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Shannon Ortiz, Lifecycle Report Project Manager U.S. Department of Energy, Richland Operations Office PO Box 550, Mailstop H5-20 Richland, WA 99352

Dear Ms. Ortiz:

Thank you for the opportunity to comment on the 2019 Hanford Lifecycle Scope, Cost and Schedule Report.

The Lifecycle Report paints an alarming picture of the Hanford cleanup mission ahead. Like others, we are shocked by the new cost estimates to complete the cleanup, and disheartened by the likelihood that the cleanup will be extended out by many decades.

Oregon is not blind to the implications of this drastically higher total mission cost, now that the lifecycle estimate has more or less caught up with the present reality of the tank waste treatment mission. The findings in the document have already sparked discussion and conjecture as to whether substantial changes may have to be made to reduce the projected time and cost of the Hanford cleanup.

We are concerned that the U.S. Department of Energy may approach regulatory agencies, stakeholders, and the public in the coming year with a proposal for an alternative cleanup strategy that is less protective of human health and the environment and counter to the laws and agreements that DOE has made with the other Tri-Party Agencies over the last 30 years.

Any attempt at forging a new cleanup plan moving forward will generate vigorous debate about risk, responsibility, and the limits of what is achievable. For this future conversation to be legitimate and fruitful, we ask DOE to lay out the more detailed basis of its cost estimates for public scrutiny.

We are concerned that the single highest cost figure in the Lifecycle Report does not have a traceable cost basis. The high-range estimate for the Radioactive Liquid Tank Waste Stabilization and Disposition work scope (ORP-0014) adds \$297 Billion on top of the low-range estimate of \$221 Billion, and Appendix D contains a list of risks that are all assumed to be realized in order to result in the higher estimate. These risks include several big-ticket items,

such as catastrophic failure of the Pretreatment Facility, failure to meet tank retrieval and treatment performance targets, and replacement of tanks, facilities, and infrastructure. However, Appendix D does not provide any information to understand what each of these risks "costs" in the high-range estimate.

We also question the decision to realize all potential risks at once in the high-range estimate, rather than attempt to account for the probability of each risk to occur. This decision presents an unrealistic picture compared to a more "likely" high-end estimate, and as a result will inappropriately heighten the perceived crisis associated with the current mission path.

We also need to understand why the cost of operating the Waste Treatment Plant (WTP) increased more than threefold from the estimates in the 2016 lifecycle report. Appendix C of the 2016 report estimates \$572 million for the budget item labeled "Treat Waste" in the year 2037 (the year after hot commissioning of the WTP is assumed to be complete), while the 2019 report lists the same item for the same year costing \$1.9 Billion. A separate item labeled "Supplemental Treatment" has also increased from \$229.4 million to \$624.1 million for the same year. In total, the annual operational cost of a full WTP is now estimated to be more than \$2.5 Billion. A cost figure this high, and this expanded over the estimate from just three years ago, deserves justification and extreme scrutiny, especially when one considers that the total cost of WTP operation in the 2019 report represents over \$80 Billion and 25 percent of the total mission low-estimate cost.

As we have noted in correspondence with DOE Hanford staff, the Lifecycle Report appears to contain limitations and errors that undermine its ability to serve as a foundation for public discourse. First, the values listed in Table ES-1 for the low and high-range cost estimates are in several instances not consistent with the values in Appendices C and D of the report. The combined result of these potential errors is an over-reporting of the low-range cost by approximately \$15 Billion, and an over-reporting of over \$35 Billion for the high-range estimate.

While these cost discrepancies may not seem significant relative to the \$323-677 Billion estimates of total cleanup cost in the report, they become important when one considers that in 2016, System Plan 8 estimated a lifecycle cost savings of \$26 Billion (escalated) under a hypothetical scenario where DOE grouted 49 Single Shell Tanks in place with zero waste retrieval. It is concerning to us that the estimated cost-savings of such a controversial alternative would appear to be roughly equivalent to the margin of error for the lifecycle costs in the 2019 report.

The stated purpose of the report is, "to serve as an agreed-on foundation for preparing budget requests," yet previous Lifecycle Reports, which also showed an immediate need for a sizeable increase in funding, never seemed to lead to a higher budget request or a higher level of funding. This report clearly shows a minimum funding level of \$4 Billion annually in the immediate near future, with sharply escalating budgets to follow. We've seen no indication from DOE that this report will form the basis for any funding increase.

We look forward to receiving this additional information so that we can all be better informed about the potential implications of increased costs moving forward.

Sincerely,

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Ken Niles Assistant Director for Nuclear Safety

Cc: Brian Vance, U.S. Department of Energy Alex Smith, Washington Department of Ecology Dave Einan, U.S. Environmental Protection Agency Matt Johnson, Confederated Tribes of the Umatilla Indian Reservation Laurene Contreras, Yakama Nation Jack Bell, Nez Perce Tribe Oregon Hanford Cleanup Board Susan Leckband, Hanford Advisory Board