

HANFORD ADVISORY BOARD

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

Advising:

US Dept of Energy
US Environmental
Protection Agency
Washington State Dept
of Ecology

November 3, 2006

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Re: Double Shell Tank Integrity Assessment Report

Dear Mr. Schepens and Ms. Hedges,

The Hanford Advisory Board (Board) appreciates the opportunity to review and advise the Tri-Party agencies in regard to the Double Shell Tank Integrity Assessment Report. The M-48 milestone that initiated this work was intended to provide the Department of Energy (DOE), the Washington State Department of Ecology (Ecology) and the U.S. Environmental Protection Agency (EPA) with the data to determine the condition of the double shell tank (DST) system. The report (RPP-28538) is intended to assess the structural integrity of the DST system (tanks, piping and vaults).

This analysis is critically important to Hanford cleanup because: (1) the single shell tanks (SSTs) are already beyond their design life and the DST systems are forecast to operate well beyond their original design lives; (2) a safe, functioning waste storage system is essential until all of the tank waste is retrieved, treated and disposed; and, (3) additional tank leaks would pose large potential risks to workers, public health, and the environment.

The Board believes the report does not show the regulators and the public the condition of each double shell tank and how the integrity of these tanks will be monitored and maintained as long as they hold waste. The integrity assessment should present sufficient data describing the current condition and integrity of each of the 28 tanks. As written, the report references many other documents for data, summarizing the conclusions without providing sufficient detailed information to support or evaluate those conclusions.

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Ecology is currently considering a Resource Conservation and Recovery Act (RCRA) permit application from DOE for the DST system. It is not clear whether issuing such a permit gives the regulators more or less ability to assure the tanks' integrity. The Board is seriously concerned that a permit will erroneously signal that long-term "storage" in the DSTs is appropriate. This could undermine the state's effort to ensure it is understood that these tanks may not safely store waste until 2030 or beyond.

The Board continues to support detailed, enforceable schedules for ensuring Hanford has compliant tank systems to support the retrieval, treatment and disposal mission.

Advice

- Ecology should establish a minimum set of technical conditions which must be met in order for a tank to continue to store waste.
- Ecology should, to the extent practical, consider each tank and transfer pipe as unique vessels and systems that can be removed from service should conditions warrant.
- Ecology should encourage that inspection be used both on new places within an individual tank, and also at previous inspection locations in order to determine any changes over time.
- Ecology should require that more of the tank surface area be examined using the best available technologies and following the recommended code. Results should be reported in the DST Integrity Assessment Report.
- Ecology should require corrosion assessments of the transfer piping. Results should be reported in the DST Integrity Assessment Report.
- Ecology and DOE should consider the Double Shell Tank Integrity Assessment Report to be a living document, designed to detail clearly and succinctly the past, present and future expected condition of each tank. The report should define tank conditions and the uncertainty about life expectancy. This information is essential to assessing if and when new tanks may need to be constructed and when they would need to be in service.
- As a condition of any permit, Ecology should require DOE to develop an integrity plan that requires annual inspections, tests, trending and repairs.
- Ecology should explore an alternative action, such as an enforcement order and schedule, rather than a permit.

Sincerely,



Todd Martin, Chair
Hanford Advisory Board

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

cc: Keith Klein, Manager, U.S. Department of Energy Richland Operations Office
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