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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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April 11, 2013

13-NWP-038

Ms. Karen L. Flynn, Assistant Manager
Mission Support Alliance
United States Department of Energy
Richland Operations Office
PO Box 550, MSIN: A4-19
Richland, Washington 99352

Dear Ms. Flynn:

Re: Completion of the Fiscal Year (FY) 2013 Hanford Lifecycle Scope, Schedule and Cost Report – Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-036-01C

The Department of Ecology appreciates the timely arrival of FY 2013 Hanford Lifecycle Scope, Schedule and Cost Report on January 31, 2013. The FY 2013 report meets the requirements of Tri-Party Agreement Milestone M-036-01C and our comments are enclosed.

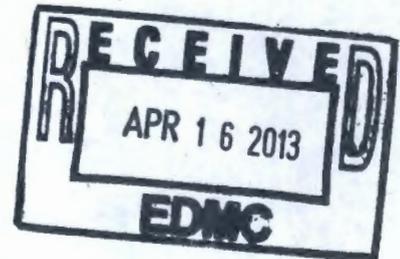
If there are questions about our comments, please contact Melinda J. Brown, Nuclear Waste Program Specialist, at mbro461@ecy.wa.gov or (509) 372-7886.

Sincerely,

John Price
TPA Section Manager
Nuclear Waste Program

mjb/tkb
Enclosure

cc: See page 2



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cc electronic w/enc:

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REVIEW COMMENT RECORD (RCR)			1. Date	2. Review No. 1
			3. Project No.	4. Page
5. Document Number(s)/Title(s) DOE/RL-2012-13 Rev. O/2013 Hanford Lifecycle, Scope, Schedule and Cost Report		Project Manager Name	Reviewer Name Melinda J. Brown	
John B. Price, Manager, Tri-Party Agreement Section, Ecology Nuclear Waste Program Organization Manager (Optional)		10. Agreement with indicated comment disposition(s)		
		Date	Reviewer/Point of Contract	Reviewer/Point of Contact
			Author/Originator	Author/Originator
12. Item	13. Comment(s)/Discrepancy(s) (Provide technical justification for the comment and detailed recommendation of the action required to correct/resolve the discrepancy/problem indicated.)	14. Reviewer Concurrence Required	15. Disposition (Provide justification if NOT accepted.)	16. Status
1.	EDITORIAL: p. ES-4, paragraph 1, identified 39 cleanup actions for which final cleanup actions are still needed. The text referenced Table 1-4 that lists specific cleanup actions. Suggestion for aiding the reader: in Table 1-4, indicate addition of cleanup action by footnote, type face, labeling (<i>Disposition N Reactor</i>).			
2.	P. 1-8, Table 1-2 includes a new Goal 5 to safely mitigate and remove the threat of Hanford's tank waste. The addition is based on Draft Rev. 1 of DOE/RL-2009-10. In the FY 2014 report, please update the goals for cleanup from the final Rev. 1 report.			
3.	P. 1-9, paragraph 5: In the FY 2014 report, please update information about leaking SST's to include recent discoveries (e.g. Tank T-111). Please add information about the leak into the annulus of the AY-102 DST and address risk to retrieval that could result from the loss of DST space.			

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4.	P. 1-13, paragraph 1, last sentence, states that if Congressional appropriations do not match assumed funding, then work schedule shifts will appear in future Lifecycle Reports. In the FY 2014 report, please add the work shifts <u>to which USDOE/Ecology/EPA have agreed</u> (i.e., changes in the HFFACO). The Lifecycle Report must present planning based on compliance with laws, regulations, the HFFACO, the 2010 Consent Decree, and other compliance agreements only.			
5.	P. 1-16, last paragraph, and p. 1-17 first paragraph: Ecology continues to support "what if" scenario development outside of the Lifecycle report. The State is gratified that the text clearly delineates that effort as such.			
6.	P. 1-17, item 6, stated that the USDOE contractor added assumptions to Section 4.4 NRDAR studies and that litigation will not significantly affect cost or schedule "at this time". Ecology requests that USDOE review the information in the Final Hanford Natural Resource Damage Assessment Injury Assessment Plan (Final, dated January 31, 2013) at http://www.hanfordnrda.org/wp-content/uploads/2011/12/Final_Hanford-Natural-Resource-Damage-Assessment-Injury-Assessment-Plan-with-Appendices.pdf to determine if that assumption requires revision. If the statement does require review, Ecology requests that USDOE add the estimates for the costs of assessments underway or included in the RL requests for funding.			
7.	P. 1-18, Section 1.7.2, item 4. Please include more information about the contents of the 200-UP-1 ROD in the FY 2014 report.			
8.	P. 1-18, item 5. In the FY 2014 report, please update the <i>TC&WM EIS</i> information to address USDOE's selection of its preferred alternative for the waste in 20 tanks. That preferred alternative is to			

