

INEEL Site Treatment Plan

1 Table 5-1. Milestones/planning dates for mixed wastes with existing treatment technologies.

Facility	Assumptions	Schedule
Remote Treatment Project	Continued inclusion in DOE budget requests in accordance with DOE Order 413.3, "Program and Project Management for Acquisition of Capital Assets."	<i>P-0, Define Project: (Completed)</i> <i>P-1, Identify and Request Funding: (Completed)</i> <i>P-2, Mission Need Approval: Initiate Conceptual Activities (CD-0), 1Q 2001 (Completed)</i> <i>P-3, Baseline Range Approval: Initiate Preliminary Design Activities (CD-1), 1Q 2005</i> <i>P-4, Performance Range Approval: Initiate Final Design Activities (CD-2), 1Q 2006</i> <i>P-5, Construction Start Approval, Part B Permit Issued, Initiate Construction Activities (CD-3), 4Q 2006</i> <i>P-6, Completion/Acceptance Approval: Construction Startup Activities Completed, Operations Begin (CD-4). 4Q 2009</i> <i>P-7, Schedule System Backlog, 3Q 2010</i>

2

3 **5.1.1.2 General Milestone and Planning Date Descriptions.** The following are general
 4 descriptions for milestones and planning dates for existing facilities identified in this section. Specific
 5 descriptions of milestones and planning dates that differ from the general descriptions are identified in
 6 Table 5-1 for each individual facility.

- 7 • **P-1, Submit Part B:** The date on which INEEL presents the RCRA Part B submittal to the DEQ
 8 for approval.
- 9 • **P-2, Procure Contracts:** The date on which contracts are in place for the design of facilities
 10 and/or process equipment.
- 11 • **P-3, Initiate Construction:** The date on which contractor(s) have mobilized and construction of
 12 a process or facility containing a process begins.
- 13 • **P-4, Commence System Testing:** The date on which testing begins on the treatment process
 14 equipment on "cold" feedstock.
- 15 • **P-5, Commence Operations:** The date on which treatment of waste using the treatment process
 16 begins.
- 17 • **P-6, Schedule for System Backlog:** The date on which the INEEL submits a schedule after
 18 commencing operation identifying time required for processing waste currently in storage. This
 19 includes waste in storage at the INEEL.

- 1 • **S-1, State Action:** Estimated date of approved Part B. This date is not a milestone or planning
2 date.

3 **5.2 Schedules for Treatment Facilities for Which Technology Exists**
4 **but Needs Adaptation, or for Which No Technology Exists**

5 Schedules for the modification or development of needed technologies for mixed waste streams
6 for which technology exists but needs some modification to be applicable to INEEL waste streams or for
7 which technology development is needed have been developed for the treatment facilities that will treat
8 these mixed waste streams. Section 5.2.2 presents the schedules for these planned treatment technologies.

9 **5.2.1 Mixed Waste to be Treated by Planned Facilities**

10 Waste streams identified to be treated in the individual facilities in this section are found in
11 Table 6-1 of this STP.

12 **5.2.1.1 General Assumptions for Planned Facility Schedules.**

13 [RESERVED]

14 **5.2.1.2 General Milestone and Planning Date Descriptions.** The following are general
15 descriptions for milestones and planning dates for planned facilities identified in this section. Specific
16 descriptions of milestones and planning dates that differ from the general descriptions are identified in the
17 individual facility section.

- 18 • **P-0, Define Project:** The date on which system analysis, private-sector evaluation, or other
19 appropriate studies, including the use of mobile treatment units have been completed and an
20 appropriate method(s) of providing treatment or waste management in accordance with LDR
21 requirements can be proposed to the State of Idaho.
- 22 • **P-1, Identify Funding Requirements:** The date on which the cost and schedule for spending
23 funds are submitted in an Activity Data Sheet (ADS) to DOE-HQ for the identification and
24 development of technology.
- 25 • **P-2, Identify and Develop Technology:** The date on which technologies are identified and
26 incorporated into the conceptual design.

INEEL Site Treatment Plan

- 1 • **P-3, Submit Treatability Study Notification:** The date on which the DEQ is notified that
- 2 treatability studies are required to assist in the development of treatment technology for a
- 3 specified technology and will be performed pursuant to the exemption in 40 CFR 261.4(e) and
- 4 (f).

