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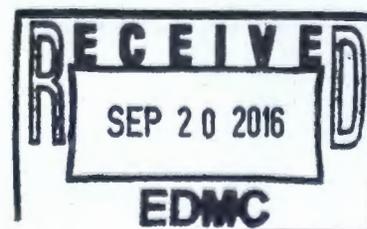
Ecology comments to HNF19169, Revision 17

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Contractor for the U.S. Department of Energy
under Contract DE-AC06-08RL14788



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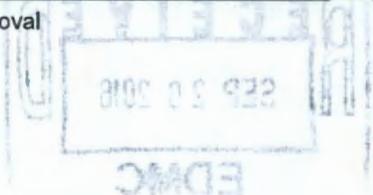
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|---|--|---|--|---|
| Document Number(s)/Title(s) M-091 Transuranic Mixed/ Mixed Low-Level Waste Project Management Plan, HNF-19169, Revision 17. | Program/Project/Building Number: NWP/ Waste Management | Reviewer Name: Washington State Department of Ecology | Organization/Group: Waste Management | Location/Phone : Richland/372-7906 |
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| Item | Page # Section # | Comment <small>(Provide technical justification for the comment and detailed recommendation of the action required to correct/resolve the discrepancy/problem indicated.)</small> | Disposition <small>(Provide justification if NOT accepted.)</small> |
|------|---------------------------------|--|---|
| 1. | General | PFNW is an essential component of DOE's Site Treatment Plan. We appreciate DOE's recognition of the need to send more waste to PFWW to maintain this capability. This is absolutely essential for M-091. M-091-44C and -44D may have to be changed to give credit into the future for shipment of more than 280 m ³ of waste for treatment at PFWW. | Noted |
| 2. | p. 1-2, Section 1.2 (EE) | The scope of the M-091 PMP needs to be expanded to include management of CH-TRU, RH- TRU and LLW wastes from retrieval and remediation operations including "newly generated" waste. Significant quantities of TRU and LLW waste already exist in aboveground storage and more will be generated from retrieval and CERCLA actions mentioned in this section and in Chapter 7. The TRU and LLW waste will impact the availability of Hanford facilities and infrastructure. Management of TRU, TRUM, and LLW waste must be integrated in the M-091 PMP for a complete understanding of the scope, cost, and schedule for waste disposition. Ecology doesn't regulate the LLW and TRU waste, so the information can be included for information only with no associated milestones. | The scope of the M-091 PMP covers MLLW and TRUM waste in above ground storage as of June 30, 2009, and in retrievable storage. Any discussion on non- M-091 waste in the PMP is for informational purposes only. Integration with the non-M-091 waste will be covered in the M-091 Engineering Alternatives Study to be submitted to Ecology on or before September 30, 2016. |
| 3. | p. 1-4/5 Section 1.3 (ES) | Chapter bullets: chapter 3 and 4 are switched, chapter 3 addresses retrieval of RSW, chapter 4 addresses certification of TRUM and treatment of MLLW. Chapter 8 bullet should mention the funding aspect of this chapter. | Comment accepted. |

