



# HANFORD ADVISORY BOARD

A Site Specific Advisory Board, Chartered under the Federal Advisory Committee Act

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February 6, 2020

Brian Vance, Manager  
U.S. Department of Energy  
Office of River Protection and Richland Operations Office  
P.O. Box 450 (46-60)  
Richland, WA 99352

Re: FY2022 Hanford Cleanup Priorities (HAB Consensus Advice #304)

Dear Mr. Vance,

**Background:**

In recent years the Hanford Advisory Board (HAB) has issued annual Budget Priorities advice to the Department of Energy (DOE) defining priorities for Hanford cleanup. Concerns regarding the Congressionally-appropriated Hanford budget in these annual advice products were of paramount concern since progress on cleanup is a direct function of the available funds each year. Our local DOE offices are required to identify the level of budget needed to meet all DOE legal commitments identified in the Tri-Party Agreement (Reference 1) and in the Consent Decree (Reference 2). Unfortunately, the appropriated Congressional budget for Hanford is typically far less than this "Compliant Budget" level.

The local DOE offices assert that they are constrained by law and/or internal DOE guidance in providing detailed budget information to the HAB before those appropriations are made public through DOE-Headquarters (DOE-HQ). These legal constraints appear to involve restriction of external budget sharing until after the DOE local offices submit their requested budgets to DOE-HQ. As a consequence of this situation, the local DOE offices have requested that the title and primary focus of the annual HAB priorities advice be shifted to the identification of cleanup priorities and not address specific budget-related concerns and issues.

In addition, DOE requested that the HAB provide its list of cleanup activities in priority order. Historically, the HAB has declined to prioritize recommended activities since all of the identified activities were considered to be critical to the success of the Hanford cleanup mission.

The HAB has considered these two DOE requests for focusing on cleanup-vs-budget issues and for prioritizing the specific HAB-recommended activities. After detailed discussions, the following reflects the HAB's position related to these requests:

- 1) The title of the advice has been modified to reflect "cleanup priorities" as opposed to budget priorities, and no detailed discussions are included regarding budgetary concerns, and
- 2) While the HAB did not agree to list recommended activities in strict priority order, the advice presents recommended cleanup activities in three distinct categories that it is hoped will assist DOE in better understanding the HAB's focus.

Going forward, it is important that the budget issues remain as a primary focal point in supporting all cleanup activities at Hanford, and separate advice is being considered that will more address these issues in depth. As such, this current advice should not be considered as being offered in lieu of budgetary advice.

The HAB employed the following source materials to develop the revised FY2022 cleanup priorities identified herein:

- “Hanford Advisory Board Values” (Reference 3)
- Hanford Advisory Board Advice #300, “Re: FY2021 Budget Priorities” (Reference 4)
- DOE Response to Hanford Advisory Board Advice #300 (Reference 5)
- Hanford Site Five-Year Plan (Reference 6)

Subsequent to the issuance of the FY2021 advice (Reference 4), additional Advice #302 (Reference 7) was issued recommending DOE employ a revised process to increase public involvement and engagement in the budget process. Current practices employed by DOE consist of holding a public meeting in the April/May timeframe each year to display general budget information and to request comments from the public. This process has not been effective in allowing the public to participate in a timely or effective manner. The Washington State Department of Ecology (Ecology) has formally indicated support for the recommendations made in that Advice (Reference 8). The public has a primary interest and role in the Hanford cleanup, and we look forward to DOE’s detailed response to that advice.

Finally, the HAB approved a letter (Reference 9) to be sent to DOE from all site-specific advisory boards in the Environmental Management (EM) complex. This letter requests that DOE re-establish its past practice to provide the detailed budget information that has been requested in past advice and requests that DOE establish a revised public engagement process that is more effective and meaningful (as identified in References 7 and 9). The HAB looks forward to DOE adopting these requests.

#### Advice:

As always, the HAB emphasizes that worker and public safety must always be the first consideration in the planning and performance of all Hanford activities.

- A. Please formally respond to HAB Advice #302 (Reference 7) and address the specific recommended actions and activities identified therein.
- B. Some priority cleanup activities that have been identified in past HAB priority Advice remain in progress. Those activities are listed below and are assumed for the purpose of this Advice to be completed prior to FY2022. Therefore, they are not listed as priorities for FY2022 unless completion has, for whatever reasons, been delayed.
  - Plutonium Finishing Plant (PFP) demolition to slab-on-grade: Expected completion FY2020, and
  - Remote excavation of the 300-296 waste site 324 Building demolition: Expected completion FY2021.
- C. The following HAB FY2022 cleanup priorities are identified for DOE action and are grouped into three separate categories as shown below. These activities are not listed in priority order. The HAB believes that each of these identified activities should achieve forward progress towards milestones in FY2022.

#### **1) Cleanup Priorities Identified in the Hanford Site Five-Year Plan:**

- **Maintain and Expand Groundwater Pump and Treat Program:** These efforts include operating the system as currently configured; expanding Pump and Treat operations for the 100 BC area (see HAB Advice #296) to treat chromium and mitigate strontium groundwater contamination in that area, and expanding the system to capture and treat BP-1/PO-5 uranium and technetium-99 plumes.