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	retrieve, treat, package, and characterize and certify wastes that may be properly and legally classed as mixed TRU waste for disposal at WIPP (see 78FR15358ff). If USDOE issues a ROD for that alternative before August 31, 2013, please include the ROD information in the FY 2014 report.			
9.	<p>P. 4-4, Figure 4-3 Remaining Cleanup Schedule shows B Reactor support continuing through FY 2019. Please add information about what assumptions were the bases for ending the funding after of FY 2019 (transfer to National Parks Service?).</p> <p>Please change the B Reactor title in the schedule to match the Work Element title in the scope description (Site Infrastructure & Utility/Logistics & Transportation (B Reactor))</p>			
10.	P. 4-5, Table 4-3 Work Element PRC River Zone Environmental appears to have replaced the Nuclear Facility D&D – River Corridor Closure (100-K Area Remediation) that appeared in the FY 2012 Lifecycle Report (see p. 4-5 of that document). The schedule for the work that appears in Figure 4-3 of the FY 2013 report shows that the activity ends at the end of FY 2018, but the FY 2011 report shows the 100-K Area Remediation ends at the end of FY 2020. It is not clear from the text what assumptions led to a shorter schedule. Please clarify the schedules in the FY 2014 report.			
11.	P. 4-7, Figure 4-4 shows a time line and remaining costs end at the end of FY 2019. Section 4.4, paragraph 1, bullet 3, work scope states that PNNL operating facilities will need to be available to support USDOE Office of Science missions, which implies that those facilities remain in operation after 2019. Table 3-2 shows that the USDOE Office of Science will return four 300 Area facilities to USDOE-RL. RL will remove the facilities and remediate the waste			

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	<p>sites. In the FY 2014 report, please include estimates for the removal of the facilities or specify that the costs for the removals are not included in the lifecycle cost totals.</p>			
12.	<p>P. 4-8 shows a category called Usage Based Services Distributions; however, the term has no definition in the document. The same category appears in Figure 4-8, as well as another category labeled as Usage-Based Services, G&A [General & Administrative] costs, and Direct Distributions. P. 5-10, Figure 5-4, shows the same two categories as Figure 4-8. Table D-3 appears to be the first that provides costs and breakouts of the 1) Usage-Based Services, G&A, Direction Distributions and the 2) Usage-Based Services Distribution categories. Please provide some explanation of what the terms mean when they first appear.</p>			
13.	<p>P. 4-9, Section 4.2, paragraph 2, bullet 3, states "remaining sludge will be retrieved and shipped to an interim onsite storage facility, then treated and packaged for shipment to an offsite disposal facility." On p. 4-15, paragraph 2, bullet 3, states that T Plant is acceptable for interim sludge storage and no pretreatment is required before transfer. In the FY 2014 report, please clarify that T Plant will receive the sludge for interim onsite storage.</p>			
14.	<p>P. 4-9, paragraph 2, bullet 2, states that the K Basin knock-off pot sludge material will be handed off to another project (PBS RL-0013C) for final disposition to the Waste Isolation Pilot Plant (WIPP) or other disposal facilities. In the FY 2014 report, please revise the bullet to add a reference to Table 5-9 Sludge Disposition (p. 5-33). That location contains a brief description of activities to stabilize and package 105-KW Basin sludge for final disposition, including Phase 2 treatment.</p>			