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| 4. | p. 1-5, Table 1-1, M-091-051 (Comp) | Does the engineering alternatives study for acquisition of capabilities, etc. include the increase in allowed curie limits at Perma-Fix? Or will application for that increase proceed on a schedule other than M-091-51? The concern is that it is a two-year process to apply and get the application approved. It seems very likely that this will be a chosen path. Why not submit the application now, and be ready for containers with higher limits in two years? | This subject will be addressed by the M-091-51 and M-091-52 deliverables and the supporting documentation. No change made to the PMP. |
| 5. | p. 1-6, Section 1.2 (EE) | The list of future CERCLA OUs include "200-SW-2 Radioactive Landfills and Dumps Group OU". In the 200-SW-2 project we only discuss it as the "200-SW-2 Radioactive Landfills Group OU". This is also what the TPA's administrative record calls the OU. Update text. | Comment accepted. |
| 6. | p. 1-7, Summary table (Comp) | It is unclear where the repack volumes in the first section of the table are derived from. The total volume figures do not match other reports received from RL. In what units are these volumes of waste currently being stored, and how much volume per unit? | The repack volumes are based on information discussed between Ecology and DOE-RL leading up to the approval of Change Request M-091-15-1. The waste is stored at CWC, WRAP, T-Plant and in the LLBGs. No change made to the PMP. |
| 7. | p. 2-1 Bullet #2 (ES) | Last sentence: "container" should read "containers". | Comment accepted. |
| 8. | p.4-1, Section 4.1 (Comp) | Ecology supports submitting the application for Perma-Fix to increase the radiological limits now. | Noted |
| 9. | p. 4-4, Section 4.2 (Comp) | Lists PFNW, M&EC TN, and PF DSSI TN as the only facilities under contract. Have all commercial options been given consideration? For example, do Energy Solutions or Waste Control Specialists provide options for treatment or disposal of MLLW? | Other treatment and disposal options for MLLW will be assessed based on specific needs. No change made to the PMP. |
| 10. | p. 4-4 Section 4.2.1 (ES) | Last sentence: "with in" should read "within". | Comment accepted. |

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| 11. | p. 4-5 Section 4.2.4 (ES) | Section 4.2.4 references the transportation of CH-MLLW and RH-MLLW "Onsite and offsite transportation of waste is discussed in Section B1.8". B1.8 is a reference to TRU waste shipments. Update text. | Reference correctly change to B1.6. See comment #30. |
| 12. | p. 5-1, Section 5 (Comp) | Is this information accurate? Can AMWTP still receive transuranic waste from outside of Idaho? (1995 Idaho Settlement Agreement between Idaho, Navy, and DOE to remove the waste from Idaho.) If AMWTP can accept Hanford TRUM, can the schedule be adjusted to include this? If AMWTP is not an option, the discussion should be deleted from the M-091 Project Management Plan. | Yes, this information is accurate. Waste has been delivered to AMWTP from other sites, including Los Alamos National Laboratory and Hanford. Nine Hundred and thirty-three drums were shipped to AMWTP from Hanford in 2010 – 2011. Shipment of waste to AMWTP continues to be an option under consideration and schedules will be adjusted in the future if appropriate. |
| 13. | p. 5-2, Figure 5-1 (EE) | <p>(Multiple instances) Text provides volume projections for shipping TRUM waste to WIPP.</p> <p>Up to 10 shipments per week to WIPP are planned. Historically the maximum number of shipments from WRAP has been 2-3. Please include discussion of the infrastructure needed to support the higher rate such as:</p> <ul style="list-style-type: none"> • Characterization and NDE/NDA capabilities. • Waste certification. • Number of TRUPACT II and RH-72B shipping containers and trucks. • Loading facilities and support services (e.g., helium leak-testing of shipping containers, payload assembly and inventory management). • Receipt and processing of CH and RH shipping containers at WIPP and return to Hanford. • Supporting documentation for WIPP shipments. | This information is being generated under M-091-51, -52, 053. Once this information becomes available it will be added to the M-091 PMP during an annual update. |

