

March 4, 2005

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Ron Kreizenbeck, Regional Administrator  
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1200 Sixth Avenue  
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Jay Manning, Director  
Washington State Department of Ecology  
P.O. Box 47600  
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Re: Hanford Buried Waste

Dear Mssrs. Klein, Schepens, Kreizenbeck and Manning,

**Background**

Based upon the Hanford Advisory Board's (Board) past advice and principles, the Board is seriously concerned that the Department of Energy (DOE) does not currently plan to characterize, retrieve, treat or properly dispose of the large volume of unsegregated contaminated materials (including, as an example, transuranics) buried at the Hanford site prior to 1970. In 1996, DOE reported:

“If TRU waste operations do not occur, radioactive/hazardous waste will remain underground in deteriorating containers that have exceeded their design life potentially causing soil and eventually ground water contamination. There is a risk that ground water contamination could lead to radioactive/hazardous constituents reaching the Columbia River upstream of significant population centers.” (FY 1997 Mission Planning Guidance and Unit of Analysis Sheet [#183, 185 and 189].)

The Board has noted several disturbing facts: first, DOE does not have sufficient knowledge to make informed cleanup decisions. There is insufficient knowledge about the amount of contaminated materials buried on the Hanford site, and what hazardous, dangerous or radioactive materials may be in the waste. DOE documentation (“Buried Transuranic-Contaminated Waste Information for U.S. Department of Energy Facilities”, US Department of Energy, June, 2000) has stated that the amount of this material is at least 10 to 18 times greater than the amount of post-1970 retrievably buried waste in current plans and budgets.

Second, the condition of the early contaminated materials is unknown. We only know that, of those containers we have seen in DOE photographs, many have failed, releasing their contents into the soils that are in direct contact with the groundwater. Those examples, we are told, are the more recent burials. The remainder are likely to be in worse condition, posing an even greater potential threat to the environment. Without full knowledge of radioactive and chemical contamination present, DOE has no basis to evaluate the appropriateness or effectiveness of any proposed solution, including capping.

Third, this issue provides a specific example of critical work scope that is not currently included in DOE plans or baseline funding requests. The Board is concerned that, beginning in FY 2006, budget requests are significantly lower, yet this large amount of work remains to be addressed. The Board holds values that funding must be maintained at levels that ensure remediation occurs, and that skilled employees are retained or trained whose expertise would improve the likelihood of safely handling this waste.

### **Advice**

To ensure that **all** potentially hazardous waste on site is properly remediated, the Board advises the following:

- In order to appropriately plan for environmental restorations activities, DOE should characterize all areas on the Hanford site containing radioactive or chemical contamination. Only in the simplest cases should the agencies consider relying solely on historical process information. Rather, decisions should be supported by field sampling and analysis.
- DOE should include the presently unquantified/uncharacterized contaminated/hazardous materials in planning retrieval, treatment and disposition processes based upon risk to the environment and the public, and in compliance with all applicable laws.

- DOE should request and make available funds to adequately characterize and carry out the resulting plans to safely dispose of these large volumes of potentially contaminated wastes and environmental contamination. DOE baselines should include this scope of work.

The US Environmental Protection Agency and the Washington State Department of Ecology should use their regulatory authority and work cooperatively with DOE to ensure that this advice is appropriately implemented.

Sincerely,

Todd Martin, Chair  
Hanford Advisory Board

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*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: Howard Gnann, Deputy Designated Federal Official, U.S. Department of Energy  
Nick Ceto, Environmental Protection Agency  
Michael Wilson, Washington State Department of Ecology  
Sandra Waisley, U.S. Department of Energy Headquarters  
The Oregon and Washington Congressional Delegations

U.S. Senators (OR)

Gordon H Smith  
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