- 5 • **P-4, Submit R&D Permit Applications:** The date on which the research and development
- 6 (R&D) permit application is submitted to the DEQ.

- 7 • **P-5, Schedule for Table 5-1 Milestones:** The date on which the Table 5-1 milestones are
- 8 submitted to the DEQ for inclusion in the approved STP.

- 9 • **P-6, Proposal for Feasibility Study:** The date on which DOE solicits proposals for feasibility
- 10 studies.

- 11 • **P-7, Submit RCRA Part B Application:** The date on which the INEEL presents the RCRA
- 12 Part B submittal to the DEQ for approval.

13 **5.2.2 Facility-Specific Schedules**

14 Table 5-2 presents the schedules for planned technologies.

15 **5.3 Schedules for Mixed Waste Streams Planned for Treatment**
16 **Off-Site**

17 (Currently, no waste streams are identified for off-Site treatment which requires treatment development.)

18 Table 5-2. Milestones/planning dates for mixed wastes without existing treatment technologies.

Facility	Assumptions	Schedule
	None	
SBW Treatment Facility		<i>P-5, Schedule for Table 5-1 Milestones: (4Q 2005)</i>
Calcine Disposition		<i>P-5, Schedule for Table 5-1 Milestones: (4Q 2005) P-7, Submit RCRA Part B Application: (1Q 2013)</i>

19
20

1 **5.3.1 General Assumptions for Mixed Waste Streams Intended for Treatment Off-Site**

- 2 • Changes due to the reality of congressional funding changes and DOE prioritization activities
3 may require additional time to complete milestones.
- 4 • These schedules assume that the DEQ will review and approve permits in a timely manner.

5 **5.3.2 General Milestone and Planning Date Descriptions**

6 The following are general descriptions for milestones and planning dates for mixed waste streams
7 intended for treatment off-Site.

- 8 • **P-1, Complete Necessary Characterization:** Dependent on the off-Site treatment facility WAC,
9 additional characterization may be necessary to meet that WAC. This will be determined upon
10 review of the facility's WAC with the waste profile sheets.
- 11 • **P-2, Complete Sorting:** Sorting and segregation of waste streams may be necessary in order to
12 characterize and certify waste streams for shipment to a treatment facility. If sorting is required, it
13 will be completed, as needed.
- 14 • **P-3, Complete Repackaging:** Once the waste streams have been certified to meet the treatment
15 facility's WAC, the wastes will be (re)packaged for transportation and as per the Waste
16 Certification Program.
- 17 • **P-4, Prepare Waste Stream Request for Storage and Treatment:** A request will be sent to the
18 treatment facility for the treatment of the waste.
- 19 • **P-5, Ship Waste Off-Site:** The shipment of waste to an off-Site facility will be established 90
20 days after the treatment facility P-6 milestone has been fulfilled.

21 **5.3.3 Facility-Specific Schedules**

22 Table 5-3 (Reserved).

23 **5.4 Mixed Transuranic-Contaminated Waste Shipped to WIPP**

24 MTRU waste is mixed waste that contains more than 100 nCi of alpha-emitting transuranic
25 isotopes per gram of waste with half-lives greater than 20 years. Alpha-MLLW (α -MLLW) contains

INEEL Site Treatment Plan

1 between 10 and 100 nCi of alpha-emitting transuranic isotopes per gram of with half-lives greater than 20
2 years. At the INEEL, DOE manages α -MLLW as MTRU waste and plans to treat and/or repackage all
3 these transuranic-contaminated waste streams (both MTRU and α -MLLW) to meet the WAC for disposal
4 at the WIPP.² The proposed INEEL facilities to treat mixed transuranic-contaminated waste include the
5 RTP and AMWTP Treatment Plant.

6 For the purposes of this STP, DOE has committed to ship all transuranic-contaminated waste
7 identified in Table 4-2 to WIPP. Mixed transuranic-contaminated waste identified in this STP is
8 addressed in the October 17, 1995, Settlement Agreement and Court Order (see Section 2.14 of this STP),
9 which identifies milestones as follows:

10 *a. By December 31, 2002 no fewer than 3,100 cubic meters (15,000 drum-*
11 *equivalents) of transuranic waste shall have been shipped out of the State of*
12 *Idaho. [Completed]*

13 *b. After January 1, 2003, a running average of no fewer than 2,000 cubic meters*
14 *per year shall be shipped out of the State of Idaho.*

15 For tracking and information purposes, the volume of waste shipped to WIPP will be reported
16 and tracked at the STP quarterly meetings. Information provided will include: volume of waste identified
17 in Table 4-2 and the volume of waste not identified in Table 4-2 that was shipped to WIPP during the
18 quarter.