- **Construction and Operation of Direct-Feed Low-Activity Waste (DFLAW) and Related Facilities:** Continue activities to complete and start-up all facilities necessary to achieve DFLAW hot commissioning by December 31, 2023.
- **Waste Encapsulation and Storage Facility (WESF) Containing Strontium (Sr) and Cesium (Cs) Capsules:** Continue work to construct above-ground interim storage facility for these capsules, updates to WESF to facilitate the transfer, and procurement of the storage containers in order to meet the 2025 Tri-Party Agreement (TPA) milestone for completion.
- **Safe Storage of Tank Waste:** Continue monitoring, surveillance, and maintenance activities necessary to ensure the safe and environmentally compliant storage of tank waste.
- **Design and Construction of the High-Level Waste Vitrification Capability:** Continue design and construction activities that support hot start of high-level waste vitrification by December 31, 2033.
- **Continue to explore off-site disposition pathways for tank waste.**
- **Retrieval and Closure of Single Shell Tanks (SST):** Continue retrieving waste from the SST tank farms and define the processes required for the closure of the related Waste Management areas.
- **216-Z-9 Trench and 241-Z-361 Settling Tank Located in 200-PW-1:** The Record of Decision (ROD) (Administrative Record Accession #0093644) and HAB Advice #173 (Reference 10) for these areas selected removal, treatment, and disposal (RTD). Preparations for the required RTD actions should be initiated in FY2022 in support of the ROD.

## 2) Cleanup Priorities Partially or Not Addressed in the Hanford Site Five-Year Plan:

- **Maximize Tank Waste Storage Capacity:** This activity includes the funding, and any actions necessary to implement additional waste tank capacity to assure timely, safe, and environmentally compliant storage until tank waste treatment is completed. These activities must include adequate funding for the following:
  - **242-A Evaporator Operation: Restart and maintain evaporator campaigns to optimize tank space in the Double Shell Tanks.** (This is identified in the Hanford Site Five-Year Plan).
  - **Continue to explore opportunities to repair existing tanks.**
  - **Accelerate the ability to construct additional tank waste storage capacity if/when needed:** Actions necessary to obtain additional tank waste storage capacity to include tank design and accelerated permit processes (Reference Advice # 284). Also, any new additional tanks should consider alternate designs to those of existing tanks (see Reference 11).
- **Initiate Characterization of SW-2 Burial Grounds:** These burial grounds are known, based on process knowledge, to contain large quantities of highly hazardous contamination. The characterization should begin so a strategy to safely manage the buried materials can be developed.

- **Improved Hanford Site Infrastructure:** Establish an improved site infrastructure program that can be accomplished at a reduced cost compared to prior years, thus allowing more of the appropriated Hanford budget to be employed for actual Hanford cleanup objectives. Consider earlier remediation of contaminated waste sites, more effective management of site services to contaminated sites, etc.
- **Complete 100 Area Records of Decision:** While these are listed in the Hanford Site Five-Year Plan, the following tasks are contingent upon completion of the RODs and should be completed:
  - **Complete the 100 N Chemical Reaction Barrier (Apatite Barrier):** The completed apatite barrier in 100-N will reduce the amount of strontium in groundwater migrating into the Columbia River.
  - **Plan and initiate soil and groundwater cleanup actions in the Columbia River Corridor that retrieve, treat, and dispose of waste sites and groundwater in areas adjacent to the Columbia River as the Board has advised.** This funded work should include:
    - Removal of contaminated pipelines as recommended in prior Advice #296, and
    - Actions to reduce groundwater contamination, including contamination moving into the river.
- **Transuranic (TRU) and Mixed Waste:** Resume retrieval of buried wastes, continue repacking of large waste boxes, and ramp-up the TRU program for eventual interstate shipment and permanent underground disposal. This includes removal and treatment of wastes stored outdoors or without characterization in the Central Waste Complex.

### 3) Supporting Activities (Not Identified in the Hanford Site Five-Year Plan):

- **Effective Public Involvement:** Restore funding levels for public involvement activities, including those that provide information and gather public input as follows:
  - Full funding of the HAB, utilizing a facilitation contract structure that provides flexibility to adapt to shifting schedules and canceled meetings;
  - Funding for regional meetings, including at least one regional HAB meeting, continuation and expansion of the new Hanford Regional Dialogue meeting format in multiple locations, regional Hanford budget meetings, and regional meetings on emerging topics;
  - Reinstatement of travel reimbursement for HAB alternates, as supported by a joint Oregon-Washington letter on October 26, 2017;
  - Technological improvements for all Hanford public meetings (including HAB meetings) to allow recordings to be published online; and
  - Tangible investments in the next generation to be involved in Hanford's cleanup, oversight, and management.
- **Hanford Workforce Planning and Development:** Establish programmatic requirements and funding to ensure that Hanford Contractors address the need for developing and maintaining a robust Hanford workforce pipeline, including internships, mentoring, diversity, succession planning, advancement/transfer opportunities, and recognition/rewards programs.
- **Vapor Engineered Exposure Controls:** Complete the testing, selection, and implementation of the most effective measures to safely address vapor issues.

