



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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August 13, 2015

15-NWP-156

Mr. Ray J. Corey  
Richland Operations Office  
United States Department of Energy  
P.O. Box 550, MSIN: A5-11  
Richland, Washington 99352

Re: M-91 Transuranic Mixed / Mixed Low-Level Waste Project Management Plan.  
HNF-19169, Rev. 14, June 2015

1230044

Dear Mr. Corey:

The Department of Ecology (Ecology) received the Calendar Year 2014 Milestone-091 Transuranic Mixed / Mixed Low-Level Waste Project Management Plan dated June 2015 (15-AMRP-0214).

Ecology finds that the document does not meet the requirements set forth under the *Hanford Federal Facility Agreement and Consent Order, Tri-Party Agreement Action Plan*, Section 11.5 (pages 11-3 and 11-4) and is therefore incomplete. Please find our comments enclosed with this letter. We look forward to working with the United States Department of Energy to resolve all of Ecology's concerns in this document prior to finalization.

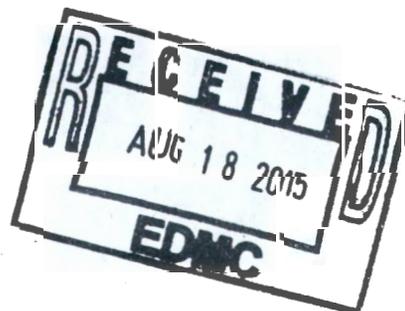
If you have any questions, please contact me at [dsin461@ecy.wa.gov](mailto:dsin461@ecy.wa.gov) or (509) 372-7923 or Elis Eberlein at [eber461@ecy.wa.gov](mailto:eber461@ecy.wa.gov) or (509) 372-7906.

Sincerely,

Deborah Singleton  
Waste Management Section Project Manager  
Nuclear Waste Program

Enclosure

cc see page 2



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<b>Document Number(s)/Title(s)</b> HNF-19169 Rev. 14 M-91 PMP	<b>Program/Project/Building Number:</b> NWP	<b>Reviewer Name:</b> Elis Eberlein, Steve Lowe	<b>Organization/Group:</b> Waste Management	<b>Location/Phone:</b> 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>	Status
1.	p. 1-3, Section 1.2 (SL-EE)	The scope of the M-91 PMP needs to be expanded to include management of CH-TRU and RH-TRU wastes from retrieval operations. Significant quantities of TRU waste already exist in aboveground storage (approx. 2,400 containers in CWC) and more will be generated from retrieval and CERCLA actions mentioned in this section and in Chapter 7. The TRU waste will impact the availability of Hanford facilities and infrastructure. Management of TRU and TRUM waste must be integrated in the M-91 PMP for a complete understanding of the scope, cost, and schedule for waste disposition.		
2.	p. 1-7, Section 1.3 (SL)	This is the first mention of retrieval of RSW being delayed to 2024. That is a significant change from the previous plan and needs to be highlighted in the Executive Summary.		
3.	p. 1-8, Section 1.4 (SL)	Text refers to existing offsite commercial capabilities for repackaging CH-TRUM and some RH-TRUM waste, and the mission need to acquire additional capability for waste that cannot be managed commercially. Processing capability currently exists at Idaho and is available for processing Hanford wastes, and also needs to be considered.		
4.	p. 1-7, Section 1.3  p. 4-1, Section 4.2 (SL)	Clarification is needed of CCP's role and responsibilities in performing certification and shipment of CH and RH TRU and TRUM wastes. This should be consistent with the PRC prime contract Sections C.2.3.6.1 and C.2.3.6.2. For example, CHPRC is responsible to provide the infrastructure to support installation and operation of the CCP-provided RTR equipment, drum assay equipment, and mobile loading equipment; that should be mentioned in the M-91 PMP.		

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5.	p. 2-1, Section 2.1 p. 3-2, Section 3.1.2 (SL)	Text refers to the retrieval schedule and evaluating factors such as minimizing life cycle retrieval cost, optimizing retrieval versus capacity for repackaging, WIPP shipment schedule, and offsite treatment capacity. The top priority is to get the waste out of the ground and into safe storage. The other factors are less relevant as the CWC has much unused storage capacity.		
6.	p. 2-1, Section 2.1 p. 3-2, Section 3.1.2 (SL)	Text states that as retrieval of RSW is delayed, treatment of MLLW and repackaging/shipping of TRUM waste will also be delayed. Need to clarify what is delayed is final completion of the TPA milestone due to reduced funding. There currently is much TRUM waste in above-ground storage that is available for repackaging, regardless of whether retrieval occurs.		
7.	p. 3-12, Section 3.2.3 (EE)	The text mentions the "last approved report (DOE/RL-2015-08)". This is the current LDR full report and it has not been approved at this time. Additional milestones will need to be created before the report can be approved.		
8.	p. 3-13, Section 3.2.4.4 (EE)	The text mentions that the inventory of mercury-bearing waste is currently zero and the LDR report says the same thing. This information may not be correct as some of the mercury is stored in the PUREX tunnels.		

