



U.S. Department of Energy Hanford Site

January 10, 2022

22-HAB-000067

Mr. Steve Wiegman, Chair
Hanford Advisory Board
245 Torbett Street
Richland, Washington 99354

Dear Mr. Wiegman:

HANFORD ADVISORY BOARD JUNE 25, 2020, CONSENSUS ADVICE NO. 306,
MANAGING THE RISK OF AGING STRUCTURES AND KEEPING THE PUBLIC AND
STAKEHOLDERS ENGAGED

Thank you for the Hanford Advisory Board's (HAB) June 25, 2020, advice No. 306, regarding managing the risk of aging structures and keeping the public and stakeholders engaged. The U.S. Department of Energy (DOE) values the effort of HAB committees and members in developing consensus advice regarding Hanford cleanup.

Below are the responses to the HAB's advice:

Advice Point 1: The HAB advises DOE to default to Non-Time-Critical Removal Actions or Remedial Actions, as is standard in the National Contingency Plan and statute unless a release or failure has occurred or is imminent.

Response: Following the partial collapse of a waste storage tunnel near the Plutonium Uranium Extraction Plant (PUREX) in May 2017, DOE analyzed other older below grade structures in Hanford's Central Plateau to determine if any other structures represented a risk of age-related failure. In 2018, 27 structures were identified as potentially requiring risk mitigation and in 2019, 11 of these structures were analyzed further. This analysis identified three underground structures — the 216-Z-2 Crib, 216-Z-9 Crib, and 241-Z-361 Settling Tank — that represented the highest risk of age-related collapse and the determination by DOE that a time-critical remedial action was prudent and appropriate. A 2019 [report](#) provides the results of the risk assessment process.

DOE has consistently demonstrated a commitment to solicit public comment for non-time-critical actions. However, DOE also recognizes its unique accountability for the safety and health of the workforce, the public, and the environment. While non-time-critical actions are preferred, based on the engineering analysis that identified the risk of collapse of three underground structures, DOE appropriately used a Time-Critical Removal Action under the *Comprehensive Environmental Response, Compensation and Liability Act* (CERCLA) to mitigate the risk of collapse and potential release. DOE successfully completed stabilization actions in April 2021.

Advice Point 2: The HAB advises DOE to complete site-specific deliberation prior to implementing interim actions to ensure that the anticipated final remedy will still be achievable. This process is of particular interest in the case of waste sites with a legal obligation under a record of decision.

Response: A 2011 record of decision for these three waste sites is available at <https://go.usa.gov/xdUmN>. The final remedy for the sites is to remove the structures and remove, treat, and dispose of contaminated soil from the 216-Z-2-Crib and the 216-Z-9 Crib. The final remedy for the 241-Z-361 Settling Tank was to remove the remaining sludge from the tank and grout in place.

In parallel with planning activities for the time critical remedial action, DOE consulted with the U.S. Environmental Protection Agency (EPA) to determine if planned actions would impede the ability to implement future remedial action at the three waste sites. DOE confirmed with the EPA prior to the execution of the Time-Critical Removal Action that the final remedy established in the 2011 record of decision would remain achievable following the intended stabilization action.

Advice Point 3: The HAB advises that the public and stakeholders be involved earlier in the planning process to ensure that input is gathered prior to selecting stabilization or remediation alternatives. The public information should document that necessary analyses and deliberations were completed prior to selecting preferred alternatives for a stabilization action.

Response: Public involvement remains important to DOE, and stakeholders and the public are routinely offered the opportunity to provide input to the DOE decision-making process at Hanford. In parallel with the DOE planning effort to stabilize the underground structures assessed at high risk of collapse, the Hanford public involvement team engaged stakeholders and the public throughout the CERCLA process for the Aging Structures Stabilization Project. DOE hosted a virtual meeting May 7, 2020, to share information and answer questions about the stabilization project. The meeting was attended by approximately 60 people. Further, a formal public comment period on the stabilization plan, originally scheduled to run from March 23 through May 22, 2020, was extended through June 29, 2020, in response to requests from stakeholders.

Additionally, a [fact sheet](#) was mailed to about 1,150 subscribers to the Hanford mailing list and sent electronically to about 1,300 subscribers to the Hanford Listserv on March 23, 2020. The fact sheet provided information on how to submit comments as well as links to key technical documents. Additional information — including documents requested by the HAB — was provided through a [webpage](#) established specifically for the Aging Structures Stabilization Project.

Advice Point 4: The HAB advises the Tri-Party Agreement agencies to evaluate additional site-specific alternatives for the three sites near the PFP, including temporary covers, adding layers of sand or other appropriate geological material to prevent releases, or expediting remedial actions. Removal actions taken should not be used as a precedent for future decisions.

Response: DOE evaluated a number of potential remedial actions for these structures, including temporary covers. These facilities were selected as the highest priority for stabilization because of concerns about their structural integrity and their elevated risk of failure. Placing additional stress on the structures, as would be the case had a cover been installed, could have presented a substantial increase in the risk of collapse, which represented a further risk of contaminant release to the environment which could have threatened the health and safety of the site workers and the community. DOE determined grout to be the best choice for stabilization to mitigate the risk. Grout has been used safely and successfully to stabilize other structures at Hanford, including two waste storage tunnels next to PUREX in 2017 and 2019. The design of the grouting process for the structures incorporated best practices and lessons learned from the successful stabilization of the PUREX tunnels. Filling the structures with engineered grout provided protection, while not precluding future remedial actions or final closure decisions.

Advice Point 5: The HAB advises DOE to make available any and all assessments or documents utilized to support the decision process and selection of alternatives. The identified documents should be made available on the [webpage](#) related to the decision or comment period, including a link provided in relevant fact sheets.

Response: DOE created an external [webpage](#) specifically for the Aging Structures Stabilization Project. The page included structural evaluations, safety analyses, videos, presentations, and other supporting documents. DOE also worked with the HAB to add documents requested by the board to the project webpage.

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If you have any questions, please contact me, or your staff may contact Stanley Branch, DOE Deputy Designated Federal Officer, on (509) 376-9450.

Sincerely,

HAB:GLY

Brian T. Vance
Manager

cc: D. B. Bowen, Ecology
D. R. Einan, EPA