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| 14. | p. 6-1, Table 6-1 (Comp) | Table 6-1 includes LLBG, with a permitted storage capacity of 10,000 m ³ as an option for storage of containers managed under the M-091 milestone series. Storage of the containers managed under the M-091 milestone series cannot be accomplished in the Trench 31 and 34 landfills. There is an EPA prohibition on placing any MW containers in the landfill unless they meet LDR standards. LLBG is not currently authorized for storage in the proposed storage and treatment dangerous waste management units. The LLBG storage capacity should be deleted from this section as there is no potential capacity for storage at this time. | Based on the January 2016 Permit application, there are waste storage areas at trenches T-31 and T-34. No change made to the PMP. |
| 15. | p.6-2, Section 6.1 (Comp) | Building 2401-W is listed as having storage capacity. This building is currently undergoing RCRA closure. Delete from document. | The storage capacity is based on the latest CWC Part A Permit application. No change made to the PMP. |
| 16. | p. 6-2, Section 6.1 (Comp) | This section refers to CWC storage outside of the storage buildings and outside storage areas. There is currently no authorization for storage of DW or MW in these areas. Delete from document. | Storage of waste outside of the CWC storage buildings and in outside storage areas is discussed in the Permit application submitted in January 2016. Outside Storage Area A will be emptied consistent with M-091 milestones. No change made to the PMP. |
| 17. | p. 6-2, Section 6.1 (Comp) | This section refers to CWC storage of liquid wastes in outside storage areas. There is currently no authorization for storage of liquid DW or MW in outside storage areas and may not be in the future. Delete from document. | See response to comment #16. |
| 18. | p. 6-2, Section 6.2 (Comp) | This section refers to T Plant storage outside of the storage buildings and outside storage areas. There is currently no authorization for storage of DW or MW in these areas. Delete from document. | Storage of waste outside of the T-Plant storage buildings and in outside storage areas is discussed in the Permit application submitted in January 2016. No change made to the PMP. |
| 19. | p. 6-2, Section 6.2 (Comp) | This section refers to T Plant storage of liquid wastes in outside storage areas. There is currently no authorization for storage of liquid DW or MW in outside storage areas and may not be in the future. Delete from document. | See response to comment #18. |

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| 20. | p. 6-2, Section 6.2 (SL) | Storage of the K Basins sludge in the T Plant canyon needs to be described as that will significantly affect operations. | Preparation for the receipt of K Basin sludge at T Plant is ongoing. Once the sludge is stored, the canyon will be available for other waste management operations such as repackaging. No change to the PMP. |
| 21. | p. 6-2, Section 6.3 (Comp) | This section refers to WRAP storage outside of the storage buildings and outside storage areas. There is currently no authorization for storage of DW or MW in these areas. Delete from document. | Storage of waste outside of the WRAP storage buildings and in outside storage areas is discussed in the Permit application submitted in January 2016. No change made to the PMP. |
| 22. | p. 6-2, Section 6.4 (Comp) | This section states that storage can be provided in the LLBGs (MWTs). See comment #14 above. Delete from document. | See response to comment #14. |
| 23. | p. 7-1, Section 7 (EE) | The first paragraph in this section mentions that remedial work under the M-016-00 milestone will be completed by 2024. Is this just a misspelling or is it based on outdated information? The milestone now says the work needs to be finished by 2042. Update text. | Modification to the date referred to occurred as a result of TPA Change Form M-16-16-02 which was approved 5/25/2016. This PMP reflects 2015 information and as such will not be modified. This change will be made to the next annual update. |
| 24. | p. 7-3, Section 7.1.1, 1 st paragraph, 3 rd | Change to read, "debris will be removed," | Comment accepted. |
| 25. | p. 7-3, Section 7.1.2 (SL) | Text says per the ROD for the K Basin sludge that the sludge will be treated, packaged for disposal, and interim stored pending shipment to disposal. The text later says the sludge will be placed in casks and transferred to T Plant for interim storage until a new treatment and packaging facility is available. Responsibility for performing treatment and repackaging of the sludge, and whether this occurs before or after interim storage is not clear. | Text will be revised to clarify that the K Basin sludge will remain in storage at T Plant until sludge treatment and packaging capabilities are available. |

