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DEPARTMENT OF ECOLOGY

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April 15, 2016

16-NWP-070

Ms. Shannon Ortiz, Lifecycle Report Project Manager  
Richland Operations Office  
United States Department of Energy  
PO Box 550, MSIN: A7-27  
Richland, Washington 99352

Dear Ms. Ortiz:

Re: Completion of 2016 Hanford Lifecycle Scope, Schedule and Cost (LSSC) Report – *Federal Facility Agreement and Consent Order* (Tri-Party Agreement) Milestone M-036-01F,  
January 20, 2016

The Department of Ecology's comments on the 2016 LSSC Report are enclosed.

If you have any questions, please contact me at [melinda.brown@ecy.wa.gov](mailto:melinda.brown@ecy.wa.gov) or (509) 732-7886.

Sincerely,

Melinda J. Brown  
Nuclear Waste Program Specialist  
Nuclear Waste Program

tkb  
Enclosure

cc: See page 2



Ms. Shannon Ortiz  
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cc electronic w/enc:

Dennis Faulk, EPA  
Dave Einan, EPA  
Kevin Smith, USDOE  
Jon Perry, MSA  
Robert Piippo, MSA  
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Environmental Portal  
Hanford Facility Operating Record  
USDOE-ORP Correspondence Control

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Rod Skeen, CTUIR  
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NWP Reader File

<b>REVIEW COMMENT RECORD (RCR)</b>			1. Date 04/15/2016	2. Review No. 1
			3. Project No.	4. Page
5. Document Number(s)/Title(s) 2016 Hanford Lifecycle Scope, Schedule, Schedule and Cost Report	Project Manager Name Melinda J. Brown	Reviewer Name Melinda J. Brown		
John B. Price <hr/> Organization Manager (Optional)	10. Agreement with indicated comment disposition(s)  <hr/> Reviewer/Point of Contract  <hr/> Date  <hr/> Author/Originator	Melinda J. Brown <hr/> Reviewer/Point of Contact  <hr/> Date  <hr/> 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
	p. ii Summary of Lifecycle Scope. ¶4 last sentence asserts that the 2016 LCR total estimate remains consistent with the cost for the same remaining work in the 2015 report. Ecology disagrees. Significant increases in Safeguards & Security and Infrastructure/Site-wide Services appear in this document. In the 2017 report, modify the statement unless all of estimates for cleanup costs continue to decrease.			
	p. iii Table ES-1 shows an increase in Infrastructure/Site-wide Services to \$9.0 Billion (PBS RL-0040) from \$3.96 B in the FY 2015 report. On page 1-9, the reductions in PBS's that will be reassigned to Infrastructure appear to total ~ \$6.5 B. Per the text on that page, RL-0040 has \$5 B increase. Clarify what activity is using the remaining \$1.5 B.			

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	<p>Table ES-1 shows an increase in Safeguards &amp; Security (S&amp;S) from \$3.6 B on the FY 2015 report to \$ 5.1 B on the FY 2016 report. Funding projects in Figure 6-1 in the FY 2016 report show continuous increases from FY 2023 through 2059. Information presented in section 1.5.1 explains that the \$1.6 B increase is due to revised planning assumptions to align work planning changes in RL-00-0013 SW Stabilization. <b>In contrast</b>, funding for RL-0013 represented in Figure 4-9 peaks in 2017, then continues to decline to \$0 in 2061. Identify other activities that will cause the S&amp;S costs to continue to increase.</p>			
	<p>p. 1-9, Sec. 1.5.1 Incorporated Changes, states RL-0100 will incur an \$11 Million decrease due to revised planning assumptions. The information shows the following reductions:</p> <ul style="list-style-type: none"> <li>• In Table C-26 in the FY 2016 report the total is \$14.701 M; in the FY 2015 report, Table C-28, the total is \$20.347 M. Decrease of \$ 6.736 M</li> <li>• In Table C-26, the totals for FY 2017 through 2021 are \$21 M per year. In the FY 2015 report, the totals are \$21.347 M per year from 2017 through 2020. In the FY 2016 report, the decrease through 2020 totals \$1.388 M.</li> <li>• In Table C-26, FY 2021 costs total \$21.0 M. In the FY 2015 report, the total is \$24.158 M. The FY 2016 report decrease is \$3.158 M.</li> </ul> <p>The decreases total \$11.282 M (\$11.3 M) rather than \$11 M. In the next report, consider rounding to one significant digit.</p>			
	<p>p. 1-9 RL-0020 Safeguards and Security shows a total increase of \$1.6 B "due to revised planning assumptions to align with planning changes in RL-0013C." The significant increases in S&amp;S Table C-11 are in direct conflict with the decreases in estimates in Table C-8 Solid Waste Stabilization and Disposition</p>			

