216-T-17 | 216-T-17; 216-T-16; 216-T-4 Grave; 241-T-4 Trench | Trench | |
| 216-T-18 | 216-T-18; 216-T-17; 241-T-17 Crib; Scavenged TBP Waste; Test Crib for 221-U Building | Crib | |
| 216-T-19 | 216-T-19; 216-T-19TF; 216-TX-1; 241-TX-153 Crib and Tile Field; 241-TX-3 | Crib | |
| 216-T-21 | 216-T-21; 216-TX-1 Grave; 216-TX-3; 241-TX-1 Trench | Trench | |
| 216-T-22 | 216-T-22; 216-TX-2 Grave; 216-TX-4; 241-TX-2 Trench | Trench | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-----------------|--------|
| 216-T-23 | 216-T-23; 216-TX-3 Grave; 216-TX-5; 241-TX-3 Grave; 241-TX-3 Trench | Trench | |
| 216-T-24 | 216-T-24; 216-TX-4 Grave; 216-TX-6; 241-TX-4 Trench | Trench | |
| 216-T-25 | 216-T-25; 216-TX-5 Grave; 216-TX-7; 241-TX-5 Trench | Trench | |
| 216-T-26 | 216-T-26; 216-TX-1 Crib; 216-TY-1 Cavern; 216-TY-1 Crib; 241-TX-1 Cavern | Crib | |
| 216-T-32 | 216-T-32; 216-T-6; 241-T #1 & 2 Cribs | Crib | |
| 200-EA-1 | Ecology | R-CPP | |
| 207-A-NORTH | 207-A-NORTH; 207-A; 207-A North; 207-A Retention Basin; 207-A-NORTH Retention Basin | Retention Basin | |
| 207-A-SOUTH** | 207-A-SOUTH; 207-A; 207-A Retention Basin; 207-A South; 207-A-SOUTH Retention Basin and Pump Pit | Retention Basin | |
| 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-6 | 216-A-6; 216-A-6 Cavern; 216-A-6 Crib | Crib | |
| 216-A-9 | 216-A-9; 216-A-9 Crib | Crib | |
| 216-A-10 | 216-A-10; 216-A-10 Crib | Crib | |
| 216-A-18 | 216-A-18; 216-A-18 Crib; 216-A-18 Excavation; 216-A-18 Grave; 216-A-18 Sump | Trench | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-----------------|--------|
| 216-A-19 | 216-A-19; 216-A-19 Crib; 216-A-19 Grave; 216-A-19 Sump; 216-A-19 Test Hole | Trench | |
| 216-A-20 | 216-A-20; 216-A-20 Crib; 216-A-20 Grave; 216-A-20 Sump; 216-A-20 Test Hole | Trench | |
| 216-A-27 | 216-A-27; 216-A-27 Crib | Crib | |
| 216-A-29** | 216-A-29; 216-A-29 Ditch; A-29 Ditch; PUREX Chemical Sewer Ditch; Snow's Canyon | Ditch | |
| 216-A-30 | 216-A-30; 216-A-30 Crib | Crib | |
| 216-A-34 | 216-A-34; 216-A-34 Crib; 216-A-34 Ditch | Ditch | |
| 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-A-37-1** | 216-A-37-1; 216-A-37 Crib | Crib | |
| 216-A-37-2 | 216-A-37-2; 216-A-37-2 Crib | Crib | |
| 216-A-38-1 | 216-A-38-1; 216-A-38 Crib | Crib | |
| 216-A-40 | 216-A-40; 216-A-39 Crib; 216-A-39 Trench; 216-A-40 Retention Basin; Lines 321, 322 and 324 | Retention Basin | |
| 216-A-41 | 216-A-41; 216-A-41 Crib; 291-AR Stack Drain; 296-A-13 Stack Drain | Crib | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-----------------|--------|
| 216-A-42 | 216-A-42; 207-AA Retention Basin; 216-A-42 Retention Basin; 216-A-42 Trench; 216-A-42A Pump Pit; 216-A-42B Valve Box; 216-A-42C Diversion Box | Retention Basin | |
| 216-A-45 | 216-A-45; 216-A-45 Crib | Crib | |
| 207-B | 207-B; 207-B Retention Basin; B Plant Retention Basin | Retention Basin | |
| 216-B-2-1 | 216-B-2-1; 216-B-1; 216-B-2; 216-B-2W; B Ditch; B Swamp Ditch | Ditch | |
| 216-B-2-2 | 216-B-2-2; 216-B-1 Ditch; 216-B-2-2W | Ditch | |
| 216-B-2-3 | 216-B-2-3; 216-B-2-3W; B Pond Ditch; B Swamp Ditch | Ditch | |
| 216-B-10A | 216-B-10A; 216-B-10 Crib; 222-B-1 Crib; 292-B Drainage | Crib | |
| 216-B-10B | 216-B-10B; 216-B-10 Crib; 222-B-2 Crib | Crib | |
| 216-B-12 | 216-B-12; 216-ER Crib; 216-ER-1,2,3 Cribs | Crib | |
| 216-B-51 | 216-B-51; 216-BY-9 Crib | French Drain | |
| 216-B-55 | 216-B-55; 216-B-55 Crib; 216-B-55 Enclosed Trench | Crib | |
| 216-B-59 | 216-B-59; 216-B-58 Ditch; 216-B-58 Trench | Trench | |
| 216-B-59B | 216-B-59B; 216-B-59 Retention Basin | Retention Basin | |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|------------------------|--------|
| 216-B-62 | 216-B-62; 216-B-62 Crib; 216-B-62 Enclosed Trench | Crib | |
| 216-B-63** | 216-B-63; 216-B-63 Ditch; 216-B-63 Trench; B Plant Chemical Sewer Ditch | Ditch | |
| 216-B-64 | 216-B-64; 216-B-64 Crib; 216-B-64 Retention Basin; 216-B-64 Trench | Retention Basin | |
| 201-C | 201-C; 201-C Process Building | Process Unit/Plant | |
| 216-C-1 | 216-C-1; 216-C Crib; 216-C-1 Crib | Crib | |
| 216-C-2 | 216-C-2; 216-C-2 Dry Well; 216-C-2 Reverse Well; 291-C Dry Well | Injection/Reverse Well | |
| 216-C-3 | 216-C-3; 201-C Leaching Pit; 216-C-3 Crib | Crib | |
| 216-C-4 | 216-C-4; 216-C-4 Crib | Crib | |
| 216-C-5 | 216-C-5; 216-C-5 Crib | Crib | |
| 216-C-6 | 216-C-6; 241-CX Crib | Crib | |
| 216-C-7 | 216-C-7; 216-C-7 Crib | Crib | |
| 216-C-10 | 216-C-10; 216-C-10 Crib | Crib | |
| 291-C | 291-C; 201-C Air Tunnel; 291-C Fan and Filter Building; 291-C Filter/Fan House | Process Unit/Plant | |
| 291-C-1 | 291-C-1; 291-C Stack Burial Trench; 291-C-1 Stack | Burial Ground | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|--------|
| 2704-C-WS-1 | 2704-C-WS-1; 2704-C French Drain; Gatehouse French Drain; Quench Tank | French Drain | |
| 200-E BP | 200-E BP; 200 East Burn Pit; 200-E Burning Pit | Burn Pit | |
| 200-E PD* | 200-E PD; 200 East Powerhouse Pond; 200-E Powerhouse Ditch; 284E Trench | Ditch | |
| 200-E-4 | 200-E-4; 209-E North Dry Well; Critical Mass Laboratory Dry Well North; Miscellaneous Stream #730 | French Drain | |
| 200-E-13 | 200-E-13; Rubble Piles from RCRA General Inspection #200EFY95 Item #7 | Dumping Area | |
| 200-E-25 | 200-E-25; 272-BB French Drain; Insulation Shop French Drain; Miscellaneous Stream #659 | French Drain | |
| 200-E-26 | 200-E-26; Diesel Fuel Contaminated Soil; Heavy Equipment Storage Area | Unplanned Release | |
| 200-E-27 | 200-E-27; 242-AC; 242AC Pipefitter Shop Lead Cutting Area | Dumping Area | |
| 200-E-41 | 200-E-41; Stabilized Hot Semiworks Area; Strontium Semi-Works Stabilized Area; UN-216-E-38 | Unplanned Release | |
| 200-E-43 | 200-E-43; Regulated Equipment Storage Area; Tank Car Storage Area; TC-4 Spur Tank Car Storage Area | Storage | |
| 200-E-53 | 200-E-53; Above Ground Storage Area; Contaminated Zone Adjacent to 218-E-12B and 218-E-8; Overground Storage Area | Unplanned Release | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|--------|
| 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-E-99 | 200-E-99; Miscellaneous Stream #570; Steam Trap 2P-Yard-MSS-TRP-017 | French Drain | |
| 200-E-100 | 200-E-100; Miscellaneous Stream #571; Steam Trap 2P-Yard-MSS-TRP-019 | French Drain | |
| 200-E-109 | 200-E-109; Contaminated Tumbleweed Accumulation; Contamination Spread in Northeast Corner of 200 East Area | Unplanned Release | |
| 200-E-115 | 200-E-115; Contamination Area East of 241-C Tank Farm | Unplanned Release | |
| 200-E-117 | 200-E-117; Contamination Zone South of B Plant | Unplanned Release | |
| 200-E-121 | 200-E-121; Soil Contamination Area East and West of Baltimore Avenue | Unplanned Release | |
| 200-E-123 | 200-E-123; Contamination Area South of 216-B-2 Stabilized Ditches | Unplanned Release | |
| 200-E-124 | 200-E-124; URM on East Side of 275-EA | Unplanned Release | |
| 200-E-125 | 200-E-125; Contamination Area Northwest of 244-AR Building | Unplanned Release | |
| 200-E-129 | 200-E-129; Stabilized Area on East Side of B Plant Railroad Cut | Unplanned Release | |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|------------------------------|--------|
| 200-E-130 | 200-E-130; Stabilized Area on West Side of B Plant Chemical Spur | Unplanned Release | |
| 200-E-139 | 200-E-139; Contamination Area North of C Farm | Unplanned Release | |
| 200-E-142 | 200-E-142; 2241B Paint Washing Station; Paint Brush Cleaning Station | Depression/Pit (nonspecific) | |
| 200-E-209-PL | 200-E-209-PL; Pipeline from 272-BB to 200-E-25 Dry Well | Process Sewer | |
| 200-E-249-PL | 200-E-249-PL; Pipelines from 209-E to 200-E-4 French Drain | Process Sewer | |
| 200-E-250-PL | 200-E-250-PL; Pipeline from 2704-C to 2704-C-WS-1 Quench Tank | Radioactive Process Sewer | |
| 200-E-251-PL | 200-E-251-PL; Pipeline from 291-C Stack to 216-C-2 Reverse Well | Radioactive Process Sewer | |
| 200-E-252-PL | 200-E-252-PL; Pipeline from 291-C Air Filter Building to 216-C-2 Reverse Well | Radioactive Process Sewer | |
| 200-E-262-PL | 200-E-262-PL; 216-A-42A Pump Station; 216-A-42B Valve Box and 216-A-42C Diversion Box; Pipelines Associated with 216-A-42 Basin | Radioactive Process Sewer | |
| 200-E-276-PL | 200-E-276-PL; Pipeline from 296-A-13 Stack to 216-A-41 Crib | Radioactive Process Sewer | |
| 200-E-287 | 200-E-287; Posted Contamination Areas on Pipe Berm East of 241-A, AN, AX, AY and AZ Tank Farms | Contamination Migration | |

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Appendix C, Listing by Operable Unit (Sheet 102 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|------------------------|--------|
| 200-E-292 | 200-E-292; Area of Debris and Subsurface Anomalies on Unused Portion of 218-E-10 (aka 200-E-20) | Dumping Area | |
| 200-E-293 | 200-E-293; 2718-E Contaminated Concrete Slab; 2718-E Foundation | Foundation | |
| 200-E-294 | 200-E-294; 209-E Slab; Demolished 209-E Critical Mass Laboratory Building Foundation; Potential Asbestos in Soil | Foundation | |
| 200-E-297 | 200-E-297; Open Pit Containing Potential Asbestos Transite | Dumping Area | |
| 200-E-301 | 200-E-301; 2701EC; 2701-EC Guard House Potential Asbestos in Soil | Dumping Area | |
| 209-E-WS-2 | 209-E-WS-2; Critical Mass Lab French Drain | French Drain | |
| 218-E-7 | 218-E-7; 200 East 222-B Vaults | Burial Ground | |
| 299-E24-111 | 299-E24-111; Experimental Test Well Site; Lysimeter Test Site; Miscellaneous Stream #803 | Injection/Reverse Well | |
| 2607-E3 | 2607-E3; 2607-E3 Septic System; 2607-E3 Septic Tank and Drainfield; TFS of 218-E-4; Tile Field South of 218-E-4 | Septic Tank | |
| 2607-E5* | 2607-E5; 209-E Septic Tank; 276-C, 209-E and 2718-E Septic Tank | Septic Tank | |
| 2607-E6* | 2607-E6; 2607-E6 Septic Tank and Tile Field | Septic Tank | |
| 2607-E7A* | 2607-E7A; 2607-E7 | Septic Tank | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|--------|
| 2607-E7B* | 2607-E7B; 2607-E7; 2607-E7B Septic System | Septic Tank | |
| 2607-E9 | 2607-E9; 242B/BL Septic Tank and Drain Field; 2607-E9 Septic System | 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-EF | 2607-EF; Septic Tank West of 241-BX Tank Farm | Septic Tank | |
| HSVP | HSVP; 201-C Diversion Box; 201-C Valve Box; Hot Semiworks Valve Pit; Semiworks Valve Pit | Valve Pit | |
| 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-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 | |
| UPR-200-E-33 | UPR-200-E-33; Contaminated PUREX Railroad Tracks; UN-200-E-33 | Unplanned Release | |
| UPR-200-E-37 | UPR-200-E-37; Contamination East of Hot Semi-Works; UN-200-E-37; UN-216-E-37; UN-216-E-39 | Unplanned Release | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|--------|
| UPR-200-E-43 | UPR-200-E-43; Road Contamination Near 241-BY Tank Farm; UN-200-E-43 | 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-62 | UPR-200-E-62; Transportation Spill Near 200-E Burning Ground; UN-200-E-62; UN-216-E-62 | 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-E-66 | UPR-200-E-66; 216-A-42 Basin Contamination Release; UN-200-E-66; UN-216-E-66 | Unplanned Release | |
| UPR-200-E-69 | UPR-200-E-69; Railroad Car Flush Water Radioactive Spill; UN-200-E-69; UN-216-E-69 | Unplanned Release | |
| UPR-200-E-88 | UPR-200-E-88; TC-4 Spur Contaminated Railroad Track; UN-200-E-88. Ground Contamination Around the Western PUREX Railroad Spur; UN-216-E-16; UN-216-E-88 | Unplanned Release | |
| UPR-200-E-89 | UPR-200-E-89; Contamination Migration to the North, East & West of BX-BY Tank Farms; UN-200-E-89; UN-216-E-17 | Unplanned Release | |
| UPR-200-E-95 | UPR-200-E-95; Ground Contamination Around RR Spur Between 218-E-2A and 218-E-2; UN-200-E-95; UN-216-E-23 | Unplanned Release | |
| UPR-200-E-98 | UPR-200-E-98; Ground Contamination East of C Plant (Hot Semi Works); UN-200-E-98; UN-216-E-26 | Unplanned Release | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|--------|
| UPR-200-E-99 | UPR-200-E-99; Contamination Adjacent to 244-CR Vault; UN-200-E-99; UN-216-E-27 | Unplanned Release | |
| UPR-200-E-101 | UPR-200-E-101; Radioactive Spill Near 242-B Evaporator; UN-200-E-101; UN-216-E-101; UN-216-E-30 | Unplanned Release | |
| UPR-200-E-112 | UPR-200-E-112; Contaminated Railroad Track from B-Plant to the Burial Ground; UN-200-E-112 | Unplanned Release | |
| UPR-200-E-143 | UPR-200-E-143; Contamination Adjacent to 244-A 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 | |
| 200-IS-1 | Ecology | R-CPP | |
| 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-508 | 216-A-508; 216-A-8 Distribution Box; Control Structure for 216-A-8 Crib | Control Structure | |
| 216-A-524 | 216-A-524; 216-A-24 Control Structure; 216-A-524 Control Structure; 216-A-524 Weir | Control Structure | |
| 241-AR-151** | 241-AR-151; 241-AR-151 Diversion Box | Diversion Box | |
| 244-AR VAULT** | 244-AR VAULT; 244-AR Vault | Receiving Vault | |
| 241-AX-151 | 241-AX-151; 241-AX-151 Diversion Box; 241-AX-151 Diverter Station | Diversion Box | |
| 241-B-154 | 241-B-154; 241-B-154 Diversion Box | Diversion Box | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 106 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------|--------|
| 241-B-302B | 241-B-302B; 241-B-302; 241-B-302-B Catch Tank; Drain Lines V201 and V127; V217 | Catch Tank | |
| 241-B-361 | 241-B-361; 241-B-361 Settling Tank | Settling Tank | |
| 241-BX-155 | 241-BX-155; 241-BX-155 Diversion Box | Diversion Box | |
| 241-BX-302C | 241-BX-302C; 241-BX-302-C Catch Tank; Lines V322 and V323 | Catch Tank | |
| 216-BY-201 | 216-BY-201; 216-BY-201 Flush Tank; 216-BY-201 Syphon Tank; 241-BY-361 Flush Tank; Supernatant Disposal Flush Tank | Settling Tank | |
| 241-C-154** | 241-C-154; 241-C-154 Diversion Box | Diversion Box | |
| 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 Neutralization Tank; 241-CX-TK-71; Strontium Hot Semi-Works | Neutralization Tank | |
| 241-CX-72** | 241-CX-72; 241-CX-72 Waste Self Concentrator; 241-CX-TK-72 Vault and Tank; Strontium Hot Semi-Works | Storage Tank | |
| 200-E-29 | 200-E-29; Unplanned Release from 241-ER-152 Diversion Box | Unplanned Release | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 107 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------|--------|
| 200-E-111-PL-A | 200-E-111-PL-A; 200-E-111-PL; 3-38 Encasement; Encased Pipeline from 241-ER-151 Diversion Box and 221-B to 241-C Tank Farm and 244-AR Vault; Lines V108/V837/8618/8653/8901PAS, 809, 818, V836 and V834 | Encased Tank Farm Pipeline | |
| 200-E-111-PL-B | 200-E-111-PL-B; 200-E-111-PL; 3-38 Encasement; Encased Pipeline from 241-ER-151 Diversion Box and 221-B to 241-C Tank Farm and 244-AR Vault; Lines V108/V837/8618/8653/8901PAS, 809, 818, V836 and V834 | Encased Tank Farm Pipeline | |
| 200-E-111-PL-C | 200-E-111-PL-C; 200-E-111-PL; 3-38 Encasement; Encased Pipeline from 241-ER-151 Diversion Box and 221-B to 241-C Tank Farm and 244-AR Vault; Lines V108/V837/8618/8653/8901PAS, 809, 818, V836 and V834 | Encased Tank Farm Pipeline | |
| 200-E-111-PL-D | 200-E-111-PL-D; 200-E-111-PL; 3-38 Encasement; Encased Pipeline from 241-ER-151 Diversion Box and 221-B to 241-C Tank Farm and 244-AR Vault; Lines V108/V837/8618/8653/8901PAS, 809, 818, V836 and V834 | Encased Tank Farm Pipeline | |
| 200-E-111-PL-E | 200-E-111-PL-E; 200-E-111-PL; 3-38 Encasement; Encased Pipeline from 241-ER-151 Diversion Box and 221-B to 241-C Tank Farm and 244-AR Vault; Lines V108/V837/8618/8653/8901PAS, 809, 818, V836 and V834 | Encased Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 108 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------|--------|
| 200-E-111-PL-F | 200-E-111-PL-F; 200-E-111-PL; 3-38 Encasement; Encased Pipeline from 241-ER-151 Diversion Box and 221-B to 241-C Tank Farm and 244-AR Vault; Lines V108/V837/8618/8653/8901PAS, 809, 818, V836 and V834 | Encased Tank Farm Pipeline | |
| 200-E-111-PL-G | 200-E-111-PL-G; 200-E-111-PL; 3-38 Encasement; Encased Pipeline from 241-ER-151 Diversion Box and 221-B to 241-C Tank Farm and 244-AR Vault; Lines V108/V837/8618/8653/8901PAS, 809, 818, V836 and V834 | Encased Tank Farm Pipeline | |
| 200-E-112-PL-A | 200-E-112-PL-A; 200-E-112-PL; 24-Inch VP Line; 2904-E-1; B Plant Process Sewer; Pipeline from B Plant to 207-B Retention Basin | Radioactive Process Sewer | |
| 200-E-112-PL-B | 200-E-112-PL-B; 200-E-112-PL; 24-Inch VP Line; 2904-E-1; B Plant Process Sewer; Pipeline from B Plant to 207-B Retention Basin | Radioactive Process Sewer | |
| 200-E-113-PL-A | 200-E-113-PL-A; 200-E-113-PL; 216-A-42C Valve Box; Line 8824; Pipeline from PUREX to 216-A-6, and Line 8824B to 216-A-30 Crib | Process Sewer | |
| 200-E-113-PL-B | 200-E-113-PL-B; 200-E-113-PL; 216-A-42C Valve Box; Line 8824; Pipeline from PUREX to 216-A-6, and Line 8824B to 216-A-30 Crib | Process Sewer | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 109 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|--------|
| 200-E-114-PL-A | 200-E-114-PL-A; 200-E-114-PL; 216-BC-2805; 2805-E1, 2805-E2, 2805-E3 and 2805-E4; Pipeline from 216-BY-201 to 216-BC-201; Pipeline from 241-BY Tank Farm to 241-C Tank Farm and BC Cribs and Trenches | Radioactive Process Sewer | |
| 200-E-114-PL-B | 200-E-114-PL-B; 200-E-114-PL; 216-BC-2805; 2805-E1, 2805-E2, 2805-E3 and 2805-E4; Pipeline from 216-BY-201 to 216-BC-201; Pipeline from 241-BY Tank Farm to 241-C Tank Farm and BC Cribs and Trenches | Radioactive Process Sewer | |
| 200-E-114-PL-C | 200-E-114-PL-C; 200-E-114-PL; 216-BC-2805; 2805-E1, 2805-E2, 2805-E3 and 2805-E4; Pipeline from 216-BY-201 to 216-BC-201; Pipeline from 241-BY Tank Farm to 241-C Tank Farm and BC Cribs and Trenches | Radioactive Process Sewer | |
| 200-E-114-PL-D | 200-E-114-PL-D; 200-E-114-PL; 216-BC-2805; 2805-E1, 2805-E2, 2805-E3 and 2805-E4; Pipeline from 216-BY-201 to 216-BC-201; Pipeline from 241-BY Tank Farm to 241-C Tank Farm and BC Cribs and Trenches | Radioactive Process Sewer | |
| 200-E-114-PL-E | 200-E-114-PL-E; 200-E-114-PL; 216-BC-2805; 2805-E1, 2805-E2, 2805-E3 and 2805-E4; Pipeline from 216-BY-201 to 216-BC-201; Pipeline from 241-BY Tank Farm to 241-C Tank Farm and BC Cribs and Trenches | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 110 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------------|--------|
| 200-E-114-PL-F | 200-E-114-PL-F; 200-E-114-PL; 216-BC-2805; 2805-E1, 2805-E2, 2805-E3 and 2805-E4; Pipeline from 216-BY-201 to 216-BC-201; Pipeline from 241-BY Tank Farm to 241-C Tank Farm and BC Cribs and Trenches | Radioactive Process Sewer | |
| 200-E-114-PL-G | 200-E-114-PL-G; 200-E-114-PL; 216-BC-2805; 2805-E1, 2805-E2, 2805-E3 and 2805-E4; Pipeline from 216-BY-201 to 216-BC-201; Pipeline from 241-BY Tank Farm to 241-C Tank Farm and BC Cribs and Trenches | Radioactive Process Sewer | |
| 200-E-114-PL-H | 200-E-114-PL-H; 200-E-114-PL; 216-BC-2805; 2805-E1, 2805-E2, 2805-E3 and 2805-E4; Pipeline from 216-BY-201 to 216-BC-201; Pipeline from 241-BY Tank Farm to 241-C Tank Farm and BC Cribs and Trenches | Radioactive Process Sewer | |
| 200-E-116-PL-A | 200-E-116-PL-A; 200-E-116-PL; Direct Buried Pipelines V111/V210/V130, 8902, V212; Pipelines from 241-B-154 Diversion Box to 241-C-151 and 241-C-152 Diversion Boxes | Direct Buried Tank Farm Pipeline | |
| 200-E-116-PL-B | 200-E-116-PL-B; 200-E-116-PL; Direct Buried Pipelines V111/V210/V130, 8902, V212; Pipelines from 241-B-154 Diversion Box to 241-C-151 and 241-C-152 Diversion Boxes | Direct Buried Tank Farm Pipeline | |
| 200-E-116-PL-C | 200-E-116-PL-C; 200-E-116-PL; Direct Buried Pipelines V111/V210/V130, 8902, V212; Pipelines from 241-B-154 Diversion Box to 241-C-151 and 241-C-152 Diversion Boxes | Direct Buried Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 111 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------------|--------|
| 200-E-116-PL-D | 200-E-116-PL-D; 200-E-116-PL; Direct Buried Pipelines V111/V210/V130, 8902, V212; Pipelines from 241-B-154 Diversion Box to 241-C-151 and 241-C-152 Diversion Boxes | Direct Buried Tank Farm Pipeline | |
| 200-E-116-PL-F | 200-E-116-PL-F; 200-E-116-PL; Direct Buried Pipelines V111/V210/V130, 8902, V212; Pipelines from 241-B-154 Diversion Box to 241-C-151 and 241-C-152 Diversion Boxes | Direct Buried Tank Farm Pipeline | |
| 200-E-126-PL-B** | 200-E-126-PL-B; Segments of 200-E-126-PL Pipeline Located in the Inner Area | Radioactive Process Sewer | |
| 200-E-126-PL-C** | 200-E-126-PL-C; 200-E-126-PL; Underground Pipeline from 207-B to 216-B-3 Ditch | Radioactive Process Sewer | |
| 200-E-126-PL-D** | 200-E-126-PL-D; 200-E-126-PL; Underground Pipeline from 207-B to 216-B-3 Ditch | Radioactive Process Sewer | |
| 200-E-127-PL-B | 200-E-127-PL-B; 200-E-127-PL; Line 1601; Pipeline from PUREX to Gable and B-Ponds (216-A-25 and 216-B-3); PUREX Cooling Water Line | Radioactive Process Sewer | |
| 200-E-127-PL-C | 200-E-127-PL-C; 200-E-127-PL; Line 1601; Pipeline from PUREX to Gable and B-Ponds (216-A-25 and 216-B-3); PUREX Cooling Water Line | Radioactive Process Sewer | |
| 200-E-127-PL-D | 200-E-127-PL-D; 200-E-127-PL; Line 1601; Pipeline from PUREX to Gable and B-Ponds (216-A-25 and 216-B-3); PUREX Cooling Water Line | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------|--------|
| 200-E-127-PL-E | 200-E-127-PL-E; 200-E-127-PL; Line 1601; Pipeline from PUREX to Gable and B-Ponds (216-A-25 and 216-B-3); PUREX Cooling Water Line | Radioactive Process Sewer | |
| 200-E-127-PL-F | 200-E-127-PL-F; 200-E-127-PL; Line 1601; Pipeline from PUREX to Gable and B-Ponds (216-A-25 and 216-B-3); PUREX Cooling Water Line | Radioactive Process Sewer | |
| 200-E-128 | 200-E-128; Radioactive Contamination "Hot Spot" Under Gravel Road | Unplanned Release | |
| 200-E-135 | 200-E-135; Contamination Area South of 241-C Tank Farm | Unplanned Release | |
| 200-E-143-PL-A | 200-E-143-PL-A; 200-E-143-PL; Encased Transfer Line from 241-AX-151 Diversion Box to 241-A Tank Farms and 244-CR Vault in 241-C Tank Farm; Tank Farm Transfer Lines 4101, 4102, 4103, 4104, 4105, 4106, 4107/V033, 4017, 4018, 4021, 4022 and 8656 | Encased Tank Farm Pipeline | |
| 200-E-143-PL-B | 200-E-143-PL-B; 200-E-143-PL; Encased Transfer Line from 241-AX-151 Diversion Box to 241-A Tank Farms and 244-CR Vault in 241-C Tank Farm; Tank Farm Transfer Lines 4101, 4102, 4103, 4104, 4105, 4106, 4107/V033, 4017, 4018, 4021, 4022 and 8656 | Encased Tank Farm Pipeline | |
| 200-E-144-PL-A | 200-E-144-PL-A; 200-E-144-PL; Encased Transfer Line from 241-CR-152 and 241-CR-153 to 241-AX-151; Lines 4006 and 4007 from 244-AR Vault to 241-AX-151; Tank Farm Transfer Line 4012; Transfer Line 4013 (A-4013) | Encased Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 113 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------|--------|
| 200-E-144-PL-B | 200-E-144-PL-B; 200-E-144-PL; Encased Transfer Line from 241-CR-152 and 241-CR-153 to 241-AX-151; Lines 4006 and 4007 from 244-AR Vault to 241-AX-151; Tank Farm Transfer Line 4012; Transfer Line 4013 (A-4013) | Encased Tank Farm Pipeline | |
| 200-E-145-PL-A | 200-E-145-PL-A; 200-E-145-PL; Interplant Transfer Line; Tank Farm Transfer Line V228; Transfer Pipeline from 241-ER-151 to 241-CR-153 | Encased Tank Farm Pipeline | |
| 200-E-145-PL-B | 200-E-145-PL-B; 200-E-145-PL; Interplant Transfer Line; Tank Farm Transfer Line V228; Transfer Pipeline from 241-ER-151 to 241-CR-153 | Encased Tank Farm Pipeline | |
| 200-E-145-PL-C | 200-E-145-PL-C; 200-E-145-PL; Interplant Transfer Line; Tank Farm Transfer Line V228; Transfer Pipeline from 241-ER-151 to 241-CR-153 | Encased Tank Farm Pipeline | |
| 200-E-145-PL-D | 200-E-145-PL-D; 200-E-145-PL; Interplant Transfer Line; Tank Farm Transfer Line V228; Transfer Pipeline from 241-ER-151 to 241-CR-153 | Encased Tank Farm Pipeline | |
| 200-E-145-PL-E | 200-E-145-PL-E; 200-E-145-PL; Interplant Transfer Line; Tank Farm Transfer Line V228; Transfer Pipeline from 241-ER-151 to 241-CR-153 | Encased Tank Farm Pipeline | |
| 200-E-145-PL-F | 200-E-145-PL-F; 200-E-145-PL; Interplant Transfer Line; Tank Farm Transfer Line V228; Transfer Pipeline from 241-ER-151 to 241-CR-153 | Encased Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 114 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------|--------|
| 200-E-147-PL-A | 200-E-147-PL-A; 200-E-147-PL; Interplant Transfer Line; Tank Farm Transfer Line PAS-244; Transfer Line from 244-CR-TK-003 to 241-ER-153 | Encased Tank Farm Pipeline | |
| 200-E-147-PL-B | 200-E-147-PL-B; 200-E-147-PL; Interplant Transfer Line; Tank Farm Transfer Line PAS-244; Transfer Line from 244-CR-TK-003 to 241-ER-153 | Encased Tank Farm Pipeline | |
| 200-E-147-PL-C | 200-E-147-PL-C; 200-E-147-PL; Interplant Transfer Line; Tank Farm Transfer Line PAS-244; Transfer Line from 244-CR-TK-003 to 241-ER-153 | Encased Tank Farm Pipeline | |
| 200-E-147-PL-D | 200-E-147-PL-D; 200-E-147-PL; Interplant Transfer Line; Tank Farm Transfer Line PAS-244; Transfer Line from 244-CR-TK-003 to 241-ER-153 | Encased Tank Farm Pipeline | |
| 200-E-147-PL-E | 200-E-147-PL-E; 200-E-147-PL; Interplant Transfer Line; Tank Farm Transfer Line PAS-244; Transfer Line from 244-CR-TK-003 to 241-ER-153 | Encased Tank Farm Pipeline | |
| 200-E-147-PL-F | 200-E-147-PL-F; 200-E-147-PL; Interplant Transfer Line; Tank Farm Transfer Line PAS-244; Transfer Line from 244-CR-TK-003 to 241-ER-153 | Encased Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 115 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------------|--------|
| 200-E-147-PL-G | 200-E-147-PL-G; 200-E-147-PL; Interplant Transfer Line; Tank Farm Transfer Line PAS-244; Transfer Line from 244-CR-TK-003 to 241-ER-153 | Encased Tank Farm Pipeline | |
| 200-E-148-PL-B | 200-E-148-PL-B; 200-E-148-PL; Direct Buried Transfer Line from 241-C-151 to 241-A-01A; Tank Farm Transfer Line V109 | Direct Buried Tank Farm Pipeline | |
| 200-E-148-PL-C | 200-E-148-PL-C; 200-E-148-PL; Direct Buried Transfer Line from 241-C-151 to 241-A-01A; Tank Farm Transfer Line V109 | Direct Buried Tank Farm Pipeline | |
| 200-E-149-PL-A | 200-E-149-PL-A; 200-E-149-PL; Direct Buried Transfer Line from 241-C-252 to 201-C Hot Semi Works; Tank Farm Pipeline; Tank Farm Transfer Line V175 | Direct Buried Tank Farm Pipeline | |
| 200-E-149-PL-B | 200-E-149-PL-B; 200-E-149-PL; Direct Buried Transfer Line from 241-C-252 to 201-C Hot Semi Works; Tank Farm Pipeline; Tank Farm Transfer Line V175 | Direct Buried Tank Farm Pipeline | |
| 200-E-150-PL-A | 200-E-150-PL-A; 200-E-150-PL; Direct Buried Transfer Line from 244-CR-TK-003 to 201-C Hot Semi Works Valve Box; Tank Farm Pipeline; Tank Farm Transfer Line 8900 | Direct Buried Tank Farm Pipeline | |
| 200-E-150-PL-B | 200-E-150-PL-B; 200-E-150-PL; Direct Buried Transfer Line from 244-CR-TK-003 to 201-C Hot Semi Works Valve Box; Tank Farm Pipeline; Tank Farm Transfer Line 8900 | Direct Buried Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 116 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------------|--------|
| 200-E-150-PL-C | 200-E-150-PL-C; 200-E-150-PL; Direct Buried Transfer Line from 244-CR-TK-003 to 201-C Hot Semi Works Valve Box; Tank Farm Pipeline; Tank Farm Transfer Line 8900 | Direct Buried Tank Farm Pipeline | |
| 200-E-151-PL-B | 200-E-151-PL-B; 200-E-151-PL; Direct Buried Transfer Line from 241-C-104 to 241-A-152; Tank Farm Pipeline; Tank Farm Transfer Line V050 | Direct Buried Tank Farm Pipeline | |
| 200-E-151-PL-C | 200-E-151-PL-C; 200-E-151-PL; Direct Buried Transfer Line from 241-C-104 to 241-A-152; Tank Farm Pipeline; Tank Farm Transfer Line V050 | Direct Buried Tank Farm Pipeline | |
| 200-E-152-PL-B | 200-E-152-PL-B; 200-E-152-PL; Direct Buried Transfer Line from 241-C-104 to 241-A-152; Tank Farm Pipeline; Tank Farm Transfer Line V051 | Direct Buried Tank Farm Pipeline | |
| 200-E-152-PL-C | 200-E-152-PL-C; 200-E-152-PL; Direct Buried Transfer Line from 241-C-104 to 241-A-152; Tank Farm Pipeline; Tank Farm Transfer Line V051 | Direct Buried Tank Farm Pipeline | |
| 200-E-153-PL-A | 200-E-153-PL-A; 200-E-153-PL; Direct Buried Transfer Line from 241-C-151 to 244-AR-TK-002; Tank Farm Pipeline; Tank Farm Transfer Line V108/812 | Direct Buried Tank Farm Pipeline | |
| 200-E-153-PL-B | 200-E-153-PL-B; 200-E-153-PL; Direct Buried Transfer Line from 241-C-151 to 244-AR-TK-002; Tank Farm Pipeline; Tank Farm Transfer Line V108/812 | Direct Buried Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------------|--------|
| 200-E-154-PL-A | 200-E-154-PL-A; 200-E-154-PL; Direct Buried Transfer Line from 241-C-151 to 241-AX-01A; Tank Farm Pipeline; Tank Farm Transfer Line V113 | Direct Buried Tank Farm Pipeline | |
| 200-E-154-PL-C | 200-E-154-PL-C; 200-E-154-PL; Direct Buried Transfer Line from 241-C-151 to 241-AX-01A; Tank Farm Pipeline; Tank Farm Transfer Line V113 | Direct Buried Tank Farm Pipeline | |
| 200-E-155-PL-B | 200-E-155-PL-B; 200-E-155-PL; Pipeline from 241-C Fence to Radioactive Process Sewer Line 2904-CR-1 | Radioactive Process Sewer | |
| 200-E-155-PL-C | 200-E-155-PL-C; 200-E-155-PL; Pipeline from 241-C Fence to Radioactive Process Sewer Line 2904-CR-1 | Radioactive Process Sewer | |
| 200-E-156-PL | 200-E-156-PL; 216-C-1 Pipelines; Pipelines from 201-C to 216-C-1 | Radioactive Process Sewer | |
| 200-E-157-PL | 200-E-157-PL; 216-C-10 Pipeline; Pipeline from 201-C to 216-C-10 Crib | Radioactive Process Sewer | |
| 200-E-158-PL | 200-E-158-PL; 216-A-1 Pipeline; Pipeline from Sample Pit #3 to 216-A-1 Crib | Radioactive Process Sewer | |
| 200-E-159-PL | 200-E-159-PL; Pipeline from 203-A to 216-A-22; Pipeline from 203-A to 216-A-28 Crib; Pipeline from UNH Truck Apron to 216-A-22 | Radioactive Process Sewer | |
| 200-E-160-PL | 200-E-160-PL; Pipeline from 270-E-1 to 216-B-12 Crib; V219 | Radioactive Process Sewer | |
| 200-E-161-PL-A | 200-E-161-PL-A; 200-E-161-PL; Pipeline from 221-BB to 216-B-55 Crib; V841 | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 118 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|--------|
| 200-E-161-PL-B | 200-E-161-PL-B; 200-E-161-PL; Pipeline from 221-BB to 216-B-55 Crib; V841 | Radioactive Process Sewer | |
| 200-E-162-PL-A | 200-E-162-PL-A; 200-E-162-PL; Lateral Line to 216-B-12 Crib #2; Pipeline from 221-BB to 216-B-62 Crib; V842 | Radioactive Process Sewer | |
| 200-E-162-PL-B | 200-E-162-PL-B; 200-E-162-PL; Lateral Line to 216-B-12 Crib #2; Pipeline from 221-BB to 216-B-62 Crib; V842 | Radioactive Process Sewer | |
| 200-E-164-PL-A | 200-E-164-PL-A; 200-E-164-PL; Pipeline Between the 216-A-8 Control Structure and the 216-A-508 Control Structure; Pipeline to 216-A-8 Crib | Radioactive Process Sewer | |
| 200-E-164-PL-B | 200-E-164-PL-B; 200-E-164-PL; Pipeline Between the 216-A-8 Control Structure and the 216-A-508 Control Structure; Pipeline to 216-A-8 Crib | Radioactive Process Sewer | |
| 200-E-164-PL-C | 200-E-164-PL-C; 200-E-164-PL; Pipeline Between the 216-A-8 Control Structure and the 216-A-508 Control Structure; Pipeline to 216-A-8 Crib | Radioactive Process Sewer | |
| 200-E-165-PL | 200-E-165-PL; Pipeline from 216-A-508 Control Structure and 216-A-8 Crib to 216-A-24 Crib | Radioactive Process Sewer | |
| 200-E-166-PL-A | 200-E-166-PL-A; 200-E-166-PL; Pipeline from 241-A Tank Farm to 216-A-34 Ditch | Radioactive Process Sewer | |
| 200-E-166-PL-B | 200-E-166-PL-B; 200-E-166-PL; Pipeline from 241-A Tank Farm to 216-A-34 Ditch | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 119 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------------|--------|
| 200-E-167-PL ** | 200-E-167-PL; Lines SN-215 and SN-216; Underground Pipelines from 244-A Lift Station to 241-A-A and 241-A-B Valve Pits | Encased Tank Farm Pipeline | |
| 200-E-168-PL | 200-E-168-PL; Underground Pipeline from 203-A to 216-A-3 | Radioactive Process Sewer | |
| 200-E-169-PL | 200-E-169-PL; Pipeline from 201-C and 215-C to the 216-C-3 Crib | Radioactive Process Sewer | |
| 200-E-170-PL | 200-E-170-PL; Pipeline from 276-C to 216-C-4 Crib | Radioactive Process Sewer | |
| 200-E-171-PL | 200-E-171-PL; Pipeline from 201-C and 241-CX Vault to the 216-C-6 Crib | Radioactive Process Sewer | |
| 200-E-172-PL | 200-E-172-PL; Pipeline from 209-E to the 216-C-7 Crib | Radioactive Process Sewer | |
| 200-E-173-PL | 200-E-173-PL; Pipeline from 241-CX-71 to 216-C-5 Crib | Radioactive Process Sewer | |
| 200-E-174-PL-A | 200-E-174-PL-A; 200-E-174-PL; 216-B-10 (A&B) Pipeline; Pipeline from 221-BC and 222-B to 216-B-10 A&B Cribs | Radioactive Process Sewer | |
| 200-E-174-PL-B | 200-E-174-PL-B; 200-E-174-PL; 216-B-10 (A&B) Pipeline; Pipeline from 221-BC and 222-B to 216-B-10 A&B Cribs | Radioactive Process Sewer | |
| 200-E-175-PL-A | 200-E-175-PL-A; 200-E-175-PL; Pipeline from 292-B to 216-B-10 A&B | Radioactive Process Sewer | |
| 200-E-175-PL-B | 200-E-175-PL-B; 200-E-175-PL; Pipeline from 292-B to 216-B-10 A&B | Radioactive Process Sewer | |
| 200-E-176-PL-A | 200-E-176-PL-A; Pipeline from 242-B to 216-B-11-A&B, Portion of pipeline outside the 241-B fence | Direct Buried Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 120 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|--------|
| 200-E-177-PL | 200-E-177-PL; Pipeline Rerouting Waste from 216-B-8 Crib Pipeline to 216-B-11A&B Reverse Wells | Radioactive Process Sewer | |
| 200-E-178-PL-A | 200-E-178-PL-A; 200-E-178-PL; Pipeline from Tank 241-B-110 to 216-B-8 Crib and Tile Field | Radioactive Process Sewer | |
| 200-E-178-PL-B | 200-E-178-PL-B; 200-E-178-PL; Pipeline from Tank 241-B-110 to 216-B-8 Crib and Tile Field | Radioactive Process Sewer | |
| 200-E-179 | 200-E-179; Catch Tank in 216-B-10 A&B Pipeline (See Sitecode 200-E-174-PL); R-13 Catch Tank | Catch Tank | |
| 200-E-182-PL-B | 200-E-182-PL-B; 200-E-182-PL; Pipeline from 241-A-152 Diversion Box to 216-A-7 Crib | Radioactive Process Sewer | |
| 200-E-182-PL-C | 200-E-182-PL-C; 200-E-182-PL; Pipeline from 241-A-152 Diversion Box to 216-A-7 Crib | Radioactive Process Sewer | |
| 200-E-183-PL | 200-E-183-PL; Lines V010 and V011; Pipelines from 241-A-151 Diversion Box to 216-A-2 | Radioactive Process Sewer | |
| 200-E-184-PL | 200-E-184-PL; Lines V010 and V011; Pipeline from 241-A-151 Diversion Box to 216-A-2 Crib | Radioactive Process Sewer | |
| 200-E-185-PL | 200-E-185-PL; Lines V014 and V016; Pipeline from 241-A-151 Diversion Box to 216-A-4 Crib | Radioactive Process Sewer | |
| 200-E-186-PL | 200-E-186-PL; Lines V010 and V011; Pipeline from 241-A-151 Diversion Box to 216-A-31 crib | Radioactive Process Sewer | |
| 200-E-187-PL-A** | 200-E-187-PL-A; 200-E-187-PL; Chemical Sewer from 202-A to 216-A-29 Ditch; Lines 8819, 5802 and 5701; PUREX Chemical Sewer (CSL) | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 121 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|--------|
| 200-E-187-PL-B** | 200-E-187-PL-B; 200-E-187-PL; Chemical Sewer from 202-A to 216-A-29 Ditch; Lines 8819, 5802 and 5701; PUREX Chemical Sewer (CSL) | Radioactive Process Sewer | |
| 200-E-187-PL-C** | 200-E-187-PL-C; 200-E-187-PL; Chemical Sewer from 202-A to 216-A-29 Ditch; Lines 8819, 5802 and 5701; PUREX Chemical Sewer (CSL) | Radioactive Process Sewer | |
| 200-E-187-PL-D** | 200-E-187-PL-D; 200-E-187-PL; Chemical Sewer from 202-A to 216-A-29 Ditch; Lines 8819, 5802 and 5701; PUREX Chemical Sewer (CSL) | Radioactive Process Sewer | |
| 200-E-187-PL-E** | 200-E-187-PL-E; 200-E-187-PL; Chemical Sewer from 202-A to 216-A-29 Ditch; Lines 8819, 5802 and 5701; PUREX Chemical Sewer (CSL) | Radioactive Process Sewer | |
| 200-E-188-PL-A | 200-E-188-PL-A; 15-Inch VP Line; 200-E-188-PL; 2904-E-2; B Plant Chemical Sewer Line; BCE | Radioactive Process Sewer | |
| 200-E-188-PL-B | 200-E-188-PL-B; 15-Inch VP Line; 200-E-188-PL; 2904-E-2; B Plant Chemical Sewer Line; BCE | Radioactive Process Sewer | |
| 200-E-188-PL-C | 200-E-188-PL-C; 15-Inch VP Line; 200-E-188-PL; 2904-E-2; B Plant Chemical Sewer Line; BCE | Radioactive Process Sewer | |
| 200-E-191-PL** | 200-E-191-PL; 216-B-63 Pipeline; Pipeline from 207-B Valve Pit to 216-B-63 Ditch | Radioactive Process Sewer | |
| 200-E-192-PL-A | 200-E-192-PL-A; 200-E-192-PL; 216-A-10 Pipelines; Lines from Sample Pit 4 to 216-A-10 Crib | Radioactive Process Sewer | |

