



Department of Energy
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11-HAB-0033

JAN 7 2011

Ms. Susan Leckband, Chair
Hanford Advisory Board
713 Jadwin Avenue, Suite 2
Richland, Washington 99352

Dear Ms. Leckband:

HANFORD ADVISORY BOARD (HAB) FEBRUARY 5, 2010, CONSENSUS ADVICE #226,
"CENTRAL PLATEAU CLEANUP COMPLETION STRATEGY"

Thank you for HAB advice #226 letter (enclosed) regarding the Central Plateau Cleanup Completion Strategy. On several occasions we have met with the HAB on our cleanup strategy and we remain committed to protecting human health and the environment while meeting our cleanup and post-cleanup obligations. Reducing the footprint of active cleanup, a key objective, is a tangible sign of meeting our obligations. We would like to respond to each of your advice points individually.

Advice point #1: The Board recommends that, no matter what approach is finally adopted for the Central Plateau, DOE should embrace cumulative effects analyses that aggregate and evaluate the net impact of the total of the cleanup decisions that are being undertaken, rather than proceeding waste site by waste site. The recently released Draft TC&WM EIS for the Hanford Site, clearly demonstrates the value of understanding the potential overall impact of DOE's cleanup decisions. An estimate of the cumulative risk of the sum of DOE's future actions should be an integral part of the cleanup planning process.

Response: We will consider cumulative effects through the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Risk Assessment and Remedial Investigation/Feasibility Study (RI/FS) process as prescribed by CERCLA guidance. We expect to provide briefings and receive feedback from the HAB and other stakeholders as these processes unfold.

Advice point #2: The Board urges DOE to consider the implications of the limited number of decision units proposed in the *Cleanup Strategy*. We suggest that decision units based on major process facilities (U-Plant, REDOX, etc., and their associated facilities and disposal sites) may be a more reasonable option. Perhaps a number of decision units between these alternatives would be appropriate. We suggest DOE consider cleaning up each waste site separately.

Response: Based on the feedback from Tribal Nations, State of Oregon, HAB, together with the regulatory agencies, we modified the proposed Central Plateau Decision Strategy. In February 2009, we proposed to do three Records of Decision (RODs). By February 2010, those three decisions had evolved into eleven, which are reflected in the October 2010 Tri-Party

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Agreement (TPA) Central Plateau Cleanup change packages. As the HAB suggested, three of the operable units (OUs) are based on three of the canyons (PUREX, B Plant, and REDOX) and the associated waste sites.

Because the U Plant Canyon ROD was approved in 2005, that remediation is covered by the current M-16 TPA Milestone series. T Plant Canyon remains in active operations. When it is no longer operational, it will be dispositioned under the TPA.

Advice point #3: The Board recommends that DOE undertake a much more serious view of the importance of the contamination mass in the vadose zone. The future cost of continued cleanup of this groundwater contamination source and potential natural resource restoration costs should be evaluated carefully. The Board believes that the vadose zone has enough importance that a separate ROD should be assigned to each vadose zone under the 200-West and 200-East areas. We suggest DOE use the "Hanford Advisory Board – Groundwater Values Flowchart" to help guide groundwater cleanup decisions. DOE should ensure that sufficient and additional funding is directed to address the vadose zone contamination problem.

Response: We agree. Addressing deep vadose contamination is key to cleaning up the Central Plateau. The October 2010 TPA change packages on Central Plateau Cleanup establishes a deep vadose zone OU. There is a milestone to develop a work plan to include technology screening that identifies technologies applicable for characterization, treatment, and monitoring of deep vadose zone contamination. Our goal is to establish a robust program to bring substantial DOE resources and develop lasting solutions to Hanford's deep vadose zone contamination challenges. To begin this process, a Deep Vadose Zone Technology Forum was held July 20-21, 2010. We look forward to ongoing dialogue with the HAB and other stakeholders as we move forward with this effort.

Advice point #4: The Board advises DOE to reconsider the concept of capping waste sites adjacent to canyons and other structures in other than special circumstances. When characterization can demonstrate that only short-lived or non-mobile contaminants that cannot endanger the vadose zone or groundwater are present, capping may then be appropriate. (see Board Advice #174, Considerations for Barrier Application).

Response: We will follow the TPA defined regulatory processes for investigation and remedial alternatives analyses to determine the cleanup actions for these waste sites. These decisions will be made in the context of an interactive process with the regulatory agencies, tribal nations, and the stakeholders, and will be protective of the public, worker, and environment. HAB Advice, including Advices #173 and #174, will be considered in that process.