19 Table 5-4 provides an overview of planned annual waste volume (including both mixed
20 transuranic waste listed in this STP and transuranic contaminated waste that is not listed in this STP
21 because it is not mixed waste) to be shipped to WIPP for a three-year window. The State of Idaho will be
22 notified of changes that might occur in shipping profiles due to unforeseen or unplanned events. These
23 annual volumes are provided for information only.

24

25 2. DOE asserts that the waste covered by this section has been “designated for disposal” at WIPP and thus is exempt from the
26 requirements of this STP and the Federal Facility Compliance Act, pursuant to section 3188 of P.L. 104-201, 110 Stat. 2422,
27 2853. DEQ does not concur. Inclusion of these waste streams in this STP shall not prejudice DOE’s rights and ability to assert
28 this argument and DOE specifically reserves its right to do so. DEQ specifically reserves its rights to the contrary.

29 Table 5-4. TRU waste shipment profile.

	FY-04	FY-05	FY-06
TRU Waste Shipment	1130 m ³	3878 m ³	5820 m ³

1
2 DOE will identify the planned volumes of transuranic contaminated waste (whether or not it is
3 mixed waste listed in this STP) that will be shipped for a three-year window. The three-year shipment
4 profile will be established and/or updated at the end of the fiscal year, and presented at the October STP
5 Quarterly Meeting.

6 In the Annual STP Report, and/or at the STP quarterly meetings, DOE will include information
7 regarding the progress of transuranic-contaminated waste management, including information related to
8 the status of AMWTP, and the volume of waste disposed at WIPP. Nothing in this STP affects or
9 modifies the obligations and remedies in the October 17, 1995, Settlement Agreement and Court Order.

10 **5.5 Backlog Schedules for Operating Treatment Facilities**

11 Backlog schedules are adjusted annually for operating treatment facilities and are subject to the
12 procedures of Section 2 regarding milestones and planning dates, including Section 2.2, “Compliance
13 Schedules,” and Section 2.13, “Submittal and Review of Deliverables.” Backlog milestones and planning
14 dates will identify annual volumes of backlogged wastes expected to be treated by the end of the fourth
15 quarter of each fiscal year per Section 2.2.2.3. The backlog schedule will be established and annually
16 adjusted based on: (1) the actual volume of waste in storage as of the end of the fourth quarter of the prior
17 fiscal year (backlog), (2) the operational capacity of the treatment unit, and (3) plans for treating the
18 estimated volumes of any wastes projected to be generated or received from off-Site. Adjustments to the
19 backlog schedules will be discussed and then approved, as applicable and appropriate, as part of the
20 fourth quarter STP meeting (October) and reflected in the Annual Report. The treatment schedules will
21 identify the volume of backlog waste to be treated by the applicable facility by September 30 of each
22 fiscal year in the schedule. Specific descriptions of milestones are identified in Table 5-5.

23

INEEL Site Treatment Plan

1 Table 5-5. Milestones for treatment of waste backlog per treatment unit.

Facility	Storage Vol 10/1/03	FY-04	FY-05	FY-06
HEPA Filter Leach	61.4 m ³	0 m ³	9 m ³	9 m ³
SCMS	61.2 m ³	2 m ³	2 m ³	2 m ³
Commercial Treatment	1,154 m ³	250 m ³	398 m ³	400 m ³
Debris Treatment	149.3 m ³	60 m ³	40 m ³	40 m ³

2
3 Note: Debris treatment and HEPA Filter Leach operations occur in the same permitted facility and
4 require the same operators and equipment. The HEPA Filter Leach milestone is reduced for FY-04 to
5 direct the facilities for accelerating the debris treatment of MLLW stored at CPP-1617. The Debris
6 Treatment milestone has been increase to 60m³ for FY-04 to compensate for the reduction of HEPA Filter
7 Leach treatment.