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Department of Energy  
Richland Operations Office  
P.O. Box 550  
Richland, Washington 99352

13-AMRP-0272

JUL 31 2013

Ms. J. A. Hedges, Program Manager  
Nuclear Waste Program  
State of Washington  
Department of Ecology  
3100 Port of Benton  
Richland, Washington 99354

Dear Ms. Hedges:

CALENDAR YEAR 2012 HANFORD SITE MIXED WASTE LAND DISPOSAL  
RESTRICTIONS SUMMARY REPORT, DOE/RL-2012-12, REVISION 0 1213180

This letter responds to the State of Washington Department of Ecology's June 27, 2013, (13-NWP-070) comments on the Calendar Year 2012 Hanford Site Mixed Waste Land Disposal Restrictions Summary Report, DOE/RL-2012-12, Revision 0. Attached are the U.S. Department of Energy Richland Operations Office's (RL) responses. RL plans to incorporate these responses as part of the Calendar year 2013 report.

If you have any questions, please contact me or your staff may contact Al Farabee, of my staff, on (509) 376-8089.

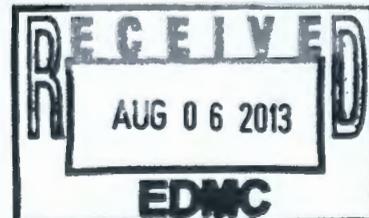
Sincerely,

Jonathan A. Dowell, Assistant Manager  
for the River and Plateau

AMRP:MSC

Attachment

cc: See Page 2



m-026-01w

Ms. J. A. Hedges  
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cc w/attach:

G. Bohnee, NPT  
R. Buck, Wanapum  
D. A. Faulk, EPA  
S. Harris, CTUIR  
S. Hudson, HAB  
R. Jim, YN  
N. M. Menard, Ecology  
K. Niles, ODOE  
J. B. Price, Ecology  
D. Rowland, YN  
D. G. Singleton, Ecology  
E. R. Skinnarland, Ecology  
Administrative Record  
Environmental Portal

cc w/o attach:

K. R. Christensen, WCH  
L. M. Dittmer, CHPRC  
R. H. Engelmann, CHPRC  
L. L. Fritz, MSA  
A. L. Hummer, WRPS  
R. A. Kaldor, MSA  
S. E. Killoy, WRPS  
T. W. Noland, MSA  
J. F. Ollero, MSA  
J. K. Perry, MSA  
K. A. Peterson, WRPS  
R. E. Piippo, MSA  
H. T. Tilden, PNNL

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5. Document Number(s)/Title(s) 2012 Hanford Site Mixed Waste LDR Summary Rpt. DOE/RL-2012-12 Rev 0		6. Program/Project/Building Number NWP/Waste Management/RFO		7. Reviewer		8. Organization/Group Ecology/NWP		9. Location/Phone RF0/372-7890			
17. Comment Submittal Approval:			10. Agreement with indicated comment disposition(s)			11. CLOSED					
Date		Organization Manager (Optional)		Date		Reviewer/Point of Contact		Date		Reviewer/Point of Contact	
				Author/Originator				Author/Originator			
Item	Location in Document	Comment				Hold Point	Disposition (Provide justification if NOT accepted.)			Status	
1	Table 3-1, page 3-2 & Table 3-1, page 3-3	In DST waste row and SST row - milestones M-050, M-051, and M-061 are listed as reference milestones. Are these three milestones still in the HFFACO? Have they not been deleted?					Accept, milestones will be replaced with M-062-00, Complete Pretreatment Processing And Vitrification Of Hanford High Level (HLW) And Low Activity (LAW) Tank Wastes.				
2	Table 4.1, page 4-3	In DST waste row - milestones M-050, M-051, and M-061 are listed as reference milestones. Are these three milestones still in the HFFACO? Have they not been deleted?					Accept, milestones will be replaced with M-062-00, Complete Pretreatment Processing And Vitrification Of Hanford High Level (HLW) And Low Activity (LAW) Tank Wastes.				
3	Table 1-5	Per response #6 in 13-AMRP-0001, modify text in Table 1-5 as follows: Replace "Rail cars were dispositioned at either ERDF or the B-Reactor Museum" with "Rail cars were declared waste and disposed in ERDF, except 4 railcars were sent to B Reactor as "reusable equipment" not waste as they are being used as displays."					Accept, text change will be made to next year's report.				