Advice point #5: The Board suggests burial grounds in the Central Plateau need the attention and characterization that the dangerous wastes potentially contained there deserve. The Board urges DOE to drop the presumptive remedy approach, and give these waste sites proper

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attention. In some cases it may be less costly to simply RTD the material in a burial ground than to spend money to fully characterize the site. Unlined trenches and cribs or other liquid waste discharge units need actual and adequate characterization to determine their contents, and to determine the extent of their current and future threat. These are not analogous to closing landfills. The presumed remedy for these sites should be retrieval and treatment to the extent practicable in keeping with Washington State's waste management and remedy priorities. Those priorities place an emphasis on retrieval to the extent practicable, before relying on caps. The Board encourages DOE to progress through the cleanup of Hanford with a "RTD if possible" attitude, falling back to IC's and caps only where RTD is not possible (Advice #173, and corresponding flowchart). This approach will make LTS, natural resource restoration and federal control issues smaller in magnitude and easier to deal with.

Response: As stated previously, we will follow the TPA defined regulatory processes for investigation and remedial alternatives analyses. There are existing TPA milestones for this work. Together with the regulatory agencies, we recently approved a new milestone (TPA Central Plateau Cleanup change package) to develop a new work plan for the solid waste burial ground (200-SW-2 OU) that will support an earlier and more extensive public process. This process began with a HAB Committee of the Whole meeting on October 5, 2010. We look forward to a continued dialogue with the HAB and other stakeholders as we work to arrive at a remedial decision for this OU in the 2017 timeframe.

Advice point #6: The Board believes the use of exposure scenarios based on Hanford's Comprehensive Land Use Plan is inappropriate. We suggest that DOE add more exposure scenarios, and continue to use the standard 40-hours/week industrial worker exposure scenario as the standard for specific waste management areas where the only reasonably foreseeable use is industrial. Even for these areas, analysis must show that long-term intrusion or movement of contaminants is not likely. For other areas, remediation should be based on protecting the sensitive population that may receive the reasonable maximum exposure, including the use of a tribal Native American exposure scenario. Remedies should be designed to meet standards which protect sensitive populations from the likely failure of institutional controls (see report of the Exposure Scenarios Task Force, December 2002).

Response: We recognize the high interest and past HAB advice on exposure scenarios and are currently in discussions with the regulatory agencies on this topic. Based on these discussions, we expect to evaluate multiple exposure scenarios to evaluate risk, including one or more residential scenarios based on parameters defined in CERCLA and Model Toxic Control Act guidance, non-residential scenarios based on the reasonably expected future land uses on the Central Plateau, tribal subsistence scenarios based on parameters provided by the Yakama Nation and the Confederated Tribes of the Umatilla Indian Reservation, and non-residential Tribal scenarios. These scenarios will address the risks for a range of receptors associated with possible future land uses, including those defined in the Comprehensive Land Use Plan and consideration of potential loss of institutional control. The specific scenarios to be evaluated will

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initially be documented in the RI/FS study work plans developed for the various Central Plateau OUs. As these work plans evolve, the U.S. Department of Energy (DOE) anticipates that the HAB, initially through the River and Plateau Committee, will be informed throughout the process.

Advice point #7: The Board encourages DOE to continue to monitor unlined trenches and cribs subject to closure requirements pursuant to the most stringent standards and cleanup levels under state or federal regulations, including characterization and post-closure monitoring.


Response: As stated in our response to Advice point #5, we are beginning the process to investigate and identify the remedial alternatives for this work, which will include a strong public process.

Advice point #8: The Board urges DOE to complete its updated LTS plan and make it publicly available as soon as possible (Advice #141).

Response: We issued the 2010 Draft Hanford Site Long-Term Stewardship (LTS) program plan in March and Revision 0 in August 2010. The LTS describes DOE's program for the protection of human health and the environment upon completion of the cleanup mission. The purpose of the LTS program plan defines DOE's responsibilities to maintain the protectiveness of the cleanup remedies; and to provide a framework for a sitewide LTS program to be institutionalized across the Hanford Site. The plan is available on the Hanford website at: www.hanford.gov/page.cfm/LTSWhatsNew.

If you have any questions, please contact Paula Call at (509) 376-2048.

Sincerely,


Matt McCormick
Manager

OCE:PKC

Enclosure

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