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9.	<p>p. 4-5, Figure 4-1</p> <p>p. 7-9, Figure 7-2</p> <p>p. D-3-D-4, Tables D-3 and D-4 (EE)</p>	<p>(Multiple instances) Text provides volume projections for shipping TRUM waste to WIPP.</p> <p>a) The numbers in Figure 4-1 and Figure 7-2 are different. They refer to the same waste stream and ought to say the same thing.</p> <p>b) Up to 12 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"> <li>• Characterization and NDE/NDA capabilities.</li> <li>• Waste certification.</li> <li>• Number of TRUPACT II and RH-72 shipping containers and trucks.</li> <li>• Loading facilities and support services (e.g., helium leak-testing of shipping containers, payload assembly and inventory management).</li> <li>• Receipt and processing of CH and RH shipping containers at WIPP and return to Hanford.</li> <li>• Supporting documentation for WIPP shipments.</li> </ul>		
10.	<p>p. 5-1, Section 5, first bullet (EE)</p>	<p>This text contains multiple errors. The second sentence should say "The remaining RSW is <del>in</del> located in <del>three</del> four burial grounds (<del>218-W-3B, 218-W-4A, and 218-E-12B</del>)(218-W-3A, 218-W-4B, 218-W-4C, and 218-E-12B)."</p> <p>Information about the presence of RSW in 218-W-4C varies. The 200-SW-2 work plan (DOE/RL-2004-60, Rev B) together with Figure C-3 in this document indicated that all RSW has been retrieved. The text on page C-1, Section C1.2 says that all contact-handled RSW has been removed, indicating that some remote-handled waste might still remain. A table received from Mike Collins in 2012 after retrieval operations ceased says that 23 m<sup>3</sup> still remains in T24 of the landfill. All this information needs to be verified and updated for consistency in all the documents.</p>		
11.	<p>p. 6-1, Table 6.1 (EE)</p>	<p>This table claims that 10000 m<sup>3</sup> can be stored in the LLBG. This permit has not been finalized, but this unlikely to be permitted as the facilities for this are not present at the LLBG. Please edit.</p>		

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12.	p. 6-1, Section 6, first bullet (EE)	“as of June 30, 2009” is a date reference that originated in the TPA M-091 milestones. It is unnecessary in the context of this text. Please remove.		
13.	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.		
14.	p. 6-2, Section 6.2 and 6.3 (EE)	There is a regulatory reference to WAC 173-303-630(7)(9). This is probably incorrect unless it says -630(7)-(9). It should say -630(7)(a) which is the section about containment systems.		
15.	p. 6.2, Section 6.4 (EE)	This section claims that various-sized containers can be stored in the LLBG. This permit has not been finalized, but this is unlikely to be permitted as the facilities for this are not present at the LLBG. Please edit.		
16.	p. 7-3, Table 7-2 (EE)	This table needs to be expanded with many more waste streams based on information in Table E-1. This will reflect better on the total picture of TRU/TRUM waste. The table can also include information about potential single-shell tank farm waste that could be retrieved and classified as TRUM. Other documents mention a potential of up to 11 tanks that might be eligible for this.		
17.	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.		
18.	p. 7-4, Section 7.1.4 (SL)	Discussion of the D-10 tank from U Plant needs to be expanded and addressed that absorbent was added and the RH-TRUM waste has a D001 oxidizer waste code due to high nitrate. Treatment and repackaging of this waste for shipment to WIPP will be complex and subject to a 2024 deadline per the ROD.		

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19.	p. 8-2, Section 8.1 Figure 8-1 (SL)	<p>Comments on the RL-0013 funding profile:</p> <p>a) Figure 8-1 needs to include a column for 2032-Life Cycle to cover activities beyond 2031 (e.g., IDF disposal of WTP waste, post-closure monitoring of MW Trenches).</p> <p>b) The scope description in some cases is vague and needs to be expanded. For example, WBS 013.07 WRAP, says it provides for safe operation and maintaining minimum safe condition, while the funding has a significant uptick in 2019-22.</p> <p>c) WBS 013.15 TRU Disposition – Would expect funding to be higher in 2020-25 due to many more shipments to WIPP and the need to support CCP activities.</p> <p>d) WBS 013.21 MW Trenches – Funding in 2029-31 increases only slightly. This does not appear sufficient for closure of the trenches and constructing two surface barriers.</p>		
20.	p. 8-4, Section 8.3.1 (SL)	Ecology cleanup priorities from 2010 are listed. These are meaningless as DOE has their own priority list which is provided to the contractors in the form of planning guidance. The DOE and Ecology priority lists do not agree in many aspects. As the DOE priority list is what drives the work in the field, the DOE priority list is what should be shown as a project constraint.		
21.	p. 8-6, Section 8.3.3.2 (SL)	Text discusses several potential issues with providing on-site processing capability for RH-TRUM waste. There is demonstrated capability already existing at Idaho for processing RH waste in various package configurations. Processing the RH waste at Idaho needs to be included.		
22.	p. D-4, Table D-5 (SL)	In 4 <sup>th</sup> bullet, 2019 should be 2020 to be consistent with Figure 8-1.		