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Action Plan

Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 122 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------------|--------|
| 200-E-192-PL-B | 200-E-192-PL-B; 200-E-192-PL; 216-A-10 Pipelines; Lines from Sample Pit 4 to 216-A-10 Crib | Radioactive Process Sewer | |
| 200-E-193-PL | 200-E-193-PL; Line X015; Pipeline from 202-A and 293-A to 216-A-21 Crib | Radioactive Process Sewer | |
| 200-E-195-PL | 200-E-195-PL; Line V204; Pipeline from 241-B-154 Diversion Box to 241-B-361 Settling Tank and 216-B-9 Crib | Radioactive Process Sewer | |
| 200-E-196-PL | 200-E-196-PL; 216-A-21 and 216-A-27 Cribs; Lines T167 and T022; Stainless Steel Line to 216-A-4 | Radioactive Process Sewer | |
| 200-E-198-PL-A | 200-E-198-PL-A; 200-E-198-PL; Encased Tank Farm Pipeline from 241-BX-154 Diversion to 241-BX-155 Diversion Box; Lines 8902, V282, V283, V284 and V285 | Encased Tank Farm Pipeline | |
| 200-E-198-PL-B | 200-E-198-PL-B; 200-E-198-PL; Encased Tank Farm Pipeline from 241-BX-154 Diversion to 241-BX-155 Diversion Box; Lines 8902, V282, V283, V284 and V285 | Encased Tank Farm Pipeline | |
| 200-E-198-PL-C | 200-E-198-PL-C; 200-E-198-PL; Encased Tank Farm Pipeline from 241-BX-154 Diversion to 241-BX-155 Diversion Box; Lines 8902, V282, V283, V284 and V285 | Encased Tank Farm Pipeline | |
| 200-E-199-PL-A | 200-E-199-PL-A; 200-E-199-PL; Lines V204, V206, V208, V209, V211, V213, V215, and V285; Tank Farm Lines from 241-B-154 Diversion Box to 241-B Tank Farm | Direct Buried Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 123 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------------|--------|
| 200-E-199-PL-B | 200-E-199-PL-B; 200-E-199-PL; Lines V204, V206, V208, V209, V211, V213, V215, and V285; Tank Farm Lines from 241-B-154 Diversion Box to 241-B Tank Farm | Direct Buried Tank Farm Pipeline | |
| 200-E-199-PL-C | 200-E-199-PL-C; 200-E-199-PL; Lines V204, V206, V208, V209, V211, V213, V215, and V285; Tank Farm Lines from 241-B-154 Diversion Box to 241-B Tank Farm | Direct Buried Tank Farm Pipeline | |
| 200-E-200-PL | 200-E-200-PL; Lines 801, 802, 806 and 805; Pipelines from 244-AR Vault to 241-AY-152 and 241-A-153 Diversion Boxes | Direct Buried Tank Farm Pipeline | |
| 200-E-201-PL-A | 200-E-201-PL-A; 200-E-201-PL; Lines V315 and V319; Transfer Lines from 241-BX-155 to Diversion Boxes in 241-B Tank Farm | Direct Buried Tank Farm Pipeline | |
| 200-E-201-PL-B | 200-E-201-PL-B; 200-E-201-PL; Lines V315 and V319; Transfer Lines from 241-BX-155 to Diversion Boxes in 241-B Tank Farm | Direct Buried Tank Farm Pipeline | |
| 200-E-202-PL-A | 200-E-202-PL-A; 200-E-202-PL; Lines V316, V317, V318; Transfer Lines from 241-BX-155 Diversion Box to 241-BX-153 Diversion Box | Direct Buried Tank Farm Pipeline | |
| 200-E-202-PL-B | 200-E-202-PL-B; 200-E-202-PL; Lines V316, V317, V318; Transfer Lines from 241-BX-155 Diversion Box to 241-BX-153 Diversion Box | Direct Buried Tank Farm Pipeline | |
| 200-E-203-PL-B | 200-E-203-PL-B; 200-E-203-PL; Line V7507/9712; Pipeline from 241-BYR-154 Diversion Box to 216-B-2-2 Ditch | Radioactive Process Sewer | |