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| 26. | p. 7-4, Section 7.1.4 (SL) | Discussion of the D-10 tank from U Plant needs to be expanded and address that absorbent was added and the RH-TRUM waste has a D001 oxidizer waste code due to high concentrations of nitrate. Treatment and repackaging of this waste for shipment to WIPP will be complex and subject to a 2024 deadline per the ROD. This time frame is not in agreement with the schedules in this report. Please explain. | The D-10 tank from U-Plant is not M-091 waste. See response to comment #2. |
| 27. | p. 7-6 Section 7.2 (ES) | Second sentence states in regards to WIPP, "it is too soon to speculate on when receipt operations will recommence" then speculates, "It is projected that shipments of CERCLA TRU and TRUM waste to WIPP will not begin until after FY 2030". | It is assumed that WIPP will be available to receive TRU waste from Hanford in FY2024. Shipment of M-091 waste will have first priority, and is scheduled to be completed by September 30, 2030. It is projected that shipments of CERCLA TRU waste will not begin until after that. No change made to the PMP. |
| 28. | p.7-6, Figure 7-2 (EE) | In previous PMPs (i.e. Rev 14, 15 and 16) there was a Figure 7-2 that included shipping projections for both TRU and TRUM waste. This was a great figure as it gave a more complete picture of the total waste management. This figure was deleted in this version. As Section 7.2 describes, CERCLA waste will be shipped beyond FY2030, so this figure can describe this situation as long as the waste defined in M-091-48 is shipped by FY2030. | This subject is discussed in the M-091 Engineering Alternatives Study to be submitted to Ecology on or before September 30, 2016. |
| 29. | p.8-1, Section 8.1 (EE) | Under WBS 013-05 TRU Retrieval it mentions retrieval under M-091-49 from LLBGs (218-W-3A, -218-W-4C, 218-W-4B, and 218-E-12B). Landfill 218-W-4C can be deleted from this list as it no longer contain waste to retrieve. This is correctly mentioned in Section 3. | There are other containers in 218-W-4C that might be retrieved. These will be discussed in the M-091 Engineering Alternatives Study to be submitted to Ecology on or before September 30, 2016. No change made to the PMP. |
| 30. | p. B-iii, Appendix B (EE) | This appendix is messed up. Sections describing RCRA and NEPA are repeated twice. The table of contents also does not reflect the order of the sections. | The text and table of contents will be revised to delete the duplications. |

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| 31. | p. C-1, Section C1 (EE) | The section mentions the CERCLA OUs called "200-SW-2 Radioactive Landfills and Dumps Group OU". In the 200-SW-2 project we only discuss it as the "200-SW-2 Radioactive Landfills Group OU". This is also what the TPA's administrative record calls the OU. Update text. | Comment accepted. |
| 32. | p. C-1, Section C1.2 (EE) | This section contains several errors in the second paragraph to update. The 218-W-4C landfill does no longer contain any RSW as determined by actions documented in the M- 091 PMM meetings and the 200-SW-2 project meetings. Figure C-3 also shows this correctly. Thus, the first sentence needs to say "In the 218-W-4C LLBG, Trenches T01, T04, T07, T20, T24, and T29 contained RSW". The last sentence needs to say "All RSW has been removed from this LLBG". | See response to comment #29. |
| 33. | p. C-5, Section C1.3 (EE) | Update the first paragraph to reflect the current situation as it is also correctly shown in Figure C-4. The last sentence should read "The RSW is/was located in 14 trenches:...." Add a new sentence at the end: "All the waste in trench T17 has been retrieved". | Comment accepted. |
| 34. | p. C-5, Section C1.4 (EE) | Update the first paragraph to reflect the current situation as it is also correctly shown in Figure C-4. The last sentence should read:" The RSW is/was located in two trenches: T17 and T27." Add a new sentence at the end of the paragraph: "All the waste in trench T27 has been retrieved". | Comment accepted. Figure referred to in the comment should read "Figure C-5". |
| 35. | Table E-1 (EE) | In this entire table under "Schedule" it mentions that remedial work under the M-016-00 milestone will be completed by 2024. Is this just a misspelling or is it based on outdated information? The milestone now says the work needs to be finished by 2042. Update text. | Modification to the date referred to occurred as a result of TPA Change Form M-16-16-02 which was approved 5/25/2016. This PMP reflects 2015 information and as such will not be modified. This change will be made to the next annual update. |
| 36. | Table E-1 (EE) | Most Milestone dates shown in the table under "Schedule" have now been renegotiated. Please update all the dates so that they align with the current milestones. | Modification to the dates referred to occurred in 2016. This PMP reflects 2015 information and as such will not be modified. The changes will be made to the next annual update. |
| 37. | Table E-1, under 200- SW-2 (EE) | The description mentions M-091-40 and -41 as the retrieval milestones. That has now been changed and M-091-49 is the new retrieval milestone. Update text. | Comment accepted. |