June 25, 2020

U.S. Department of Energy
Attn: Jennifer Colborn
P.O. Box 450, H6-60
Richland, WA 99352

Dear Ms. Colborn,

Thank you for the opportunity to submit comments on the *Time-Critical Removal Action to Stabilize Disposal Structures at Risk of Failure* for 216-Z-2 crib, 216-Z-9 crib and 241-Z-361 settling tank in the PW-1 Operable Unit in the footprint of the Plutonium Finishing Plant on Hanford's Central Plateau. We also want to thank you for extending the public comment period for this Time-Critical Removal Action.

Hanford Challenge is a non-profit, public interest, environmental and worker advocacy organization located at 2719 East Madison Street, Suite 304, Seattle, WA 98112. Hanford Challenge is an independent 501(c)(3) membership organization incorporated in the State of Washington with a mission to create a future for the Hanford Nuclear Site that secures human health and safety, advances accountability, and promotes a sustainable environmental legacy. Hanford Challenge has members who work at the Hanford Site. Other members of Hanford Challenge work and/or recreate near Hanford, where they may also be affected by hazardous materials emitted into the environment by Hanford. All members have a strong interest in ensuring the safe and effective cleanup of the nation's most toxic nuclear site for themselves and for current and future generations, and who are therefore affected by conditions that endanger human health and the environment.

As the Hanford site ages, we can expect structures to fail. Hanford Challenge supports actions taken at Hanford that protect worker, public, and environmental health and safety from the risk of contamination release posed by aging sites that await final cleanup action. We appreciate DOE's review of at-risk structures around the Hanford site following the 2017 partial collapse of PUREX tunnel 1, that identified 27 structures/sites in need of attention, and the subsequent work to analyze 11 of the top risk structures/sites. When Doug Shoop was manager for Richland Operations, he helped create the risk matrix for these at-risk structures/sites and said that 216-Z-9 crib was one of the sites that "kept him up at night." We are glad that this site and other at-risk sites are getting attention and plans for protective action.

Ensuring that the contamination in these sites is not released while we wait for final cleanup actions to remove the contamination is very important. It is also fundamental that the pathway through which the agencies stabilize these at-risk sites involves a deliberate

transparent public involvement process as much as possible, understanding that there are emergency situations that require swift action. A key component of deliberation during this process is looking at site-specific alternatives for stabilization with the goal of ensuring future removal of contamination.

Thank you for considering our comments:

- **Ensure Future Plutonium Removal, Treatment and Disposal – Don't Grout and Walk Away**: Our biggest concern is that by stabilizing these three sites with grout, a decision may be made in the future to leave the grout covered plutonium contamination in place without removing it, as is planned in the 2011 Record of Decision and the 2016 Work Plan. While we hear the assurance that grout will not preclude removing the radioactive and chemical contaminated waste in these sites per the decision, Hanford Challenge is wary that budget cuts and management changes could lead to a decision to change the decision in ten years. We want to make sure the plutonium and other radioactive and chemical contamination in these sites is removed and isolated to prevent it from spreading through the environment.

- **Ensure Site-Specific Analysis for Future Stabilization Options and Cost Comparison**: Using the evaluation of alternatives for the PUREX tunnel stabilization rather than a site-specific analysis for 216-Z-2, 216-Z-9 and 241-Z-361, provides an insufficient basis for defensible decision making for these sites. A tunnel containing contaminated train cars is quite different from uncontained waste in a liquid/sludge form, despite the similarity of contamination surrounded by void space. We would have liked to see an analysis for stabilizing these specific waste sites with uncontained waste in them and cost comparisons that considered fast tracking the removal of the waste now, immediately following stabilization.

- **Evaluate Other Alternatives for Stabilization to Prevent Failure of Containment and Contaminant Release**: Hanford Challenge would like DOE to evaluate additional site-specific alternatives for the three sites near PFP, 216-Z-2, 216-Z-9 and 241-Z-361, including temporary covers, adding layers of sand or other appropriate geological material to prevent releases, or expediting remedial actions. Removal actions that are taken should not be used as precedent for future decisions. Site-specific evaluation should become standard practice for future stabilization decisions.

- **Default to Non-Time Critical Removal Actions in the Future**: Hanford Challenge believes DOE should have used a CERCLA Non-Time Critical Removal Action for the stabilization of 216-Z-2, 216-Z-9 and 241-Z-361, which would have added an additional step of publishing an Environmental Engineering/Cost Analysis (EE/CA) that looked at these specific waste sites and analyzed different ways to stabilize the sites and compared costs for those stabilization options specific to these sites. Not having that site-specific

analysis provided insufficient information on which to evaluate whether or not grout is the best option for these specific sites.

The PUREX Tunnel stabilization was conducted under a Non-Time Critical Removal Action, which provided more site-specific information and options for stabilizing Tunnel 2 to prevent a collapse like we had with Tunnel 1. We appreciated this level of public involvement and site-specific evaluation of stabilization options, and believe the stabilization of these three waste sites (216-Z-2, 216-Z-9 and 241-Z-361) was not justified as a Time-Critical Removal Action and should have been conducted as a Non-Time Critical Removal Action**. In the future, for situations where there is not an imminent danger, Hanford Challenge would like DOE to default to Non-Time Critical Removal actions to provide a more publicly-involved deliberation process to look at different options for stabilizing the specific at-risk sites.**

- **Ensure Plutonium is Removed and Isolated During Removal, Treatment and Disposal (RTD); Not "Diluted" in Grout and Sent to Hanford's Lined On-Site Landfill**: When the final RTD action is taken for these sites, Hanford Challenge is concerned that if grout is used, the removal of the grouted waste may result in an unacceptable amount of plutonium being disposed of at the lined landfill at the center of the Hanford Site, the Environmental Restoration Disposal Facility (ERDF).

  Plutonium is a human health hazard for nearly a quarter of a million years. It is toxic in microscopic quantities, and exposure to plutonium is to be avoided. Given uncertainties around the impacts of climate change, changing weather patterns and site flooding in the near future cannot be ruled out. For that reason, and because the Columbia River is situated just a few miles from the 200 Areas, it is imperative that long-lived contaminants such as plutonium do not find a resting place in shallow land disposal at Hanford.

- **Involve the Public Sooner:** Hanford Challenge noted a delay between when the risk was identified for these at-risk potential failure sites (Oct 2019) and sharing that information and involving the public (March 2020). DOE identified these sites as risks following the collapse of PUREX Tunnel 1 and subsequent work to stabilize Tunnel 1 and Tunnel 2. This delay also puts into question the stated justification for conducting this stabilization as a Time-Critical as opposed to Non-Time Critical Removal Action. In the future, DOE should involve the public sooner as they build a case for and take action to deal with an imminent threat to public and environmental health and safety.

- **Make Relevant and Supporting Documentation Available and Easily Accessible**: All documents, assessments and analysis used to support the decision process should be made available for the public to review. These documents should be organized in an easy to access webpage listed in the public comment period notice and fact sheet. Hanford Challenge had a difficult time locating some information during this comment

period and found that the link listing supporting documentation was difficult to locate on the public involvement calendar listing for this comment period at Hanford.gov.

Thank you for considering our comments.

Tom Carpenter, Executive Director