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Action Plan

Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 124 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------------|--------|
| 200-E-203-PL-C | 200-E-203-PL-C; 200-E-203-PL; Line V7507/9712; Pipeline from 241-BYR-154 Diversion Box to 216-B-2-2 Ditch | Radioactive Process Sewer | |
| 200-E-204-PL | 200-E-204-PL; Pipeline to 216-B-2-1 and 216-B-2-2 Ditches | Radioactive Process Sewer | |
| 200-E-205-PL | 200-E-205-PL; 216-B-2-3 Ditch Pipelines | Radioactive Process Sewer | |
| 200-E-206-PL ** | 200-E-206-PL; Lines V716, V717 and V718/817; Pipelines from 244-AR Vault to 241-AR-151 Diversion Box | Direct Buried Tank Farm Pipeline | |
| 200-E-207-PL-A | 200-E-207-PL-A; 200-E-207-PL; Encased Transfer Line from 241-A-151 Diversion Box to 241-A-152 Diversion Box; Lines V004, V005, V006, V007 and V008 | Encased Tank Farm Pipeline | |
| 200-E-207-PL-B | 200-E-207-PL-B; 200-E-207-PL; Encased Transfer Line from 241-A-151 Diversion Box to 241-A-152 Diversion Box; Lines V004, V005, V006, V007 and V008 | Encased Tank Farm Pipeline | |
| 200-E-207-PL-C | 200-E-207-PL-C; 200-E-207-PL; Encased Transfer Line from 241-A-151 Diversion Box to 241-A-152 Diversion Box; Lines V004, V005, V006, V007 and V008 | Encased Tank Farm Pipeline | |
| 200-E-213-PL-A | 200-E-213-PL-A; 200-E-213-PL; Lines V200, V329, V330, V331, V332, V333, and V334; Transfer Lines from 221-B to 241-B-154 Diversion Box | Direct Buried Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 125 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------------|--------|
| 200-E-213-PL-B | 200-E-213-PL-B; 200-E-213-PL; Lines V200, V329, V330, V331, V332, V333, and V334; Transfer Lines from 221-B to 241-B-154 Diversion Box | Direct Buried Tank Farm Pipeline | |
| 200-E-215-PL | 200-E-215-PL; Line V229; Transfer Line Between 241-ER-151 Diversion Box and 241-ER-152 Diversion Box | Direct Buried Tank Farm Pipeline | |
| 200-E-217-PL-A** | 200-E-217-PL-A; 200-E-217-PL; Encased Transfer Line from 241-ER-151 Diversion Box to 241-BX Tank Farm; Lines 9808, 9653, 9719 and V225 | Encased Tank Farm Pipeline | |
| 200-E-217-PL-B** | 200-E-217-PL-B; 200-E-217-PL; Encased Transfer Line from 241-ER-151 Diversion Box to 241-BX Tank Farm; Lines 9808, 9653, 9719 and V225 | Encased Tank Farm Pipeline | |
| 200-E-217-PL-C** | 200-E-217-PL-C; 200-E-217-PL; Encased Transfer Line from 241-ER-151 Diversion Box to 241-BX Tank Farm; Lines 9808, 9653, 9719 and V225 | Encased Tank Farm Pipeline | |
| 200-E-218-PL** | 200-E-218-PL; Lines V021; Transfer Lines Between 241-A-151 Diversion Box and 241-AW Tank Farm; V022; V023 | Direct Buried Tank Farm Pipeline | |
| 200-E-219-PL | 200-E-219-PL; BY Crib Distribution Pipelines; Pipelines from 216-BY-201 Flush Tank to 216-B-43, 216-B-44, 216-B-45, 216-B-46, 216-B-47, 216-B-48, 216-B-49, and 216-B-50 Crib | Radioactive Process Sewer | |
| 200-E-220-PL | 200-E-220-PL; Pipeline from 241-BY Tank Farm to 216-BY-201 Flush Tank and Monitoring Pit | Radioactive Process Sewer | |
| 200-E-221-PL | 200-E-221-PL; BC Crib Pipeline Drain Lines; Pipelines to 216-B-51 French Drain | Radioactive Process Sewer | |
| 200-E-222-PL | 200-E-222-PL; Distribution Pipelines from 216-BC-201 Siphon Tank to BC Crib | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 126 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------------|--------|
| 200-E-223 | 200-E-223; 200-E-114-PL Valve Pit; BC Pipeline Valve Pit | Valve Pit | |
| 200-E-225-PL ** | 200-E-225-PL; Line V720; Transfer Line from 241-AR-151 Diversion Box to 241-AY-102 Tank | Direct Buried Tank Farm Pipeline | |
| 200-E-226-PL-A | 200-E-226-PL-A; 200-E-226-PL; Promethium Transfer Line; Transfer Line from 221-B to 241-C-154; V743 | Direct Buried Tank Farm Pipeline | |
| 200-E-226-PL-B | 200-E-226-PL-B; 200-E-226-PL; Promethium Transfer Line; Transfer Line from 221-B to 241-C-154; V743 | Direct Buried Tank Farm Pipeline | |
| 200-E-226-PL-C | 200-E-226-PL-C; 200-E-226-PL; Promethium Transfer Line; Transfer Line from 221-B to 241-C-154; V743 | Direct Buried Tank Farm Pipeline | |
| 200-E-227-PL | 200-E-227-PL; Lines 4005/810, 4015/814 and 4019/817; Transfer Lines Between 244-AR Vault Facility and 241-AX-151 Diversion Box | Encased Tank Farm Pipeline | |
| 200-E-228-PL ** | 200-E-228-PL; Drain Lines from 241-ER-151 Diversion Box to 241-ER-311 and 241-ER-311A Catch Tanks; Lines V224, V226 and V226-1 | Direct Buried Tank Farm Pipeline | |
| 200-E-229-PL ** | 200-E-229-PL; Line SN-650; Transfer Line Between tank 241-AP-102 and 241-A-B Valve Pit | Direct Buried Tank Farm Pipeline | |
| 200-E-231-PL | 200-E-231-PL; Pipeline from 202-A to 216-A-45 Crib | Radioactive Process Sewer | |
| 200-E-232-PL-A ** | 200-E-232-PL-A; 200-E-232-PL; Pipeline from 207-A Basins to 216-A-30 and 216-A-37-1 Cribs | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 127 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|--------|
| 200-E-232-PL-B** | 200-E-232-PL-B; 200-E-232-PL; Pipeline from 207-A Basins to 216-A-30 and 216-A-37-1 Cribs | Radioactive Process Sewer | |
| 200-E-232-PL-C** | 200-E-232-PL-C; 200-E-232-PL; Pipeline from 207-A Basins to 216-A-30 and 216-A-37-1 Cribs | Radioactive Process Sewer | |
| 200-E-233-PL | 200-E-233-PL; Pipeline from 216-A-30 Crib Distribution Box to the 216-A-37-2 Crib Distribution Box | Radioactive Process Sewer | |
| 200-E-234-PL-B** | 200-E-234-PL-B; 200-E-234-PL; Lines 300, 501, 505, and 557; Pipelines from 242-A Evaporator Building to the 207-A Basins | Radioactive Process Sewer | |
| 200-E-234-PL-C** | 200-E-234-PL-C; 200-E-234-PL; Lines 300, 501, 505, and 557; Pipelines from 242-A Evaporator Building to the 207-A Basins | Radioactive Process Sewer | |
| 200-E-238-PL-A | 200-E-238-PL-A; 200-E-238-PL; Pipeline from 206-A to 216-A-9 Crib | Radioactive Process Sewer | |
| 200-E-238-PL-B | 200-E-238-PL-B; 200-E-238-PL; Pipeline from 206-A to 216-A-9 Crib | Radioactive Process Sewer | |
| 200-E-239-PL-A | 200-E-239-PL-A; 200-E-239-PL; Pipeline from 216-A-5 Sample Pit #4 to 216-A-5 Crib | Radioactive Process Sewer | |
| 200-E-239-PL-B | 200-E-239-PL-B; 200-E-239-PL; Pipeline from 216-A-5 Sample Pit #4 to 216-A-5 Crib | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 128 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|--------|
| 200-E-240-PL-A | 200-E-240-PL-A; 200-E-240-PL; Pipeline from Valve Pit West of Sample Pit 4 to the 216-A-38-1 Crib | Radioactive Process Sewer | |
| 200-E-240-PL-B | 200-E-240-PL-B; 200-E-240-PL; Pipeline from Valve Pit West of Sample Pit 4 to the 216-A-38-1 Crib | Radioactive Process Sewer | |
| 200-E-241-PL | 200-E-241-PL; Lines 7717 and 7718; Pipeline from 200-E-58 Neutralization Tank to the 216-A-5 Sample Pit #4 | Radioactive Process Sewer | |
| 200-E-244-PL | 200-E-244-PL; Pipeline from 201-C Valve Pit (HSVP) to 241-CX-70 | Encased Transfer Piping | |
| 200-E-245-PL | 200-E-245-PL; Pipeline from 201-C Hot Shop to 241-CX-71 | Radioactive Process Sewer | |
| 200-E-246-PL | 200-E-246-PL; Pipeline from 201-C Valve Pit to 241-CX-72; Pipeline from HSVP to 241-CX-72 | Radioactive Process Sewer | |
| 200-E-247-PL | 200-E-247-PL; Lines DR-601-1, DR-600-6 and SC-100-55; Pipelines from 209-E to the 209-E-WS-2 French Drain | Radioactive Process Sewer | |
| 200-E-248-PL | 200-E-248-PL; Pipelines COD-100-1 and COD-111-2; Pipelines from 209-E to the 209-E-WS-3 Valve Pit | Radioactive Process Sewer | |
| 200-E-253-PL-A | 200-E-253-PL-A; 200-E-253-PL; Pipeline from 202-A to 216-A-36A and 216-A-36B Cribs | Radioactive Process Sewer | |
| 200-E-253-PL-B | 200-E-253-PL-B; 200-E-253-PL; Pipeline from 202-A to 216-A-36A and 216-A-36B Cribs | Radioactive Process Sewer | |
| 200-E-254-PL-A | 200-E-254-PL-A; 200-E-254-PL; Pipeline from 209-E to 216-C-9 Pond | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 129 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|--------|
| 200-E-254-PL-B | 200-E-254-PL-B; 200-E-254-PL; Pipeline from 209-E to 216-C-9 Pond | Radioactive Process Sewer | |
| 200-E-255-PL-A | 200-E-255-PL-A; 200-E-255-PL; Pipeline Connecting Pipeline 200-E-169-PL to 216-C-9 Pond | Radioactive Process Sewer | |
| 200-E-255-PL-B | 200-E-255-PL-B; 200-E-255-PL; Pipeline Connecting Pipeline 200-E-169-PL to 216-C-9 Pond | Radioactive Process Sewer | |
| 200-E-256-PL | 200-E-256-PL; Pipelines from 201-C (South Side) to 216-C-9 Pond | Radioactive Process Sewer | |
| 200-E-257-PL-A | 200-E-257-PL-A; 200-E-257-PL; Pipeline from 201-C (East Side) to 216-C-9 Pond | Radioactive Process Sewer | |
| 200-E-257-PL-B | 200-E-257-PL-B; 200-E-257-PL; Pipeline from 201-C (East Side) to 216-C-9 Pond | Radioactive Process Sewer | |
| 200-E-258-PL | 200-E-258-PL; 216-C-9 Pond Lobe Distribution Piping | Radioactive Process Sewer | |
| 200-E-259-PL-A | 200-E-259-PL-A; 200-E-259-PL; Pipeline from 291-C Fan House to 216-C-9 Pond | Radioactive Process Sewer | |
| 200-E-259-PL-B | 200-E-259-PL-B; 200-E-259-PL; Pipeline from 291-C Fan House to 216-C-9 Pond | Radioactive Process Sewer | |
| 200-E-260-PL-A | 200-E-260-PL-A; 200-E-260-PL; Line 8824A; Steam Condensate By-Pass Line from PUREX to 216-A-30 | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|--------|
| 200-E-260-PL-B | 200-E-260-PL-B; 200-E-260-PL; Line 8824A; Steam Condensate By-Pass Line from PUREX to 216-A-30 | Radioactive Process Sewer | |
| 200-E-261-PL-A | 200-E-261-PL-A; 200-E-261-PL; Effluent Recycle Line from 216-A-42 Basin to PUREX | Radioactive Process Sewer | |
| 200-E-261-PL-B | 200-E-261-PL-B; 200-E-261-PL; Effluent Recycle Line from 216-A-42 Basin to PUREX | Radioactive Process Sewer | |
| 200-E-263-PL | 200-E-263-PL; 216-A-42 Basin Pipeline to 216-A-42C Diversion Box | Radioactive Process Sewer | |
| 200-E-264-PL-A | 200-E-264-PL-A; 200-E-264-PL; Pipeline from 242-B Evaporator Building to 207-B Retention Basin | Radioactive Process Sewer | |
| 200-E-264-PL-B | 200-E-264-PL-B; 200-E-264-PL; Pipeline from 242-B Evaporator Building to 207-B Retention Basin | Radioactive Process Sewer | |
| 200-E-265-PL-A | 200-E-265-PL-A; 200-E-265-PL; 241-BY and 241-BX Tank Farm Cooling Water Pipeline to 207-B Retention Basin | Radioactive Process Sewer | |
| 200-E-265-PL-B | 200-E-265-PL-B; 200-E-265-PL; 241-BY and 241-BX Tank Farm Cooling Water Pipeline to 207-B Retention Basin | Radioactive Process Sewer | |
| 200-E-265-PL-C | 200-E-265-PL-C; 200-E-265-PL; 241-BY and 241-BX Tank Farm Cooling Water Pipeline to 207-B Retention Basin | Radioactive Process Sewer | |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------|--------|
| 200-E-270-PL | 200-E-270-PL; Line T022; Pipeline from 291-A Fan Control House to 216-A-26 and 216-A-26A French Drains | Radioactive Process Sewer | |
| 200-E-271-PL | 200-E-271-PL; Line 8823; PUREX Cooling Water Header Pipeline | Radioactive Process Sewer | |
| 200-E-274-PL** | 200-E-274-PL; Line 323; Pipeline from 216-A-40 Basin to 244-A Lift Station | Radioactive Process Sewer | |
| 200-E-275-PL | 200-E-275-PL; 244-AR Cooling Water Pipeline to 216-A-40 Basin; Line 815 | Radioactive Process Sewer | |
| 200-E-277-PL-A | 200-E-277-PL-A; 200-E-277-PL; Pipelines from 221-B and 221-BA to 216-B-59 and 216-B-59B Basins | Radioactive Process Sewer | |
| 200-E-277-PL-B | 200-E-277-PL-B; 200-E-277-PL; Pipelines from 221-B and 221-BA to 216-B-59 and 216-B-59B Basins | Radioactive Process Sewer | |
| 200-E-279-PL | 200-E-279-PL; Pipeline from 241-B-361 Settling Tank to 216-B-5 Reverse Well | Radioactive Process Sewer | |
| 200-E-281-PL | 200-E-281-PL; Line V306; Pipeline from 241-B Tank Farm to 216-B-7A and 216-B-7B Cribs | Radioactive Process Sewer | |
| 200-E-282-PL-A | 200-E-282-PL-A; 200-E-282-PL; Lines 4001, 4002, 4003 and 4004; Lines 4023 and 4028 connecting to encasement; Process Waste Lines from 202-A to 241-AX-151 Diversion Box | Encased Tank Farm Pipeline | |
| 200-E-282-PL-B | 200-E-282-PL-B; 200-E-282-PL; Lines 4001, 4002, 4003 and 4004; Lines 4023 and 4028 connecting to encasement; Process Waste Lines from 202-A to 241-AX-151 Diversion Box | Encased Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------------|--------|
| 200-E-282-PL-C | 200-E-282-PL-C; 200-E-282-PL; Lines 4001, 4002, 4003 and 4004; Lines 4023 and 4028 connecting to encasement; Process Waste Lines from 202-A to 241-AX-151 Diversion Box | Encased Tank Farm Pipeline | |
| 200-E-282-PL-D | 200-E-282-PL-D; 200-E-282-PL; Lines 4001, 4002, 4003 and 4004; Lines 4023 and 4028 connecting to encasement; Process Waste Lines from 202-A to 241-AX-151 Diversion Box | Encased Tank Farm Pipeline | |
| 200-E-283-PL | 200-E-283-PL; Line 395; Pipeline from 242-A Bldg to 600-291-PL (TEDF Line) | Radioactive Process Sewer | |
| 200-E-285 | 200-E-285; 216-A-8 Control Structure; 216-A-8 Sample Pit; Sample Pit #2 | Control Structure | |
| 200-E-291-PL-A** | 200-E-291-PL-A; 200-E-291-PL; Pipeline from 241-C-106 to 241-AY-102, SN-200, SL-100, 241-C-106 Sluice Line | Direct Buried Tank Farm Pipeline | |
| 200-E-291-PL-B** | 200-E-291-PL-B; 200-E-291-PL; Pipeline from 241-C-106 to 241-AY-102, SN-200, SL-100, 241-C-106 Sluice Line | Direct Buried Tank Farm Pipeline | |
| 200-E-305-PL** | 200-E-305-PL; DR311; Drain Line from 241-ER-152 to 241-ER-311 Catch Tank | Direct Buried Tank Farm Pipeline | |
| 200-E-308-PL** | 200-E-308-PL; Grout Facility Feed Line and Excess Water Line; GTF Feed Line; SN-621 | Direct Buried Tank Farm Pipeline | |
| 200-E-309-PL** | 200-E-309-PL; Neutralized High Level Waste Pipeline V714; PUREX NHW Line | Unplanned Release | |
| 209-E-WS-3 | 209-E-WS-3; Critical Mass Laboratory Valve Pit and Hold Up Tank (209-E-TK-111) | Valve Pit | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------|--------|
| 270-E-1 | 270-E-1; 216-ER-1; 270-E CNT; 270-E Condensate Neutralization Tank | Neutralization 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-153** | 241-ER-153; 241-ER-153 Diversion Box | Diversion Box | |
| 241-ER-311** | 241-ER-311; 241-ER-311 Catch Tank; 241-ER-311A Replacement Tank | Catch Tank | |
| 241-ER-311A | 241-ER-311A; 241-ER-311A Catch Tank; Old 241-ER-311; Original 241-ER-311 Catch Tank | Catch Tank | |
| 241-EW-151** | 241-EW-151; 200 Area East-West Vent Station; 241-EW-151 Vent Station; 241-EW-151 Vent Station Catch Tank; Vent Station | Catch Tank | |
| 216-S-172 | 216-S-172; 216-S-172 Control Structure; 216-S-172 Weir Box and Control Structure; 2904-S-172 Weir | Control Structure | |
| 240-S-152 | 240-S-152; 240-S-152 Diversion Box | Diversion Box | |
| 276-S-141** | 276-S-141; 244-SX-15; 276-S-141 Solvent Storage Tank; 276-S-306A; 276-S-TK-141; Hexone Storage Tank; Tank 276-141 | Storage Tank | |
| 276-S-142** | 276-S-142; 244-SX-15; 276-S-142 Solvent Storage Tank; 276-S-306B; 276-S-TK-142; Hexone Storage Tank; Tank 276-142 | Storage Tank | |
| 2904-S-160 | 2904-S-160; 2904-S-160 Control Structure; 2904-S-160 Weir | Control Structure | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------|--------|
| 2904-S-171 | 2904-S-171; 216-S-171; 2904-S-171 Control Structure; 2904-S-171 Weir Box | Control Structure | |
| 241-TX-152** | 241-TX-152; 241-TX-152 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; Lines V414 and V415 | Catch Tank | |
| 241-TX-302BR | 241-TX-302BR; 241-TX-302BR Catch Tank; 241-TXR-302BR | 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 | |
| 200-W-7 | 200-W-7; 200-W Personnel Decontamination Facility Catch Tank; 241-S-TK-1; 243-S-TK-1; 243S-TK-1 | Catch 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 | |
| 200-W-78-PL** | 200-W-78-PL; 6025; 7624 and 7630; Lines 6012; Pipeline Between 241-TX/TY and 241-T Tank Farms | Encased Tank Farm Pipeline | |
| 200-W-79-PL-A | 200-W-79-PL-A; 200-W-79-PL; Line V663; Pipeline from 241-T-151 Diversion Box to 216-T-36 Crib | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------|--------|
| 200-W-79-PL-B | 200-W-79-PL-B; 200-W-79-PL; Line V663; Pipeline from 241-T-151 Diversion Box to 216-T-36 Crib | Radioactive Process Sewer | |
| 200-W-84-PL-B | 200-W-84-PL-B; 200-W-84; 200-W-84-PL; U Plant Chemical Process Sewer to 216-U-14 Ditch; VCP Process Sewer | Radioactive Process Sewer | |
| 200-W-84-PL-C | 200-W-84-PL-C; 200-W-84; 200-W-84-PL; U Plant Chemical Process Sewer to 216-U-14 Ditch; VCP Process Sewer | Radioactive Process Sewer | |
| 200-W-88-PL-A | 200-W-88-PL-A; 200-W-88; 200-W-88-PL; 221-T Process Sewer; 24 Inch Process Sewer; T Plant Process Sewer Pipeline | Radioactive Process Sewer | |
| 200-W-88-PL-B | 200-W-88-PL-B; 200-W-88; 200-W-88-PL; 221-T Process Sewer; 24 Inch Process Sewer; T Plant Process Sewer Pipeline | Radioactive Process Sewer | |
| 200-W-88-PL-C | 200-W-88-PL-C; 200-W-88; 200-W-88-PL; 221-T Process Sewer; 24 Inch Process Sewer; T Plant Process Sewer Pipeline | Radioactive Process Sewer | |
| 200-W-88-PL-D | 200-W-88-PL-D; 200-W-88; 200-W-88-PL; 221-T Process Sewer; 24 Inch Process Sewer; T Plant Process Sewer Pipeline | Radioactive Process Sewer | |
| 200-W-97-PL-A | 200-W-97-PL-A; 200-W-97-PL; Encased Pipeline from 240-S-151 Diversion Box to 241-S-151 Diversion Box; Lines V508, V509, V512, V513, V514, V515, V516, V517/3603 and V519/1115 | Encased Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------|--------|
| 200-W-97-PL-B | 200-W-97-PL-B; 200-W-97-PL; Encased Pipeline from 240-S-151 Diversion Box to 241-S-151 Diversion Box; Lines V508, V509, V512, V513, V514, V515, V516, V517/3603 and V519/1115 | Encased Tank Farm Pipeline | |
| 200-W-97-PL-C | 200-W-97-PL-C; 200-W-97-PL; Encased Pipeline from 240-S-151 Diversion Box to 241-S-151 Diversion Box; Lines V508, V509, V512, V513, V514, V515, V516, V517/3603 and V519/1115 | Encased Tank Farm Pipeline | |
| 200-W-98-PL-A | 200-W-98-PL-A; 200-W-98-PL; Encased Pipeline from 240-S-151 to 241-U-153 Diversion Box; V458, V459, and V460 | Encased Tank Farm Pipeline | |
| 200-W-98-PL-B | 200-W-98-PL-B; 200-W-98-PL; Encased Pipeline from 240-S-151 to 241-U-153 Diversion Box; V458, V459, and V460 | Encased Tank Farm Pipeline | |
| 200-W-98-PL-C | 200-W-98-PL-C; 200-W-98-PL; Encased Pipeline from 240-S-151 to 241-U-153 Diversion Box; V458, V459, and V460 | Encased Tank Farm Pipeline | |
| 200-W-98-PL-D | 200-W-98-PL-D; 200-W-98-PL; Encased Pipeline from 240-S-151 to 241-U-153 Diversion Box; V458, V459, and V460 | Encased Tank Farm Pipeline | |
| 200-W-98-PL-E | 200-W-98-PL-E; 200-W-98-PL; Encased Pipeline from 240-S-151 to 241-U-153 Diversion Box; V458, V459, and V460 | Encased Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------|--------|
| 200-W-98-PL-F | 200-W-98-PL-F; 200-W-98-PL; Encased Pipeline from 240-S-151 to 241-U-153 Diversion Box; V458, V459, and V460 | Encased Tank Farm Pipeline | |
| 200-W-99-PL-A** | 200-W-99-PL-A; 200-W-99-PL; Encased Pipeline from 241-U-151 to 241-S-151 Diversion Boxes; Lines V455 and V456 | Encased Tank Farm Pipeline | |
| 200-W-99-PL-B** | 200-W-99-PL-B; 200-W-99-PL; Encased Pipeline from 241-U-151 to 241-S-151 Diversion Boxes; Lines V455 and V456 | Encased Tank Farm Pipeline | |
| 200-W-99-PL-D** | 200-W-99-PL-D; 200-W-99-PL; Encased Pipeline from 241-U-151 to 241-S-151 Diversion Boxes; Lines V455 and V456 | Encased Tank Farm Pipeline | |
| 200-W-100-PL-A** | 200-W-100-PL-A; 200-W-100-PL; Encased Pipeline from 241-UX-154 to 241-SX-152 and 241-S-151 Diversion Boxes; Lines V762/4853, V503/4700 and V505/4701 | Encased Tank Farm Pipeline | |
| 200-W-100-PL-B** | 200-W-100-PL-B; 200-W-100-PL; Encased Pipeline from 241-UX-154 to 241-SX-152 and 241-S-151 Diversion Boxes; Lines V762/4853, V503/4700 and V505/4701 | Encased Tank Farm Pipeline | |
| 200-W-100-PL-C** | 200-W-100-PL-C; 200-W-100-PL; Encased Pipeline from 241-UX-154 to 241-SX-152 and 241-S-151 Diversion Boxes; Lines V762/4853, V503/4700 and V505/4701 | Encased Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------|--------|
| 200-W-105-PL-B | 200-W-105-PL-B; 200-W-105-PL; Encased Lines V375, V376, V382, 4877, 4851 and 4859/4703, 4878, 4857, 4876, 4702, 4701, 4700, 4855, 4854, 4860, 4853; Encased Transfer Line Between 241-UX-154 Diversion Box and 241-TX-155 Diversion Box and Between 241-UX-154 Diversion Box and 241-WR Vault; Stubbed Lines V389/V839 | Encased Tank Farm Pipeline | |
| 200-W-105-PL-C | 200-W-105-PL-C; 200-W-105-PL; Encased Lines V375, V376, V382, 4877, 4851 and 4859/4703, 4878, 4857, 4876, 4702, 4701, 4700, 4855, 4854, 4860, 4853; Encased Transfer Line Between 241-UX-154 Diversion Box and 241-TX-155 Diversion Box and Between 241-UX-154 Diversion Box and 241-WR Vault; Stubbed Lines V389/V839 | Encased Tank Farm Pipeline | |
| 200-W-125-PL-A | 200-W-125-PL-A; 200-W-125-PL; 216-Z-1 Ditch Replacement Pipeline | Radioactive Process Sewer | |
| 200-W-125-PL-B | 200-W-125-PL-B; 200-W-125-PL; 216-Z-1 Ditch Replacement Pipeline | Radioactive Process Sewer | |
| 200-W-129-PL-B | 200-W-129-PL-B; 200-W-129-PL; Encased Pipeline from 241-T-151 and 241-T-152 to 241-TX-155 Diversion Box; Lines V399, V405 and V411 | Encased Tank Farm Pipeline | |
| 200-W-129-PL-C | 200-W-129-PL-C; 200-W-129-PL; Encased Pipeline from 241-T-151 and 241-T-152 to 241-TX-155 Diversion Box; Lines V399, V405 and V411 | Encased Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 139 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------------|--------|
| 200-W-129-PL-D | 200-W-129-PL-D; 200-W-129-PL; Encased Pipeline from 241-T-151 and 241-T-152 to 241-TX-155 Diversion Box; Lines V399, V405 and V411 | Encased Tank Farm Pipeline | |
| 200-W-130-PL-A | 200-W-130-PL-A; 200-W-130-PL; Lines V445, V663, V601 and V416 and Spare Lines V662, V663, V682 and V683; Pipelines from 241-T-151 and 241-T-152 Diversion Boxes to 241-U-151 Diversion Box | Direct Buried Tank Farm Pipeline | |
| 200-W-130-PL-B | 200-W-130-PL-B; 200-W-130-PL; Lines V445, V663, V601 and V416 and Spare Lines V662, V663, V682 and V683; Pipelines from 241-T-151 and 241-T-152 Diversion Boxes to 241-U-151 Diversion Box | Direct Buried Tank Farm Pipeline | |
| 200-W-130-PL-C | 200-W-130-PL-C; 200-W-130-PL; Lines V445, V663, V601 and V416 and Spare Lines V662, V663, V682 and V683; Pipelines from 241-T-151 and 241-T-152 Diversion Boxes to 241-U-151 Diversion Box | Direct Buried Tank Farm Pipeline | |
| 200-W-131-PL-A | 200-W-131-PL-A; 200-W-131-PL; Line V601, Line V416; Spur from 241-T-152 to 241-TX-153 and 241-U-151 | Direct Buried Tank Farm Pipeline | |
| 200-W-131-PL-B | 200-W-131-PL-B; 200-W-131-PL; Line V601, Line V416; Spur from 241-T-152 to 241-TX-153 and 241-U-151 | Direct Buried Tank Farm Pipeline | |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------------|--------|
| 200-W-131-PL-C | 200-W-131-PL-C; 200-W-131-PL; Line V601, Line V416; Spur from 241-T-152 to 241-TX-153 and 241-U-151 | Direct Buried Tank Farm Pipeline | |
| 200-W-132-PL-A | 200-W-132-PL-A; 200-W-132-PL; Pipelines from 221-T to 241-T-151 and 241-T-152; V653, V654, V667, V668, V669, V706, and V707 | Direct Buried Tank Farm Pipeline | |
| 200-W-132-PL-B | 200-W-132-PL-B; 200-W-132-PL; Pipelines from 221-T to 241-T-151 and 241-T-152; V653, V654, V667, V668, V669, V706, and V707 | Direct Buried Tank Farm Pipeline | |
| 200-W-132-PL-C | 200-W-132-PL-C; 200-W-132-PL; Pipelines from 221-T to 241-T-151 and 241-T-152; V653, V654, V667, V668, V669, V706, and V707 | Direct Buried Tank Farm Pipeline | |
| 200-W-132-PL-D | 200-W-132-PL-D; 200-W-132-PL; Pipelines from 221-T to 241-T-151 and 241-T-152; V653, V654, V667, V668, V669, V706, and V707 | Direct Buried Tank Farm Pipeline | |
| 200-W-137-PL-A | 200-W-137-PL-A; 200-W-137-PL; Line V533; Pipeline from 241-S-151 Diversion Box to 216-S-1 & 2 Cribs | Radioactive Process Sewer | |
| 200-W-137-PL-B | 200-W-137-PL-B; 200-W-137-PL; Line V533; Pipeline from 241-S-151 Diversion Box to 216-S-1 & 2 Cribs | Radioactive Process Sewer | |
| 200-W-138-PL-A | 200-W-138-PL-A; 200-W-138-PL; Pipeline from 240-S-151 to 216-S-7 Crib; V547 | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------|--------|
| 200-W-138-PL-B | 200-W-138-PL-B; 200-W-138-PL; Pipeline from 240-S-151 to 216-S-7 Crib; V547 | Radioactive Process Sewer | |
| 200-W-139-PL-A | 200-W-139-PL-A; 200-W-139-PL; Pipeline from 200-W-138-PL to 216-S-9 Crib; V547 | Radioactive Process Sewer | |
| 200-W-139-PL-B | 200-W-139-PL-B; 200-W-139-PL; Pipeline from 200-W-138-PL to 216-S-9 Crib; V547 | Radioactive Process Sewer | |
| 200-W-140-PL-A | 200-W-140-PL-A; 200-W-140-PL; Pipeline from 292-T (200-W-40) to 216-T-8 Crib via 200-W-142-PL | Radioactive Process Sewer | |
| 200-W-140-PL-B | 200-W-140-PL-B; 200-W-140-PL; Pipeline from 292-T (200-W-40) to 216-T-8 Crib via 200-W-142-PL | Radioactive Process Sewer | |
| 200-W-141-PL | 200-W-141-PL; Pipeline Connecting 200-W-139-PL Pipeline to 216-S-23 Crib; V547 | Radioactive Process Sewer | |
| 200-W-142-PL-A | 200-W-142-PL-A; 200-W-142-PL; Pipeline from 222-T to 216-T-8 Crib | Radioactive Process Sewer | |
| 200-W-142-PL-B | 200-W-142-PL-B; 200-W-142-PL; Pipeline from 222-T to 216-T-8 Crib | Radioactive Process Sewer | |
| 200-W-143-PL-A | 200-W-143-PL-A; 200-W-143-PL; Encased Pipeline from 241-TX-154 Diversion Box to 241-TX-152 and 241-TX-155 Diversion Boxes; Lines V383, V384, V385, V387, V388, V391, V392, and V393 and two short stub lines (V390 and V386) | Encased Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 142 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------|--------|
| 200-W-143-PL-B | 200-W-143-PL-B; 200-W-143-PL; Encased Pipeline from 241-TX-154 Diversion Box to 241-TX-152 and 241-TX-155 Diversion Boxes; Lines V383, V384, V385, V387, V388, V391, V392, and V393 and two short stub lines (V390 and V386) | Encased Tank Farm Pipeline | |
| 200-W-143-PL-C | 200-W-143-PL-C; 200-W-143-PL; Encased Pipeline from 241-TX-154 Diversion Box to 241-TX-152 and 241-TX-155 Diversion Boxes; Lines V383, V384, V385, V387, V388, V391, V392, and V393 and two short stub lines (V390 and V386) | Encased Tank Farm Pipeline | |
| 200-W-143-PL-D | 200-W-143-PL-D; 200-W-143-PL; Encased Pipeline from 241-TX-154 Diversion Box to 241-TX-152 and 241-TX-155 Diversion Boxes; Lines V383, V384, V385, V387, V388, V391, V392, and V393 and two short stub lines (V390 and V386) | Encased Tank Farm Pipeline | |
| 200-W-146-PL | 200-W-146-PL; Pipeline from 293-S to 216-S-22 Crib | Radioactive Process Sewer | |
| 200-W-147-PL-B | 200-W-147-PL-B; Portion of Pipeline in the 200 West Inner Area | Radioactive Process Sewer | |
| 200-W-147-PL-C | 200-W-147-PL-C; 200-W-147-PL; Pipeline from 207-SL to 216-S-19 Pond | Radioactive Process Sewer | |
| 200-W-149-PL | 200-W-149-PL; Pipelines Related to 216-S-20 Crib | Radioactive Process Sewer | |
| 200-W-150-PL-A | 200-W-150-PL-A; 200-W-150-PL; Pipelines Associated with 216-S-13 Crib | Radioactive Process Sewer | |
| 200-W-150-PL-B | 200-W-150-PL-B; 200-W-150-PL; Pipelines Associated with 216-S-13 Crib | Radioactive Process Sewer | |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|--------|
| 200-W-151-PL-A | 200-W-151-PL-A; 200-W-151-PL; 200-W-42 Pipe Remaining Under 16th Street | Radioactive Process Sewer | |
| 200-W-151-PL-B | 200-W-151-PL-B; 200-W-151-PL; 200-W-42 Pipe Remaining Under 16th Street | Radioactive Process Sewer | |
| 200-W-152-PL-A | 200-W-152-PL-A; 200-W-152-PL; Pipeline from 202-S to 2904-S-170 Control Structure and 216-S-17 Pond; REDOX Process Sewer | Radioactive Process Sewer | |
| 200-W-152-PL-B | 200-W-152-PL-B; 200-W-152-PL; Pipeline from 202-S to 2904-S-170 Control Structure and 216-S-17 Pond; REDOX Process Sewer | Radioactive Process Sewer | |
| 200-W-152-PL-C | 200-W-152-PL-C; 200-W-152-PL; Pipeline from 202-S to 2904-S-170 Control Structure and 216-S-17 Pond; REDOX Process Sewer | Radioactive Process Sewer | |
| 200-W-152-PL-D | 200-W-152-PL-D; 200-W-152-PL; Pipeline from 202-S to 2904-S-170 Control Structure and 216-S-17 Pond; REDOX Process Sewer | Radioactive Process Sewer | |
| 200-W-153-PL-A | 200-W-153-PL-A; 200-W-153-PL; Steel Pipeline from 240-S-151 Diversion Box to the 2904-S-172 and 2904-S-171 Control Structures via 200-W-212-PL | Radioactive Process Sewer | |
| 200-W-153-PL-B | 200-W-153-PL-B; 200-W-153-PL; Steel Pipeline from 240-S-151 Diversion Box to the 2904-S-172 and 2904-S-171 Control Structures via 200-W-212-PL | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 144 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|--------|
| 200-W-153-PL-C | 200-W-153-PL-C; 200-W-153-PL; Steel Pipeline from 240-S-151 Diversion Box to the 2904-S-172 and 2904-S-171 Control Structures via 200-W-212-PL | Radioactive Process Sewer | |
| 200-W-154-PL | 200-W-154-PL; Pipeline from 200-W-152-PL to 216-S-5 Crib | Radioactive Process Sewer | |
| 200-W-155-PL-B | 200-W-155-PL-B; Portion of Pipeline 200-W-155-PL that is located in the Central Plateau Inner Area | Radioactive Process Sewer | |
| 200-W-156-PL | 200-W-156-PL; 216-S-6 Crib Pipeline; Pipeline from 200-W-155-PL to the 2904-S-171 Control Structure | Radioactive Process Sewer | |
| 200-W-157-PL-A** | 200-W-157-PL-A; 200-W-157-PL; Pipeline from 202-S to 200-W-152-PL and 216-S-10 Ditch; Pipeline from 205-S to REDOX Chemical Sewer; REDOX Chemical Sewer | Process Sewer | |
| 200-W-157-PL-B** | 200-W-157-PL-B; 200-W-157-PL; Pipeline from 202-S to 200-W-152-PL and 216-S-10 Ditch; Pipeline from 205-S to REDOX Chemical Sewer; REDOX Chemical Sewer | Process Sewer | |
| 200-W-157-PL-C** | 200-W-157-PL-C; 200-W-157-PL; Pipeline from 202-S to 200-W-152-PL and 216-S-10 Ditch; Pipeline from 205-S to REDOX Chemical Sewer; REDOX Chemical Sewer | Process Sewer | |
| 200-W-157-PL-D** | 200-W-157-PL-D; 200-W-157-PL; Pipeline from 202-S to 200-W-152-PL and 216-S-10 Ditch; Pipeline from 205-S to REDOX Chemical Sewer; REDOX Chemical Sewer | Process Sewer | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|--------|
| 200-W-158-PL-A | 200-W-158-PL-A; 200-W-158-PL; Pipeline from 293-S to 200-W-152-PL | Process Sewer | |
| 200-W-158-PL-B | 200-W-158-PL-B; 200-W-158-PL; Pipeline from 293-S to 200-W-152-PL | Process Sewer | |
| 200-W-159-PL-B | 200-W-159-PL-B; 200-W-159-PL; Cooling Water Lines from 241-SX-401 and 241-SX-402 to 216-U-10 Pond | Radioactive Process Sewer | |
| 200-W-159-PL-C | 200-W-159-PL-C; 200-W-159-PL; Cooling Water Lines from 241-SX-401 and 241-SX-402 to 216-U-10 Pond | Radioactive Process Sewer | |
| 200-W-159-PL-D | 200-W-159-PL-D; 200-W-159-PL; Cooling Water Lines from 241-SX-401 and 241-SX-402 to 216-U-10 Pond | Radioactive Process Sewer | |
| 200-W-160-PL-B | 200-W-160-PL-B; 200-W-160-PL; Pipeline from 241-SX-401 and 241-SX-402 to 216-S-21 Crib | Radioactive Process Sewer | |
| 200-W-160-PL-C | 200-W-160-PL-C; 200-W-160-PL; Pipeline from 241-SX-401 and 241-SX-402 to 216-S-21 Crib | Radioactive Process Sewer | |
| 200-W-161-PL-B | 200-W-161-PL-B; 200-W-161-PL; Line 557; Pipeline from 242-S to 216-S-25 Crib | Radioactive Process Sewer | |
| 200-W-161-PL-C | 200-W-161-PL-C; 200-W-161-PL; Line 557; Pipeline from 242-S to 216-S-25 Crib | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|--------|
| 200-W-162-PL | 200-W-162-PL; Pipeline from 241-SX-701 to 216-SX-2 Crib | Radioactive Process Sewer | |
| 200-W-163-PL-A | 200-W-163-PL-A; 18-Inch 221-T Process Sewer Pipeline; 200-W-163-PL; T Plant Process Sewer | Radioactive Process Sewer | |
| 200-W-163-PL-B | 200-W-163-PL-B; 18-Inch 221-T Process Sewer Pipeline; 200-W-163-PL; T Plant Process Sewer | Radioactive Process Sewer | |
| 200-W-163-PL-C | 200-W-163-PL-C; 18-Inch 221-T Process Sewer Pipeline; 200-W-163-PL; T Plant Process Sewer | Radioactive Process Sewer | |
| 200-W-163-PL-D | 200-W-163-PL-D; 18-Inch 221-T Process Sewer Pipeline; 200-W-163-PL; T Plant Process Sewer | Radioactive Process Sewer | |
| 200-W-164-PL-A | 200-W-164-PL-A; 200-W-164-PL; Pipeline from 207-T Retention Basin to the 216-T-4 Ditch | Radioactive Process Sewer | |
| 200-W-164-PL-B | 200-W-164-PL-B; 200-W-164-PL; Pipeline from 207-T Retention Basin to the 216-T-4 Ditch | Radioactive Process Sewer | |
| 200-W-165-PL-A | 200-W-165-PL-A; 200-W-165-PL; Pipeline from Tank 241-TX-112 to 207-T Retention Basin | Radioactive Process Sewer | |
| 200-W-165-PL-B | 200-W-165-PL-B; 200-W-165-PL; Pipeline from Tank 241-TX-112 to 207-T Retention Basin | Radioactive Process Sewer | |
| 200-W-165-PL-C | 200-W-165-PL-C; 200-W-165-PL; Pipeline from Tank 241-TX-112 to 207-T Retention Basin | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|--------|
| 200-W-166-PL-A | 200-W-166-PL-A; 200-W-166-PL; Pipeline from 242-T Evaporator Building to the 207-T Retention Basin | Radioactive Process Sewer | |
| 200-W-166-PL-B | 200-W-166-PL-B; 200-W-166-PL; Pipeline from 242-T Evaporator Building to the 207-T Retention Basin | Radioactive Process Sewer | |
| 200-W-167-PL-A | 200-W-167-PL-A; 200-W-167-PL; Pipeline from 242-T Evaporator to 207-T Retention Basin | Radioactive Process Sewer | |
| 200-W-167-PL-B | 200-W-167-PL-B; 200-W-167-PL; Pipeline from 242-T Evaporator to 207-T Retention Basin | Radioactive Process Sewer | |
| 200-W-167-PL-C | 200-W-167-PL-C; 200-W-167-PL; Pipeline from 242-T Evaporator to 207-T Retention Basin | Radioactive Process Sewer | |
| 200-W-168-PL-A | 200-W-168-PL-A; 200-W-168-PL; Pipelines from 241-U-110 Tank to 216-U-3 Crib and 216-U-14 Ditch | Radioactive Process Sewer | |
| 200-W-168-PL-B | 200-W-168-PL-B; 200-W-168-PL; Pipelines from 241-U-110 Tank to 216-U-3 Crib and 216-U-14 Ditch | Radioactive Process Sewer | |
| 200-W-170-PL | 200-W-170-PL; 216-U-16 Crib Pipeline | Radioactive Process Sewer | |
| 200-W-173-PL | 200-W-173-PL; 216-T-33 Crib Pipeline; Pipeline from 2706-T to 216-T-33 Crib | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------------|--------|
| 200-W-175-PL-B | 200-W-175-PL-B; 200-W-175-PL; Line V681; Pipeline to Route Waste from 241-T-112 to 216-TY-201 Flush Tank and 216-T-26, 216-T-27 and 216-T-28 Cribs | Radioactive Process Sewer | |
| 200-W-175-PL-C | 200-W-175-PL-C; 200-W-175-PL; Line V681; Pipeline to Route Waste from 241-T-112 to 216-TY-201 Flush Tank and 216-T-26, 216-T-27 and 216-T-28 Cribs | Radioactive Process Sewer | |
| 200-W-176-PL-A | 200-W-176-PL-A; 200-W-176-PL; Encased Transfer Lines Between 241-TX-153 Diversion Box and 241-TX-155 Diversion Box; Lines V396, V397, V401, V403, V407, V409, and V413 | Encased Tank Farm Pipeline | |
| 200-W-176-PL-B | 200-W-176-PL-B; 200-W-176-PL; Encased Transfer Lines Between 241-TX-153 Diversion Box and 241-TX-155 Diversion Box; Lines V396, V397, V401, V403, V407, V409, and V413 | Encased Tank Farm Pipeline | |
| 200-W-176-PL-C | 200-W-176-PL-C; 200-W-176-PL; Encased Transfer Lines Between 241-TX-153 Diversion Box and 241-TX-155 Diversion Box; Lines V396, V397, V401, V403, V407, V409, and V413 | Encased Tank Farm Pipeline | |
| 200-W-177-PL-A | 200-W-177-PL-A; 200-W-177-PL; Direct Buried Tank Farm Lines Between 241-TXR-151 and 241-TX-155 Diversion Boxes; Lines V7616 and V7653 | Direct Buried Tank Farm Pipeline | |
| 200-W-177-PL-B | 200-W-177-PL-B; 200-W-177-PL; Direct Buried Tank Farm Lines Between 241-TXR-151 and 241-TX-155 Diversion Boxes; Lines V7616 and V7653 | Direct Buried Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 149 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------------|--------|
| 200-W-177-PL-C | 200-W-177-PL-C; 200-W-177-PL; Direct Buried Tank Farm Lines Between 241-TXR-151 and 241-TX-155 Diversion Boxes; Lines V7616 and V7653 | Direct Buried Tank Farm Pipeline | |
| 200-W-178-PL-A** | 200-W-178-PL-A; 200-W-178-PL; Lines HSW-202 and HSW-203; Pipeline from 241-Z to 244-TX DCRT | Direct Buried Tank Farm Pipeline | |
| 200-W-178-PL-B** | 200-W-178-PL-B; 200-W-178-PL; Lines HSW-202 and HSW-203; Pipeline from 241-Z to 244-TX DCRT | Direct Buried Tank Farm Pipeline | |
| 200-W-178-PL-C** | 200-W-178-PL-C; 200-W-178-PL; Lines HSW-202 and HSW-203; Pipeline from 241-Z to 244-TX DCRT | Direct Buried Tank Farm Pipeline | |
| 200-W-179-PL-A** | 200-W-179-PL-A; 200-W-179-PL; Lines SL100, SL101, SN216/281 and DR327; Pipelines Between 241-S-152 Diversion Box and 241-U Tank Farm | Direct Buried Tank Farm Pipeline | |
| 200-W-179-PL-B** | 200-W-179-PL-B; 200-W-179-PL; Lines SL100, SL101, SN216/281 and DR327; Pipelines Between 241-S-152 Diversion Box and 241-U Tank Farm | Direct Buried Tank Farm Pipeline | |
| 200-W-179-PL-C** | 200-W-179-PL-C; 200-W-179-PL; Lines SL100, SL101, SN216/281 and DR327; Pipelines Between 241-S-152 Diversion Box and 241-U Tank Farm | Direct Buried Tank Farm Pipeline | |
| 200-W-181-PL-A | 200-W-181-PL-A; 200-W-181-PL; Lines V426, V427 and V428/V461; Transfer Lines Between 241-U-152 and 241-U-153 Diversion Boxes | Direct Buried Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------------|--------|
| 200-W-181-PL-B | 200-W-181-PL-B; 200-W-181-PL; Lines V426, V427 and V428/V461; Transfer Lines Between 241-U-152 and 241-U-153 Diversion Boxes | Direct Buried Tank Farm Pipeline | |
| 200-W-182-PL | 200-W-182-PL; Encased Transfer Lines Between 241-U-152 Diversion Box and 241-TX-152 and 241-TX-155 Diversion Boxes; Lines V398, V404 and V410 | Encased Tank Farm Pipeline | |
| 200-W-183-PL | 200-W-183-PL; Lines V422/V452 and V421/V453; Transfer Lines Between 241-U-151 and 241-U-152 Diversion Boxes | Direct Buried Tank Farm Pipeline | |
| 200-W-184-PL-A | 200-W-184-PL-A; 200-W-184-PL; Drain Lines from 241-U-151, 241-U-152 and 241-U-153 Diversion Boxes to 241-U-301 Catch Tank; Line V478 | Direct Buried Tank Farm Pipeline | |
| 200-W-184-PL-B | 200-W-184-PL-B; 200-W-184-PL; Drain Lines from 241-U-151, 241-U-152 and 241-U-153 Diversion Boxes to 241-U-301 Catch Tank; Line V478 | Direct Buried Tank Farm Pipeline | |
| 200-W-185-PL-A | 200-W-185-PL-A; 200-W-185-PL; Lines V450 and V451; Transfer Lines Between 241-U-151 and 241-U-153 Diversion Boxes | Direct Buried Tank Farm Pipeline | |
| 200-W-185-PL-B | 200-W-185-PL-B; 200-W-185-PL; Lines V450 and V451; Transfer Lines Between 241-U-151 and 241-U-153 Diversion Boxes | Direct Buried Tank Farm Pipeline | |
| 200-W-186-PL | 200-W-186-PL; Lines 1006 and 1045; Transfer Lines from 240-S-152 Diversion Box to 204-S and 205-S | Encased Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------|--------|
| 200-W-187-PL | 200-W-187-PL; Lines V552, V553 and V555; Transfer Lines Between 240-S-151 and 240-S-152 Diversion Boxes | Encased Tank Farm Pipeline | |
| 200-W-188-PL | 200-W-188-PL; Waste Distribution Line from 216-TY-201 Flush Tank to 216-T-26, 216-T-27 and 216-T-28 Cribs and Truck Unloading Station Line | Radioactive Process Sewer | |
| 200-W-191-PL-A | 200-W-191-PL-A; 200-W-191-PL; Encased Transfer Line Between 241-TX-155 and 241-TY-153 Diversion Boxes; Lines V402, V406, V408 and V412 | Encased Tank Farm Pipeline | |
| 200-W-191-PL-B | 200-W-191-PL-B; 200-W-191-PL; Encased Transfer Line Between 241-TX-155 and 241-TY-153 Diversion Boxes; Lines V402, V406, V408 and V412 | Encased Tank Farm Pipeline | |
| 200-W-191-PL-C | 200-W-191-PL-C; 200-W-191-PL; Encased Transfer Line Between 241-TX-155 and 241-TY-153 Diversion Boxes; Lines V402, V406, V408 and V412 | Encased Tank Farm Pipeline | |
| 200-W-192-PL-B | 200-W-192-PL-B; 200-W-192-PL; Pipeline from 221-U, 222-U and 224-U to the 207-U Retention Basin; U Plant Process Sewer | Radioactive Process Sewer | |
| 200-W-192-PL-C | 200-W-192-PL-C; 200-W-192-PL; Pipeline from 221-U, 222-U and 224-U to the 207-U Retention Basin; U Plant Process Sewer | Radioactive Process Sewer | |
| 200-W-193-PL-B | 200-W-193-PL-B; 200-W-193-PL; Pipeline from 224-U to 241-U-361 Settling Tank | Radioactive Process Sewer | |
| 200-W-194-PL | 200-W-194-PL; Pipeline from 241-U-361 Settling Tank to 216-U-1 and 216-U-2 Cribs | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------|--------|
| 200-W-196-PL | 200-W-196-PL; Pipelines from Railcar Unloading Stations to 216-T-34 Crib | Radioactive Process Sewer | |
| 200-W-197-PL | 200-W-197-PL; Pipelines from Railcar Unloading Stations to 216-T-35 Crib | Radioactive Process Sewer | |
| 200-W-198-PL | 200-W-198-PL; Pipelines from Truck Unloading Station to 216-T-34 and 216-T-35 Cribs | Radioactive Process Sewer | |
| 200-W-199-PL | 200-W-199-PL; Pipelines from Building 231-Z to 231-W-151 Vault | Radioactive Process Sewer | |
| 200-W-200-PL | 200-W-200-PL; Pipeline from 231-Z to 216-Z-16 Crib | Radioactive Process Sewer | |
| 200-W-201-PL | 200-W-201-PL; Pipeline from 231-Z to 216-Z-17 Crib | Radioactive Process Sewer | |
| 200-W-202-PL | 200-W-202-PL; Pipeline from 231-W-151 to 216-Z-5 Crib | Radioactive Process Sewer | |
| 200-W-203-PL | 200-W-203-PL; Pipeline from 231-W-151 Vault to 216-Z-7 Crib | Radioactive Process Sewer | |
| 200-W-204-PL | 200-W-204-PL; Pipeline from 231-W-151 Vault to 216-Z-10 Reverse Well | Radioactive Process Sewer | |
| 200-W-212-PL | 200-W-212-PL; Encased Transfer Line from 240-S-151 Diversion Box to Pipeline 200-W-153-PL; Lines V550, V551, V544, V546, V548 and V549 | Encased Tank Farm Pipeline | |
| 200-W-213-PL-B | 200-W-213-PL-B; 200-W-213-PL; Lines V795, V606 and V605; Pipelines from 241-TX-153 Diversion Box and 241-TX-302A to 216-T-19 Crib | Radioactive Process Sewer | |
| 200-W-213-PL-C | 200-W-213-PL-C; 200-W-213-PL; Lines V795, V606 and V605; Pipelines from 241-TX-153 Diversion Box and 241-TX-302A to 216-T-19 Crib | Radioactive Process Sewer | |
| 200-W-222-PL | 200-W-222-PL; 207-U Retention Basin Outlet Pipeline to the 216-U-14 Ditch | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|--------|
| 200-W-223-PL-B | 200-W-223-PL-B; 200-W-223-PL; Pipeline from 242-S Evaporator to 216-U-14 Ditch | Radioactive Process Sewer | |
| 200-W-223-PL-C | 200-W-223-PL-C; 200-W-223-PL; Pipeline from 242-S Evaporator to 216-U-14 Ditch | Radioactive Process Sewer | |
| 200-W-226-PL-A | 200-W-226-PL-A; 200-W-226-PL; Lines V326, V671 and V706; Pipeline from 224-T (Plutonium Concentration Facility) to 241-T-361 Settling Tank and 216-T-3 Reverse Well | Radioactive Process Sewer | |
| 200-W-226-PL-B | 200-W-226-PL-B; 200-W-226-PL; Lines V326, V671 and V706; Pipeline from 224-T (Plutonium Concentration Facility) to 241-T-361 Settling Tank and 216-T-3 Reverse Well | Radioactive Process Sewer | |
| 200-W-226-PL-C | 200-W-226-PL-C; 200-W-226-PL; Lines V326, V671 and V706; Pipeline from 224-T (Plutonium Concentration Facility) to 241-T-361 Settling Tank and 216-T-3 Reverse Well | Radioactive Process Sewer | |
| 200-W-226-PL-D | 200-W-226-PL-D; 200-W-226-PL; Lines V326, V671 and V706; Pipeline from 224-T (Plutonium Concentration Facility) to 241-T-361 Settling Tank and 216-T-3 Reverse Well | Radioactive Process Sewer | |
| 200-W-226-PL-E | 200-W-226-PL-E; 200-W-226-PL; Lines V326, V671 and V706; Pipeline from 224-T (Plutonium Concentration Facility) to 241-T-361 Settling Tank and 216-T-3 Reverse Well | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------|--------|
| 200-W-227-PL-A | 200-W-227-PL-A; 200-W-227-PL; Pipeline from 221-T Separations Facility to 216-T-6 Crib | Radioactive Process Sewer | |
| 200-W-227-PL-B | 200-W-227-PL-B; 200-W-227-PL; Pipeline from 221-T Separations Facility to 216-T-6 Crib | Radioactive Process Sewer | |
| 200-W-230-PL** | 200-W-230-PL; Pipeline from Railroad Unloading Station to 276-S-141 and 276-S-142 Hexone Tanks | Radioactive Process Sewer | |
| 200-W-235-PL | 200-W-235-PL; 200-W-162-PL Replacement Pipeline; Pipeline from 241-SX-701 Building to S Pit | Process Sewer | |
| 600-284-PL-A** | 600-284-PL-A; 600-284-PL; Cross Site Transfer Line; Cross Site Transfer Pipeline; Lines V360, V361, V362, V363, V364 and V366; Old Cross Site Transfer Line; Original Cross Site Transfer Pipeline; Piping Associated with UPR-600-20 | Encased Tank Farm Pipeline | |
| 600-284-PL-B** | 600-284-PL-B; 600-284-PL; Cross Site Transfer Line; Cross Site Transfer Pipeline; Lines V360, V361, V362, V363, V364 and V366; Old Cross Site Transfer Line; Original Cross Site Transfer Pipeline; Piping Associated with UPR-600-20 | Encased Tank Farm Pipeline | |
| 600-284-PL-C** | 600-284-PL-C; 600-284-PL; Cross Site Transfer Pipeline; Lines V360, V361, V362, V363, V364 and V366; Old Cross Site Transfer Line; Original Cross Site Transfer Pipeline; Piping Associated with UPR-600-20, Cross Site Transfer Line | Encased Tank Farm Pipeline | |
| UPR-200-E-7 | UPR-200-E-7; Cave-In Near 216-B-9 (241-B-361 Crib); Pipeline Leak; UN-200-E-7 | Unplanned Release | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|--------|
| UPR-200-E-9 | UPR-200-E-9; Liquid Overflow at 216-BY-201; UN-200-E-9 | Unplanned Release | |
| UPR-200-E-18 | UPR-200-E-18; Contamination Release at the 216- A-8 Sampler Pit; UN-200-E-18 | Unplanned Release | |
| UPR-200-E-19 | UPR-200-E-19; Contamination Release at 216-A-6 Sampler Pit; UN-200-E-19 | Unplanned Release | |
| UPR-200-E-42 | UPR-200-E-42; 241-AX-151 Release; UN-200-E-42 | Unplanned Release | |
| UPR-200-E-45 | UPR-200-E-45; Contamination Spread from the 241-B-154 Diversion Box; UN-200-E-45 | Unplanned Release | |
| UPR-200-E-67 | UPR-200-E-67; Excavation of Radioactively Contaminated Pipe Encasement (V004, V005, V006, V007, V008); UN-200-E-67; UN-216-E-67 | Unplanned Release | |
| UPR-200-E-77 | UPR-200-E-77; 241-B-154 Diversion Box Ground Contamination; UN-200-E-77; UN-216-E-5 | Unplanned Release | |
| UPR-200-E-78 | UPR-200-E-78; 241-BX-155 Diversion Box Ground Contamination; UN-200-E-78; UN-216-E-6 | Unplanned Release | |
| UPR-200-E-79 | UPR-200-E-79; 200-E-264-PL Line Break; 242-B to 207-B Line Break; UN-200-E-79; UN-216-E-7 | Unplanned Release | |
| UPR-200-E-84 | UPR-200-E-84; 241-ER-151 Catch Tank Leak (241-ER-311A); UN-200-E-84; UN-216-E-12 | Unplanned Release | |
| UPR-200-E-100 | UPR-200-E-100; Radioactive Contamination Near 244-A Lift Station; UN-200-E-100; UN-216-E- 100; UN-216-E-29 | Unplanned Release | |
| UPR-200-E-145 | UPR-200-E-145; VCP Pipeline Leak; W049H Green Soil | Unplanned Release | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|--------|
| 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; Contamination Spread from 241-U-151 and 241-U-152 Diversion Boxes; UN-200-W-6 | 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; 23rd and Camden Line Break; Transfer Line Leak; UN-200-W-27; UN-200-W-29; UN-216-W-5; UPR-200-W-27 | Unplanned Release | |
| UPR-200-W-32 | UPR-200-W-32; UN-200-W-32; UNH Transfer Line Break | Unplanned Release | |
| UPR-200-W-35 | UPR-200-W-35; Ground Contamination Near UNH Process Line; REDOX to 224-U UNH Line Leak; UN-200-W-35 | Unplanned Release | |
| UPR-200-W-64 | UPR-200-W-64; Road Contamination at 23rd and Camden; UN-200-W-64 | Unplanned Release | |
| UPR-200-W-97 | UPR-200-W-97; Transfer Line Leak; UN-200-W-97; UN-216-W-5 | Unplanned Release | |
| UPR-200-W-108 | UPR-200-W-108; Line Leak at 216-S-9 Crib; UN-200-W-108; UN-216-W-18 | Unplanned Release | |
| UPR-200-W-109 | UPR-200-W-109; UN-200-W-109; UN-216-W-19; Waste Line Leak Near 218-W-9 | Unplanned Release | |
| UPR-200-W-113 | UPR-200-W-113; Contamination Areas Around 241-TX-155 Diversion Box; Soil Contamination East of 241-TX; UN-200-W-113; UN-216-W-23 | Unplanned Release | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|--------|
| UPR-200-W-114 | UPR-200-W-114; Ground Contamination East of 241-SX Tank Farm; UN-200-W-114; UN-216-W-24 | Unplanned Release | |
| UPR-200-W-115 | UPR-200-W-115; Ground Contamination Above Transfer Line Along Cooper Street; UN-216-W-25 | Unplanned Release | |
| UPR-200-W-130 | UPR-200-W-130; Line Leak at 231-W-151 Sump; UN-200-W-130 | 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-W-135 | Unplanned Release | |
| UPR-200-W-161 | UPR-200-W-161; Large Area East of 241-U Tank Farm; UN-200-W-161; UN-216-W-35 | 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 | |
| 200-OA-1 | EPA | CPP | |
| 216-B-3-1 | 216-B-3-1; 216-B-2; 216-B-2E; 216-B-3 Ditch; B Swamp Ditch | Ditch | |
| 216-B-3-2 | 216-B-3-2; 216-B Ditch; 216-B-1 Ditch; 216-B-2-2E; B Swamp Ditch | Ditch | |
| 216-B-3-3** | 216-B-3-3; 216-B-3-3 Ditch; B Swamp Ditch | Ditch | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|------------------------------|--------|
| 200 CP | 200 CP; 200 Area Construction Pit; 200 Area Construction Waste Site; Hanford Site Gravel Pit 29 | Depression/Pit (nonspecific) | |
| 200-E-1 | 200-E-1; 284-E Landfill; Asbestos in Excavation | Dumping Area | |
| 200-E-2 | 200-E-2; MO-234 Parking Lot; Soil Stains at the 2101-M SW Parking Lot | Unplanned Release | |
| 200-E-7 | 200-E-7; 2607-EO Septic Tank & Tile Field | Septic Tank | |
| 200-E-46 | 200-E-46; Debris Southeast of 282-E; RCRA Permit General Inspection #200EFY96 Item #3 | Dumping Area | |
| 200-E-101 | 200-E-101; 200 East Deep Lysimeter Site | Depression/Pit (nonspecific) | |
| 200-E-110 | 200-E-110; Contaminated Tumbleweed Dump Site | Dumping Area | |
| 200-E-126-PL-A | 200-E-126-PL-A; Segments of 200-E-126-PL Pipeline Located in the Outer Area | Radioactive Process Sewer | |
| 200-E-127-PL-A | 200-E-127-PL-A; 200-E-127-PL; Line 1601; Pipeline from PUREX to Gable and B-Ponds (216-A-25 and 216-B-3); PUREX Cooling Water Line | Radioactive Process Sewer | |
| 2607-E1* | 2607-E1; 2607-E1 Septic Tank and Tile Field | Septic Tank | |
| 216-N-8 | 216-N-8; 216-N-8 Pond; Honeyhill Pond; Seepage Pond; West Lake; West Pond | Pond | |
| 216-S-10D** | 216-S-10D; 202 Chemical Sump #1 and Ditch; 216-S-10 Ditch; 216-S-10D Ditch; Chemical Sewer Trench; Open Ditch to the Chemical Sewer Trench | Ditch | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|--------|
| 216-S-10P** | 216-S-10P; 202-S Chemical Sump #1 and Ditch; 216-S-10P Pond; Chemical Sewer Trench | Pond | |
| 216-S-11 | 216-S-11; 202-S Chemical Sump #2; 216-S-11 Swamp; Chemical Sewer Trenches | Pond | |
| 216-S-16D | 216-S-16D; 202-S Swamp #1; 202-S Swamp (New) and Ditch; 216-S-24 Ditch; REDOX Pond #2 | Ditch | |
| 216-S-19 | 216-S-19; 216-S-19 Pond; 216-SL-1; 222-S Lab Swamp; REDOX Lab Swamp | Pond | |
| 216-S-26 | 216-S-26; 216-S-19 Replacement Facility; 216-S-26 Crib | Crib | |
| 216-T-1 | 216-T-1; 216-T-1 Trench; 221-T Ditch; 221-T Trench | Ditch | |
| 200-W-3 | 200-W-3; 220-W-1; 2713-W North Parking Lot | Dumping Area | |
| 200-W-33 | 200-W-33; Debris Near 609 Gate; Solid Waste Dumping Area | Dumping Area | |
| 200-W-64 | 200-W-64; 2724-W Contaminated Laundry Facility Building Foundation | Foundation | |
| 200-W-102-PL | 200-W-102-PL; 200-W-102; Pipeline from Laundry, Powerhouse and Shops to 216-U-14 Ditch | Radioactive Process Sewer | |
| 200-W-147-PL-A | 200-W-147-PL-A; Portion of 200-W-147-PL Pipeline in the Central Plateau Outer Area | Radioactive Process Sewer | |
| 200-W-148-PL | 200-W-148-PL; 216-S-26 Crib Pipeline | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|--------|
| 200-W ADB | 200-W ADB; 200-W Ash Disposal Basin | Coal Ash Pit | |
| 200-W BP* | 200-W BP; 200-W Burning Pit; Gravel Pit 34; Pit 34 | Burn Pit | |
| 216-W-LWC | 216-W-LWC; 216-W-1; 216-W-LC; 216-W-LWC Crib; Laundry Waste Crib | Crib | |
| 218-W-6** | 218-W-6; 218-W-6 Burial Ground | Burial Ground | |
| 2607-W1* | 2607-W1; 2607-W1 Septic System | Septic Tank | |
| 2607-WL | 2607-WL; 2607-WL Septic System | Septic Tank | |
| 616-WS-1* | 616-WS-1; 616 NRDWSF French Drain | French Drain | |
| 600 OCL | 600 OCL; 600 Area Original Central Landfill; 600-OCL; Original CLF | Sanitary Landfill | |
| 600-36 | 600-36; Ethel Railroad Siding (Burn Pit) | Burn Pit | |
| 600-37 | 600-37; Browns Wells; Johnson's Wells | French Drain | |
| 600-38 | 600-38; 600-25; Railroad Siding Susie; Susie Junction | Dumping Area | |
| 600-40 | 600-40; West of West Lake Dumping Area | Dumping Area | |
| 600-49 | 600-49; H-42 Gun Site Building Foundations, Ammunition Storage and Small Arms Firing Range | Foundation | |
| 600-51 | 600-51; Chemical Dump; Pile of White Powder | Dumping Area | |
| 600-65 | 600-65; 607 Batch Plant Drum Site | Dumping Area | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|--------|
| 600-66 | 600-66; 607 Batch Plant Orphan Drums | Dumping Area | |
| 600-71 | 600-71; 607 Batch Plant Burn Pit | Burn Pit | |
| 600-218 | 600-218; H-61-H Anti-Aircraft Artillery Site Dumping Area | Dumping Area | |
| 600-220 | 600-220; H-51 Anti-Aircraft Artillery Site Dumping Area | Dumping Area | |
| 600-222 | 600-222; H-60 Gun Site | Military Compound | |
| 600-226 | 600-226; Gun Site H-42 Dumping Area | Dumping Area | |
| 600-227 | 600-227; H-40 Gun Site Building Foundations | Foundation | |
| 600-228 | 600-228; H-40 Gun Site Dumping Area | Dumping Area | |
| 600-262 | 600-262; Lysimeter Test Site; West Lake Test Crib | Crib | |
| 600-275 | 600-275; 218-W-14; Army Ammo Site; Igloo Site; Regulated Storage Area | Foundation | |
| 600-281 | 600-281; Scattered Debris South of Army Loop Road | Dumping Area | |
| 600-282 | 600-282; Wood and Coal Debris Piles | Dumping Area | |
| CTFN 2703-E | CTFN 2703-E; 200-E Chemical Drain Field; Chemical Seepage Basin; Chemical Tile Field North of 2703-E | Drain/Tile Field | |
| OCSA | OCSA; Central Shop Area; Old Central Shop Area | Foundation | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|--------|
| UPR-200-E-83 | UPR-200-E-83; BC Controlled Area; BC Cribs Controlled Area; BCCA; UN-200-E-83; UN-216-E-11; Zone A, Zone B, Zone C | Unplanned Release | |
| UPR-200-W-8 | UPR-200-W-8; 200-W-5; Old Burial/Burning Pit; UN-200-W-8; U-Plant Burning Pit/Burial Ground | Unplanned Release | |
| UPR-200-W-58 | UPR-200-W-58; Railroad Track Contamination; UN-200-W-58 | Unplanned Release | |
| UPR-200-W-70 | UPR-200-W-70; Contamination Found at the 200 West Burning Ground East of Beloit Ave. | Unplanned Release | |
| UPR-600-12 | UPR-600-12; UN-600-12; UNH Spill to Route 4S | Unplanned Release | |
| UPR-600-20 | UPR-600-20; Old Cross Site Transfer Line Surface Contamination; UN-216-E-41 | Unplanned Release | |
| UPR-600-21 | UPR-600-21; Contamination Found Northeast of 200 East Area; UN-216-E-31 | Unplanned Release | |
| 200-PW-1 | EPA | CPP | |
| 216-Z-1&2 | 216-Z-1&2; 216-Z-1 & 2TF; 216-Z-1 and 216-Z-2 Cribs; 216-Z-7; 234-5 No. 1 Crib; 234-5 No. 2 Crib | Crib | |
| 216-Z-1A | 216-Z-1A; 216-Z-1A Tile Field; 216-Z-1AA; 216-Z-1AB; 216-Z-1AC; 216-Z-7; 234-5 Tile Field | Drain/Tile Field | |
| 216-Z-3 | 216-Z-3; 216-Z-3 Culvert; 216-Z-8; 234-5 No. 3 & 4 Cribs | Crib | |
| 216-Z-9 | 216-Z-9; 216-Z-9 Cavern; 216-Z-9 Covered Trench; 216-Z-9 Crib and Support Structures; 216-Z-9A; 216-Z-9B; 216-Z-9C; 234-5 Recuplex Cavern | Trench | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|------------------------|--------|
| 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 | |
| 200-PW-3 | EPA | CPP | |
| 216-A-7 | 216-A-7; 216-A-7 Cavern | Crib | |
| 216-A-8 | 216-A-8; 216-A-8 Crib and Overflow Pond | Crib | |
| 216-A-24 | 216-A-24; 216-A-24 Crib | Crib | |
| 216-A-31 | 216-A-31 Crib; 216-A-31 Crib | Crib | |
| 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 | |
| 200-PW-6 | EPA | CPP | |
| 216-Z-5 | 216-Z-5; 231-W Sumps; 231-W-1 & 2 Cribs | Crib | |
| 216-Z-8 | 216-Z-8; 216-Z-8 Crib; 216-Z-9; 234-5 Recuplex French Drain | French Drain | |
| 216-Z-10 | 216-Z-10; 216-Z-2; 231-W Reverse Well; 231-W-150; 231-W-151 Dry Well or Reverse Well; 231-Z Well; 299-W15-51 | Injection/Reverse Well | |
| 241-Z-8 | 241-Z-8; 216-Z-8; 241-Z-TK-8; Silica Slurry Tank | Settling Tank | |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|--------|
| 200-SW-1 | Ecology | | |
| 600 CL | 600 CL; 600 Area Central Landfill; 671 Facility; Central Landfill; Central Waste Landfill; CWL; Solid Waste Landfill; SWL | Sanitary Landfill | |
| 600 NRDWL** | 600 NRDWL; 600 Area Nonradioactive Dangerous Waste Landfill; Nonradioactive Dangerous Waste Landfill (Central Landfill); NRDW Landfill; NRDWL | Sanitary Landfill | |
| 200-SW-2 | Ecology | R-CPP | |
| 216-C-9 | 216-C-9; 216-C-7 Swamp; 216-C-9 C Canyon Excavation Semiworks Swamp; 216-C-9 Pond; 216-C-9 Swamp; Former 221-C Canyon Excavation; Semi-Works Swamp | Pond | |
| 218-C-9 | 218-C-9; 218-C-9 Burial Ground; 218EC9; Dry Waste No.0C9 | 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; Burial Trench; Regulated Equipment Storage Site No. 02A | 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 | |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------|--------|
| 218-E-5A | 218-E-5A; 200 East Industrial Waste No. 005A; Equipment Burial Ground #5A | 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 | Burial Ground | |
| 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 | |
| 218-W-1 | 218-W-1; 200-W Area Dry Waste No. 001; Solid 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; Equipment Burial Ground #2; Industrial Waste No. 02A | Burial Ground | |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-----------------|--------|
| 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; Dry Waste No. 3AE; Industrial 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 Burial Grounds | Burial Ground | |
| 218-W-11 | 218-W-11; Regulated Storage Site | Burial Ground | |
| 200-WA-1 | EPA | CPP | |
| 207-S | 207-S; 207-S Retention Basin; REDOX Retention Basin | Retention Basin | |
| 216-S-1&2 | 216-S-1&2; 216-S-1 & 2; 216-S-5 Crib | Crib | |
| 216-S-4 | 216-S-4; 216-S-4 Sump or Crib; 216-S-7; UN-216-W-1 | French Drain | |
| 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-13 Crib; 216-S-5 Crib; 216-S-6 Cavern #2 | Crib | |
| 216-S-7 | 216-S-7; 216-S-15; 216-S-7 Crib | Crib | |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|------------------------|--------|
| 216-S-8 | 216-S-8; 216-S-3; Cold Aqueous Crib; Cold Aqueous Grave; Cold Aqueous Trench; Unirradiated Uranium Waste Trench | Trench | |
| 216-S-12 | 216-S-12; 291-S Stack Wash Sump; REDOX Stack Flush Trench; UPR-200-W-30 | Trench | |
| 216-S-14 | 216-S-14; 216-S-4 Burial Contaminated Hexone; Buried Contaminated Hexone; Cold Organic Trench or Grave | Trench | |
| 216-S-18 | 216-S-18; 216-S-14 Steam Cleaning Pit; 241-SX Steam Cleaning Pit | Trench | |
| 216-S-20 | 216-S-20; 216-SL-1&2 Crib; 216-SL-2 | Crib | |
| 216-S-22 | 216-S-22; 216-S-22 Crib | Crib | |
| 216-S-23 | 216-S-23; 216-S-23 Crib | Crib | |
| 216-S-25 | 216-S-25; 216-S-25 Crib | Crib | |
| 216-SX-2 | 216-SX-2; 216-SX-2 Crib | Crib | |
| 207-T | 207-T; 207-T Retention Basin; T Plant Retention Basin | Retention Basin | |
| 216-T-2 | 216-T-2; 222-T Reverse Well; 222-T-110 Dry Well | Injection/Reverse Well | |
| 216-T-4-1D | 216-T-4-1D; 216-T-4 Ditch; 216-T-4 Swamp | Ditch | |
| 216-T-8 | 216-T-8; 222-T-1 & 2 Cribs | Crib | |
| 216-T-9 | 216-T-9; Decontamination Trenches; Equipment Decontamination Area | Trench | |

