

HANFORD ADVISORY BOARD

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

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US Environmental
Protection Agency
Washington State
Dept of Ecology

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November 4, 2011

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Re: Hanford's 2011 Lifecycle Scope, Schedule, and Cost Report

Dear Messrs. Samuelson, McCormick, Faulk and Ms. Hedges,

Background

The Hanford Advisory Board (Board) has previously provided advice on how the Tri-Party agencies should meet the stated goals for the Lifecycle Scope, Schedule and Cost Report (Report), including specifics for content, in Board Advice 223. The Board acknowledges the effort that went into crafting this important report which we have eagerly awaited. Although the initial Report does not meet some of the key goals it was expected to, such as how alternate additional cleanup actions may be scheduled and accelerated, it is a welcomed starting point.

The U.S. Department of Energy (DOE) has recently released the first edition of this annual Report with a great deal of attention by the media, concerned public, and Congress on the total estimated cost of \$115 billion for the remaining cleanup work at Hanford through 2090; long term stewardship costs may extend beyond 2090. It should be noted that the bulk of the active cleanup is expected to occur in the next 50 years. The cost estimates may change from year to year.

The Board urges the public to use caution when using the summary cost estimate presented because it does not include: 1) important Hanford cleanup work elements which the Board expects may be

HAB Consensus Advice # 252

Subject: Hanford's 2011 Lifecycle Scope, Schedule, and Cost Report

Adopted: November 4, 2011

Page 1

necessary, and 2) fully developed cost estimates for known or unknown future work. The Report includes a table of pending decisions that may have cost impacts. The summary and body of the report are based on assumptions that no further work will be required by such upcoming decisions as:

- Cleanup of contaminated soil sites along the Columbia River beyond levels already achieved under the interim Records of Decision ROD;
- Characterization of key portions of the wastes in 43 miles of unlined trenches used for waste disposal, and/or partial retrieval of high threat wastes;
- Closure of high level nuclear waste tanks may involve remediation of soils or removal of some tanks.

Consistent with the Tri Party Agreement (TPA) requirements to present the upper bound cost estimate for reasonable alternatives, the Report should present the reasonably foreseeable range of costs for *all* work which may be required by pending decisions (see footnote for relevant TPA requirement¹).

Rather than presenting cost ranges based on the TPA legal requirements, the Report frequently utilizes the minimal cost alternatives. It does not take into account time required to meet Resource Conservation Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requirements for characterization of the quantities and locations of wastes in soil if wastes are to be left behind, nor is the base cost based upon legal compliance and “the upper bound” of retrieval costs. The Report is based on an assumption of extensive use of institutional controls continuing for generations. The Board questions this assumption and finds it inconsistent with Board values (e.g., values for Central Plateau cleanup, or restrictions on Treaty rights to live along and fish along the River).

Advice

For future revisions of the Report, the Board advises DOE to consider the following recommendations:

- The Board advises the executive summary include an overall total cost estimate of the reasonably anticipated costs of work which are missing from the current estimate. Examples of such anticipated costs would include: characterization and retrieval of wastes and cleanup along the Columbia River; further characterization or remediation of numerous landfills and burial grounds not covered by interim ROD and, soil characterization, and retrieval / remediation associated with closure of high level nuclear waste tanks.
- The Board advises the Report provide sufficient information to fully understand the impacts of delaying or accelerating individual cleanup projects. An estimated project dollar cost does not provide a full understanding of what additional costs may be incurred if a project is delayed, or what costs could be reduced if the project is accelerated. Additional costs could include ongoing “safe and compliant” costs; worker retraining costs; costs to upgrade or replace infrastructure; costs to maintain adequate and available disposal facilities; and other relevant costs. In addition, the report should estimate the cost of responding to a leaking

double-shell tank or a collapsed tank dome – since those are potential impacts of further delays in cleanup.

- The Board advises the Report show reasonably expected near term cleanup actions which may be required with schedule and cost for the River Corridor (such as further soil site remediation after 2014), which impacts funding capacity and assumptions for Central Plateau work.
- The Board advises the Report include in the body and executive summary of the Report all the work and costs presented in the examination of the Solid Waste Burial Grounds (SW-2). The Board has repeatedly urged retrieval as a reasonable part of the remedy for the burial grounds (including [Central Plateau with flowchart 197], Board Advice 226, 243). DOE should revise the analysis to reflect reasonable alternatives and should not include \$5 billion in unsupported contingencies for retrieval on top of a standard contingency already in the cost estimate. The report should show the low end costs including reasonable characterization costs (full range is shown in the Remedial Investigation/Feasibility Study).
 - The Board advises the Report should not be based on proposals to leave all wastes in ground as a “reasonable alternative” (including SW-2 burial grounds). DOE describes as a “reasonable alternative” limiting cleanup based on reliance upon institutional controls for more than 50 years.
 - The Board advises the Report should be replaced with projected work scope which retrieves and treats wastes to the extent practicable. This scope should assume either full characterization of units to support decisions to leave some wastes, or a range of retrieval alternatives. Timelines and costs should be revised to include CERCLA and RCRA characterization activities for any proposal that leaves waste in soil, in burial grounds, leaks, discharge sites, etc.
- The Board advises the Report add the Natural Resource Damage Assessment (NRDA) and any additional land lease arrangement to the list of facilities and other potential liabilities which are not included in the scope of the report, as identified on Page 8-1.
- The Board advises the Report present an alternative cost for temporary storage of high-level vitrified waste. Future reports should assume on site storage for an extended period of time.
- The Board advises the Report provide a summary to help the public understand tank waste system plan issues.
- The Board advises the Report provide clarification of infrastructure needed for remediation, such as U Canyon disposal project access.
- The Board advises the Report should include an appendix which lists “safe and compliant” costs for most major facilities and areas at the Hanford Site, including individual tank farms. This information would not only help in determining potential costs of delay or acceleration, but would also provide useful information to help prioritize cleanup activities.

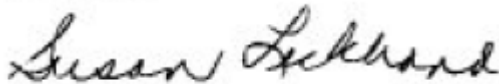
- The Board advises the Report revise cost estimates and projections to include:
 - Range of costs
 - Anticipated costs that are missing (such as River Corridor)
 - Realistic costs for characterization
 - Temporary storage cost, and capacity required for temporary storage of processed DOE high level waste.

- The Board advises the Report include options for an accelerated schedule.

- The Board advises the Report to summarize documents referenced in the Report and provide links to those documents.

- The Board advises the Report provide a short separate summary with the range of costs and work schedules.

Sincerely,



Susan Leckband, Chair
Hanford Advisory Board

This advice represents Board consensus for this specific topic. It should not be taken out of context to extrapolate Board agreement on other subject matters.

cc: Stacy Charboneau, Deputy Designated Official, U.S. Department of Energy, Office of River Protection and Richland Operations
Catherine Brennan, U.S. Department of Energy, Headquarters
The Oregon and Washington Delegations

¹ The relevant TPA requirement for the Report reads as follows:

"In circumstances where final cleanup decisions have not yet been made, the report shall be based upon the reasonable upper bound of the range of plausible alternatives or may set forth a range of alternative costs including such a reasonable upper bound. In making assumptions for the purpose of preparing the initial report, USDOE shall take into account the views of EPA and Ecology and shall also take into account the values expressed by the affected Tribal Governments and Hanford stakeholders regarding work scope, priorities and schedule. The report shall include the scope, schedule and cost for each such PBS level two element and shall set forth the bases and assumptions for each cleanup activity."