



Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

2009-I-240

09-HAB-0002

JUL 13 2009

Ms. Susan L. Leckband, Chair
Hanford Advisory Board
Enviroissues Hanford Project Office
713 Jadwin Avenue, Suite 4
Richland, Washington 99352

Dear Ms. Leckband:

HANFORD ADVISORY BOARD (HAB) JUNE 5, 2009, ADVICE #219 CONCERNING
SUPERCELLS 9 AND 10 EXPANSION AMENDMENT TO THE ENVIRONMENTAL
RESTORATION DISPOSAL FACILITY (ERDF) RECORD OF DECISION (ROD)

Thank you for your recent letter of advice regarding the proposed amendment to the ERDF ROD. We were pleased to have the opportunity to brief the River and Plateau Committee on this project several times prior to and during the public comment period. As you know, this project is vitally important for accomplishing cleanup work on the River Corridor and Central Plateau, and we appreciate your support. Please see the attached table for a summary of your advice and our response. This summary has been reviewed with the U.S. Environmental Protection Agency and will be incorporated in the Comments and Responses section of the proposed ROD Amendment.

If you have any questions, please contact me or Joe Franco of my staff at (509) 376-6628.

Sincerely,


David A. Brockman
Manager

HAB:OCR

Attachment

cc w/attachment: See page 2

RESPONSE TO HAB ADVICE #219 CONCERNING ERDF EXPANSION

June 5, 2009

Advice: The U.S. Department of Energy (DOE) should complete and update the Environmental Restoration Disposal Facility (ERDF) performance assessment (PA) in consultation with the U.S. Environmental Protection Agency (EPA) and the State of Washington Department of Ecology (Ecology), in an open and transparent process, using the new understanding of transport through the vadose zone, and solubility and mobility of uranium.

Response: The PA will be performed separate from this Record of Decision (ROD) Amendment, and will evaluate these elements as part of the process. The current plan is to prepare the PA utilizing the processes and performance objectives consistent with both DOE Order 435.1, Radioactive Waste Management; and Comprehensive Environmental Response, Compensation, and Liability Act/Resource Conservation and Recovery Act (CERCLA/RCRA) technical requirements, that address exposure pathways and compliance with regulatory criteria.

Advice: The PA should not be delayed while awaiting completion of the Tank Closure & Waste Management Environmental Impact Statement (TC&WM EIS), nor be dependent on the TC&WM EIS.

Response: DOE Richland Operations Office (RL) has directed the contractor to update the PA and is planning to proceed with the PA in a timely fashion.

Advice: In preparing the PA, DOE should consult with EPA and Ecology to insure inclusion of, and consistency with, the technical requirements in the environmental regulations; for example, including the points of compliance and Maximum Contaminant Levels (MCLs) for constituents in groundwater.

Response: The PA will include performance objectives consistent with both DOE Order 435.1 and CERCLA/RCRA technical requirements, including the MCLs.

Comment: The Tri-Party Agencies should work together to evaluate the modes and consequences when ERDF's liner and barrier systems ultimately release wastes to the vadose zone and to groundwater.

Response: Separate from this ROD Amendment, DOE will perform an update to the PA. The PA will be prepared using the current understanding of site conditions, current modeling

techniques and with performance objectives consistent with DOE Order 435.1 and CERCLA/RCRA technical requirements.

Advice: Based on these evaluations, the Tri-Party Agencies should implement actions and/or changes in the design of the facility needed to mitigate these future releases. These actions could include the treatment of wastes entering the facility to minimize future contaminant releases, thus ensuring long-term protection of human health and the environment.

Response: The recommended actions will be evaluated against the outcome of the updated PA ensuring long-term protection of human health and the environment. At this time, the ERDF design and operation is in accordance with substantive provisions of RCRA and compliance with the ERDF waste acceptance criteria is believed to be sufficient to protect against unacceptable future releases. However, if the revised PA indicates any changes to the ERDF facility or its operation is necessary to mitigate potential releases, the recommended actions will be discussed with EPA and appropriate measures pursued.

Advice: The Tri-Party Agencies should create an inventory tracking and planning tool for assessing all site wastes that are intended to be disposed in ERDF and those key contaminants (e.g. technetium-99, carbon-14, iodine-129, and uranium) which may limit the contaminant inventory allowable in ERDF. This tool should provide a running summary of how much of ERDF's capacity has been consumed and how much remains available for all waste and for each key contaminant. To ensure environmental protection, DOE should create a system model to predict when treatment or development of treatment of subsequent incoming key contaminants should be performed. For example, for technetium, additional treatment technologies may need to be developed.

Response: The inventory of these key contaminants is being tracked as waste is disposed of at the ERDF. Additionally, DOE has projections of when inventory limits might be exceeded based on the forecasts of waste planned for disposal at the ERDF. Because of the conservatism of the PA analysis and assumptions, DOE expects that the inventory limits for these key radionuclides will increase when the PA is updated.

Advice: The Board advises that the Tri-Party Agencies should use the formal ROD Amendment and Comment process for any expansion of ERDF that involves substantive changes to the facility design.

Response: The DOE will continue to use the ROD Amendment process for any substantive changes to approved facility designs.

Advice: The Board supports the proposal by the Tri-Party Agencies to allow planned expansion of ERDF within the design basis as capacity is needed, provided the issues noted above are addressed.

Response: The Tri-Party Agencies appreciate your support.