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|--------------|--------|
| 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-12 | 216-T-12; 207-T Sludge Grave; 207-T Sludge Pit; 216-T-11 | Trench | |
| 216-T-13 | 216-T-13; 216-T-12; 269-W Decontamination Pit or Trench; 269-W Regulated Garage; 269-W Regulated Garage Decontamination Pit | Trench | |
| 216-T-20 | 216-T-20; 216-T-20 Crib; 216-TX-2; 241-TX-155 Contaminated Acid Grave | Trench | |
| 216-T-27 | 216-T-27; 216-TX-2 Cavern; 216-TX-2 Crib; 216-TY-2 Cavern; 216-TY-2 Crib | Crib | |
| 216-T-28 | 216-T-28; 216-TX-3 Cavern; 216-TX-3 Crib; 216-TY-3 Cavern; 216-TY-3 Crib | Crib | |
| 216-T-29 | 216-T-29; 216-T-29 French Drain; 291-T Sand Filter Sewer | French Drain | |
| 216-T-31 | 216-T-31; 216-T-31 French Drain | French Drain | |
| 216-T-33 | 216-T-33; 216-T-33 Crib | Crib | |
| 216-T-34 | 216-T-34; 216-T-34 Crib | Crib | |
| 216-T-35 | 216-T-35; 216-T-35 Crib | Crib | |
| 216-T-36 | 216-T-36; 216-T-36 Crib | Crib | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 169 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|------------------------|--------|
| 241-T-361 | 241-T-361; 241-T-361 Settling Tank; 361-T-TANK | Settling Tank | |
| 207-U | 207-U; 207-U Retention Basin | Retention Basin | |
| 216-U-1&2 | 216-U-1&2; 216-U-1; 216-U-1 & 2; 216-U-2; 216-U-3; 216-UR #1&2 Cribs; 361-WR (Crib 2) | Crib | |
| 216-U-3 | 216-U-3; 216-U-11; 216-U-3 French Drain | French Drain | |
| 216-U-4 | 216-U-4; 216-U-2; 216-U-4 Reverse Well; 222-U Dry Well; 222-U-110 Dry Well | Injection/Reverse Well | |
| 216-U-4A | 216-U-4A; 216-U-4 Dry Well; 216-U-4 Reverse Well Replacement French Drain | French Drain | |
| 216-U-4B | 216-U-4B; 216-U-4B Dry Well; 216-U-4B French Drain | French Drain | |
| 216-U-5 | 216-U-5; 216-U-4; 221-U Cold U Trench #2 | Trench | |
| 216-U-6 | 216-U-6; 216-U Cold U Trench #1; 216-U-5; 221-U Cold U Grave #1; 221-U Cold U Trench; U Facility Unirradiated Uranium Waste Trench | Trench | |
| 216-U-7 | 216-U-7; 221-U Counting Box French Drain and Pipeline; 221-U Vessel Vent Blower Pit French Drain | French Drain | |
| 216-U-8 | 216-U-8; 216-U-9; 216-WR-1,2,3 Cribs | Crib | |
| 216-U-12 | 216-U-12; 216-U-12 Crib | Crib | |
| 216-U-13 | 216-U-13; 216-U-13 Cribs; Vehicle Steam Cleaning Pit | Trench | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 170 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|--------|
| 216-U-14 | 216-U-14; 216-U-14 Ditch; Laundry Ditch | Ditch | |
| 216-U-15 | 216-U-15; 388-U Tank Dumping; U-152 Interface Crud Burial; UN-200-W-158; UN-216-W-10; UPR-200-W-125 | Trench | |
| 216-U-16 | 216-U-16; UO3 Crib | Crib | |
| 216-U-17 | 216-U-17; 216-U-17 Crib | Crib | |
| 241-U-361 | 241-U-361; 241-U-361 Settling Tank; 361-U-TANK | Settling Tank | |
| 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; 241-UX-302 Catch Tank; Lines V380 and V381 | Catch Tank | |
| 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-6 | 200-W-6; 200-W Painter Shop Paint Solvent Disposal Area | Dumping Area | |
| 200-W-9 | 200-W-9; Project W291 Excavation VCP Contamination | Unplanned Release | |
| 200-W-11 | 200-W-11; Concrete Foundation South of 241-S; S-Farm Foundation and Dump Site | Dumping Area | |
| 200-W-12 | 200-W-12; 201-W Soil Mound and Plastic Pipe | Dumping Area | |

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Action Plan

Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 171 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|--------|
| 200-W-13 | 200-W-13; 2713-WB Green Hut Complex; Regulated Vehicle Maintenance Shop Parking Areas | Unplanned Release | |
| 200-W-14 | 200-W-14; 200 West Heavy Equipment Storage Area | Unplanned Release | |
| 200-W-15 | 200-W-15; S Plant Project W-087 Hexone Discovery | Unplanned Release | |
| 200-W-21 | 200-W-21; 204-T Unloading Station; T-Plant Waste Railcar Unloading Facility; Unloading Station 1 and Unloading Station 2 | Pump Station | |
| 200-W-22 | 200-W-22; 203-S/204-S/205-S Stabilized Area | Unplanned Release | |
| 200-W-42 | 200-W-42; 200-W-42-PL; U Plant Radioactive Process Sewer from 221-U to 216-U-8 & 216-U-12 Cribs | Radioactive Process Sewer | |
| 200-W-51 | 200-W-51; Septic Tank (Abandoned) | Septic Tank | |
| 200-W-53 | 200-W-53; Contaminated Soil East of 207-T Retention Basin | Unplanned Release | |
| 200-W-54 | 200-W-54; Contamination Migration from 241-SX Tank Farm | Contamination Migration | |
| 200-W-63 | 200-W-63; Contaminated Concrete Pad | Unplanned Release | |
| 200-W-67 | 200-W-67; Contaminated Soil at the Corner of Cooper and 16th Street | Unplanned Release | |
| 200-W-71 | 200-W-71; Undocumented Burn Pit; Undocumented Trench | Trench | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 172 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------------|--------|
| 200-W-75 | 200-W-75; Radiological Logging System (RLS) Calibration Silos | Experiment/Test Site | |
| 200-W-77 | 200-W-77; Posted Contamination Area East of 216-U-14 Ditch | Unplanned Release | |
| 200-W-80 | 200-W-80; Mound of Contaminated Soil Southwest of T Plant; Stabilized Contaminated Soil Area Southwest of T Plant | Spoils Pile/Berm | |
| 200-W-81 | 200-W-81; Contaminated Tumbleweed Fragments Along Railroad Track East of 218-W-3AE | Unplanned Release | |
| 200-W-82 | 200-W-82; Crib Unloading Station; Risers East of 216-TY-201 and 216-T-26, 216-T-27 and 216-T-28 Cribs; Truck Unloading Station | Product Piping | |
| 200-W-83 | 200-W-83; Contamination Area North of 2727W | Unplanned Release | |
| 200-W-84-PL-A | 200-W-84-PL-A; 200-W-84; 200-W-84-PL; U Plant Chemical Process Sewer to 216-U-14 Ditch; VCP Process Sewer | Radioactive Process Sewer | |
| 200-W-84-PL-X | 200-W-84-PL-X; 200-W-84; 200-W-84-PL; U Plant Chemical Process Sewer to 216-U-14 Ditch; VCP Process Sewer | Radioactive Process Sewer | |
| 200-W-85 | 200-W-85; Soil Contamination Area East of 2727 W | Unplanned Release | |
| 200-W-86 | 200-W-86; Contamination Area Around Light Pole | Unplanned Release | |
| 200-W-87 | 200-W-87; Unplanned Release on Chemical Spur Railroad Track Northwest of 221-U Plant | Unplanned Release | |