- **Improved Emergency Planning Program:** Improve upon the existing program to address recently identified shortcomings. For example, during the Shelter-in-Place incident after the tunnel collapse at PUREX Tunnel #1, some workers sheltered at the site could not access food, water, or hygiene facilities.

The HAB looks forward to receiving your response to the identified advice items herein. As always, we will continue to work collaboratively with the TPA Agencies in accomplishing the Hanford cleanup mission.

Thank you.

Sincerely,



Susan Leckband, Chair  
Hanford Advisory Board

cc: Ike White, Senior Advisor of Environmental Management, U.S. Department of Energy, Headquarters,  
Dave Borak, Designated Federal Officer, U.S. Department of Energy Office of Environmental  
Management,  
Emerald Laija, Environmental Scientist, U.S. Environmental Protection Agency  
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James Lynch, Deputy Designated Federal Officer, U.S. Department of Energy, Office of River  
Protection and Richland Operations Office,  
JoLynn Garcia, U.S. Department of Energy Office of River Protection & Richland Operations,  
The Oregon and Washington Congressional Delegations

References:

- 1) "Hanford Federal Facility Agreement and Consent Order," as amended on September 30, 2019  
[<https://www.hanford.gov/page.cfm/TriParty/TheAgreement>]
- 2) "AMENDED CONSENT DECREE BETWEEN DEPARTMENT OF ENERGY AND STATE OF WASHINGTON," dated March 11, 2016 [[https://www.hanford.gov/files.cfm/Amended\\_CD1.pdf](https://www.hanford.gov/files.cfm/Amended_CD1.pdf)]
- 3) "Hanford Advisory Board Values," dated November 2, 2012  
[[https://www.hanford.gov/files.cfm/HAB\\_ValuesWhitePaper\\_Attach.pdf](https://www.hanford.gov/files.cfm/HAB_ValuesWhitePaper_Attach.pdf)]
- 4) Hanford Advisory Board Advice #300, "Re: FY2021 Budget Priorities," dated April 18, 2019  
[[https://www.hanford.gov/files.cfm/HAB\\_Advice\\_FINAL\\_4\\_18\\_19.pdf](https://www.hanford.gov/files.cfm/HAB_Advice_FINAL_4_18_19.pdf)]
- 5) DOE Response to Hanford Advisory Board Advice #300, "THE U. S. DEPARTMENT OF ENERGY (DOE) RICHLAND OPERATIONS OFFICE (RL)AND OFFICE OF RIVER PROTECTION (ORP) FISCAL YEAR (FY) 2021 BUDGET PRIORITIES," dated August 1, 2019 [[https://www.hanford.gov/files.cfm/19-BUD-0083\\_-\\_Final\\_RL\\_and\\_ORP\\_FY\\_2021\\_Budget\\_Priorities.pdf](https://www.hanford.gov/files.cfm/19-BUD-0083_-_Final_RL_and_ORP_FY_2021_Budget_Priorities.pdf)]

- 6) “Hanford Site 5-Year Plan,” presented at the Hanford Advisory Board Committee of the Whole (COTW), October 17, 2019 [[https://www.hanford.gov/files.cfm/Hanford\\_Site\\_5\\_Year\\_Plan\\_Rev\\_0\\_101019.pdf](https://www.hanford.gov/files.cfm/Hanford_Site_5_Year_Plan_Rev_0_101019.pdf)]
- 7) Hanford Advisory Board Advice #302, “Re: Public Involvement in Budget Development (HAB Consensus Advice #302),” dated September 19, 2019 [[https://www.hanford.gov/files.cfm/Advice\\_Budget\\_Priorities\\_9\\_25\\_19.pdf](https://www.hanford.gov/files.cfm/Advice_Budget_Priorities_9_25_19.pdf)]
- 8) Letter, Alexandra K. Smith (Dept of Ecology) to Susan Leckband (Hanford advisory Board Chair), “Re: Hanford Advisory Board Consensus Advice #302, “Public Involvement in Budget Development”, “dated October 31, 2019, 19-NWP-180 [<https://pdw.hanford.gov/alsearch?s=19-nwp-180>]
- 9) Letter, EMSSAB Chairs to DOE-Environmental Management Headquarters, “Recommendation on Improving EM SSAB and Public Engagement in the DOE Environmental Management Budget Process,” dated October 30, 2019 [approved by the HAB on December 5, 2019].
- 10) Hanford Advisory Board Advice #173, “Central Plateau Values (HAB Consensus Advice #173),” dated April 29, 2005 – including its flowchart [[https://www.hanford.gov/files.cfm/HAB\\_Adv-173.pdf](https://www.hanford.gov/files.cfm/HAB_Adv-173.pdf)]
- 11) Letter, Ken Niles, Oregon DOE Assistant Director for Nuclear Safety, to DOE Richland Operations Office, re: Hanford Cleanup Budget Priorities, dated July 6, 2017.