

**DRAFT Advice: 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**

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The Hanford Advisory Board (Board) has greatly appreciated all of the opportunities that have been extended by the Tri-Party Agencies (TPA) to allow early comment on the 100-F Area Proposed Plan. On June 7th 2013, the Board submitted 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.

We would like to continue our dialogue by submitting attached Advice #268 for the record, during the 100-F Area Proposed Plan Public Comment period, since little of the 100-F Proposed Plan has changed from Draft A. As we stated in our Advice to the Draft A Plan, “Final Hanford River Corridor cleanup decisions are important because inadequate cleanup actions could potentially impact the Columbia River.” (Advice #268)

At the March 6th, 2014 Hanford Advisory Board Meeting, following a briefing from the TPA agencies, the Board held a Sounding Board on the 100-F Proposed Plan. Board members and alternates expressed their expectations for cleanup and several voiced their concern about the extremely lengthy time that Institutional Controls will have to be maintained and enforced.

The HAB further notes that the length of 100-F Institutional Control enforcement has been revised from 175 years to 264 years (in the *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*), which makes the issue all the more important and relevant. The Board repeats its advice that this time period is too long 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 further notes the indefinite Institutional Control period prohibiting irrigation on waste site 116-F-14 (Liquid Retention Basin) as another example of unreasonable periods of enforcement.

In response to the TPA response to Advice 268 (Advice Point 1), 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”; 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 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 likely failure of institutional controls over this extended time period, and do not present the resultant exposures and risks resulting from failure. Presenting this information and adopting a Plan which prevents excess risk due to reasonably foreseeable failures of institutional controls, as with engineered remedies, is a substantive requirement from both CERCLA and Washington State's MTCA.

The Board has found that in addition to its previous advice #268, further advice is warranted. Our advice follows:

HAB (Board) Advice for 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.

- The Board advises the Tri-Party Agencies to take action as appropriate to reduce the time for cleanup goals to be attained. The Board advises that the periods proposed for the use of Institutional Controls in the 100-F Proposed Plan (Rev.0) are far too long., therefore MNA is not acceptable for 100-F.
- As described in the background, the Board advises the Tri-Party Agencies to initiate a more reasoned approach in the evaluation of balancing criteria for the Proposed Plan Alternatives.
- The Board advises the Tri-Party Agencies to perform additional Removal, Treatment, and Disposal at waste site 118-F-8:3 in order to reduce the very long Institutional Control period at 100-F.
- The RI/FS and Proposed Plan should discuss the likelihood of failures of institutional controls over the hundreds of years proposed, and the agencies should adopt a Plan which meets risk based standards for the populations likely to be exposed following the reasonably foreseeable failures of institutional controls.