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Action Plan

Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 173 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------|--------|
| 200-W-89 | 200-W-89; 252-U; C8S17 Substation; U Plant Electrical Substation; U-Cat Substation | Foundation | |
| 200-W-90 | 200-W-90; Underground Radioactive Material Areas Posted Along 23rd Street in 200 West Area | Unplanned Release | |
| 200-W-92 | 200-W-92; Contaminated Mound of Soil and Debris; Soil Mound West of 241-TY Tank Farm | Dumping Area | |
| 200-W-100-PL-X** | 200-W-100-PL-X; 200-W-100-PL; 200-W-100-PL-A; Encased Pipeline from 241-UX-154 to 241-SX-152 and 241-S-151 Diversion Boxes; Lines V762/4853, V503/4700 and V505/4701 | Encased Tank Farm Pipeline | |
| 200-W-105-PL-X | 200-W-105-PL-X; 200-W-105-PL; 200-W-105-PL-A; Encased Lines V375, V376, V382, 4877, 4851 and 4859/4703, 4878, 4857, 4876, 4702, 4701, 4700, 4855, 4854, 4860, 4853; Encased Transfer Line Between 241-UX-154 Diversion Box and 241-TX-155 Diversion Box and Between 241-UX-154 Diversion Box and 241-WR Vault; Stubbed Lines V389/V839 | Encased Tank Farm Pipeline | |
| 200-W-106 | 200-W-106; Soil Contamination Area Adjacent to 200-W-55 Dump Site | Unplanned Release | |
| 200-W-127 | 200-W-127; Surface Stabilized Area East of UPR-200-W-29/UPR-200-W-97 (UN-216-W-5) | Unplanned Release | |
| 200-W-128 | 200-W-128; Underground Radioactive Material Area East of 218-W-4A | Unplanned Release | |
| 200-W-171 | 200-W-171; 200-W-219-PL Line Leak; Leak from 234-5Z Pipe Trench to 241-Z Tank D-6 | Unplanned Release | |
| 200-W-172 | 200-W-172; Liquid Leaking from Drain Laterals Below 234-5Z Floor Slab | Unplanned Release | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 174 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|---------------------------|--------|
| 200-W-192-PL-A | 200-W-192-PL-A; 200-W-192-PL; Pipeline from 221-U, 222-U and 224-U to the 207-U Retention Basin; U Plant Process Sewer | Radioactive Process Sewer | |
| 200-W-192-PL-X | 200-W-192-PL-X; 200-W-192-PL; Pipeline from 221-U, 222-U and 224-U to the 207-U Retention Basin; U Plant Process Sewer | Radioactive Process Sewer | |
| 200-W-193-PL-A | 200-W-193-PL-A; 200-W-193-PL; Pipeline from 224-U to 241-U-361 Settling Tank | Radioactive Process Sewer | |
| 200-W-193-PL-X | 200-W-193-PL-X; 200-W-193-PL; Pipeline from 224-U to 241-U-361 Settling Tank | Radioactive Process Sewer | |
| 200-W-195-PL | 200-W-195-PL; Pipeline from 224-U to 216-U-17 Crib | Radioactive Process Sewer | |
| 200-W-209-PL-A | 200-W-209-PL-A; 200-W-209-PL; 207-Z Pipelines | Radioactive Process Sewer | |
| 200-W-209-PL-B | 200-W-209-PL-B; 200-W-209-PL; 207-Z Pipelines | Radioactive Process Sewer | |
| 200-W-216-PL | 200-W-216-PL; Pipelines from 291-Z to 216-Z-15 French Drain | Radioactive Process Sewer | |
| 200-W-219-PL-A | 200-W-219-PL-A; 200-W-219-PL; 241-Z Primary Pipe Trench; Pipe Tunnel 3; Pipelines from 235-Z to the North Side of 241-Z | Radioactive Process Sewer | |
| 200-W-219-PL-B | 200-W-219-PL-B; 200-W-219-PL; 241-Z Primary Pipe Trench; Pipe Tunnel 3; Pipelines from 235-Z to the North Side of 241-Z | Radioactive Process Sewer | |
| 200-W-224-PL-A | 200-W-224-PL-A; 200-W-224-PL; Pipeline from 234-5Z and 236-Z to West Side of 241-Z | Radioactive Process Sewer | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 175 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|----------------------------------|--------|
| 200-W-224-PL-B | 200-W-224-PL-B; 200-W-224-PL; Pipeline from 234-5Z and 236-Z to West Side of 241-Z | Radioactive Process Sewer | |
| 200-W-225-PL-A | 200-W-225-PL-A; 200-W-225-PL; PFP Six Inch Condensate Line Connecting to Process Sewer | Radioactive Process Sewer | |
| 200-W-225-PL-B | 200-W-225-PL-B; 200-W-225-PL; PFP Six Inch Condensate Line Connecting to Process Sewer | Radioactive Process Sewer | |
| 200-W-228-PL-A | 200-W-228-PL-A; 200-W-228-PL; 3-Inch Contaminated Waste Line; Pipeline from 232-Z to 241-Z | Radioactive Process Sewer | |
| 200-W-228-PL-B | 200-W-228-PL-B; 200-W-228-PL; 3-Inch Contaminated Waste Line; Pipeline from 232-Z to 241-Z | Radioactive Process Sewer | |
| 200-W-229-PL-A | 200-W-229-PL-A; 200-W-229-PL; Pipeline from 2736-ZB to 241-Z | Radioactive Process Sewer | |
| 200-W-229-PL-B | 200-W-229-PL-B; 200-W-229-PL; Pipeline from 2736-ZB to 241-Z | Radioactive Process Sewer | |
| 200-W-231 | 200-W-231; Temporary Facilities Construction Trailer Septic Tank and Tile Field | Septic Tank | |
| 200-W-244-PL | 200-W-244-PL; Encased Pipelines from 221-U Canyon Building to 241-WR Vault; Lines 4705, 4707, 4709, 4711, 4861, 4871 | Encased Transfer Piping | |
| 200-W-248-PL | 200-W-248-PL; Direct Buried lines from 241-UX-154 to 200-W-244-PL and 241-WR Vault; Line Numbers 4866, 4976 and 4977 | Direct Buried Tank Farm Pipeline | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 176 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------|--------|
| 218-W-8 | 218-W-8; 222-T Vault | Burial Vault | |
| 218-W-9 | 218-W-9; Dry Waste Burial Ground No. 9; Non-TRU Dry Waste No. 009 | Burial Ground | |
| 231-W-151 | 231-W-151; 231-W-151 Sump; 231-W-151 Vault; 231-W-151-001 (Tank); 231-W-151-002 (Tank); 231-Z-151 Sump | Receiving Vault | |
| 270-W | 270-W; 270-W Neutralization Tank; 270-W Tank | Neutralization Tank | |
| 2607-W3 | 2607-W3; 2607-W3 Septic System | Septic Tank | |
| 2607-W4 | 2607-W4; 221-T Head End Septic Tanks and Drainfields | Septic Tank | |
| 2607-W5 | 2607-W5; 2607-W5 Septic Tank and Drain Field | Septic Tank | |
| 2607-W7 | 2607-W7; 2607-W7 Septic Tank | Septic Tank | |
| 2607-W8 | 2607-W8; 2607-W8 Septic System | Septic Tank | |
| 2607-WC | 2607-WC; 2607-WC Septic System | Septic Tank | |
| 241-WR VAULT | 241-WR VAULT; 241WR; 241-WR Diversion Station Vault; 241-WR Vault (Tanks -001 Through -009); 241-WR-01 Thru 09; 244-WR Vault; 296-U-6 Stack | Receiving Vault | |
| 2607-WZ | 2607-WZ; 2607-WZ Septic System | Septic Tank | |
| 207-Z | 207-Z; 207-Z Retention Basin; 241-Z Retention Basin; 241-ZRB; 241-Z-RB | Retention Basin | |
| 216-Z-4 | 216-Z-4; 216-Z-3; 216-Z-4 Crib; 231-W-3 Crib; 231-W-3 Pit; 231-W-3 Sump | Trench | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 177 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|---------------------|--------|
| 216-Z-6 | 216-Z-6; 216-W-4; 216-Z-4; 216-Z-6 & 6A Crib; 231-W Crib; 231-W-4 Crib; 231-Z-6 | Crib | |
| 216-Z-7 | 216-Z-7; 216-Z-6; 231-W Crib; 231-W Trench | Crib | |
| 216-Z-13 | 216-Z-13; 216-Z-13 A and B; 216-Z-13 Dry Well; 234-5 Dry Well #1; Miscellaneous Stream #261, #261A, #654 | French Drain | |
| 216-Z-14* | 216-Z-14; 216-Z-14 A and B; 216-Z-14 Dry Well; 234-5 Dry Well #2; Miscellaneous Stream #261, #263 and #263A | French Drain | |
| 216-Z-15 | 216-Z-15; 216-Z-15 Dry Well; 234-5 Dry Well #3; Miscellaneous Stream #262 | French Drain | |
| 216-Z-16 | 216-Z-16; 216-Z-16 Crib | Crib | |
| 216-Z-17 | 216-Z-17; 216-Z-17 Ditch; 216-Z-17 Trench | Trench | |
| 241-Z** | 241-Z; 241-Z Sump; 241-Z Tank Farm; 241-Z Tank Pit; 241-Z Treatment and Storage System; 241-Z Treatment and Storage Tanks; 241-Z-D-4; 241-Z-D-5; 241-Z-D-7; 241-Z-D-8 | Neutralization Tank | |
| 2607-Z | 2607-Z; 2607-Z Septic System | Septic Tank | |
| 2607-Z1 | 2607-Z1; Septic Tank and Drainfield | Septic Tank | |
| 600-70 | 600-70; Solid Waste Management Unit (SWMU) #2 - Miscellaneous Solid Waste | Dumping Area | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 178 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|----------------------------|--------|
| 600-284-PL-X** | 600-284-PL-X; 600-284-PL; Cross Site Transfer Line; Cross Site Transfer Pipeline; Lines V360, V361, V362, V363, V364 and V366; Old Cross Site Transfer Line; Original Cross Site Transfer Pipeline; Piping Associated with UPR-600-20 | Encased Tank Farm Pipeline | |
| 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; UN-200-W-14; Waste Line Leak at 242-T Evaporator | Unplanned Release | |
| UPR-200-W-19 | UPR-200-W-19; 241-U-361 Overflow; UN-200-W-19 | Unplanned Release | |
| UPR-200-W-23 | UPR-200-W-23; UN-200-W-23; Waste Box Fire at 234-5Z | Unplanned Release | |
| UPR-200-W-33 | UPR-200-W-33; Ground Contamination at 224-U; UN-200-W-33 | Unplanned Release | |
| UPR-200-W-36 | UPR-200-W-36; Groundwater Contamination at 216-S-1 and 216-S-2 | Unplanned Release | |
| UPR-200-W-39 | UPR-200-W-39; 224-U Buried Contamination Trench; UN-200-W-39 | Unplanned Release | |
| UPR-200-W-41 | UPR-200-W-41; Railroad Contamination; REDOX Railroad Cut Contamination; UN-200-W-41 | Unplanned Release | |
| UPR-200-W-46 | UPR-200-W-46; Contaminated Railroad Track; H-2 Centrifuge Burial; UN-200-W-46 | Unplanned Release | |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|---|-------------------|--------|
| 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-55 | UPR-200-W-55; UN-200-W-55; Uranium Powder Spill at 224-U | Unplanned Release | |
| UPR-200-W-60 | UPR-200-W-60; Railroad Contamination; UN-200-W-60 | 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-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-73 | UPR-200-W-73; Contaminated Railroad Track at 221-T; UN-200-W-73 | Unplanned Release | |
| UPR-200-W-76 | UPR-200-W-76; Contamination Found at 241-TX-155; UN-200-W-76 | Unplanned Release | |
| UPR-200-W-78 | UPR-200-W-78; UN-200-W-78; UO3 Powder Spill at 224-U | Unplanned Release | |
| UPR-200-W-82 | UPR-200-W-82; Contamination Spread at 240-S-151; UN-200-W-82 | Unplanned Release | |

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Appendix C, Listing by Operable Unit

Appendix C, Listing by Operable Unit (Sheet 180 of 182)

| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|-------------------------------|
| UPR-200-W-99 | UPR-200-W-99; 241-153-TX Diversion Box Contamination Spread; UN-200-W-99; UN-216-W-7 | Unplanned Release | |
| UPR-200-W-101 | UPR-200-W-101; 221-U Acid Spill R-1 Through R-9; UN-200-W-101; UN-216-W-9 | Unplanned Release | |
| UPR-200-W-103 | UPR-200-W-103; 216-Z-18 Line Break; Pipe Line Leak; UN-200-W-103; UN-216-W-13 | 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-116 | UPR-200-W-116; Ground Contamination North of 202-S; UN-200-W-116; UN-216-W-26 | Unplanned Release | |
| UPR-200-W-117 | UPR-200-W-117; 221-U Railroad Cut Contamination; Railroad Track Contamination; UN-200-W-117; UN-216-W-27 | Unplanned Release | |
| UPR-200-W-118 | UPR-200-W-118; Contamination at 211-U; UN-200-W-118; UN-216-W-28 | Unplanned Release | |
| UPR-200-W-138 | UPR-200-W-138; 221-U Vessel Vent Blower Pit French Drain; UN-200-W-138; UN-200-W-22; UN-216-W-11; UPR-200-W-22 | 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 | Interim No Action (5/12/2014) |

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Appendix C, Listing by Operable Unit

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| OPERABLE UNIT Waste Unit Name | LEAD REGULATORY AGENCY Waste Unit Aliases | Unit Type | Status |
|----------------------------------|--|-------------------|--------|
| UPR-200-W-166 | UPR-200-W-166; Contamination Migration from 241-T Tank Farm; UN-216-W-31 | Unplanned Release | |

| Groundwater Operable Units | |
|----------------------------|------------------------|
| Operable Unit | Lead Regulatory Agency |
| | Past Practice Process |
| 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.) | Ecology |
| 200 PO 1 (GW O.U.) | Ecology |
| 200 UP 1 (GW O.U.) | EPA |
| 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, and associated structures and equipment, for which RCRA 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)

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Appendix D

Work Schedule Milestones and Target Dates Including Designation of Lead Regulatory Agency

NOTES:

Major Milestones are indicated by a -00 suffix (example, M-021-00).

Interim Milestones are indicated by a suffix greater than zero (example, M-022-02).

A target date is indicated by a "T" (example, M-021-02-T01).

See Section 2.0 of this Action Plan for more details.

Milestones are target dates which are completed, or have been deleted by an approved Tri-Party Agreement change request, are not displayed in Appendix D and have been archived.

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Appendix D

Work Schedule Milestones and Target Dates Including Designation of Lead Regulatory Agency

| Number | Milestone | Due Date |
|--|--|------------|
| M-015-00 Lead Regulatory Agency: Dual | Complete the RI/FS (or RFI/CMS and RI/FS) process for all non-tank farm operable units except for canyon/associated past practice waste site OUs covered in M-85-00. | 06/30/2026 |
| M-015-38B Lead Regulatory Agency: EPA | Submit a Feasibility Study Report and Proposed Plan(s) for the 200-CW-1, 200-CW-3, and 200-OA-1 Operable Units for Waste Sites in the Outer Area of the Central Plateau to EPA. | 07/31/2023 |
| M-015-84 Lead Regulatory Agency: EPA | Complete remedial investigation of 200-WA-1 and 200-BC-1 operable unit waste sites in accordance with the 200-WA-1 and 200-BC-1 RI/FS Work Plan. | 12/31/2021 |
| M-015-91B Lead Regulatory Agency: EPA | Submit Feasibility Study Report(s) and Proposed Plan(s) for the 200-BC-1 and 200-WA-1 operable units (200 West Inner Area) to EPA. | 07/31/2023 |
| M-015-92B Lead Regulatory Agency: Ecology | Submit RCRA Facility Investigation/Corrective Measures Study & Remedial Investigation/Feasibility Study Report and Proposed Corrective Action Decision/Proposed Plan for the 200-EA-1 OU (Central Plateau 200 East Inner Area) to Ecology. | 11/30/2022 |
| M-015-92C Lead Regulatory Agency: Ecology | Submit RCRA Facility Investigation/Corrective Measures Study & Remedial Investigation/Feasibility Study Report and Proposed Corrective Action Decision/Proposed Plan for the 200-IS-1 OU to Ecology. | 03/31/2023 |
| M-015-93B Lead Regulatory Agency: Ecology | Submit RCRA Facility Investigation/Corrective Measures Study & Remedial Investigation/Feasibility Study Report and Proposed Corrective Action Decision/Proposed Plan for the 200-SW-2 OU to Ecology. | 01/31/2023 |
| M-015-93C Lead Regulatory Agency: Ecology | Initiate characterization field work for the 200-SW-2 Operable Unit landfills in accordance with the schedule in the approved RI/FS/RFI/CMS Work Plan. | 09/30/2018 |
| M-015-97 Lead Regulatory Agency: Ecology | Submit to Ecology, the 100-OL-1 Operable Unit Feasibility Study Report, Draft A. | 08/30/2020 |
| M-015-98 Lead Regulatory Agency: EPA | Complete remedial investigation of U Plant related waste sites located in 200-WA-1 in accordance with the WA-1 RI/FS Work Plan | 06/30/2019 |
| M-015-99 Lead Regulatory Agency: EPA | Complete remedial investigation of PFP related waste sites located in 200-WA-1 in accordance with the 200-WA-1 and 200-BC-1 RI/FS Work Plan. | 12/31/2019 |
| M-015-110B Lead Regulatory Agency: Ecology | Submit Corrective Measures Study & Feasibility Study Report and Proposed Plan/Proposed Corrective Action Decision for the 200-DV-1 OU to Ecology. | 09/30/2023 |
| M-015-112 Lead Regulatory Agency: Ecology | Submit Draft B, <i>200-IS-1 Operable Unit Pipeline System Waste Sites RFI/CMS/RI/FS Work Plan</i> to Ecology, including a schedule of completion dates for major tasks and deliverables. | 11/30/2020 |

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| Number | Milestone | Due Date |
|--|--|------------|
| M-016-00 Lead Regulatory Agency: Dual | Complete remedial actions for all non-tank farm and non-canyon operable units in accordance with schedules established in approved RD/RA work plans. Note: See operable unit LRA designation listing in Appendix C. The schedule for completion of the construction of the remedy will reflect the scope and complexity of the selected remedial action. The schedule for remedial action implementation will be established upon regulatory agency approval of the RD/RA Work Plans and is enforceable as a HFFACO requirement. | 09/30/2042 |
| M-016-00C Lead Regulatory Agency: EPA | Complete all response actions for the 100 K Area. | 09/30/2024 |
| M-016-85 Lead Regulatory Agency: EPA | Complete remedial actions for the 300-296 waste site in accordance with RD/RA Work Plan for 300-FF-2 Soils (DOE/RL-2014-13-ADD1) and disposition for the 324 Building and Ancillary Buildings in accordance with the Removal Action Work Plan (DOE/RL-2004-77). Completion of facility disposition is defined as the completion of deactivation, decontamination, decommissioning, and demolition in accordance with the removal action work plan. | 09/30/2025 |
| M-016-85A Lead Regulatory Agency: EPA | Complete remote excavation of the 300-296 waste site in accordance with an approved RD/RA Work Plan. | 09/30/2021 |
| M-016-86 Lead Regulatory Agency: EPA | Complete remedial actions for 618-11 Burial Ground in accordance with RD/RA Work Plan for 300-FF-2 Soils (DOE/RL-2014-13-ADD1). | 09/30/2021 |
| M-016-110-T02 Lead Regulatory Agency: Dual | DOE shall take actions necessary to remediate hexavalent chromium groundwater plumes such that hexavalent chromium will meet drinking water standards in each of the 100 Area NPL operable units. | 12/31/2020 |
| M-016-119-T01 Lead Regulatory Agency: Dual | DOE will have a remedy in place to contain existing groundwater plumes (except iodine, nitrate, and tritium) in the 200 NPL Area (Central Plateau). | 12/31/2020 |
| M-016-143 Lead Regulatory Agency: EPA | Complete the interim response actions for the 100 K Area within the perimeter boundary and to the river for Phase 2 actions. Phase 2 is defined in the 100 K Area RD/RA Work Plans. | 09/30/2024 |
| M-016-173 Lead Regulatory Agency: EPA | Select K Basin sludge treatment and packaging technology and propose new interim sludge treatment and packaging milestones. | 09/30/2022 |
| M-016-181 Lead Regulatory Agency: EPA | Complete deactivation, demolition & removal of 105-KW Fuel Storage Basin. | 09/30/2023 |
| M-016-186 Lead Regulatory Agency: EPA | Initiate soil remediation under 105-KW Fuel Storage Basin. | 12/31/2023 |
| M-016-200A | Complete U Plant canyon (221 U Facility) demolition in accordance with the Remedial Design/Remedial Action Work Plan. | 09/30/2024 |

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| Number | Milestone | Due Date |
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| Lead Regulatory Agency: EPA | | |
| M-016-200B Lead Regulatory Agency: EPA | Complete U Plant (221 U Facility) barrier construction in accordance with the Remedial Design/Remedial Action Work Plan. | 09/30/2027 |
| M-016-250 Lead Regulatory Agency: Ecology | Submit to Ecology for approval a three year rolling prioritized schedule consistent with site-wide clean-up priorities to implement waste site removal actions per Action Memoranda (DOE/RL-2009-37, DOE/RL-2009-48, and DOE/RL-2009-86). This milestone will continue on a yearly basis to reaffirm selected sites and recommend any changes to the list, to maintain a three year rolling prioritized schedule, until such time that removal actions are completed. | 03/31/2016 And Annually Thereafter |
| M-016-255 Lead Regulatory Agency: Ecology | DOE shall complete the removal of all waste sites for fiscal year 2018 as updated/modified in TPA change package M-16-17-01. | 09/30/2018 |
| M-016-256 Lead Regulatory Agency: Ecology | DOE shall complete the planned action of all waste sites for fiscal year 2019 as identified in TPA change package M-16-17-01. | 9/30/2019 |
| M-024-000 Lead Regulatory Agency: Ecology | Complete required well installations in accordance with the RCRA and CERCLA groundwater requirements. The M-24 Milestone Series will be closed when the Parties agree that sufficient RCRA and CERCLA groundwater wells are in place and operating to comply with RCRA and CERCLA requirements for groundwater monitoring, groundwater protection, and groundwater remediation. | To Be Determined |
| M-024-58 Lead Regulatory Agency: Ecology | Initiate discussions of well commitments to reaffirm the selected wells and recommend any new well installations needed to maintain a three-year rolling prioritized drilling schedule consistent with site-wide clean-up priorities. The following text applies to all M-024 well construction milestones. Since all wells are drilled in CERCLA or RCRA past practice Operable Units, the parties agreed that the most effective and efficient method of managing wastes from all Hanford well development drilling would be to dispose of the waste in the Hanford environmental restoration disposal facility (ERDF). This workscope would be conducted under the M-024 series milestones. The integration and coordination of all well drilling under the revised Tri-Party Agreement M-024 milestone series will assure CERCLA needs are incorporated into the overall drilling campaign. In addition, the parties reaffirmed their commitment to Section 5.5 of the Tri-Party Agreement Action Plan, the need to coordinate the application of regulatory requirements, and 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. In order to ensure that TSD units within the operable units are brought into compliance with RCRA and state hazardous waste regulations, the State of Washington Department of Ecology (Ecology) intends, subject to part four of the Tri-Party Agreement, that all response or corrective actions, excluding situations where there is an imminent threat to the public health | June 1, 2008 And Annually Thereafter |

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| Number | Milestone | Due Date |
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| | <p>or environment as described in Section 7.2.3, will be conducted in a manner which ensures compliance with the technical requirements of the Hazardous Waste Management Act (HWMA) Chapter 70.105 RCW and implementing regulations. Notwithstanding this operating assumption, Ecology reserves the right to exercise its authority under the HWMA and the Hanford Sitewide RCRA Permit, Condition II.Y to require groundwater response actions consistent with WAC 173-303-645 and/or 173-303-646. The management of purgewater and investigation derived wastes from existing wells and wells under the M-024 Tri-Party Agreement milestones (including treatment, storage, and disposal unit wells), will be managed as CERCLA wastes in accordance with a CERCLA decision document, sampling and analysis plan, or waste control plan. Non-liquids will be disposed at ERDF as long as the wastes meet ERDF disposal acceptance criteria. Purgewater will be stored and/or treated at the 200 Area Effluent Treatment Facility or the 600 Area Purgewater Storage and Treatment Facility, unless the lead regulatory agency approves a discharge request for return to the environment.</p> <p>(This milestone series will continue on a yearly basis until such time that the Parties agree that sufficient RCRA and CERCLA groundwater wells are in place and operating to comply with RCRA and CERCLA requirements for groundwater monitoring, groundwater protection, and groundwater remediation.)</p> <p>These milestones do not preclude or foreclose the imposition of additional groundwater well installations pursuant to RCRA permits or work plans and/or CERCLA workplans. Additional work or modification to work shall be in accordance with the provisions of Article XXX of the Agreement.</p> | |
| <p>M-024-71 Lead Regulatory Agency: Ecology</p> | <p>DOE shall complete the construction of all wells listed for calendar year 2020 and before, as identified in TPA change package M-24-17-01.</p> <p>This milestone series will continue on a yearly basis until such time that the Parties agree that sufficient RCRA and CERCLA groundwater wells are in place and operating to comply with RCRA and CERCLA requirements for groundwater monitoring, groundwater protection, and groundwater remediation.</p> <p>These milestones do not preclude or foreclose the imposition of additional groundwater well installations pursuant to RCRA permits or work plans and/or CERCLA work plans. Additional work or modification to work shall be in accordance with the provisions of Article XXX of the Agreement.</p> | <p>12/31/2020</p> |
| <p>M-024-71-T01 Lead Regulatory Agency: Ecology</p> | <p>Conclude discussions of well commitments initiated under M-024-58.</p> | <p>08/01/2020</p> |

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| Number | Milestone | Due Date |
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| <p>M-024-72 Lead Regulatory Agency: Ecology</p> | <p>DOE shall complete the construction of all wells listed for calendar year 2021 and before, as identified in TPA change package M-24-18-01.</p> <p>This milestone series will continue on a yearly basis until such time that the Parties agree that sufficient RCRA and CERCLA groundwater wells are in place and operating to comply with RCRA and CERCLA requirements for groundwater monitoring, groundwater protection, and groundwater remediation.</p> <p>These milestones do not preclude or foreclose the imposition of additional groundwater well installations pursuant to RCRA permits or work plans and/or CERCLA work plans. Additional work or modification to work shall be in accordance with the provisions of Article XXX of the Agreement.</p> | 12/31/2021 |
| <p>M-024-72-T01 Lead Regulatory Agency: Ecology</p> | <p>Conclude discussions of well commitments initiated under M-024-58.</p> | 08/01/2021 |
| <p>M-024-73 Lead Regulatory Agency: Ecology</p> | <p>DOE shall complete the construction of all wells listed for calendar year 2022 and before, as identified in TPA change package M-24-19-01.</p> <p>This milestone series will continue on a yearly basis until such time that the Parties agree that sufficient RCRA and CERCLA groundwater wells are in place and operating to comply with RCRA and CERCLA requirements for groundwater monitoring, groundwater protection, and groundwater remediation.</p> <p>These milestones do not preclude or foreclose the imposition of additional groundwater well installations pursuant to RCRA permits or work plans and/or CERCLA work plans. Additional work or modification to work shall be in accordance with the provisions of Article XXX of the Agreement.</p> | 12/31/2022 |
| <p>M-024-73-T01 Lead Regulatory Agency: Ecology</p> | <p>Conclude discussions of well commitments initiated under M-024-58.</p> | 08/01/2022 |
| <p>M-026-01AD Lead Regulatory Agency: Ecology</p> | <p>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.</p> <p>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.</p> <p>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, the Hanford LDR Summary Reports, and the prior annual LDR report, including plans and schedules.</p> <p>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</p> | 7/31/2020 And Every Five Years Thereafter |

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| Number | Milestone | Due Date |
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| | <p>Plan,” issued by EPA and Ecology on April 10, 1990. Additionally, the report shall describe any other studies or effort 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.</p> <p>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 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.</p> | |
| <p>M-026-01AE Lead Regulatory Agency: Ecology</p> | <p>Submit an annual Hanford Land Disposal Restrictions (LDR) Summary Report in accordance with the Agreement requirements to cover the period from 1/1 of the previous year through 12/31 of the reporting year. The Hanford Land Disposal Restrictions Summary report will contain the following elements:</p> <ul style="list-style-type: none"> • Section 1.0 Introduction • Section 1.1 CY 20XX LDR Summary Report Overview (where XX will be the reporting year) • Section 1.2: Summary Inventory Of Waste Treatment Groups and Forecast Generation Rates • Section 1.3, Potential Mixed Waste • Section 2.0: Assessments Of Mixed Waste Storage Areas And Potential Mixed Waste • Section 2.1: Introduction • Section 2.2: Assessment Schedules • Section 3.0: Summary Of Characterization Information • Section 4.0: Summary Of Treatment Information • Section 5.0: Storage Volume And Container Numbers For Selected Storage Locations • Section 6.0: References • Table 1-1: Stored Volumes Of Mixed Waste and Generation Projections • Table 1-2: Treatability Group Summary Of Storage, Characterization, and Treatment Activities • Table 1-3: Explanation Of Table 1-4, Potential Mixed Waste • Table 1-4: Potential Mixed Waste • Table 1-5: Historical List Of Materials Deleted From Potential Mixed Waste Table • Table 2-1: Summary Of DOE-RL Assessment Results • Table 2-2: DOE-RL Assessments For Calendar Years 2005 Through | <p>04/30/2021 And Intervening Years Between Full Reports</p> |

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| Number | Milestone | Due Date |
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| | <p>2007 (updated for next three years until no assessments are scheduled)</p> <ul style="list-style-type: none"> • Table 2-3: Summary Of DOE-RL Assessment Results • Table 3-1: Summary Of Characterization Information For Each Treatability Group • Table 4-1: Summary Of Treatment Information For Each Treatability Group • Table 5-1: Storage Volume And Number Of Containers For Selected Hanford Locations <p>Table 5-1 will contain the storage volume and the number of containers reported for the following Hanford Site locations: CWC, LLBG, WRAP, PFP, T Plant Complex, WSCF, 325 HWTU, 324, 327, 200 ETF, and 222-S.</p> <p>NOTE: The list for Table 5-1 may change periodically. The change will be made via approval of the applicable Project Managers Meeting minutes documented and approved on or before 11/30 of each year. If no changes to the list are indicated, the list will remain unchanged.</p> | |
| <p>M-026-07D Lead Regulatory Agency: Dual</p> | <p>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.</p> | <p>03/31/2022 And Every Five Years Thereafter</p> |
| <p>M-035-00 Lead Regulatory Agency: Dual</p> | <p>Complete data management enhancements as negotiated and approved in M-35-00 interim milestones.</p> | <p>To Be Determined</p> |
| <p>M-035-09L Lead Regulatory Agency: Dual</p> | <p>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. 3/31/98 (and biennially thereafter).</p> | <p>03/31/2020</p> |
| <p>M-036-01J Lead Regulatory Agency: Dual (Subsequent Annual Milestones to be Lettered B, C, D, etc.)</p> | <p>The USDOE shall prepare and submit to EPA and Ecology a report setting out the Lifecycle Scope, Schedule and Cost for completion of the Hanford Site Cleanup Mission. The report shall reflect all of those actions necessary for the USDOE to fully meet all applicable Environmental obligations including those under the HFFACO, the Consent Decree in Washington v. DOE, Case No. 08-5085-FVS, and the Hanford RCRA/HWMA Permit. The report shall include scope, schedule and cost for completing work at each of the operable units and RCRA TSD groups/units that are listed in Appendixes B and C of the HFFACO, in the Consent Decree in Washington v. DOE, Case TPA No. 08-5085-FVS, and in the Hanford RCRA/HWMA Permit, including the Hanford Waste Treatment and Immobilization Plant. The report will include all other cleanup and monitoring activities (including post-closure activities) and all related actions necessary to complete the cleanup mission to provide a complete understanding of the resources necessary for the Hanford cleanup mission. This report shall take into account circumstances existing as of the end of the fiscal year preceding the month of the report, including funds appropriated by Congress for the Hanford cleanup, but shall not assume any limitation on funding for future years. However, the report will take into consideration critical resource availability not based upon assumed</p> | <p>01/31/2022 Due Date To Submit The Report To Be January 31 and Every 3 Years Thereafter</p> |

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| Number | Milestone | Due Date |
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| | <p>future funding limitations and the practical limits of project acceleration when developing an executable plan. USDOE may also include costs other than those directly related to environmental obligations (such as security costs) but shall clearly distinguish expenditures for environmental obligations from other expenditures. Costs shall be displayed by program baseline summary. Additional levels of detail will appear in appendixes to the report. Cost information will provide sufficient detail to validate consistency with the scope and schedule for individual cleanup projects. Reporting in the appendixes will typically be one level below the PBS for the lifecycle, and at levels below that for the next two to five years beyond the execution year (usually at the activity level within the budget assigned to a specific project, e.g.,</p> <p>RI-0011, WBS Element 011.04.01, nuclear material stabilization and disposition - PFP, disposition PFP, transition 234-5Z). EPA and Ecology project managers may request additional levels of detail be provided by their DOE counterparts.</p> <p>In circumstances where final cleanup decisions have not yet been made, the report shall be based upon the reasonable upper bound of the range of plausible alternatives or may set forth a range of alternative costs including such a reasonable upper bound. In making assumptions for the purpose of preparing the initial report, USDOE shall take into account the views of EPA and Ecology and shall also take into account the values expressed by the affected Tribal governments and Hanford stakeholders regarding workscope, priorities and schedule. The report shall include the scope, schedule and costs for each such</p> <p>PBS level two element and shall set forth the bases and assumptions for each cleanup activity.</p> <p>After USDOE submits the report, the USDOE will revise the report based upon EPA and Ecology comments to reflect a common vision of the scope, schedule and budget for the remainder of the cleanup mission. If the agencies are unable to reach resolution on specific aspects of the scope of cleanup actions, the revised document will present a range of potential actions with the associated schedule and budget, thereby completing the milestone. DOE, EPA and Ecology shall attempt to reach agreement on the report so it can serve as an agreed upon foundation for preparing budget requests and for informational briefings of affected Tribal governments and Hanford stakeholders. The report shall also serve as the basis for annual discussions among USDOE, EPA and Ecology on how and when the USDOE will complete cleanup, how Congressional appropriations for the Hanford site for that year may affect assumptions presented in the report, and how milestone changes and adjustments will affect lifecycle scope, schedule and cost.</p> <p>Without limiting any DOE obligation under any other provisions of this agreement, and without limiting any DOE obligation to disclose information that is otherwise publicly available, nothing in this milestone shall be construed, either alone or in combination with any other provision of the HFFACO, to require disclosures related to internal federal budget deliberations.</p> | |

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| Number | Milestone | Due Date |
|--|---|--|
| M-037-10 Lead Regulatory Agency: Ecology | Complete Unit-Specific Closure Requirements according to the closure plan(s) for six (6) TSD Units: 207-A South Retention Basin, 216-A-29 Ditch, 216-A-36B Crib, 216-A-37-1 Crib, 216-B-63 Trench, and Hexone Storage and Treatment Facility (276-S-141/142). | 09/30/2020 |
| M-037-11 Lead Regulatory Agency: Ecology | Complete unit-specific closure requirements for two (2) TSD Units: 216-B-3 Main Pond system and 216-S-10 Pond and Ditch. | 09/30/2024 |
| M-037-13 Lead Regulatory Agency: Ecology | Complete Unit-Specific Closure Requirements according to the closure plan-241-CX Tank System (241-CX-70/71/72). | 09/30/2022 |
| M-042-00A Lead Regulatory Agency: Ecology | Complete the closure of all DST Tank Farms. | TBD, Based Upon Completion of Retrieval Under M-62-45 Plus 5 Years But No Later Than 9/30/2052 |
| M-042-10-T01 Lead Regulatory Agency: Ecology | Complete a leak test, internal inspection, or other tank integrity examination of 50 percent of the DST components identified in M-042-10 to assess the applicable tank system's integrity in accordance with M-042-10. | 12/31/2022 |