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	– 200 Area. In the next Report, revise the text for S&S to add accurate information about the activities that require increased S&S.			
	<p>p. 3-2 Table 3-1, SNF Stabilization and Disposition (PBS RL-0012) is missing two Tri-Party Agreement Milestones:</p> <ul style="list-style-type: none"> <li>• M-016-177 Complete 105-KW sludge transfer equipment installation. Due 9/30/2017.</li> <li>• M-016-175 Begin sludge removal from 105-KW Fuel Storage Basin. Due 9/30/18.</li> </ul> <p>See approved Change Form M-16-15-03 for all milestones that changed dates due. Add milestones with changed dates due to future reports, as appropriate.</p>			
	<p>p. 4-6 Figure 4-1 shows a funding pattern that is almost the reverse of Figure 4-1 in the FY 2015 report. The peak funding is now in FY 2017, rather 2016 as it was in the FY 2015 report. An explanation of the change in funding is not in the text on p. 4-5 that reiterates that the schedule for completion of transition is FY 2016. In future reports, when funding reverses in the fiscal year report, add an explanation in the text.</p>			
	<p>p. C-17 Table C-11: Safeguards and Security Level 2 by fiscal year shows an increase in total costs to \$5.1 B from \$3.6 B in the FY 2015 report Table C-11. The text that describes the work scope in Table 6-1 on p. 6-1 in the FY 2016 report does not explain why the costs increased from those in the FY 2015 report or why the costs continue to rise steadily from 2021 through 2059. Provide Ecology a succinct explanation of the causes of the increases.</p>			
	<p>pp. C-32-33: Table C-16 Nuclear Facility D&amp;D -- Remainder of Hanford PBS RL-0040.O1.1 contains a work scope entitled Remediation of Geographic Areas. The amounts that appear</p>			

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	<p>represent significant increases in FYs 2017 and 2018 when they are compared with the totals that appear in similar Zone Environmental Remediation values in the FY 2015 report. From 2019, the estimates for Remediation of Geographic Areas vary markedly from the values in Table C-16 of the FY 2015 report (pp. C-32 and C-33). The FY 2016 report does not contain any explanation of causes for the significant changes in the estimates. The reader must infer that the deletion of the C Farm Zone, the S/U Farm Zone, the Solid Waste Zone, the Waste Management Zone, the 600 Area (and Misc.), and the 400 Area caused the change but the text does not guide the reader. In future reports, when the U.S. Department of Energy decides to change the scope of an effort (e.g., within a PBS), the Lifecycle Report should contain a statement or reference to inform the reader of assumptions that change the estimates from previous years.</p>			
	<p>p. 4-14 lists the scope of FFTF Alternative 2 Entombment. On p. 4-8, Figures 4-7 and 4-8 show implementation of the alternative with a total of \$0.8 B (Figure 4-7). In the FY 2016 report, the total for cleanup was \$791.M while the total was \$860.3 M in the FY 2015 report. The reduction results although the increases in funding begin in 2022, rather than in 2021, as they do in the FY 2015 report. Explain why the work appears be delayed and what changes led to the reduction in the total cost.</p>			
	<p>p. 6-1 Figure 6-1 shows a significant increase in S&amp;S from the FY 2015 report (\$5.1 B vs \$3.6 B in the FY 2015 report). Although the details should not appear in the LSSC Report, some more explanation of the increases is necessary. In future reports put some explanation for future increases.</p>			

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	Table 6-3 Infrastructure and Services and Site-wide Services incorporates Work Element 3 Site-wide Services and Other Distributed Costs that appeared in Table 6-3 in the FY 2015 report. The FY 2016 report description is missing the last item in the FY 2015 report Table: "Includes contractor's fee, management reserve, allocated pensions and General and Administrative allocations." Please explain where those costs are now collected and what the projected total cost will be by year.			
	As soon as possible, update the funding scenario for Office of River Protection (ORP) Radioactive Liquid Tank Waste.			
	In future reports, update Section 5.0 Tank Waste Cleanup to reflect new baseline or new ORP System Plan, if it reflects the new baseline.			