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4	Table 1-4, page 1-34	Why is the 702-A Ventilation Building seal pot's heel thought to not contain dangerous waste. Ammonia, NO <sub>x</sub> , and SO <sub>x</sub> vapors can all condense and render mixed waste accruals after years of operation and other seal pots in the SST and DST systems contain heels that are considered mixed waste. Sampling should be conducted or the facility should be presumed to contain mixed waste and closed per the requirements of the other ancillary equipment entries listed.	<p>Accept, as stated in the 2004 Assessment (FY2005-SPMA-S-0317, Rev. 0), one remaining component (seal pot) of the facility is presumed to contain mixed waste.</p> <p>Will revise Column G in Table 1-4 for the 241-A-702 Ventilation Building to read:</p> <p>"Data gap plan: None.</p> <p>When the building is deactivated, characterization of the seal pot heel will be completed as necessary.</p> <p>Starting TPA negotiations: N/A."</p>	
5	Table 1-1, page 1-8	Why are only 20 cubic meters of waste generated each year for the DSTs until 2016 and then no waste is generated past 2015...especially when no waste is generated by the SSTs at all? (e.g. are 6,000 gallons of waste being retrieved each year until 2015 and then all retrieval stops?)	<p>Accept, the 20 m<sup>3</sup> is the estimate of annual chemical addition to DST waste for pH and other chemistry control. This estimate should be extrapolated into years 2016 and 2017; the current value of 0 in years 2016 and 2017 was a typo within the final report. Next year's report will be updated with the estimate.</p>	
6	Section 1.0 and also Table 5-1	Should the MW storage areas listed in the LDR Report be consistent with the DWMUs listed in the Sitewide DW Permit?	<p>Not accepted, the LDR report does not match the MW storage areas listed in the LDR Report (Section 1.0 and also Table 5-1) and should not be consistent with the DWMUs in the DW permit. The LDR report storage areas will be updated to be in sync with the DW permit once the permit is finalized and approved.</p>	

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7	General	<p>The source of the waste volumes in the LDR Report is unclear. Do the Projected Volumes in the LDR Report agree with the annual Solid Waste Forecast? How and at what point in time is the Solid Waste Forecast documented? The first paragraph in Section 1.2 has a sentence that reads: "Data on waste volumes in these tables are reported from the database." What database is this?</p>	<p>The 5-years of projected waste volumes presented in the LDR report are derived from multiple sources, including the SWIFT report, and is dependent on the Treatability Group. For example, the MLLW-01 through MLLW-10 Treatability Groups are based on SWIFT; whereas, most of the other Treatability Groups are based on other sources that has been inputted into the LDR report database.</p> <p>The SWIFT report is updated at least once per year and only deals with solid waste to be managed at the Solid Waste Operations Complex (SWOC) facilities. The report is issued to DOE by CHPRC as an externally released document.</p> <p>The database is the LDR report database that has been developed to generate the tables in the report.</p>	
8	Section 1.0	<p>The reporting locations are listed in Section 1.0 and the TPA milestone M-26-01. There is also a note at the end of Section 1.0 that says the last reporting location change was approved at the PMM on 11/18/2008. However, the list in Section 1.0 does not include some of the facilities listed in Section 1.1 under 2012 Changes. This is confusing.</p>	<p>The note has been provided in reference to Table 5-1 and is provided for history documenting the last time the Agency's agreed to modify the Table and exactly what the modification was. 2012 report changes have been provided in the report for the reader to quickly determine what has been added and deleted in the report.</p>	

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9	Section 1.1	It is unclear why 2011 Changes are included in the report if the report is for CY 2012. Weren't these reported last year?	The changes to the 2011 report were included in the 2012 report to document that DOE did respond and update the 2012 report implementing Ecology's 2011 report comments. This supported Ecology in documenting that DOE did accept Ecology's 2011 report comments that were implemented into the 2012 report as agreed in the 2011 report comment resolution approval from Ecology. It has been agreed between the Ecology and DOE project managers that the previous year reports history will be removed from the report.	
10	Section 1.2	The first paragraph has a sentence that reads: "Stored waste volumes are reported either by the actual waste volume or the waste container volume." How are the values different and is it significant?	For those Treatability Groups that are comprised of primarily containerized waste (e.g., MLLW-01 through MLLW-10, TRUM - CH Large, TRUM - CH Small, TRUM-RH, etc.), the volumes are based on the nominal capacity of the container the waste is residing in and not the actual volume inside the container. For the non-containerized Treatability Groups (e.g., 222-S T8 Tunnel, B Plant Cell 4, PUREX Storage Tunnels, etc.), the volumes are based on the estimated quantity of waste prior to being packaged. Packaged/containerized waste can have a significant amount of void volume associated with it.	

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11	General	<p>Is mixed waste being generated by the ongoing retrieval of SST waste and DST operations (e.g., PPE, failed equipment, waste transfer hoses being replaced, etc.). These activities are subject to the DW permit. Should any mixed waste be included in the LDR report?</p>	<p>Yes, mixed waste is being generated. Generator activities are not subject to the permit based on WAC 173-303-600(3)(d).</p> <p>Mixed waste generated by ongoing retrieval of SST waste and DST operations will be included in the forecast for mixed waste if the mixed waste will be stored at an on-site TSD unit. See the 222-S Laboratory treatability group or the ERDF Treatment treatability group for any applicable forecasted waste generated by ongoing retrieval of SST waste and DST operations. In most cases, the mixed waste generated by ongoing retrieval of SST waste and DST operations is shipped from a generator location offsite for treatment or will be disposed onsite in ERDF without treatment and, thus, will not be reported in the annual LDR report.</p>	
12	Table 1-1	<p>The Current Inventory shown in Table 1-1 for the 221-T Containment Building is 58 m3 as of December 2012. However, the inventory for all of T Plant as reported at the January 2013 SWOC PMM meeting was 49 m3. Please explain the difference.</p>	<p>The 58m3 reported for the 221-T Containment Building is the uncontainerized mixed waste that is residing inside the process cells of the 221-T Canyon. This includes process cell ancillary equipment, other debris, and small amounts of non-debris waste items that will be managed as part of the Canyon Disposition strategy for T-Plant.</p>	