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| Number | Milestone | Due Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|------------|-------------------------------------|--|-----------------|------------|------|------------|------------|----------------|------|------------|----------------|------|------------|--------------------------|------|------------|----------------|------|------------|----------------|------|------------|--------|------|------------|------|------------|------------|------|------------|------------|------|--|------------|------|------------------------|------------|------|------------------------|---------------------------|--------|------|
| M-042-10 Lead Regulatory Agency: Ecology | Complete a leak test, internal inspection, or other tank integrity examination of the following DST System-associated Slurry/Supernate Transfer Lines and Drain/Pump Pits (DST components) to assess the applicable tank system’s integrity in accordance with 40 CFR § 265.191 and WAC 173-303-640(2), as applicable. | 12/31/2026 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th>Tank System</th> <th>Slurry and Supernate Transfer lines</th> <th>Drain/Pump Pits</th> </tr> </thead> <tbody> <tr> <td>241-AN-101</td> <td>None</td> <td>241-AN-01D</td> </tr> <tr> <td>241-AN-102</td> <td>SL-162, SN-262</td> <td>None</td> </tr> <tr> <td>241-AN-103</td> <td>SL-163, SN-263</td> <td>None</td> </tr> <tr> <td>241-AN-104</td> <td>SL-164, SN-264, SLL-3160</td> <td>None</td> </tr> <tr> <td>241-AN-105</td> <td>SL-165, SN-265</td> <td>None</td> </tr> <tr> <td>241-AN-107</td> <td>SL-167, SN-267</td> <td>None</td> </tr> <tr> <td>241-AW-105</td> <td>SL-165</td> <td>None</td> </tr> <tr> <td>241-SY-101</td> <td>None</td> <td>241-SY-01A</td> </tr> <tr> <td>241-SY-102</td> <td>None</td> <td>241-SY-02E</td> </tr> <tr> <td>241-AY-101</td> <td>None</td> <td>241-AY-01B, 241-AY-01C, 241-AY-01D, 241-AY-01E</td> </tr> <tr> <td>241-AZ-101</td> <td>None</td> <td>241-AZ-01B, 241-AZ-01C</td> </tr> <tr> <td>241-AZ-102</td> <td>None</td> <td>241-AZ-02B, 241-AZ-02C</td> </tr> <tr> <td>AW-A and 242-A Evaporator</td> <td>SL-168</td> <td>None</td> </tr> </tbody> </table> | | Tank System | Slurry and Supernate Transfer lines | Drain/Pump Pits | 241-AN-101 | None | 241-AN-01D | 241-AN-102 | SL-162, SN-262 | None | 241-AN-103 | SL-163, SN-263 | None | 241-AN-104 | SL-164, SN-264, SLL-3160 | None | 241-AN-105 | SL-165, SN-265 | None | 241-AN-107 | SL-167, SN-267 | None | 241-AW-105 | SL-165 | None | 241-SY-101 | None | 241-SY-01A | 241-SY-102 | None | 241-SY-02E | 241-AY-101 | None | 241-AY-01B, 241-AY-01C, 241-AY-01D, 241-AY-01E | 241-AZ-101 | None | 241-AZ-01B, 241-AZ-01C | 241-AZ-102 | None | 241-AZ-02B, 241-AZ-02C | AW-A and 242-A Evaporator | SL-168 | None |
| | Tank System | | Slurry and Supernate Transfer lines | Drain/Pump Pits | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 241-AN-101 | | None | 241-AN-01D | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 241-AN-102 | | SL-162, SN-262 | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 241-AN-103 | | SL-163, SN-263 | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 241-AN-104 | | SL-164, SN-264, SLL-3160 | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 241-AN-105 | | SL-165, SN-265 | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 241-AN-107 | | SL-167, SN-267 | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 241-AW-105 | | SL-165 | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 241-SY-101 | | None | 241-SY-01A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 241-SY-102 | | None | 241-SY-02E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 241-AY-101 | | None | 241-AY-01B, 241-AY-01C, 241-AY-01D, 241-AY-01E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 241-AZ-101 | | None | 241-AZ-01B, 241-AZ-01C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 241-AZ-102 | | None | 241-AZ-02B, 241-AZ-02C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AW-A and 242-A Evaporator | SL-168 | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Number | Milestone | Due Date |
|--|--|-------------------|
| <p>M-045-00 Lead Regulatory Agency: Ecology</p> | <p>Complete the 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, or group of tanks, 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.</p> <p>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.</p> <p>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 milestone series is defined as the performance of sufficient work to assure with reasonable certainty that DOE will accomplish series major and interim milestone requirements.</p> <p>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.</p> <p>All work under this milestone series shall be conducted in compliance with Agreement requirements including but not limited to the Parties' Agreement Appendix I, "Single-Shell Tank System Waste Retrieval and Closure Process", provided that Section 2.1, Tank Waste Retrieval, of Appendix I of the HFFACO shall not apply to the 19 SSTs covered by the</p> | <p>01/31/2043</p> |

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| Number | Milestone | Due Date |
|--|--|---|
| | Consent Decree in Washington V. DOE, CASE No. 08-5085-FVS, except as set forth in Appendix C, Part 3, A.1 and A.2 of such Decree. | |
| M-045-13 Lead Regulatory Agency: Ecology | 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: <ol style="list-style-type: none"> 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 submit a retrieval data report pursuant to Agreement Appendix I) by December 31, 2007. 2. Complete negotiations for interim milestones for closure of S-112 (including a schedule for submittal of closure plans and risk assessments and final closure dates) in accordance with Milestones M-045-84 or M-045-85. | To Be Determined In Accordance With Milestones M-045-84 Or M-045-85 |
| M-045-15 Lead Regulatory Agency: Ecology | Completion of Tank A-103 SST Waste Retrieval Project. The A-103 SST Waste Retrieval Project will be considered complete when the following criteria have been met: <ol style="list-style-type: none"> 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 A-103 Tank Waste Retrieval Work Plan. (DOE will submit a retrieval data report pursuant to Agreement Appendix I). 2. If appropriate, DOE will submit per agreement Appendix I, a request for an exception to waste retrieval criteria pursuant to Agreement Appendix H. | 09/30/2022 |
| M-045-56 Lead Regulatory Agency: Ecology | 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 |

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| Number | Milestone | Due Date |
|--|--|---|
| M-045-59 Lead Regulatory Agency: Ecology | 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-045-62 Lead Regulatory Agency: Ecology | Submit to Ecology for review, in accordance with HFFACO Action Section 9.2.2, the draft Tier 3 closure plan to implement corrective measures identified in the approved Phase 2 Corrective Measures Implementation Work Plan (CMIP) for WMA C. | To be established in accordance with the date identified in the M-45-82 Tier 2 closure plan |
| M-045-70 Lead Regulatory Agency: Ecology | Complete waste retrieval from all remaining single-shell tanks. Retrieval standards and completion definitions are provided in milestone M-045-00. 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. | 12/31/2040 Or Earlier As Established By M-62-45 |
| M-045-83 Lead Regulatory Agency: Ecology | Complete the Closure of WMA C by completing all closure activities specified in the Tier 2 closure plan, not including activities specifically described in the Tier 2 closure plan as requiring integration with closure of other WMA's. | To be established in accordance with the date identified in the M-45-82 Tier 2 closure plan |
| M-045-85 Lead Regulatory Agency: Ecology | Initiate negotiations to establish HFFACO interim milestones for closure of the remaining Single-Shell Tank (SST) WMAs (including a schedule for 200 West Area SST WMA closures, the submittal of closure plans, RCRA Phase 2 Facility Investigation/Corrective Measures Studies [RFI/CMS], Corrective Measures Implementation Plans, risk assessments and final closure dates for each SST WMA). | 01/31/2022 |

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| Number | Milestone | Due Date |
|---|--|--|
| M-045-86 Lead Regulatory Agency: Ecology | Submit a retrieval data report to Ecology for the 19 tanks retrieved under the Consent Decree in <i>Washington v. DOE</i> , Case No. 08-5085-FVS, which report shall include the following elements only of Section 2.1.7 of Appendix I to the HFFACO: <ol style="list-style-type: none"> 1) Residual tank waste volume measurement, including associated calculations; 2) The results of residual tank waste characterization; 3) Retrieval technology performance documentation; 4) DOE's updated post-retrieval risk assessment; 5) Opportunities and actions being taken to refine or develop tank waste retrieval technologies, based on lessons learned and, 6) LDMM monitoring and performance results. | 12 Months After DOE Certifies To Ecology That DOE Has Completed Retrieval Of Each Tank |
| M-045-91E4 Lead Regulatory Agency: Ecology | DOE shall provide to Ecology a compilation of the Single-Shell Tank farms dome deflection surveys every two years, beginning 9/30/2013. | 9/30/2021 |
| M-045-91E5 Lead Regulatory Agency: Ecology | DOE shall provide to Ecology a compilation of the Single-Shell Tank farms dome deflection surveys every two years, beginning 9/30/2013. | 9/30/2023 |
| M-045-91K Lead Regulatory Agency: Ecology | Complete initial baseline visual inspections of all single-shell tanks in accordance with the work plan approved pursuant to M-045-91J. | 9/30/2023 |
| M-045-91K-T01 Lead Regulatory Agency: Ecology | Submit to Ecology, as a secondary document, a report evaluating and documenting the initial baseline visual inspection of all SSTs remaining to be inspected following the completion of target dates M-045-91G-T05 and M-045-91G-T06. | 3/31/2024 |
| M-045-91L Lead Regulatory Agency: Ecology | Obtain a written assessment, reviewed and certified by an Independent Qualified Registered Professional Engineer (IQRPE) attesting to single-shell tanks (SSTs) structural integrity for such a period as the IQRPE believes he/she can reasonably certify. The analysis supporting the certification shall be performed in accordance with the requirements in WAC 173-303-640(2) relating to structural integrity and will include a review of previously issued SST integrity assessments. IQRPE certification of SST leak integrity is not required. The IQRPE assessment shall recommend revisions to the work plan and schedule for integrity assessment activities, if necessary, for the period between the IQRPE certification (9/30/2034) and the end date of the mission. | 9/30/2034 |
| M-045-92 Lead Regulatory Agency: Ecology | Complete design and construction of barriers per the following revised schedule: For Barriers 1 through 4: <ul style="list-style-type: none"> • Complete construction of Barriers 1 and 2 (also known as the South and North Barriers) in 241-SX farm, per Ecology-approved design and monitoring plans, and of the SX Expansion Barrier per the Ecology-approved design by 10/31/19 • Submit to Ecology Design for Barrier 3 in 241-TX Farm by 10/31/19 | 10/31/2023 Or As Indicated In the Descriptive Text Of This Milestone |

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| Number | Milestone | Due Date |
|---|---|------------|
| | <ul style="list-style-type: none"> • Barrier 3 in 241-TX Farm Design Approved by Ecology 01/31/20 • Complete Construction of Barrier 3 in 241-TX Farm by 10/31/21 • Submit to Ecology Design for Barrier 4 in 241-U Farm by 10/31/21 • Barrier 4 Design Approved by Ecology 01/31/22 • Complete Construction of Barrier 4 in 241-U Farm by 10/31/23 • Submit for approval by Ecology a Maintenance and Performance Monitoring Plan for the Interim Barriers program, as a primary document on 10/31/19. <p>The Maintenance and Performance Monitoring Plan will address:</p> <ul style="list-style-type: none"> • Systematic inspections and maintenance of the interim barriers to ensure their performance over their 25-year service life. • A plan to perform systematic performance monitoring of tank farms covered with interim barriers. For each tank farm with an interim barrier, the plan will evaluate and propose, as appropriate: <ul style="list-style-type: none"> ○ In-tank monitoring (e.g., surface level and liquid observation wells), and ex-tank drywell monitoring. ○ Results of completed drywell monitoring data collection and evaluation. ○ Results of completed tank leak assessments. • Submit yearly reports summarizing the results of maintenance and performance monitoring activities for the previous year, and research completed to evaluate new technologies. <p>The Maintenance and Performance Monitoring Plan will be updated and revised with the submittal of each interim barrier design submittal.</p> <p>Ecology will authorize construction upon approval of the final design. A day-for-day slip in completing construction of the barrier will be given for each day the Design is not approved following 3 months after submittal.</p> | |
| M-045-93 Lead Regulatory Agency: Ecology | Submit for Ecology’s review and approval, as a Primary Document, a report that includes the following: (1) a description and analysis of each alternative method and technology for removing drainable liquids from the SSTs; (2) a proposed selection of the preferred liquid removal method and technology for each SST identified in the SST Liquids Report; (3) a proposed sequence for removing drainable liquids from the SSTs identified in the SST Liquids Report. | 6/30/2020 |
| M-045-97 Lead Regulatory Agency: Ecology | Submit to Ecology as a Primary Document, a Waste Management Area Integration Study for WMA A/AX, as described in HFFACO Appendix I, 2.1.1. | 09/30/2021 |
| M-045-98 Lead Regulatory Agency: Ecology | Submit to Ecology as a Primary Document, a RFI/CMS work plan for WMA A/AX, including an implementation schedule in accordance with HFFACO Action Plan Section 11.6. | 09/30/2022 |
| M-045-99 Lead Regulatory Agency: Ecology | Submit to Ecology the Preliminary Performance Assessment/Closure Analysis. | 09/30/2020 |
| M-045-102 Lead Regulatory Agency: Ecology | Submit to Ecology a Performance Assessment (PA) Maintenance Plan for the WMA A/AX PA. | 09/30/2022 |

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| Number | Milestone | Due Date |
|---|--|---|
| M-045-103 Lead Regulatory Agency: Ecology | Submit to Ecology a permit modification request together with the Tier 2 RCRA Closure Plan for WMA A/AX including a schedule for submitting Tier 3 closure plans. | 09/30/2026 |
| M-045-104 Lead Regulatory Agency: Ecology | Submit to Ecology as a permit modification request the post-closure plan for WMA A/AX. | 09/30/2028 |
| M-047-00 Lead Regulatory Agency: Ecology | Complete work necessary to provide facilities for management of secondary waste from the WTP (e.g., tank waste treatment facility liquid effluents). 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 (i.e., 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. | The Date That The WTP Achieves Initial Plant Operations |
| M-062-00 Lead Regulatory Agency: Ecology | 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 milestone series is defined as the performance of sufficient work to assure with reasonable certainty that DOE will accomplish series major and interim milestone requirements. DOE internal work schedules (e.g., DOE approved schedule baselines) and associated work directives and authorizations for this milestone series 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. | 12/31/2047 Or Earlier As Established By M-062-45 |

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| Number | Milestone | Due Date |
|---|--|--|
| <p>M-062-01AN And Beyond Lead Regulatory Agency: Ecology</p> | <p>Submit Semi-Annual Project Compliance Report DOE's manager, Office of River Protection (ORP), will submit a "<u>Project Compliance Report</u>" 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 foreseeable 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.</p> | <p>01/31/2020 Semi-Annually Beginning July 31, 2001</p> |
| <p>M-062-21 Lead Regulatory Agency: Ecology</p> | <p>On an annual basis, submit data, whose accuracy is certified in accordance with WAC 173-303-810(13), and which demonstrates on a rolling three year average, operation of WTP, and any supplemental treatment if needed, at a rate sufficient to accomplish treatment of all Hanford tank waste in accordance with the date required by milestone M-062-00, taking into account that treatment rates are expected to vary based upon a number of factors, including the character of the waste treated, or alternatively describe plans to increase the rate beyond that previously anticipated in order to achieve treatment of all Hanford tank waste by the M-062-00 milestone date.</p> | <p>02/28/2023 And Annually Thereafter</p> |
| <p>M-062-31-T01 Lead Regulatory Agency: Ecology</p> | <p>Complete Final Design and Submit a complete RCRA Part B Permit Modification request for Enhanced WTP and/or Supplemental Vitrification Treatment Facility based on the M-062-45 decision.</p> | <p>12 Months After M-062-45 Item #3 Decision On Supplemental Treatment</p> |

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| Number | Milestone | Due Date |
|--|---|--|
| <p>M-062-32-T01 See * in M-062-45 Lead Regulatory Agency: Ecology</p> | <p>Start construction of Supplemental Vitrification Treatment Facility and/or WTP Enhancements.</p> | <p>36 Months After M-062-45 Item #3 Decision On Supplemental Treatment, Provided That Ecology Has Issued A Final Permit Modification At Least Twelve (12) Months Earlier</p> |
| <p>M-062-33-T01 See * in M-062-45 Lead Regulatory Agency: Ecology</p> | <p>Complete construction of Supplemental Treatment Vitrification Facility and/or WTP Enhancements.</p> | <p>72 Months After M-062-45 Item #3 Decision On Supplemental Treatment</p> |
| <p>M-062-34-T01 See * in M-062-45 Lead Regulatory Agency: Ecology</p> | <p>Complete Hot Commissioning of Supplemental Treatment Vitrification Facility and/or WTP Enhancements.</p> | <p>92 Months After M-062-45 Item #3 Decision On Supplemental Treatment</p> |
| <p>M-062-40 Lead Regulatory Agency: Ecology</p> | <p>Submit a System Plan to Ecology describing the disposition of all tank waste managed by the Office of River Protection, including the retrieval of all tanks not addressed by the Consent Decree in <i>Washington v. DOE</i>, Case No. 08-5085-FVS, and the completion of the treatment mission.</p> <p>The Plan will be updated and submitted to Ecology every three years to document any further optimization of retrieval and waste treatment capabilities to, in the case of SST retrievals, complete such retrievals as quickly as is technically feasible (but not later than the date established in milestone M-045-70), and, in the case of tank waste treatment, complete such treatment as quickly as is technically feasible (but not later than the date established in milestone M-062-00), both with and without consideration of (i) whether such further optimization would be excessively difficult or expensive within the context of such activities and (ii) any impact on the overall cleanup mission.</p> <p>One year prior to the issuance of the System Plan, DOE and Ecology will each select the scenarios (including underlying common and scenario-specific assumptions) that will be analyzed in the System Plan, with DOE and Ecology each having the right to select a minimum of three scenarios each.</p> <p>Note: Per TPA Change Request M-62-13-02, Selection of Scenarios due on October 31, 2013 is deferred to December 15, 2013.</p> <p>The Plan will include the following elements:</p> | <p>Starting October 31, 2010 and Every Three Years Thereafter, Ecology and DOE Will Each Have The Right To Select A Minimum of Three Scenarios That Will Be Analyzed In The System Plan. Beginning October 31, 2011, and Every Three Years Thereafter,</p> |

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| | <p><u>OVERALL MINIMUM REQUIREMENTS</u></p> <p>The Plan will present the following minimum information for each scenario evaluated:</p> <ul style="list-style-type: none"> • A system description for each system utilized in the planning • Planning bases for each case • A description of key issues, assumptions, and vulnerabilities for each scenario evaluated; a description of how such issues, assumptions and vulnerabilities are addressed in the evaluation. • Sensitivities analysis of selected key assumptions • Estimated schedule impacts of alternative cases relative to the baseline, including cost comparisons for a limited subset of scenarios that DOE and Ecology wish to analyze further. • Identification of new equipment, technology, or actions needed for the scenario (e.g., new evaporators or DSTs; new retrieval technologies; waste treatment enhancements or mitigations, such as sodium, sulfate, aluminum and chrome mitigation measures). • Identification of issues, techniques or technologies that need to be further evaluated or addressed in order to accelerate tank retrievals and tank waste treatment • Impacts on closure activities for each scenario. <p><u>TANK WASTE TREATMENT</u></p> <p>The Plan will evaluate scenarios and identify potential near and long-term actions to optimize tank waste treatment so that the treatment mission is completed as quickly as is technically feasible but not later than the date established in Milestone M-062-00, with and without consideration of (i) whether such further optimization would be excessively difficult or expensive within the context of such activities and (ii) any impact on the overall cleanup mission.</p> <p>The Plan will, at a minimum, describe how the tank waste treatment mission can:</p> <ul style="list-style-type: none"> • Pretreat 100% of the retrievable tank waste (at a rate sufficient to operate the HLW facility, LAW facility, and Supplemental Treatment system simultaneously at their estimated average production rates). • Vitrify 100% of the separated high-level waste stream at estimated average production rates. • Vitrify 100% of separated low-activity waste stream at estimated average production rates. • Appropriately manage secondary waste streams. <p>The Plan will take into account the results from testing of the Pretreatment Engineering Platform and other studies.</p> <p><u>SUPPLEMENTAL TREATMENT</u></p> <p>The Plan will also describe:</p> <ul style="list-style-type: none"> • How much total sodium will need to be treated. | Issue The System Plan |

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| | <ul style="list-style-type: none"> • The needed capacity for supplemental treatment to have all the tank waste treated by a date that is as quickly as is technically feasible but not later than the date established in milestone M-062-00, with and without consideration of (i) whether such further optimization would be excessively difficult or expensive within the context of such activities and (ii) any impact on the overall cleanup mission. <p>The System Plan will outline specific options to treat all the LAW.</p> <p>Such options include:</p> <ul style="list-style-type: none"> • Build and operate a 2nd LAW Vitrification Facility. • Build and operate a Bulk Vitrification Facility. <p><u>TANK WASTE RETRIEVAL</u></p> <p>The Plan will evaluate scenarios and identify potential near and long-term actions to optimize tank waste retrieval so that the single-shell tank retrievals are completed as quickly as is technically feasible but not later than the date established in milestone M-045-70, with and without consideration of (i) whether such further optimization would be excessively difficult or expensive within the context of such activities and (ii) any impact on the overall cleanup mission.</p> <p>The Plan will consider:</p> <ul style="list-style-type: none"> • SST integrity information, including the SST integrity assurance review provided under milestone M-045-91 and any further integrity assessments. • Waste retrieval rate sufficient to operate all waste treatment facilities at their full capacities, considering optimized waste feed rates. • The effect on waste retrieval rates of the waste retrieval technologies selected through the TWRWP process. • Sequences for remaining SSTs and DSTs to be retrieved based on a risk prioritization strategy, waste treatment feed optimization as affected by blending, and Waste Management Waste Area Closure considerations. <p>The Plan will also take into account the results from previous waste retrievals and other waste treatment studies. This shall include:</p> <ul style="list-style-type: none"> • The retrieval methodologies that could be employed and estimated waste volumes to be generated for transfer to the DST or other safe storage. • DST space evaluations for the waste retrieval sequence. • Proposed improvements to reduce waste retrieval durations <p><u>CONTINGENCY PLANNING</u></p> <p>The Plan will identify and consider possible contingency measures to address the following risks:</p> <ul style="list-style-type: none"> • Results from SST integrity evaluations. • If retrievals take longer than originally anticipated and there is | |

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| | <p>potential impact to the schedule for retrieving specified tanks under this agreement.</p> <ul style="list-style-type: none"> • If DST space is not sufficient or is not available to support continued retrievals on schedule. • If any portion of the WTP does not initiate cold commissioning on schedule. • If any portion of the WTP does not complete hot start on schedule. • If operation of the WTP does not meet treatment rates that are adequate to complete retrievals under the schedule in this agreement. For example, the contingency measures will address estimated pretreatment facility throughput as affected by ultrafiltration capacity and oxidative leaching requirements. <p>The contingency measures identified for consideration should include, but not be limited to, providing new, compliant tanks with sufficient capacity and in sufficient time to complete retrievals under this agreement, regardless of WTP operational deficiencies or retrieval conditions.</p> | |
| <p>M-062-45 Lead Regulatory Agency: Ecology</p> | <p>Every six years, within six months of the issuance of the last revision of the System Plan, the parties will negotiate the following:</p> <ol style="list-style-type: none"> 1. Commencing as target milestones in 2015 and enforceable milestones in 2021 and each negotiation thereafter, tank waste retrieval sequencing and milestones, and milestones for installation of infrastructure to feed tank waste from the DST system to the tank waste treatment system, for the next eight years. 2. Contingency actions and milestones, if and as necessary, for providing new, compliant tanks with sufficient capacity and in sufficient time to complete retrievals under this agreement, regardless of WTP operational deficiencies or retrieval conditions. 3. Supplemental treatment selection (a one time selection to be made not later than April 30, 2015) and milestones, which must be consistent with M-062-00 as established by M-062-45 item #5. A 2nd LAW Vitrification Facility must be considered as one of the options. *Milestones M-062-31- T01 through M-062-34-T01 are initially set as target dates and will be established (as may be modified) as interim milestones when they are converted to interim milestones in accordance with applicable HFFACO procedures at the conclusion of this negotiation. 4. The date in milestone M-045-70 for completion of the tank waste retrievals as expeditiously as possible. 5. The date in milestone M-062-00 for completion of tank waste treatment as expeditiously as possible. 6. Milestones for the provision of IHLW canister storage capacity for the six year period of WTP operation for the operating period that begins in January 2022. Additional milestones for the provision of such canister capacity will be established as needed every six | <p>April 30, 2015, And Every Six Years Thereafter</p> |

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| | <p>years thereafter for the storage of IHLW for the subsequent six year period of WTP operations.</p> <p>7. Reevaluate milestones to establish facilities to manage secondary waste streams from the WTP by the date that the WTP achieves initial plant operations.</p> <p>As used in paragraphs 4 and 5, above, the phrase 'as expeditiously as possible' means, in the case of SST retrievals, completing such retrievals as quickly as is technically feasible but not later than the date established in milestone M-045-70, and in the case of tank waste treatment, completing such treatment as quickly as is technically feasible but not later than the date established in milestone M-062-00, and in each case without excessive difficulty or expense within the context of such activities, and in consideration of any impact on the overall cleanup mission.</p> <p>By the milestone due date, the parties will complete negotiations on the above matters. Although multiple scenarios may be considered in the course of the negotiations, and none may be considered wholly appropriate, the final decisions in items 1 through 7 above will be consistent with a single scenario, including any agreed-upon supplemental sensitivity analyses. The parties agree that the chosen scenario alone need not dictate matters in the negotiations and that other information may be considered as the parties deem appropriate.</p> <p>In the event Ecology and DOE do not reach agreement for the matters in M-062-45 paragraphs 1, 2, 3, 6, and 7 the dispute between Ecology and DOE will be resolved pursuant to the HFFACO Article VIII.</p> <p>The dispute resolution process in HFFACO, Article VIII, does not apply to the determinations in M-062-45 paragraphs 4 and 5. Rather, these disputes shall be governed by the Consent Decree in <i>Washington v. DOE, Case No. 08-5085-FVS</i>. No later than 12/31/2021, the United States and Ecology shall complete negotiations to establish a mechanism that will apply to resolve future disputes regarding the determinations in M-062-45 paragraphs 4 and 5. The United States and Ecology have reserved their rights regarding the mechanism that should apply to such future disputes, in the event that they cannot reach agreement.</p> | |
| <p>M-062-50 Lead Regulatory Agency: Ecology</p> | <p>Submit to Ecology, as a secondary document, a Mass Balance Flow from Tank Farms to Low Activity Waste Pretreatment Capability to Low Activity Waste to Effluent Management Facility to Recycle to Tank Farms and to LERF/ETF.</p> | <p>01/30/2021</p> |

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| M-062-51 Lead Regulatory Agency: Ecology | Achieve substantial completion of all LERF/ETF construction upgrades that are necessary to support LAW hot commissioning by 2023. The Parties agree that DOE will need to complete the following in order to meet this milestone: <ol style="list-style-type: none"> 1. By 12/31/2021 (Target Date M-062-51-T01), submit to Ecology, as a primary document for approval a Secondary Liquid Waste Disposition Work Plan. 2. By 5/15/2022 (Target Date M-062-51-T02), submit permit modification request for redesign upgrades and operations to support volumes of waste types expected. | 04/15/2023 |
| M-062-52 Lead Regulatory Agency: Ecology | Achieve substantial completion of all Secondary Waste construction upgrades that are necessary to support LAW hot commissioning by 2023. The Parties agree that DOE will need to complete the following in order to meet this milestone: <ol style="list-style-type: none"> 1. By 12/31/2021 (Target Date M-062-52-T01), submit to Ecology, as a primary document for approval, a Secondary Solid Waste Disposition Work Plan 2. By 5/15/2022 (Target Date M-062-52-T02) submit permit modification requests for any ancillary facilities or capabilities to support treatment of secondary waste. | 06/30/2023 |
| M-062-53 Lead Regulatory Agency: Ecology | EMF cold commissioning start The Parties agree that DOE will need to complete the following in order to meet this milestone: by 4/30/2022 (milestone M-062-53A) achieve substantial completion of EMF construction. | 08/15/2023 |
| M-062-54 Lead Regulatory Agency: Ecology | Low Activity Waste Pretreatment Capability: cold commissioning complete The Parties agree that DOE will need to complete the following in order to meet this milestone: <ol style="list-style-type: none"> 1. By 7/15/2020 (milestone M-062-54A), submit permit application for AP Tank Farm modifications and operation necessary to support TSCR 2. By 12/31/2022 (milestone M-062-54B), achieve substantial completion of Low Activity Waste Pretreatment capability construction, necessary for DFLAW initial operations. | 04/30/2023 |
| M-062-55 Lead Regulatory Agency: Ecology | Low Activity Waste Pretreatment capability necessary to feed DFLAW; hot commissioning complete. | 08/15/2023 |
| M-062-56 Lead Regulatory Agency: Ecology | Submit permit application for design and construction of the Low Activity Waste Pretreatment Capability. This would be the Low Activity Waste Pretreatment Capability needed in addition to the TSCR. | 12/31/2023 |

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| M-062-57 Lead Regulatory Agency: Ecology | IDF operational The Parties agree that DOE will need to complete the following in order to meet this milestone: by 6/15/2022 (milestone M-062-57A), submit permit modification to add secondary waste disposal at IDF and to make permit operational, based on a Performance Assessment and Risk Budget Tool to include Immobilized LAW and secondary waste associated with treating tank waste. | 09/30/2023 |
| M-083-00A Lead Regulatory 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. | 09/30/2017 |
| M-085-00 Lead Regulatory Agency: Dual | Complete response actions for the canyon facilities/associated past practice waste sites, other Tier 1 Central Plateau facilities not covered by existing milestones, and Tier 2 Central Plateau facilities. This includes B Plant, PUREX, and REDOX canyons and associated past practice waste sites in 200-CB-1, 200-CP-1, and 200-CR-1 OUs. The milestone does not include U Plant or T Plant canyons. | TBD |
| M-085-01 Lead Regulatory Agency: Dual | Submit a change package to establish a date for major milestone M-085-00 consistent with schedules established in approved RD/RA work plans. | 06/30/2026 |
| M-085-70 Lead Regulatory Agency: Ecology | Submit to Ecology a Remedial Investigation/Feasibility Study Work Plan for 200-CB-1. | 09/30/2019 |
| M-085-76 Lead Regulatory Agency: Ecology | Initiate response actions for the B Plant Geographic Area in accordance with the schedule in the approved Remedial/Removal Action Work Plan developed under M-085-74. | 09/30/2025 |
| M-085-80 Lead Regulatory Agency: Ecology | Submit Remedial Investigation/Feasibility Study Work Plan for 200-CP-1 to Ecology. | 09/30/2020 |
| M-085-84 Lead Regulatory Agency: Ecology | Initiate response actions for the Purex Geographic Area in accordance with the schedule in the approved Remedial/Removal Action Work Plan developed under M-085-82. | 09/30/2025 |
| M-085-90 Lead Regulatory Agency: EPA | Submit Remedial Investigation/Feasibility Study Work Plan for 200-CR-1 to EPA. | 09/30/2021 |
| M-085-100 Lead Regulatory Agency: EPA | Submit to EPA a Removal Action Work Plan to implement the approved Action Memorandum for 224-T (DOE/RL-2004-68). | 09/30/2020 |

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| M-089-00 Lead Regulatory Agency: Ecology | Complete closure of mixed waste units in the 324 building REC B-cell, REC D-cell, and high level vault and low level vault in accordance with the Closure Plan DOE/RL-96-73, as amended and incorporated into the permit. | TBE in accordance with M-089-06 |
| M-090-00 Lead Regulatory Agency: Ecology | <p>Complete acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities as necessary for storage of the first two years of Hanford site IHLW from WTP operations.</p> <p>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.</p> <p>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.</p> | The Date That The WTP Achieves Hot Start |
| M-090-13 Lead Regulatory Agency: Ecology | <p>Submit to Ecology, a Conceptual Design Report package (Critical Decision-1) for the Interim Hanford Storage Project (storage of the first two years of Hanford Site Immobilized High Level Waste from WTP operations) and a TPA Change Request (in accordance with TPA Action Plan Section 12.0) to submit to Ecology, a Preliminary Design Report package (Critical Decision-2).</p> <p>The Conceptual Design Report package shall include the system specification outline, preliminary drawings, the preliminary hazard analysis, preliminary cost estimate, site development plan, and preliminary schedule for the design, construction, and operation of the facility. These documents are consistent with the requirements of DOE Order 413.3B, "Program and Project Management for the Acquisition of Capital Assets."</p> <p><i>The preliminary schedule for the design, construction and operation of the facility referred to in the paragraph above shall not be enforceable.</i></p> | 09/30/2025 |
| M-090-14 Lead Regulatory Agency: Ecology | <p>Submit to Ecology, a Conceptual Design Report package (Critical Decision-1) for the facility to store spent ion exchange columns used to pre-treat tank waste prior to direct-feed to the Low Activity Waste facility. Submit with the report, a TPA Change Control Form (in accordance with TPA Action Plan Section 12.0) to submit to Ecology, a Preliminary Design Report package (Critical Decision-2).</p> <p>The Conceptual Design Report package shall include the system specification outline, preliminary drawings, the preliminary hazard analysis, preliminary cost estimate, site development plan, and preliminary schedule for the design, construction, and operation of the facility. These documents are consistent with the requirements of DOE Order 413.3B, "Program and Project Management for the Acquisition of Capital Assets."</p> <p><i>The preliminary schedule for the design, construction and operation of the facility referred to in the paragraph above shall not be enforceable.</i></p> | 3/31/2021 |
| M-091-00 Lead Regulatory Agency: Ecology | Complete the treatment to Land Disposal Restriction (LDR) treatment standards for all Hanford Site <i>Resource Conservation and Recovery Act of 1976 (RCRA)</i> mixed low-level waste (MLLW) and <i>RCRA</i> transuranic mixed (TRUM) waste. | Date To Be Established Pursuant To Milestone |

