

# 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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September 5, 2014

Doug Shoop, Acting Manager  
U.S. Department of Energy, Richland Operations  
P.O. Box 550 (A7-75)  
Richland, WA 99352

Dennis Faulk, Manager  
U.S. Environmental Protection Agency, Region 10  
309 Bradley Blvd., Suite 115  
Richland, WA 99352

Re: Remedial Investigation/Feasibility Study and Proposed Plan for the 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-2 and 100-IU-6 Operable Units; DOE/RL-2012-41, Rev 0

Dear Messrs. Shoop and Faulk,

The Hanford Advisory Board (Board) has greatly appreciated all of the opportunities that have been extended by the Tri-Party Agreement (TPA) agencies to allow early comment on the 100-F Area Proposed Plan. On June 7 2013, the Board adopted Advice #268 concerning the initial 100-F Area Remedial Investigation/Feasibility Study (RI/FS) and Proposed Plan (Draft A), and the Board continues to support that advice.

The Board would like to continue our dialogue by submitting attached Advice #268 for the record, during the 100-F Area Proposed Plan (Rev. 0) public comment period, since little of the 100-F Proposed Plan has changed from Draft A. As stated in our advice, "Final Hanford River Corridor cleanup decisions are important because inadequate cleanup actions could potentially impact the Columbia River."

A core Board value is attaining a cleanup level that allows unrestricted use of the land and water on the River Corridor in a reasonable time frame. The Board is very concerned about the extremely long time that the proposed Institutional Controls (ICs) will have to be maintained and enforced.

The Board further notes that due to the contamination that will remain at the site, the length of 100-F IC enforcement has been revised from 175 years to 264 years (in the *RI/FS and Proposed Plan for the 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-2 and 100-IU-6 Operable Units; DOE/RL -2012-41, Rev. 0*), which makes the issue all the more important and relevant. The Board repeats its advice that this time period is longer than what is considered to be reasonable, and that the TPA agencies should, at the least, remove, treat and dispose (RTD) the contamination under waste site 118-F-8:3 to reduce the overall time of exclusion and protection, instead of relying on Monitored Natural Attenuation (MNA). The Board notes an indefinite IC period prohibiting irrigation on waste site 116-F-14 (Liquid Retention Basin) as another cause for concern.



The TPA agency response to advice point one of #268 that “when evaluating all of the balancing criteria, the proposed Alternative (GW-2) is similar to GW-4 in long-term effectiveness and permanence and short term effectiveness” is insufficient. The Board believes that this statement belies the alternative comparison which, when comparing the time-until-clean periods for each alternative, identifies that the pump-and-treat times are generally shorter. Pump-and-treat alternatives, as soon as they are applied, reduce contaminants and reduce the overall time needed until cleanup goals are attained. Because pump- and-treat alternatives remove contaminants from the aquifer, they are permanent solutions. The 100-F Area alternative evaluation by balancing criteria appeared to be driven, for the most part, by cost. Cost of remediation should not be a determining criterion which denies TPA agencies the ability to attain unrestricted use of the river corridor, a core Board value.

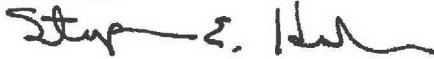
The RI/FS and Proposed Plan fail to analyze the probability of failure of ICs over this extended time period, and the potential risks resulting from failure at various time periods. Presenting this information and adopting a Plan which prevents excess risk due to reasonably foreseeable failures of ICs is a substantive requirement of federal and state cleanup laws.

The Board has found that in addition to Advice #268, further advice is warranted.

- The Board advises the TPA agencies to take remedial action as appropriate to significantly reduce the time for cleanup goals to be attained. The Board advises that the periods proposed for the use of ICs in the 100-F Proposed Plan (Rev.0) are far too long, therefore the currently proposed MNA is not acceptable for 100-F.
- The Board advises the TPA agencies to reconsider the relative value of removing contaminants when evaluating balancing criteria for the Proposed Plan alternatives, as described in the background.
- The Board advises the TPA agencies to perform additional RTD at waste site 118-F-8:3 to reduce the lengthy duration of ICs at 100-F.
- The Board advises that the RI/FS and Proposed Plan and future documentation should discuss the indicators of failures of MNA and define triggers to require future detailed evaluation during the CERCLA five-year reviews. Especially with a need for ICs to be maintained over 264 years, the consequences of events (500-year flood, probable maximum flood and catastrophic failure of Grand Coulee Dam), should also be considered.
- The RI/FS and Proposed Plan should discuss the likelihood of failures of ICs over the hundreds of years proposed. The Board advises that the TPA agencies should describe the potential

consequences in terms of the risk-based standards for the populations likely to be exposed should ICs fail or be terminated at different time frames.

Sincerely,



Steve Hudson, Chair  
Hanford Advisory Board

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*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: Jeff Frey, Deputy Designated Official, U.S. Department of Energy Richland Operations Office  
David Borak, U.S. Department of Energy, Headquarters  
The Oregon and Washington Delegations

Attachment: HAB Advice #268