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				The 49m3 is the stored containerized mixed waste volume at T-Plant. This volume is derived from SWITS data and represents the "as-packaged" waste volume.	
13	Table 1-1	For the several categories of mixed waste identified in Table 1-1 as MLLW-01 to MLLW-10, and TRUM-CH and TRUM-RH, it is not readily apparent where these wastes are being stored.		Table 5-1 in the report identifies where the waste categories are being stored.	
14	General	The Current Inventory of TRUM-CH Large/Small Containers would seem to include some waste that is retrievably stored but not yet retrieved, correct? This is based on comparing the total for these categories in the LDR Report to the volume for all the SWOC units as reported in the January 2013 SWOC PMM.		The three TRUM Treatability Groups shown for the LLBGs (i.e., TRUM-CH-Large Container, TRUM-CH Small Container, and TRUM-RH) does include the volume of retrievably stored waste remaining to be retrieved.	
15	Table 1-4	Table 1-4 identifies a tank in Cell 11-L which contains 500 gallons of dangerous waste. This tank was previously sampled and reported in an LDR Assessment that was discussed in the T Plant PMM on July 24, 2008. The 11-L tank is not included with the other T Plant tank systems in the sitewide DW permit. Should it be? It is unclear if the tank is being regularly monitored. The text refers to a data gap plan and TPA negotiations, and says "...discussed with Ecology during the T Plant Complex Dangerous Waste Permit Part A and Part B negotiations" yet the tank doesn't appear in the submittals to date.		Ecology had a similar comment for the "Calendar Year 2011 Hanford Site Mixed Waste Land Disposal Restrictions Summary Report" in a letter dated August 17, 2012, i.e., why isn't the waste in Tank 11-L listed as Mixed Waste? DOE RL's response to this comment was documented in a DOE letter (13-AMRP-0001) to Ecology dated October 25, 2012. The response is provided below.  "The waste in the 241-Z-361 and the T Plant Canyon Cell 11-L are not TSD storage locations, therefore the waste is not reported in the data sheets of the LDR report. There is no Part A Permit application showing that these	

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areas are permitted storage locations. Discussions between DOE and Ecology in the past took place to classify the 241-Z-361 underground tank as a past practice site under the Tri-Party Agreement Waste Information Data System database. For the T Plant cells, discussions between Ecology and DOE took place during the Part B Permitting workshops in the 2002 timeframe where the delay in closure of the 221-T Tank System in the canyon cells took place. The Part A Permit application form for T Plant indicates which cells in the canyon are identified as part of the TSD unit. Cell 11-L is not one of those locations, and was readdressed with Ecology during the LDR compliance assessment/data gap plan process documented in the T Plant TPA project manager meeting minutes on July 24, 2008. There is no known reason to revisit the reclassification of a past practice site to a TSD site for these locations in the potential mixed waste table.

The waste in question is included in the LDR report. Waste is either reported in data sheets or as potential mixed waste in the LDR Report. The 241-Z-361 and T Plant Cell 11-L waste is included as potential mixed waste based on

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				<p>the agreement between Ecology and DOE resulting from the appeal and settlement of the 2000 LDR Final Determination on reporting mixed waste.</p> <p>However, it is noted that the potential mixed waste table, Column G entries for "T Plant Canyon Cell 11-L" and "T Plant Canyon IMUSTS" needs to be updated for the data gap plan to read: "Data gap plan: 3<sup>rd</sup> quarter CY2007. Currently Resolving Ecology comments. See July 24, 2008 T Plant Project Managers Meeting minutes."*</p>	
16	Table 1-4	<p>Would like some further explanation of the PMW in Table 1-4. Are the listings current as of the end of CY 2012? For example, the 340 Vault Tanks may have been removed last year. The 340 waste heels and clean out residues would most certainly designate as mixed waste as the tanks contained (among other things) lab waste from analysis of tank farm samples. Why would this be "potential" mixed waste?</p>		<p>Accept.</p> <p>Yes listings are current as of the end of CY 2012.</p> <p>The 340 Vault is still on site, it is slated for removal and shipment to ERDF this calendar year (2013); therefore it was left on the report. The tanks (and residual waste/heels) and vaults have been monolithed into an integral unit. The whole unit remains in its original footprint in the 300 Area, thereby retaining potential mixed waste status.</p>	
17	Table 5-1	<p>In Table 5-1 for the T Plant Complex location, the 2706-T Tank System is shown with 0.540 m3 of waste in 2 tanks. If this is referring to the 220 and 221 tanks in the 2706-TB building, those tanks are empty and have been blanked off.</p>		<p>Accept. The tanks are empty and the amount will be updated in next year's report.</p>	