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| | <p>DOE may choose to complete certification and shipment of TRUM waste for disposal at the Waste Isolation Pilot Plant (WIPP) in lieu of LDR treatment if, as of the time of shipment, such waste is exempt from LDR treatment standards when disposed at WIPP. Notification of certification in support of shipment will be reported at least annually as part of the project manager meetings or quarterly milestone review for inclusion in the administrative record.</p> <p>Definitions</p> <p>“Certification” as used herein is defined as:</p> <ul style="list-style-type: none"> • Completion of all activities necessary for waste to be packaged such that it can meet the Waste Isolation Pilot Plant Waste Acceptance Criteria (WIPP WAC). If subsequent WIPP certification reveals the waste cannot be shipped to WIPP this waste will not count toward meeting the milestone volume requirements (and will be subtracted from meeting such requirements) until such time as it has been determined to meet WIPP WAC or; • The TRUM has been shipped to Idaho. TRUM waste shipped to Idaho may also count toward certification based upon actual shipment to Idaho and contingent upon the waste not returning to the Hanford Site, or; • The waste has been treated to meet LDR treatment standards. <p>“Contact Handled (CH)” waste is a waste container with a surface dose rate less than or equal to 200 millirem per hour.</p> <p>“MLLW” is LLW that is subject to RCRA or 70.105 RCW. “LLW” is defined as radioactive waste that is not spent fuel, high-level waste, TRU waste, byproduct material, or naturally occurring radioactive material.</p> <p>“Remote Handled (RH)” waste is a waste container with a surface dose rate greater than 200 millirem per hour.</p> <p>“Retrievably Stored Waste (RSW)” as used herein is defined as waste that is or was believed to meet the TRU waste criteria when it was placed in the 218-W-4B, 218-W-4C, 218-W-3A and 218-E-12B burial ground trenches after May 6, 1970. RSW does not include waste in containers that have deteriorated to the point that they cannot be retrieved and stabilized (e.g. placed in over-packs) in a manner that would allow them to be transported and designated without posing significant risks to workers, the public or the environment. With respect to any such containers, and with respect to any release of RSW, how to move forward will be determined through the cleanup process set forth in RCRA, CH. 70.105 RCW, and/or the <i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)</i> as appropriate. Those processes may result in additional requirements for the remediation of such wastes.</p> <p>“Retrieval of CH RSW” is defined as uncovering CH wastes within DOE’s RSW trenches, removing such CH wastes from the trenches, and</p> | M-091-44T |

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| | <p>transferring the waste to a permitted and compliant treatment, storage or disposal unit or the Environmental Restoration and Disposal Facility (ERDF).</p> <p>“Retrieval of RH RSW” is defined as uncovering RH wastes within DOE’s RSW trenches and caissons, removing such RH wastes from the trenches and caissons, and transferring the waste to a permitted and compliant treatment, storage or disposal unit or the ERDF.</p> <p>“Shipment” is defined as TRUM waste containers leaving the Hanford Site, and includes waste shipped to either Idaho or the Waste Isolation Pilot Plant (WIPP), and contingent upon the waste not returning to the Hanford Site.</p> <p>“Small Containers and Large Containers” as used herein have different meanings depending on whether they are used in reference to MLLW or TRUM waste.</p> <ul style="list-style-type: none"> • When referring to MLLW, small containers are containers less than 10 cubic meters, including 55-gallon drums. A large container is anything not defined as a small container. • When referring to TRUM waste, small containers are 55-gallon drums or smaller containers even if over packed in 85-gallon drums, and WIPP standard waste boxes (SWB). A WIPP SWB is a 1.8 cubic meter steel container that is approximately 0.94 meters in height, 1.8 meters in length, and 1.4 meters in width and was qualified by the DOE in 1988 as meeting the U.S. Department of Transportation (DOT) requirements for specification 7A type A packaging. A large container is defined as any container that is not defined as a small container. <p>“TRUM Waste” is TRU waste that is subject to RCRA or 70.105 RCW.</p> <p>“TRU Waste” as used herein is defined as waste that meets the definition in Subsection (18) of Section 2 of the WIPP Land Withdrawal Act. Pub. L. 102-579.</p> <p>“200 Area Caissons” as used herein are defined as RSW in the 218-W-4B burial ground caissons Alpha-1 through Alpha-4.</p> <p>Note: To provide further clarification on how volumes should be determined in different M-091 contexts, and to be consistent with the volumes of waste listed in the Hanford Site Solid Waste Inventory Tracking System (SWITS), the following descriptions are provided:</p> <ul style="list-style-type: none"> • Volumes for the purposes of determining amounts retrieved shall be based on the volume of the original containers in retrievable storage. For example, the volume of a 55-gallon RSW drum that would be counted toward “retrieval” would be 55-gallons (0.208 cubic meters), even if in the process of retrieval the drum needed to be over-packed into an 85 gallon drum. • The volume of MLLW “treated” will be counted as the retrieval volume (for RSW) or the MLLW pre-treatment container volume (for stored waste). | |

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| | <ul style="list-style-type: none"> • The volume of small container CH TRUM waste counted as certified will be the volume of the certified container containing the waste unless the waste is compacted. In the event that the waste is compacted, the volume of the pre-compaction container will be counted. • The volume of large container CH TRUM waste and RH TRUM waste (in above ground storage as of June 30, 2009 and in retrievable storage) will be based on the pre-treatment volume of each large container CH TRUM waste as listed in Hanford's SWITS. <p>Note: Each requirement of these M-091 series milestones is considered a distinct work requirement independently subject to the enforcement provisions of the agreement.</p> | |
| <p>M-091-03 Lead Regulatory Agency: Ecology</p> | <p>Submit a revision of the Hanford Site TRUM waste and MLLW Project Management Plan (PMP) to Ecology pursuant to, and in compliance with, the requirements of agreement section 11.5. Revisions of the PMP shall address RCRA MLLW and TRUM waste and will consider and expressly evaluate the impact on M-091 retrieval, treatment and processing capabilities that may result from retrieval, treatment and/or processing of any other TRUM waste including but not limited to offsite TRUM waste and Hanford Site TRUM waste generated after January 1, 2003.</p> <p>Annual revisions of the PMP will be submitted on June 30 every year starting in 2008 and continuing until the M-091 milestones are completed. The PMP revisions shall include plans and schedules to meet all the requirements set forth in the M-091 milestone series. Each revision of the M-091-03 PMP shall, upon approval by Ecology, supersede previous M-091-03 PMPs.</p> <p>The PMP will include a description of completed and scheduled work relating to RH waste and large containers of RH and CH waste performed in accordance with the requirements of the M-091 milestone series. The PMP will document work completed during the previous federal fiscal year and work scheduled for the coming fiscal year. The PMP shall identify by citation all publicly available reports describing pertinent project issues and accomplishments, and shall identify anticipated projects for the coming year.</p> <p>With respect to RH TRUM waste, large container TRUM waste, RH MLLW and large container MLLW; the PMP submitted yearly will specifically include at least one measurable action to be taken by DOE to acquire capabilities to manage such wastes.</p> <p>PMP revisions will be submitted to Ecology for review and approval as primary documents pursuant to agreement action plan section 9.2.1. DOE shall implement the plan as approved.</p> | <p>Due Date Annually By June 30</p> |
| <p>M-091-44T Lead Regulatory Agency: Ecology</p> | <p>Submit a change request to establish a schedule for achieving the offsite shipment of all TRUM waste (in above ground storage as of June 30, 2009 and in retrievable storage).</p> | <p>09/30/2020</p> |

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| M-091-48 Lead Regulatory Agency: Ecology | Complete the offsite shipment of all TRUM waste (in above ground storage as of June 30, 2009 and in retrievable storage). | 09/30/2030 |
| M-091-49 Lead Regulatory Agency: Ecology | <ol style="list-style-type: none"> 1. Complete the retrieval and designation of RH RSW (includes the 200 area caissons). 2. Complete the retrieval and designation of CH RSW in burial grounds 218-W-4B, 218-W-3A and 218-E-12B. <ol style="list-style-type: none"> a. If specific large containers cannot be removed from a trench within 60 days of being exposed DOE shall notify Ecology within the 60-day period. Ecology will inspect the containers and impose specific conditions for that waste container to prevent releases to the environment. In determining such conditions Ecology will consider among other factors: whether the waste containers has been inspected and found to be intact and not posing a threat to human health and the environment (or re-packaged to prevent release to the environment) and existing documentation concerning the presence of free liquids. b. As RSW retrieval proceeds, DOE shall sample and analyze trench substrates with the purposes of determining whether or not releases of contaminants to the environment have occurred, and, if so, the nature and extent of contamination. Such sampling and analysis shall be in accordance with Ecology approved sampling and analysis plans (SAP). DOE will implement approved SAPs, as a requirement of this milestone, during retrieval of all RSW. The results of burial ground vent and substrate sampling and analysis pursuant to approved SAPs shall be submitted to Ecology quarterly in the project managers' meetings for inclusion in the administrative record. Such reports shall document results and methodologies, shall assess results against regulatory requirements, shall include a description (or descriptions) of documented contaminant releases to the environment, and shall describe planned and/or scheduled additional work. c. Within 90 days of retrieval, DOE shall designate all CH RSW retrieved from the RSW trenches pursuant to the Washington Administrative Code (WAC) 173-303-070 through 100. | 09/30/2028 |
| M-091-49A Lead Regulatory Agency: Ecology | Submit a change request to establish a schedule for achieving the retrieval of RSW. | 09/30/2020 |

This Appendix D was current as of the printing date. For the most current Appendix D, go to <http://www.hanford.gov/files.cfm/ap-App-D.pdf>

| Number | Milestone | Due Date |
|--|---|--|
| M-091-52-T01 Lead Regulatory Agency: Ecology | Remove five (5) mixed waste containers from Outside Storage Area A and/or Outside Storage Area B. Remove ten (10) additional mixed waste containers from Outside Storage Area A and/or Outside Storage Area B. Remove twenty (20) additional mixed waste containers from Outside Storage Area A and/or Outside Storage Area B. Removal constitutes either: <ul style="list-style-type: none"> • Shipment of the container(s) to a TSDf for repack or disposal • Relocating the container(s) to a storage area authorized by the Hanford Dangerous Waste permit, permit condition 1.A, or a Temporary Authorization issued pursuant to WAC 173-303-830. | 11/30/2018 11/30/2019 11/30/2020 |
| M-091-52-T02 Lead Regulatory Agency: Ecology | Submit to Ecology for review as a primary document, an Interim Response Action (IRA) to resume waste retrieval and develop a schedule in accordance with M-91-49A. IRA evaluation shall identify facilities or capabilities necessary to treat, store and dispose of RH waste including caissons. | 9/30/2021 |
| M-091-52-T03 Lead Regulatory Agency: Ecology | Submit to Ecology as a primary document, a Conceptual Design Report package (Critical Decision-1) for the Facility/Capability for Contact Handled waste containers, and a TPA Change Request (in accordance with TPA Action Plan Section 12.0) to submit to Ecology, a Preliminary Design Report package (Critical Decision-2). The Conceptual Design Report package shall include the system specification outline, preliminary drawings, the preliminary hazard analysis, preliminary cost estimate, site development plan, and preliminary schedule for the design, construction, and operation of the facility. | 9/30/2022 |
| M-091-52-T04 Lead Regulatory Agency: Ecology | Remove all mixed waste containers from Outside Storage Areas A and B. Removal constitutes either: <ul style="list-style-type: none"> • Shipment of the container(s) to a TSDf for repack or disposal • Relocating the container(s) to a storage area authorized by the Hanford Dangerous Waste permit condition 1.A, or a Temporary Authorization issued pursuant to WAC 173-303-830. | 9/30/2026 |
| M-092-00 Lead Regulatory Agency: Ecology | 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), and bulk sodium (Na). | 12/31/2047 or earlier as established in M-062-00 |

This Appendix D was current as of the printing date. For the most current Appendix D, go to <http://www.hanford.gov/files.cfm/ap-App-D.pdf>

| Number | Milestone | Due Date |
|--|--|------------|
| <p>M-092-09 Lead Regulatory Agency: Ecology</p> | <p>Submit to Ecology, a Conceptual Design Report Package (30% design) for the sodium reaction facility/capability to convert Hanford bulk sodium to aqueous sodium hydroxide to be used in the Hanford Waste Treatment and Immobilization Plant (WTP).</p> <p>The Conceptual Design Report package shall include the Conceptual Design Report, Functional Requirements Document, Functional Design Criteria Document, preliminary drawings, DOE expectations for safety in design (or a preliminary hazard analysis report if below nuclear Hazard Category 3), preliminary cost estimate, and preliminary schedule for the design, construction, and operation of the facility.</p> <p>The preliminary schedule for the design, construction and operation of the facility referred to in the paragraphs above shall not be enforceable.</p> <p>DOE shall submit with the Conceptual Design Package a TPA Change Control Form (in accordance with TPA Action Plan Section 12.0) to replace the M-092-09-T01 target date for Preliminary Design with an enforceable interim milestone drawn from the conceptual design package schedule with allowance added to address schedule margin.</p> | 12/31/2026 |
| <p>M-092-09-T01 Lead Regulatory Agency: Ecology</p> | <p>Submit to Ecology, a Preliminary Design Report package (60% design) for the sodium reaction facility to convert Hanford bulk sodium to aqueous bulk sodium.</p> <p>The Preliminary Design Report package shall include the Preliminary Design Report and updated documents including: Functional Requirements Document, Functional Design Criteria Document, preliminary drawings, DOE expectations for safety in design (or a preliminary hazard analysis report if below nuclear Hazard Category 3), preliminary cost estimate, and preliminary schedule for the design, construction, and operation of the facility.</p> <p>This target date will be updated and converted to an enforceable interim milestone in accordance with the TPA Change Control Form submitted pursuant to M-092-09.</p> <p>DOE shall submit with the Preliminary Design Package a TPA Change Control Form (in accordance with TPA Action Plan Section 12.0) to replace the M-092-09-T02 target date for Final Design with an enforceable interim milestone drawn from the preliminary design package schedule with allowance added to address risk-informed schedule margin.</p> | 06/30/2028 |

This Appendix D was current as of the printing date. For the most current Appendix D, go to <http://www.hanford.gov/files.cfm/ap-App-D.pdf>

| Number | Milestone | Due Date |
|--|--|---|
| M-092-09-T02 Lead Regulatory Agency: Ecology | <p>Submit to Ecology, a Final Design Report (90%-100%) design package for the sodium reaction facility to convert Hanford bulk sodium to aqueous bulk sodium.</p> <p>The Final Design Report package shall include the Final Design Report and updated documents including: Functional Requirements Document, Functional Design Criteria Document, final drawings, DOE expectations for safety in design (or a preliminary hazard analysis report if below nuclear Hazard Category 3), cost estimate, schedule for the design, construction, and operation of the facility, and punchlist, if needed. This target date will convert to an enforceable milestone in accordance with the TPA Change Control Form submitted pursuant to M-092-09-T01.</p> | 09/30/2029 |
| M-092-20 Lead Regulatory Agency: Ecology | <p>Submit to Ecology a disposition pathways evaluation for the cesium and strontium capsules.</p> <p>This evaluation shall consider (1) current laws and regulations that affect disposal pathways, (2) potential changes to laws and regulations, (3) existing and reasonably possible options for the disposal of nuclear waste, (4) comparison of the baseline disposal scenario (i.e. vitrification at the Waste Treatment Plan (WTP)) and alternative disposal pathways, including direct disposal at a deep geological repository, (5) comparison of potential disposal site acceptance criteria for all reasonably possible disposal pathways, (6) capability to vitrify the capsules at WTP, and (7) comparison of the baseline interim storage scenario (i.e. dry storage at Hanford) with alternative interim storage options, including shipment to a treatment and storage facility, known as a TSD, off the Hanford Site.</p> <p>First evaluation is due March 31, 2022. Subsequent evaluations are due every four years thereafter until a final date for completion of M-092-00 is established.</p> | 03/31/2022 And Every Four Years Thereafter |
| M-092-21 Lead Regulatory Agency: Ecology | Complete the transfer of the cesium and strontium capsules from the Waste Encapsulation and Storage Facility, known as WESF, to a new, permitted, interim safe storage facility. | 08/31/2025 |
| M-092-21-T01 Lead Regulatory Agency: Ecology | <p>Submit to Ecology a Conceptual Design Report Package (30% design) for any new Hanford facility/capability necessary to implement disposal of the Cs/Sr Capsules.</p> <p>The Conceptual Design Report package shall include the Conceptual Design Report, Functional Requirements Document, Functional Design Criteria Document, preliminary drawings, DOE expectations for safety in design, preliminary cost estimate, and preliminary schedule for the design, construction, and operation of the facility/capability.</p> <p>The preliminary schedule for the design, construction and operation of the facility referred to in the paragraphs above shall not be enforceable.</p> <p>DOE shall submit with the Conceptual Design Package a TPA Change Control Form (in accordance with TPA Action Plan Section 12.0) to replace the M-092-21-T02 target date for Preliminary Design with an enforceable interim milestone drawn from the conceptual design package schedule with allowance added to address schedule margin.</p> | 12/30/2040 |

This Appendix D was current as of the printing date. For the most current Appendix D, go to <http://www.hanford.gov/files.cfm/ap-App-D.pdf>

| Number | Milestone | Due Date |
|--|--|------------------|
| <p>M-092-21-T02 Lead Regulatory Agency: Ecology</p> | <p>Submit to Ecology, a Preliminary Design Report package (60% design) for any new Hanford facility/capability necessary to implement disposal of the Cs/Sr Capsules.</p> <p>The Preliminary Design Report package shall include the Preliminary Design Report and updated documents including: Functional Requirements Document, Functional Design Criteria Document, preliminary drawings, DOE expectations for safety in design, preliminary cost estimate, and preliminary schedule for the design, construction, and operation of the facility.</p> <p>This target date will be updated and converted to an enforceable milestone in accordance with the TPA Change Control Form submitted pursuant to M-092-21-T01.</p> <p>DOE shall submit with the Preliminary Design Package a TPA Change Control Form (in accordance with TPA Action Plan Section 12.0) to replace the M-092-21-T03 target date for Final Design with an enforceable interim milestone drawn from the preliminary design package schedule with allowance added to address risk-informed schedule margin.</p> | 06/30/2042 |
| <p>M-092-21-T03 Lead Regulatory Agency: Ecology</p> | <p>Submit to Ecology a Final Design Report (90%-100%) design package for any new Hanford facility/capability necessary to implement disposal of the Cs/Sr Capsules.</p> <p>The Final Design Report package shall include the Final Design Report and updated documents including: Functional Requirements Document, Functional Design Criteria Document, final drawings, DOE expectations for safety in design, cost estimate, schedule for the design, construction, and operation of the facility, and punchlist, if needed.</p> <p>This target date will convert to an enforceable milestone in accordance with the TPA Change Control Form submitted pursuant to M-092-21-T02.</p> | 09/30/2043 |
| <p>M-093-00 Lead Regulatory Agency: Dual</p> | <p>Complete final disposition of all 100 Area Surplus Production Reactor buildings.</p> <p>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).</p> | To Be Determined |
| <p>M-093-27 Lead Regulatory Agency: EPA</p> | <p>Complete 105-KE and 105-KW Reactor Interim Safe Storage in accordance with the Removal Action Work Plan.</p> | 09/30/2024 |

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Appendix E
Key Individuals

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Appendix E Key Individuals

Current as of 10/04/2016

E-1

| | U.S. Environmental Protection Agency Region 10 | Washington State Department of Ecology | U.S. Department of Energy, RL and ORP |
|---|--|--|--|
| Executive Managers | Program Manager for the Hanford Project Office (509) 376-8631 | Program Manager for the Nuclear Waste Program (509) 372-7950 | Assistant Manager for the Central Plateau (509) 373-9971 Assistant Manager for the Office of River Protection, Waste Treatment and Immobilization Plant (509) 376-4941 Assistant Manager for the Office of River Protection, Tank Farms (509) 376-5009 |
| | U.S. Environmental Protection Agency Hanford Project Office 825 Jadwin Ave., Suite 210 Richland, WA 99352 | Washington Department of Ecology Nuclear Waste Program 3100 Port of Benton Blvd. Richland, WA 99354 | U.S. Department of Energy Richland Operations Office P.O. Box 550 Richland, WA 99352 |
| Community Relations Contacts | Public Involvement Representative (509) 376-4919 | Public Involvement Team Lead and Public Information Officer (509) 372-7950 | Public Involvement Program Manager (509) 376-8230 – RL (509) 376-2669 – ORP |
| | U.S. Environmental Protection Agency Hanford Project Office 825 Jadwin Ave., Suite 210 Richland, WA 99352 | Washington Department of Ecology Nuclear Waste Program 3100 Port of Benton Blvd. Richland, WA 99354 | U.S. Department of Energy Richland Operations Office P.O. Box 550 Richland, WA 99352 |

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Appendix F
Supporting Technical Plans and Procedures

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Appendix F

Supporting Technical Plans and Procedures

| Document | Status |
|---|---|
| Maintenance of the Waste Information Data System | TPA-MP-14, Revision 2 Approved by the Tri-Parties September 23, 2011 |
| Hanford Site Strategy for Management of Investigation Derived Waste | DOE/RL-2011-41, Revision 0 Approved by DOE-RL April 4, 2011, and Concurrence by EPA and Ecology April 6, 2011 |
| Tri-Party Agreement Databases, Access Mechanism and Procedures | DOE/RL-93-69, Revision 5 Issued April 16, 2010 |
| DOE-RL = | U.S. Department of Energy, Richland Operations Office. |
| Ecology = | Washington State Department of Ecology. |
| EPA = | U.S. Environmental Protection Agency. |

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Appendix G
Data Management Initiatives

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Appendix G

Data Management Initiatives

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

Appendix H
Single-Shell Tank Waste Retrieval Criteria Procedure

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Appendix H

Single-Shell Tank Waste Retrieval Criteria Procedure¹

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 Technology Demonstrations: Demonstrate achievability of waste retrieval goal during tank 241-S-112 (Salt Cake Dissolution), 241 C 106 (Modified Sluicing), 241-C-200 Series (Vacuum Retrieval), and either 241-C-110, 241 C-111, or C-101 using Robotic Technologies + Vacuum Retrieval (Whichever is retrieved first). The effectiveness of the retrieval operation will be determined with a topographical measurement, or other methods defined in the Data Quality Objective (e.g., volume displacement method) of remaining waste in the tank, and a calculation of waste inventory. 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

¹ This procedure was originally appended to Change Request M-45-93-01.

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.

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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

$$\begin{aligned} \text{xbar gal} &= \frac{(100-A) \% (\text{Total Volume of Waste}/133 \text{ Tanks})}{\text{in full-diameter tanks}} &= \text{Allowable Average Residual per Tank} \\ &= (1.00-0.99) (4,788,000 \text{ cu ft})/133 = 360 \text{ cu ft} \end{aligned}$$

where $A\%^2$ = Goal or criteria for waste retrieval percentage.

For Small Diameter Tank (y), e.g., 200 Series Tanks

$$\begin{aligned} \text{xbar gal} &= \frac{(100 A)\% (\text{Total Volume of Waste}/16 \text{ Tanks})}{\text{in small-diameter tanks}} &= \text{Allowable Average Residual per Tank} \\ &= (1.00-.99)(48,000 \text{ cu ft}/16) = 30 \text{ cu ft} \end{aligned}$$

where $A\%^2$ = Goal or criteria for waste retrieval percentage.

² Goal is 99% waste retrieval as defined in M-45-00 in equivalent volumetric measures.

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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.

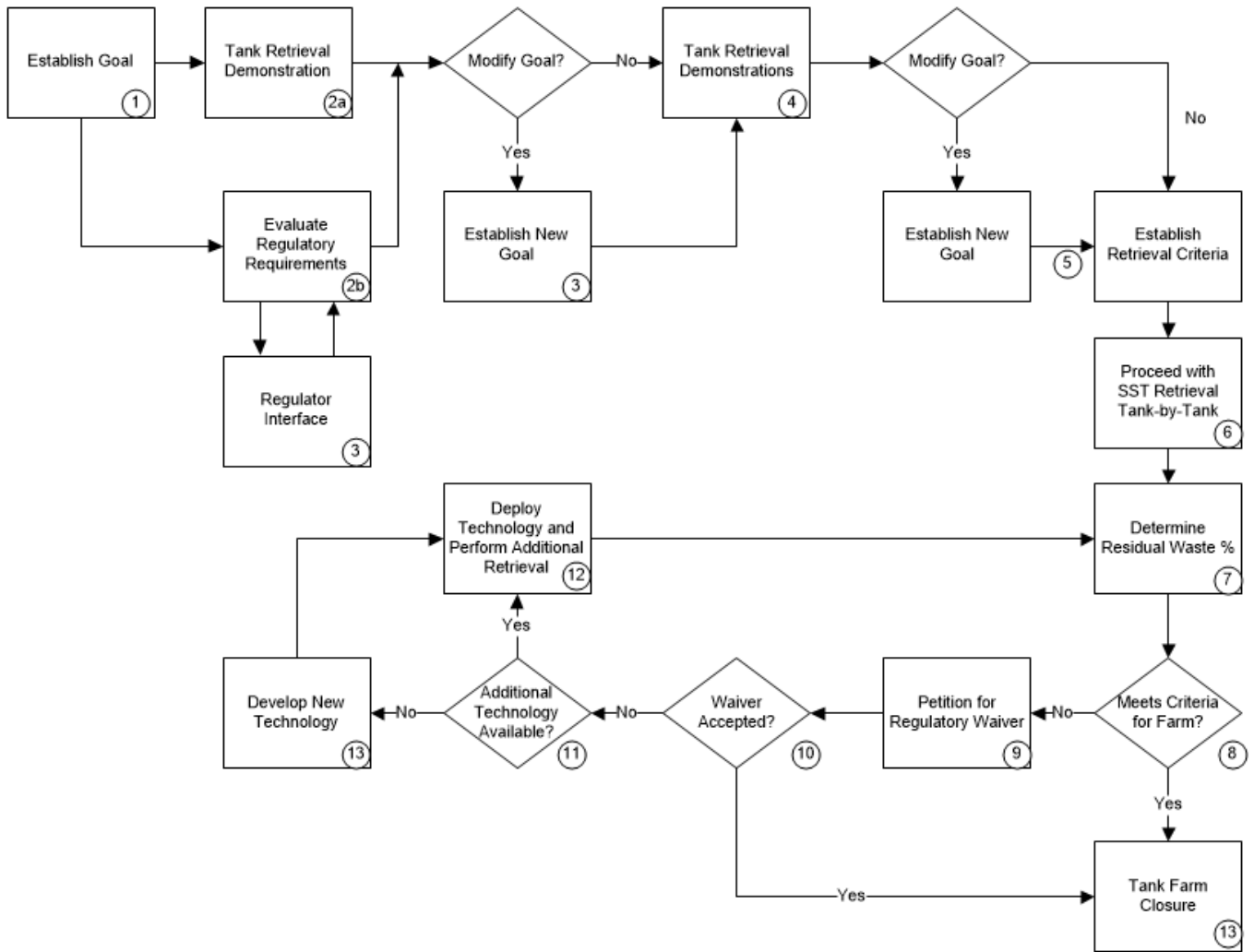


Figure H-1. Process for Assessing Percentage of Waste Retrieved from Waste Retrieval Operations

Appendix I
Single Shell Tank System Waste Retrieval and Closure Process

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APPENDIX I

SINGLE SHELL TANK SYSTEM RETRIEVAL AND CLOSURE PROCESS

1.0 Purpose and Introduction

The purpose of this Agreement Appendix I is to:

1. Document the process DOE is required to use to close DOE's SST system (i.e., the SSTs themselves; and associated ancillary equipment including waste transfer piping, valve pits, vaults, etc.; contaminated soils, and contaminated groundwater) including the retrieval of tank wastes. The major phases of this closure process under the HWMA are: Tank waste retrieval; SST system, WMA and component closure including WMA corrective actions; and groundwater actions. Groundwater remedial actions and investigations will be conducted under past practice authority consistent with the Hanford Site Wide RCRA permit condition II.Y.2 and WAC 173-303-645. Groundwater investigations conducted under past practice authority will be coordinated with any investigations that may be conducted as part of the SST corrective action/closure process. The process also documents the Parties' recognition that SST WMA closure and other Central Plateau waste site cleanup activities via compliance with federal and state requirements need integration (reference Agreement Section 5.5). Specific SST WMA closure objectives and standards will be delineated in Hazardous Waste Management Act (HWMA) closure plans.
2. To establish and document the agencies' waste retrieval and closure process consistent with that defined in Washington Administrative Code (WAC) 173-303-610 and -640 for closure of all DOE's SST systems (tanks, ancillary equipment, soil, and groundwater).

DOE, Ecology and EPA expect that this process will standardize Agreement requirements for SST system closure and to support future post-closure requirements. The process requires the submittal of Agreement primary documents that establish enforceable requirements and schedules in lieu of multiple Agreement milestones. This process further serves as a mechanism to identify and establish requirements to be used throughout the SST system. These requirements include:

- Creating criteria to be used to define the sequence of SSTs selected for retrieval and subsequent closure actions, and
- The process to be utilized in retrieving wastes and closing components of the SST system.

2.0 SST System Waste Retrieval and Closure Process

Figure I-1 depicts the process DOE is required to follow during SST WMA waste retrieval and closure. It identifies four main areas of emphasis: Tank waste retrieval; SST system, WMA and component closure, including WMA corrective action; and groundwater actions. These areas are discussed in greater detail in the following sections of this appendix. Each box within Figure I-1 identifies an action needed to achieve closure of the SST system. Actions or deliverables requiring approval by Ecology are identified.

2.1 Tank Waste Retrieval

Waste retrieval is a major activity in the process of SST system closure. Criteria applicable to SST waste retrieval activities, as stated in Milestone M-45-00, are: “..retrieval of as much waste as technically possible, with tank 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 these waste retrieval criteria are not met for a specific tank using the selected technology(s), DOE may use the procedure delineated in Agreement Appendix H to request Ecology approval of an exception to the waste retrieval criteria for that specific tank. This section shall not apply to the 19 SSTs covered by the Consent Decree in *Washington v. DOE*, Case No. 08-5085-FVS, except as set forth in Appendix C, Part 3, A.1 and A.2 of such decree.

The Parties’ waste retrieval and closure process is described in the following sections:

2.1.1 Waste Management Area Integration Study

For each SST tank farm (or WMA), DOE shall submit a WMA integration study. This study shall look at the entire WMA from a system perspective and describe the inter-relationships between the various components. The study shall describe a logical sequence of events that would lead to efficient and effective waste retrieval and closure of the WMA, including field sampling and characterization activities of the ancillary equipment (piping, valve pits, vaults, IMUSTs, diversion boxes, etc.). This study will be used in the development of the WMA closure plan. The document will propose a regulatory path for all ancillary equipment in that WMA and all the activities to achieve efficient and effective closure of that WMA, including:

- SSTs
- SST system ancillary equipment
- Soil remediation per WMA corrective actions and proposed plans for WMA soils
- Activities necessary for integration with Central Plateau groundwater remediation.

It is anticipated that tank waste will need to be retrieved from ancillary equipment in order to meet the closure requirements of WAC 173-303-610 and -640. The criteria for these retrievals will be governed by those regulations.

The submittal of WMA integration studies will be scheduled through the Milestone M-45 series.

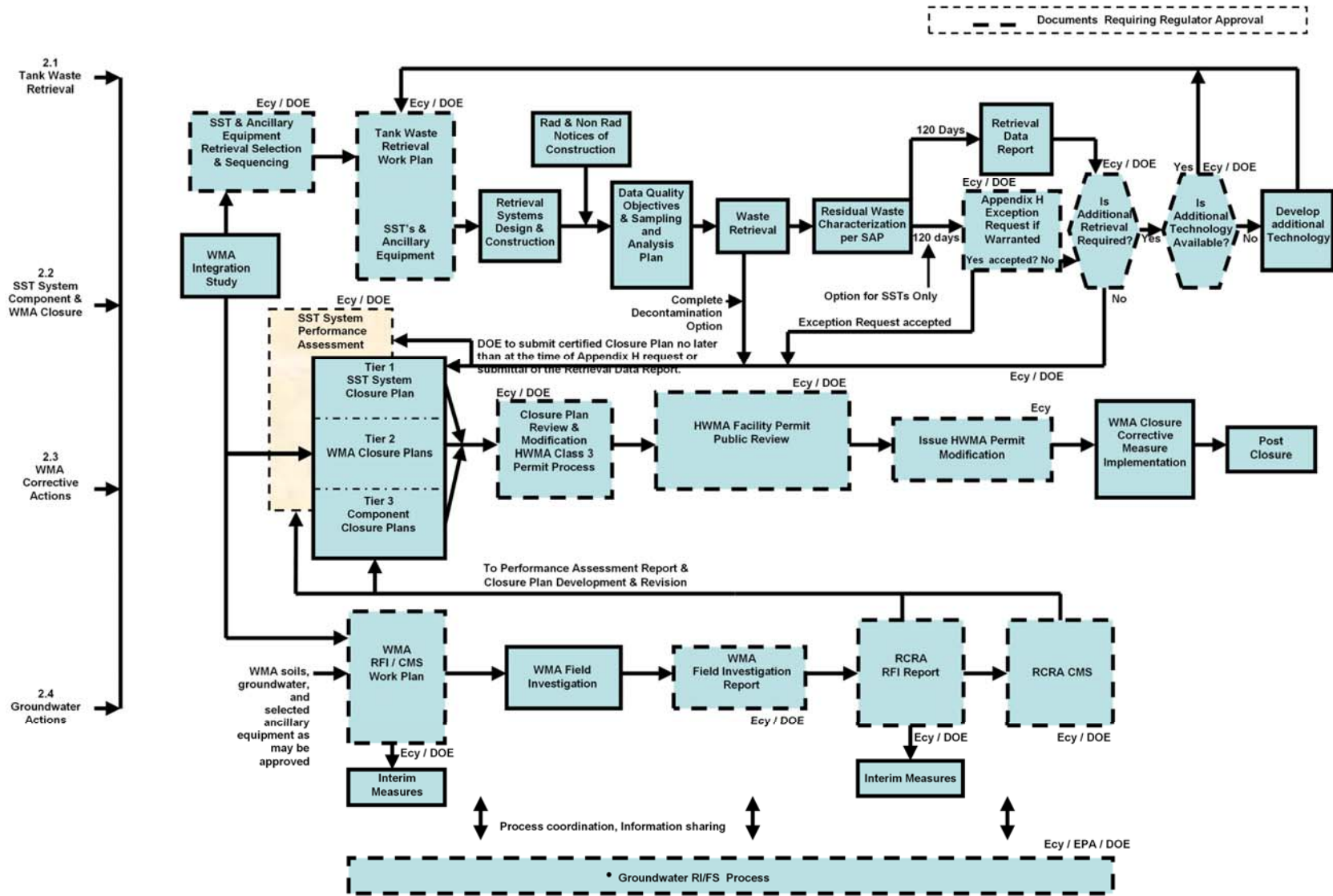


Figure I-1. Single-Shell Tank Waste Management Area Waste Retrieval and Closure Process

2.1.2 Tank Retrieval Selection and Sequencing

The initial phase of SST system tank waste retrieval extends to that point in time when double-shell tank (DST) waste begins to be transferred to the WTP pursuant to Milestone M-62-09. During this phase, DST capacity will be a major factor in DOE's ability to retrieve SST waste. DOE will perform space acquisition and/or optimization activities as required by the Agreement's Milestone M-46 series in order to maximize available DST space. In addition, DOE will perform SST tank waste retrievals to maximally utilize DST space available for retrieval. The second phase of waste retrieval begins when DST capacity is again made available (to receive more SST waste) as DST waste is transferred to WTP for treatment.