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15.	p. 4-15, paragraph 1, bullet 4, states that the NRDAR and risk assessment litigation will not significantly affect cost or schedule. The NRTC published an injury assessment plan; the scale of the effort would appear to be large. Please review that plan and modify the impacts in the FY 2014 Lifecycle Report, if necessary.			
16.	P. 5-10, Figure 5-4: see comments on p. 4-8 above regarding Usage Based Services and Usage Based Services Distributions			
17.	P. 5-21, Figure 5-8 shows Usage Based Services Distributions but no Usage Based Services, G&A. In the FY 2014 report, please add Usage Based Services or add information to show PBS-0030 has such funds designated.			
18.	P. 5-35 Usage-Based Services, G&A, Direct Distribution and Usage Based Services Distribution appear in Figure 5-17. See comment on p. 4-8, Figure 4-8 above.			
19.	P. 5-37, in Sec. 5.6 paragraph 2, the text states that planned characterization of the vadose zone below the HLW tanks will be sufficient to evaluate remedies for protection of groundwater. If the discovery of additional leaking SSTs results in a new requirement for additional characterization of the soil under those tanks, please revisit this assumption in the FY 2014 report.			
20.	P. 6-13, Figure 6-8 shows that the funding required to complete the Waste Treatment peaks then declines over time. The US Congress has chosen to fund the construction at \$690 million per year. In the FY 2014 report, please add a note to the caption of Figure 6-8 that so states.			
21.	P. 6-15, Section 6.3: please add any assumptions or uncertainties that may arise from USDOE HQ approval of baseline changes ORP requested. Please include ORP's decision to delay construction of the Pretreatment Facility.			

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22.	On p. 6-15, in the list of assumptions and uncertainties, please include any discussions/proposals that ORP is supporting to build more double shell tanks or provide space for more tank waste to replace space in AY-102.			
23.	Pp. 7-2 and 7-3 describe the safeguards and security that the Site will require. The schedule on p. 7-2 shows safeguards and security support ends in FY 2060. That schedule does not support the effort to dismantle the reactor cores and move them in one piece to the Central Plate that will begin by 2054 but last 14 years. In the FY 2014 report, please explain what USDOE assumes will be necessary to provide security for the final reactor disposition.			
24.	Pp. D-4 and D-5, Table D-3 contains six sub-categories: Maintain Safe and Compliant PFP; Disposition PFP Facility; Project Management and Support; Usage-Based Services Distributions; Usage-Based Services, G&A, Direct Distribution; and Site Services. In five of the six categories is a sub-category entitled Cost <u>and/or</u> Schedule Uncertainty with costs assigned (only Usage-Based Services G&A, Direct Distribution does not have cost and/or schedule uncertainty included). The brief explanation of risk management that appears on p. D-1, states that cost and schedule uncertainty are included in the development of the Total Project Cost and the approved USDOE planning case. Such uncertainty is “reserved to accommodate added work scope related to risk events” that may stem from conditions and events that were not known during project planning and other unanticipated changes or uncertainties.” Estimates of cost and schedule uncertainty are based on risk analysis methods that comply with USDOE guidelines and orders.			

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	<p>On p. 2-3, the extended description continues by defining cost uncertainty as the portion of the project budget that is available for risk uncertainty related to the project <u>that is held outside of the contract budget but is part of the government's planning case.</u></p> <p>Schedule uncertainty is the risk-based, quantitatively derived portion of the overall project schedule duration that is estimated to allow for the time-related risk impacts and other time-related project uncertainties. A caveat then appears: <u>money and time are reserved to address risks may be used to account for their effects or the actions necessary to mitigate or avoid risk events, but not for work outside of the [government's] planning case.</u> That would seem indicate that schedule uncertainty could be out of the planning case. Please clarify in the FY 2014 report.</p> <p>Uncertainty is calculated based on USDOE risks, which are contained in a centralized risk register for each project. The risks, which are said to be derived from various sources, are documented and used in the calculation of cost uncertainty.</p> <p>The paragraph following explains that to quantify the required amount of uncertainty, analysts use an quantitative risk analysis (using Monte Carlo method that generates suitable random numbers then observes the fraction of those numbers obeying a certain property). That quantitative risk analysis uses the project <u>schedule (with costs for each work activity)</u> to apply risks and uncertainty to the schedule.</p> <p>In the table in Appendix D, a single value that the stochastic</p>			

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	<p>modeling derived from the probability distribution. The confidence level is not noted; does the reader assume an 80% level?</p> <p>USDOE's planning case assumes a specific value is held for uncertainty, outside of contract. By that logic, the contractor would receive contractor would receive fee ONLY on the amount that the contractor is assigned for the project, not the amount that USDOE contains in the planning case. Is that correct?</p> <p>At the end of the project, may USDOE then reassign the funds designated in the planning case to another project?</p> <p>Under what circumstances would USDOE recalculate project risks and uncertainty? What person or group must approve any recalculation effort (e.g., the Secretary of Energy, the Acting Director of the White House Office of Management and Budget, the Chair of the Appropriations Committees in the House, and/or the Senate)?</p>			