SST tank waste retrieval selection and sequencing will be performed on a biennial basis in accordance with the following steps:

- DOE will develop its SST tank retrieval selection and sequence document as a primary document for approval by Ecology in accordance with the Milestone M-45-02 series. The pool of tanks selected by this document will be used as the starting point for selecting and scheduling the following two years' tank waste retrieval activities
- The primary objectives and prioritization criteria for SST tank retrieval selection and sequence are to maximize the reduction of short-term and long-term risk to human health and the environment, and to optimize waste feed so as to maintain efficient WTP operations
- Additional criteria that will be considered in tank selection and that may result in lower risk tanks being retrieved first, include:
 - Worker safety
 - Supporting the completion of WMA closures
 - The optimization of DST space utilization considering resource leveling and waste transfer infrastructure
 - Waste retrieval and closure requirements for associated ancillary equipment.
- Annually, the Parties will agree on which SSTs are to be retrieved during the coming year from the pool of tanks approved by Ecology through the SST tank retrieval selection and sequencing document
- To maintain optimal operational efficiency, DOE may request approval of changes to the selection of tanks to be retrieved in a certain year. In such cases DOE will propose the new tank(s) from the pool approved by Ecology in the tank sequencing and selection document.

2.1.3 Tank Waste Retrieval Work Plans

Tank waste retrieval work plans (TWRWP) will be submitted to Ecology as Agreement primary documents for a tank or set of tanks and their associated ancillary equipment. TWRWPs may cover tanks, tanks and associated ancillary equipment, or ancillary equipment alone (as may be required). TWRWPs will address only those actions associated with waste retrieval. Processes not covered by a TWRWP will be addressed by separate permitting actions as applicable. These TWRWPs, although expanded in scope by this Appendix I, were formerly identified as the Parties' functions and requirements documents in the various Milestone M-45 series. Work plans will include the following information:

- Tank(s) and/or ancillary equipment condition and configuration
- Retrieval technology or technologies and rationale for selection to meet Agreement Milestone M-45-00 criteria for tanks and regulatory requirements for ancillary equipment
- Leak detection monitoring and mitigation (LDMM) plan, including technology description, rationale for selection, configuration, inspection and monitoring requirements, mitigation response, and anticipated performance goals
- Operational requirements during retrieval
- A pre-retrieval risk assessment of potential residuals, consideration of past leaks, and potential leaks during retrieval, based on available data and the most sophisticated analysis available at the time. The purpose of this risk assessment is to aid operational decisions during retrieval activities. This risk assessment will not be used to make final retrieval or closure decisions. Minimally it will contain the following:
 - Long-term human health risks associated with potential leaks during retrieval and potential residual waste after completion of retrieval:
 - Potential impacts to groundwater, including a WMA-level risk assessment
 - Potential impacts based on an intruder scenario.
 - Process management responses to a leak during retrieval and estimated potential leak volume
 - The pre-retrieval risk analysis will be based on the following criteria:
 - Using the WMA fence line for point of compliance
 - Identify the primary indicator contaminants (accounting for at least 95% of impact to groundwater risk) and provide the incremental lifetime cancer risk (ILCR) and hazard index (HI)
 - Using ILCR and HI for the industrial and residential human scenarios as the risk metric

- Calculated concentration(s) of primary indicator contaminant(s) in groundwater (mg/L, and pCi/L).
- Functions and associated requirements necessary to support design of proposed waste retrieval and LDMM system(s)
- Preliminary isolation evaluation including list of ancillary equipment associated with the specific component, plans for ancillary equipment removal or waste retrieval, available characterization information for waste contained within ancillary equipment, and anticipated interrelated impacts of various retrieval actions
- Retrieval start dates for each component.

Submittal of the TWRWP will be accompanied by a provisional schedule for informational purposes. The provisional schedule will include design, construction, and field retrieval activities.

Any TWRWP that identifies the use of new aboveground tanks, tank systems or treatment systems (not otherwise permitted), will require the following additional information:

- General arrangement diagrams
- System description
- Piping and instrumentation drawings (P&ID) for the retrieval system
- Process flow diagrams
- Information to demonstrate compliance with WAC 173-303-640
- Describe the disposition of the system at completion of the retrieval.

These new aboveground tanks, tank systems or treatment systems may be operated only during the retrieval duration.

DOE will not begin retrieval activities (i.e. start of the retrieval system installation) until the TWRWP for a particular tank or component has been approved by Ecology, or a separate approval has been requested by DOE and given by Ecology. SST waste retrieval will be completed to achieve Agreement criteria within 12 months of the start date(s) established in the TWRWP. The Parties' working assumption is that upon completion of the work described in the TWRWP, DOE will have met the tank waste retrieval criteria of Milestone M-45-00 for tanks, and the regulatory requirements for ancillary equipment.

The Parties recognize that DOE may be required by Ecology to perform additional retrieval activities depending on the results of the initial retrieval activities, residual waste characterization and risk assessments, or in the event of Ecology disapproval of a request for an exception under Appendix H. Ecology reserves the right to require additional retrieval activities if necessary.

2.1.4 Retrieval System(s) Design & Construction

After selecting the waste retrieval technology or technologies for a tank, group of tanks, and/or ancillary equipment, DOE will complete the design and construction of the retrieval system(s)

based on the functions and requirements developed in the TWRWP. This retrieval system design will include as a minimum:

- Final design specifications
- Quality assurance process
- Acceptance test plans and operational test plans
- Process control plan.

2.1.5 Waste Retrieval

Field retrieval activities will be started consistent with the requirements and retrieval start dates approved in the TWRWP. DOE will implement all the requirements, processes and schedules approved in the TWRWP, including LDMM activities, throughout the retrieval.

DOE will complete SST waste retrieval activities meeting Agreement criteria of Milestone M-45-00, and ancillary equipment waste retrieval activities meeting regulatory requirements, within 12 months of the retrieval start date(s) approved in the TWRWP.

2.1.6 Residual Tank Waste Characterization

Before tank waste field retrieval activities are initiated, DOE will develop a tank or component specific retrieval data quality objectives (DQO) document for the residual tank waste characterization in coordination with Ecology. As part of the DQO process, DOE will also develop a sampling and analysis plan for post-retrieval and closure sampling.

2.1.7 Retrieval Data Report/Appendix H Request for Exception

Once DOE has completed the retrieval actions described in the TWRWP, DOE will either complete and submit to Ecology within 120 days its retrieval data report, or a request for exception to retrieval criteria per Agreement Appendix H. The Appendix H option is only applicable for SSTs and the requirements of that request are identified in Agreement Appendix I, Attachment 2.

As a minimum, DOE's retrieval data report will include:

- Residual tank waste volume measurement, including associated calculations
- The results of residual tank waste characterization
- Retrieval technology performance documentation
- DOE's updated post-retrieval risk assessment
- Discussion of feasibility/viability of other available retrieval technologies, the feasibility of developing additional retrieval technologies, associated detailed cost estimates and amount of additional waste that could be removed

- Opportunities and actions being taken to refine or develop tank waste retrieval technologies, based on lessons learned
- LDMM monitoring and performance results
- DOE's recommendation for further action and proposed schedule(s).

Data from this report will be used by Ecology and DOE in making WMA-, tank-, and component-specific closure decisions. Single or multiple tank and component actions will be included in this report as appropriate.

2.2 SST System Component and WMA Closure

2.2.1 SST System Closure Plan Development

As shown in Figure I-1, SST waste retrieval will occur prior to or in parallel with approval of modifications to the SST system closure plan. At the latest, DOE shall submit a certified component(s) closure activity plan with its retrieval data package or its Appendix H exception request. As noted in Sections 2.3 and 2.4, Resource Conservation and Recovery Act of 1976 (RCRA) corrective action authority may be used to develop proposed final actions for some SST system components with approval to occur by Ecology through incorporation of the component closure plans into the Site-Wide Permit.

The SST system closure plan consists of three main sections that are arranged in a hierarchy. The highest-level plan (Tier 1) documents requirements pertaining to the SST system overall and is commonly referred to as the "Framework Plan." Mid-level plans (Tier 2) document requirements pertaining to each of the seven SST WMAs and are termed WMA closure action plans. The lowest level plan (Tier 3) documents requirements pertaining to the closure of individual SSTs, and to the closure of individual ancillary equipment components within a particular WMA. These plans are termed component closure activity plans.

The Hanford Site Hazardous Waste Facility Permit modification process from submittal of initial plans (Revision 0) through public review and issuance of the modification is detailed in Agreement Section 9.2.2. It is expected that review time will become shorter as more SST waste retrieval and closure actions or sets of actions are completed due to experience gained and comparability of scope. Therefore, the Ecology and DOE may develop alternative schedules for permit processing to that appearing at Agreement Table 9-2. Agreements on any alternative schedules will be approved by the Ecology and DOE and included in the Administrative Record.

2.2.2 Ancillary Equipment Closure Actions

SST ancillary equipment will be closed in accordance with WAC 173-303-610 with associated requirements incorporated into the Site-Wide Permit through the component closure activity plans. Regulatory processes used to assess and develop necessary closure requirements for the wide range and location of ancillary equipment may differ depending upon efficiencies that may be gained through integration with other site activities. For example, large ancillary equipment

such as vaults or IMUSTs are similar to SSTs and may contain a waste inventory requiring large-scale retrieval actions. Closure of these types of components is expected to be defined as part of a Tier 3 component closure activity plan. Closure of selected ancillary equipment components that are smaller, have less inventory, and that are closely coupled to actual or potential soil contamination may or may not be addressed through the corrective action process in association with adjacent contaminated soil (Section 2.3). Further, RCRA closure of ancillary equipment that is outside of a WMA boundary may or may not be accomplished in tandem with the remedial action for the operable unit within which it resides. For example, where a Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) action is occurring outside of a WMA, but within a large geographic area that also contains SST system ancillary equipment, it may be logical to clean up/close these components in coordination with the rest of the waste sites and structures in the area in accordance with the process described in Agreement Section 5.5. In all cases, SST ancillary equipment will be closed to meet the requirements of WAC 173-303-610. The closure decisions will be made through the component closure activity plans that are incorporated into the Site-Wide Permit.

The extent to which Ecology will use the RCRA corrective action process to fulfill the requirements of WAC 173-303-610 will be selected through approval of the WMA Closure Action Plans.

2.3 WMA Corrective Actions

Closure decisions for SST system soils will be made through the RCRA corrective action process pursuant to Agreement Milestones M-45-55 through -62 and its established process for the development of interim measures where appropriate, RCRA facility investigation/corrective measures study (RFI/CMS) work plans, remedial field investigations, and corrective measures studies. It is expected that the Phase 1 corrective action process required by the specified milestones will result in adequate characterization to make final closure decisions. Ecology reserves the right to require additional characterization either through a Phase 2 corrective action process or through the development of a component closure activity plan if additional characterization is required.

A Phase 2 corrective action process Master Work Plan will describe the overall corrective action conceptual process and sequencing approach for all single shell tank farms. The milestones outlining defining the corrective action schedule for WMA C are shown in milestones M-45-60, -61, & -62. Elements of the Phase 2 Master Work Plan will include:

- Discussion of the approach to complete the Phase 2 data quality objective process including confirmation of developmental characterization tools such as high resolution resistivity (HRR or Subsurface Geophysical Evaluation [SGE]).
- Discussion of integration with the groundwater program, tank closure and adjacent operable units, as appropriate.
- Discussion of the WMA approach to corrective action and closure.

- Selection criteria for implementing Phase 2 RCRA corrective actions at subsequent WMAs.

It is expected that in some cases, the RCRA corrective action process will be used to investigate and analyze alternatives for remediation of selected soils/ancillary equipment. The regulatory process to be used to satisfy closure requirements for each ancillary equipment component will be selected through approval of the WMA closure action plan and incorporated into the Site-Wide Permit.

2.4 Groundwater Remedial Actions

Ecology, as the lead agency for SST system closure, EPA, and DOE are electing to investigate and remediate groundwater under past practice authority. The information generated through the groundwater RI/FS or RFI/CMS process will be utilized in the development of SST system closure plans and performance assessment. Integration of CERCLA authority concurrently with RCRA closure and corrective action requirements, will allow Ecology and EPA to address all regulatory and environmental obligations associated with contaminated groundwater regardless of the types of contaminants of concern being addressed.

There are four past-practice operable units that are affected by DOE's SST system; 200-PO-1, 200-UP-1, 200-ZP-1 and 200-BP-5. Ecology, EPA and DOE agree that past-practice authority provides the most efficient means for addressing mixed-waste groundwater contamination plumes in these operable units which originate 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 of Washington 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 will comply with requirements to meet applicable or relevant and appropriate requirements. Notwithstanding this operating assumption, Ecology reserves the right to require groundwater response actions consistent with Ecology's corrective action authority under the HWMA.

2.5 Performance Assessment

Ecology, as the lead agency for SST system closure, EPA, and DOE have elected to develop and maintain as part of the SST system closure plan one performance assessment for the purposes of evaluating whether SST system closure conditions are protective of human health and the environment for all contaminants of concern, both radiological and nonradiological. DOE intends that this performance assessment (PA) will document by reference relevant performance requirements defined by RCRA, HWMA, Clean Water Act, Safe Drinking Water Act, and the Atomic Energy Act of 1954 (AEA) and any other performance requirements that might be ARARs under CERCLA. The PA is of larger scope than a risk assessment required solely for nonradiological contaminants. The PA is expected to provide a single source of information that DOE can use to satisfy potentially duplicative functional and/or documentation requirements. A

PA will be developed for each WMA and will incorporate the latest information available. These PAs will be approved by Ecology and DOE pursuant to their respective authorities. For Ecology approval means incorporation by reference, into the Site-Wide Permit through the closure plans.

As individual components are retrieved or characterized, or other component closure activities are completed, the resulting component characterization information will be incorporated into the WMA PA to determine its relative risk compared to the entire WMA performance. In doing this, the Parties will be able to make interim closure decisions for individual components. Initially, the WMAPA will be based on assumptions and available data describing component characterization information. As each WMA proceeds toward closure, its respective PA will be updated to address all pertinent new results and findings – and will, as a minimum, incorporate the following results as they become available: actual volumes of tank waste residuals left after retrieval, results of leak investigations, new geologic and ancillary equipment waste characterization information, and the results of new barrier and tank residual stabilization and fill performance studies and tests. Final WMA closure decisions will be made after all components are retrieved and/or characterized, and all other component closure activities have been completed and a final WMA PA is completed.

3.0 SST System Closure/Integration with Other Central Plateau Activities

3.1 SST System Closure Regulatory Integration Strategy

DOE is the responsible agency for the closure of all SST WMAs through post closure, in close coordination with other closure and cleanup activities of the Central Plateau. Washington State has a state program that is authorized under RCRA and implemented through the HWMA and its associated regulations; therefore, Ecology is the lead regulatory agency responsible for the closure of the SST system. EPA is the support regulatory agency providing oversight of the state's authorized program. The 200 Areas of the Hanford Site have been placed by EPA on the National Priorities List (NPL). The completion of remediation of the 200 Areas overall will eventually be finalized via CERCLA decisions made by the EPA, and permitting decisions made by Ecology.

The Parties acknowledge the need for SST system closure in a manner integrating RCRA treatment, storage, and disposal (TSD) closure requirements (including RCRA corrective action requirements), the closure requirements of the AEA, and Central Plateau CERCLA remedial action requirements in order to achieve a cohesive and effective approach to SST system closure ensuring that regulatory requirements are met. The Parties' expect that this Agreement Appendix I will incorporate Agreement Section 5.5 processes to provide a mechanism for avoiding duplicative regulation between Ecology and the EPA through the lead agency concept.

For the purpose of helping to ensure work is not inconsistent with future CERCLA remedial decisions, if any, Ecology is seeking the involvement of EPA pursuant to Agreement Action Plan Section 5.6 as the non-lead agency in Ecology's review of the performance assessment and SST system closure plan. Involvement with Ecology in conducting these reviews will provide EPA and DOE with a basis to evaluate whether closure is proceeding in a manner not inconsistent

with what EPA expects would be required if the work was being conducted under CERCLA remedial authority.

EPA's involvement in these reviews will not constitute a decision under CERCLA. Based on EPA's involvement supporting Ecology review of the initial WMA performance assessment and WMA closure action plans, EPA will provide written comments to Ecology, made available to DOE, for the purpose described above, as well as to identify the need for additional work that EPA expects would be required if the work was being conducted under CERCLA remedial authority. EPA will evaluate the need to provide additional comments based on its review of proposed modifications to WMA closure action plans, and issue additional comments to Ecology as necessary.

3.2 Integration with Central Plateau Remedial Actions

The Parties will strive to integrate SST system closure actions with Central Plateau remedial actions. Integration will provide for protective, cost-effective site closure. Closure of SST system components such as ancillary equipment and soil contamination outside of WMAs will require close integration with decision making at adjacent sites. A consistent groundwater monitoring, protection, and risk assessment methodology will also be realized through close integration of activities, as described in the Hanford Site Groundwater Strategy (DOE/RL-2002-59). Consistent application of the requirements of this Appendix I will serve to aid the Parties in ensuring cost-effective and consistent cleanup on the Central Plateau. Central Plateau cleanup integration will also allow efficiencies through the coordination of operational interfaces on the Hanford Site.

Appendix J
Central Plateau Facilities and 100 Area Production Reactors

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Appendix J

Central Plateau Facilities and 100 Area Production Reactors

Purpose and Description

Appendix J, Central Plateau Facilities and 100 Area Production Reactors, is focused on Central Plateau facilities and 100 Area production reactors that are anticipated to require a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) response action for cleanup. The following information will be contained in Appendix J:

- Central Plateau facilities and 100 Area production reactors determined by the Tri-Parties, in accordance with the Graded Approach process described in Section 8 of the Action Plan, to be subject to removal or remedial action under CERCLA. These facilities are identified as Tier 1 (facilities historically designated as “Key” in Section 8 of the Action Plan) or Tier 2 facilities. The lead regulatory agency will be defined corresponding with the lead regulatory agency for operable units located in the same geographic area as the facility or reactor, unless otherwise agreed to by EPA and Ecology.
- For Tier 1 facilities and reactors, DOE and the lead regulatory agency will make a determination whether the CERCLA response action will be a remedial action or a removal action. The column titled “Decision Document” will record that determination. The title of the approved decision document will be inserted in that column when it is issued.
- Central Plateau process or other inactive facilities that have not been evaluated as part of the graded approach described in Section 8 of the Action Plan are identified as To Be Determined (TBD). Following completion of the evaluation process, the facility or reactor type will be revised to Tier 1 or 2 for those that are determined to be subject to removal or remedial action under CERCLA. Facilities or reactors determined not to be Tier 1 or 2 will be removed from the Appendix J table.
- Facilities or reactors that contain a Resource Conservation and Recovery Act (RCRA) Treatment, Storage, and Disposal (TSD) unit are identified with a ** in the building number field.

The tables in Appendix J will be updated periodically in accordance with Tri-Party Agreement Section 12.0, *Changes to the Agreement* to reflect the results of the graded evaluation process, and to identify decision documents as they are issued.

Facilities that are actively supporting cleanup are not listed in Appendix J. When these facilities are ready for disposition, they will be added to Appendix J, as appropriate.

| Table J-1. Central Plateau Facilities and 100 Area Production Reactors. (7 pages) | | | | |
|---|---------------------|---|------------------------|--|
| Facility Tier | DOE Facility Number | Description | Lead Regulatory Agency | Decision Document Remedial/Removal Action [Tier 1] |
| B Plant Geographic Area | | | | |
| 1 | 221B** | B PLANT (200-CB-1 OU) | Ecology | Remedial action |
| 1a | 224B | CONCENTRATION FACILITY | Ecology | Action Memorandum for the Non-Time Critical Removal Action for the 224-B Plutonium Concentration Facility (DOE/RL-2004-36) |
| 2b | 212B | FISSION PRODUCT LOADOUT, CASK TRANSFER BUILDING | Ecology | Action Memorandum for Decontamination, Deactivation, Decommissioning, and Demolition (D4) |
| 2b | 221BB** | PROCESS STEAM AND CONDENSATE BUILDING | Ecology | Activities for 200 East Tier 2 Buildings/Structures (DOE/RL-2010-102) |
| 2b | 221BF** | AIR DRYER BUILDING | Ecology | |
| 2b | 242B | RADIOACTIVE PARTICLE RESEARCH LABORATORY | Ecology | |
| 2b | 242BL | CASK LOADING BUILDING | Ecology | |
| 2b | 271B | B PLANT SUPPORT BUILDING | Ecology | |
| 2 | 276BA** | ORGANIC MIXED WASTE STORAGE SYSTEM | Ecology | |
| 2b | 291B | EXHAUST FAN CONTROL HOUSE AND SAND FILTER | Ecology | Action Memorandum for Decontamination, Deactivation, Decommissioning, and Demolition (D4) |
| 2b | 291BA | EXHAUST AIR SAMPLE HOUSE | Ecology | Activities for 200 East Tier 2 Buildings/Structures (DOE/RL-2010-102) |
| 2b | 291BB | INSTRUMENT BUILDING, A AND B FILTERS | Ecology | |
| 2b | 291BC | A AND B FILTERS | Ecology | |
| 2b | 291BD | C FILTER AND INSTRUMENT BUILDING | Ecology | |
| 2b | 291BF | D FILTER | Ecology | |
| 2b | 291BG | D FILTER INSTRUMENT BUILDING | Ecology | |
| 2b | 291BH | INSTRUMENT BUILDING, E FILTER | Ecology | |
| 2a | 291BJ | B PLANT INSTRUMENT BUILDING, F FILTER | Ecology | |
| 2b | 291BK | INSTRUMENT BUILDING, E AND F FILTERS | Ecology | |
| TBD | 292B | STACK MONITOR STATION | | |

| Table J-1. Central Plateau Facilities and 100 Area Production Reactors. (7 pages) | | | | |
|---|---------------------|---|------------------------|---|
| Facility Tier | DOE Facility Number | Description | Lead Regulatory Agency | Decision Document Remedial/Removal Action [Tier 1] |
| PUREX Geographic Area | | | | |
| 1 | 202A** | PUREX CANYON AND SERVICE FACILITY (200-CP-1 OU) | Ecology | Remedial action |
| 2b | 203A** | ACID PUMP HOUSE | Ecology | Action Memorandum for Decontamination, Deactivation, Decommissioning, and Demolition (D4) Activities for 200 East Tier 2 Buildings/Structures (DOE/RL-2010-102) |
| 1c | 204A | ACID STORAGE VAULT, U CELL | Ecology | Remedial action |
| 1c | 206A | VACUUM ACID FRACTIONATOR BUILDING | Ecology | Remedial action |
| 2b | 211A** | CHEMICAL MAKEUP TANK FARM & PUMPHOUSE | Ecology | Action Memorandum for Decontamination, Deactivation, Decommissioning, and Demolition (D4) Activities for 200 East Tier 2 Buildings/Structures (DOE/RL-2010-102) |
| 2b | 212A | FISSION PRODUCT LOADOUT STATION | Ecology | |
| 2b | 213A | FISSION PRODUCT LOADIN STATION | Ecology | |
| 2b | 216A | VALVE CONTROL FACILITY | Ecology | |
| TBD | 217A | SAMCONS SURVEILLANCE FOR PUREX BLDG. | | |
| 1c | 276A | COLD SOLVENT STORAGE BUILDING, R CELL | Ecology | Remedial action |
| 1c | 291A | EXHAUST AIR FILTER AND STACK PLENUM | | Remedial action |
| 1c | 291A001 | STACK 202A MAIN PUREX | | Remedial action |

| Table J-1. Central Plateau Facilities and 100 Area Production Reactors. (7 pages) | | | | |
|---|---------------------|---|------------------------|---|
| Facility Tier | DOE Facility Number | Description | Lead Regulatory Agency | Decision Document Remedial/Removal Action [Tier 1] |
| PUREX Geographic Area (continued) | | | | |
| 2b | 291AD | FILTER PIT AND STACK | Ecology | Action Memorandum for Decontamination, Deactivation, Decommissioning, and Demolition (D4) Activities for 200 East Tier 2 Buildings/Structures (DOE/RL-2010-102) |
| 1c | 291AE | FILTER CELL NO. 4 | Ecology | Remedial action |
| 1c | 291AF | #2 FILTER AND DRAIN TANK | Ecology | Remedial action |
| TBD | 291AG | SAMPLE STATION #2 | | |
| TBD | 291AJ | SAMPLE STATION #3 | | |
| 1c | 291AK | TUNNEL SPRAY ENCLOSURE AND CAISSONS | Ecology | Remedial action |
| 2b | 291AR | EXHAUST AIR FILTER STACK BUILDING | Ecology | Action Memorandum for Decontamination, Deactivation, Decommissioning, and Demolition (D4) Activities for 200 East Tier 2 Buildings/Structures (DOE/RL-2010-102) |
| 2b | 293A | OFF GAS TREATMENT FACILITY | Ecology | |
| 2b | 294A | OFF GAS TREATMENT AND MONITORING STATION | Ecology | |
| U Plant Geographic Area | | | | |
| 1 | 221U | U PLANT CANYON AND SERVICE BUILDING (200-CU-1 OU) | EPA | Record of Decision for the 221-U Facility (Canyon Disposition Initiative) Hanford Site, Washington [EPA 2005] |
| 1 | 224U | CONCENTRATION FACILITY U03 PLANT | EPA | Action Memorandum for Non-Time Critical Removal Action For U-Plant Ancillary Facilities (DOE/RL-2004-67) |
| 2 | 276U | SOLVENT RECOVERY TANK (200-CU-1 OU) | EPA | Record of Decision for the 221-U Facility (Canyon Disposition Initiative) Hanford Site, Washington [EPA 2005] |
| 2 | 291U | EXHAUST FANS/STACKS FOR U-PLANT (200-CU-1 OU) | EPA | |
| 2 | 291U001 | 221U MAIN STACK (200-CU-1 OU) | EPA | |

| Table J-1. Central Plateau Facilities and 100 Area Production Reactors. (7 pages) | | | | |
|---|---------------------|---|------------------------|--|
| Facility Tier | DOE Facility Number | Description | Lead Regulatory Agency | Decision Document Remedial/Removal Action [Tier 1] |
| U Plant Geographic Area (continued) | | | | |
| 2 | 292U | STACK MONITORING STATION (200-CU-1 OU) | EPA | Record of Decision for the 221-U Facility (Canyon Disposition Initiative) Hanford Site, Washington [EPA 2005] |
| 2a | 203UX | GAS STORAGE FACILITY | EPA | Action Memorandum for Non-Time Critical Removal Action For U-Plant Ancillary Facilities (DOE/RL-2004-67) |
| 2a | 211U | COLD CHEMICAL MAKE UP TANK FARM | EPA | |
| 2a | 211UA | COLD CHEMICAL MAKE UP TANK FARM ADDITION | EPA | |
| 2a | 224UA | CALCINATION FACILITY | EPA | |
| 2a | 2712U | ELECTRICAL INSTRUMENTATION BUILDING | EPA | |
| 2a | 2712U | ELECTRICAL INSTRUMENTATION BUILDING | EPA | |
| REDOX Geographic Area | | | | |
| 1 | 202S | REDOX CANYON AND SERVICE FACILITY (200-CR-1 OU) | EPA | Remedial action |
| TBD | 2711S | STACK GAS MONITORING STATION | | |
| TBD | 2718S | EXHAUST AIR SAND FILTER SAMPLE BOARD SHELTER | | |
| TBD | 276S | COLD SOLVENT STORAGE AND MAKEUP BUILDING | | |
| TBD | 292S | JET PIT HOUSE | | |
| TBD | 293S | ACID RECOVERY AND GAS TREATMENT BUILDING | | |
| T Plant Geographic Area | | | | |
| 1a | 224T | TRANSURANIC STORAGE AND ASSAY FACILITY | EPA | Action Memorandum for the Non-Time-Critical Removal Action for the 224-T Plutonium Concentration Facility (DOE/RL-2004-68) |
| TBD | 292T | FISSION PRODUCTS RELEASE LABORATORY | | |
| Plutonium Finishing Plant (PFP) Geographic Area | | | | |
| 1 | 234-5Z | PLUTONIUM FABRICATION FACILITY | Ecology | Non-Time Critical Removal Action |
| 1 | 236Z | PLUTONIUM RECLAMATION FACILITY | Ecology | Memorandum for PFP Above Ground Structures (DOE/RL-2005-13) |

| Table J-1. Central Plateau Facilities and 100 Area Production Reactors. (7 pages) | | | | |
|---|---------------------|--|------------------------|--|
| Facility Tier | DOE Facility Number | Description | Lead Regulatory Agency | Decision Document Remedial/Removal Action [Tier 1] |
| Plutonium Finishing Plant (PFP) Geographic Area (continued) | | | | |
| 2a | 234-5ZA | PFP MICON, ACES, AND MASK FIT STATIONS | Ecology | |
| 2a | 242Z | WASTE TREATMENT FACILITY | Ecology | |
| 2a | 243Z | LOW LEVEL WASTE TREATMENT FACILITY | Ecology | |
| 2a | 243ZA | LOW LEVEL WASTE STORAGE FACILITY | Ecology | |
| 2a | 243ZB | COOLING TOWERS AND CONCRETE PAD | Ecology | |
| 2a | 2701ZA | CENTRAL ALARM STATION FACILITY | Ecology | |
| 2a | 2701ZD | PLUTONIUM FINISHING PLANT BADGEHOUSE | Ecology | |
| 2a | 2702Z | COMMUNICATIONS SUPPORT BUILDING AND TOWER | Ecology | |
| 2a | 2704Z | OFFICE ADMINISTRATION BUILDING // SECURED AREA | Ecology | |
| 2a | 2705Z | PFP OPERATION CONTROL FACILITY | Ecology | |
| 2a | 270Z | PFP SUPPORT FACILITY // INSIDE THE FENCE | Ecology | |
| 2a | 2712Z | STACK MONITORING STATION | Ecology | |
| 2a | 2729Z | STORAGE BUILDING | Ecology | |
| 2a | 2734ZL | HYDROGEN FLUORIDE FACILITY | Ecology | |
| 2a | 2735Z | CHEMICAL STORAGE | Ecology | |
| 2a | 291Z | EXHAUST AIR FILTER STACK BUILDING | Ecology | |
| 2a | 291Z001 | STACK, 234-5Z, 236Z, AND 242Z MAIN | Ecology | |
| TBD | 2736Z | PLUTONIUM STORAGE BUILDING | | |
| TBD | 2736ZA | PLUTONIUM STORAGE VENTILATION STRUCTURE | | |
| TBD | 2736ZB | PLUTONIUM STORAGE SUPPORT FACILITY | | |
| Strontium Semi-Works Geographic Area | | | | |
| 2b | 241C801 | CESIUM LOAD-OUT FACILITY | Ecology | |
| 2b | 276C | SOLVENT HANDLING BUILDING | Ecology | |

| Table J-1. Central Plateau Facilities and 100 Area Production Reactors. (7 pages) | | | | |
|---|---------------------|--|------------------------|---|
| Facility Tier | DOE Facility Number | Description | Lead Regulatory Agency | Decision Document Remedial/Removal Action [Tier 1] |
| 2b | 209E | CRITICAL MASS LABORATORY (INCLUDING THE 296P031 STACK) | Ecology | Action Memorandum for Decontamination, Deactivation, Decommissioning, and Demolition (D4) Activities for 200 East Tier 2 Buildings/Structures (DOE/RL-2010-102) |
| 100 Area Production Reactors | | | | |
| 1 | 105-B | 105-B REACTOR | EPA | Removal Action Work Plan and Surveillance and Maintenance Plan for the 105-B Reactor Facility (DOE/RL-2001-68). |
| 1 | 105-C | 105-C REACTOR | EPA | Surveillance and Maintenance Plan for the 105-C Reactor Safe Storage Enclosure (DOE/RL-98-44). |
| 1 | 105-D | 105-D REACTOR | Ecology | Surveillance and Maintenance Plan for the 105-D Reactor Safe Storage Enclosure (DOE/RL-2004-59). |
| 1 | 105-DR | 105-DR REACTOR | Ecology | Surveillance and Maintenance Plan for the 105-DR Reactor Safe Storage Enclosure (DOE/RL-2002-28). |
| 1 | 105-F | 105-F REACTOR | EPA | Surveillance and Maintenance Plan for the 105-F Reactor Safe Storage Enclosure (DOE/RL-2003-45). |
| 1 | 105-H | 105-H REACTOR | Ecology | Surveillance and Maintenance Plan for the 105-H Reactor Safe Storage Enclosure (DOE/RL-2005-67). |
| 1 | 105-KE 105-KW | 105-KE REACTOR 105-KW REACTOR | EPA | Removal Action Work Plan for 105-KE/105-KW Reactor Facilities and Ancillary Facilities (DOE/RL-2005-26). |

| Table J-1. Central Plateau Facilities and 100 Area Production Reactors. (7 pages) | | | | |
|--|---------------------|--------------------------------|------------------------|---|
| Facility Tier | DOE Facility Number | Description | Lead Regulatory Agency | Decision Document Remedial/Removal Action [Tier 1] |
| 1 | 105-N 109-N | 105-N REACTOR 109-N REACTOR | Ecology | Surveillance and Maintenance Plan for the 105-N/109-N Reactor Safe Storage Enclosure (DOE/RL-2011-106). |
| <p>** Facility contains a Treatment Storage and Disposal (TSD) unit.</p> <p>^a Designation is based on the fact that an EE/CA has already been developed and not on the results of the graded approach process.</p> <p>^b Designation was completed during development of the EE/CA for 200E Area Tier 2 Buildings/Structures (DOE/RL-2010-54), which constitutes the facility evaluation, as documented in the EE/CA.</p> <p>^c Designation is based on the fact that these buildings/structures have changed to a facility Tier 1 grouping as physical closure actions must be performed in conjunction with their associated Tier 1 facility disposition.</p> | | | | |