Tri-Party Agreement

15-HAB-0012

AUG 27 2015

Mr. S. E. Hudson, Chair
Hanford Advisory Board
Enviroissues Hanford Project Office
713 Jadwin, Suite 4
Richland, Washington 99352

Dear Mr. Hudson:

HANFORD ADVISORY BOARD (HAB) APRIL 9, 2015, CONCENSUS ADVICE #283, "CENTRAL PLATEAU INNER AREA GUIDELINES"

Thank you for the Hanford Advisory Board (Board) advice on the Central Plateau Inner Area Guidelines. The Tri-Party Agreement (TPA) agencies appreciate your involvement and early input at this relatively early stage for future remediation on the Central Plateau. The agencies have provided point-by-point responses to the HAB's advice bullets below.

Advice Points and Bulleted Responses

1. The Board advises the Tri-Party agencies to approach remediation of the Inner Area with an end-state vision of what the Inner Area condition will be when cleanup is done, and what future uses for this area are envisioned. This vision should be vetted through meetings with the public, stakeholders and the Board.

    - *TPA Response: The TPA agency response to HAB Advice 132 established an end-state vision of the Inner Area condition when cleanup is done. The Inner Area has been identified as industrial land use. The agencies developed our response to Advice 132 after an extensive public process led by the Exposure Scenarios Task Force.*

2. The Board advises DOE to evaluate risk in the Central Plateau and the Inner Area that includes an Intruder Scenario and a Tribal Use Scenario (HAB Advice #132). The Inner Area Cleanup Guidelines should recognize and honor Treaty rights in decisions. The Baseline Risk Assessment does not include a tribal scenario. It is a fundamental obligation for DOE to meet their federal trust responsibilities.

- *TPA Response: DOE will run the Tribal Scenarios for informational purposes for both waste sites and groundwater. DOE is considering inclusion of a construction worker or well driller scenario to define short-term exposure scenario for radioisotopes to protect future workers from short-term or acute risks.*

3. The Board advises DOE to characterize waste sites prior to a Record of Decision (ROD) (HAB Advice #227) and advises DOE not to use an analogous sites approach within the boundary of the Central Plateau. The Board believes it is more appropriate to have enough characterization data to support a final ROD prior to decisions than to rely on post-ROD characterization (HAB Advice #227).

    - *TPA Response: DOE is proposing more characterization in the Inner Area than was conducted to support decisions in the River Corridor. The Remedial Investigation/Feasibility Study (RI/FS) work plans will provide the basis for considering some waste sites as analogous sites. The regulatory agencies will need to concur on the approach and on which specific sites will be considered analogous.*

4. The Board advises the Tri-Party agencies to establish criteria for waste characterization and risk assessment by utilizing the Central Plateau Remedial Action Values Flowchart (HAB Advice #173 and #174) and the Groundwater Values Flowchart (HAB Advice #197).

    - *TPA Response: Each RI/FS work plan will establish criteria for waste characterization and risk assessment. The agencies will consider these flowcharts, and other HAB advice, when developing the RI/FS work plans.*

5. The Board advises the Tri-Party agencies to determine points of compliance after adequate characterization data are available to inform the compliance depth decision. The Board believes that predetermination of compliance cleanup depth is not reasonable without a better understanding of the type and quantity of the waste mass, coupled with an understanding of the unique surface, vadose zone and aquifer conditions of the Inner Area (HAB advice #229).

    - *TPA Response: The TPA agencies agree. The regulatory agencies have not agreed with an alternative point of compliance for depth, as the Inner Area "guidelines" clearly identify. If DOE decides to pursue an alternative point of compliance, DOE will need to provide a comprehensive evaluation as part of the RI/FS and Proposed Plan. The regulatory agencies would need to approve an alternate point of compliance.*

6. The Board advises reconsideration of the rooting depths of native vegetation to support resetting the point of compliance when determining depth.

- *TPA Response: DOE will continue to review any new information that comes available that might be relevant to any proposed conditional point of compliance for depth. The assumptions about rooting depth will be determined in the RI/FS process, and will be approved by the regulatory agencies.*

7. The Board advises the Tri-Party agencies to set the standard POC for groundwater at the boundary of each waste site/operable unit, not at the boundary of the Inner Area.

    - *TPA Response: The regulatory agencies have not agreed with an alternative point of compliance for groundwater, and the Inner Area "guidelines" clearly identify that. If DOE decides to pursue an alternative point of compliance, DOE will need to provide a comprehensive evaluation as part of the RI/FS and Proposed Plan. The regulatory agencies would need to approve an alternate point of compliance.*

8. The Board advises the Tri-Party agencies to use the observational approach. The observational approach has been an effective tool at Hanford to remove near-surface masses of contamination (hot spots) that have been encountered during remediation activities, and that continue below the set Depth POC or applied to engineered structures (HAB Advice #226). The Tank Closure and Waste Management Environmental Impact Statement demonstrated that there is so much contaminated material that exceeds protectiveness, leaving any material that is relatively easy to remove is not a reasonable decision (HAB Advice #226).

    - *TPA Response: Since DOE is proposing more characterization in the Inner Area than was conducted to support decisions in the River Corridor, there may be less use of the observational approach in the Inner Area than in the River Corridor. The Tri-Parties will consider using the observational approach on a waste site-by-waste site basis, as appropriate.*

9. The Board advises the Tri-Party agencies to run sensitivity analyses to determine the amount of infiltration it would take to move contaminants to groundwater (HAB Advice #227).

    - *TPA Response: Evaluating a range of plausible infiltration rates may be informative and will be requested by the regulatory agencies.*

10. The Board advises the Tri-Party agencies to compare the costs of maintaining Institutional Controls and ongoing sampling over the long periods of time needed, versus the cost of RTD of contaminants (HAB Advice #173).

    - *TPA Response: The long-term cost of ICs will be part of the comparative evaluation of remedial alternatives, which will be included in the Feasibility Studies.*

11. The Board advises that the level of industrial cleanup of the Inner Area needs to be protective of a continued human presence performing industrial activities (HAB Advice #230).
    - *TPA Response: The TPA agencies agree - this is consistent with CERCLA regulations.*

12. The Board advises the Tri-Party agencies to remediate contamination in the deep vadose zone to reduce future migration of contamination to groundwater. The Board is concerned with the lack of focus on contaminant issues in the vadose zone (HAB Advice #226 and #243).
    - *TPA Response: Remediation of the deep vadose zone is a priority for the agencies.*

13. The Board advises the Tri-Party agencies to set cleanup values for ecological receptors as was done in the River Corridor.
    - *TPA Response: This advice is consistent with Inner Area "guidelines."*

14. The Board advises the Tri-Party agencies to identify and protect large pieces of undisturbed sagebrush-steppe habitat, and not include them in the final "footprint" of the Inner Area. Protection of these lands could further reduce the footprint of the Inner Area, requiring less area for monitoring and maintenance. It might also reduce DOE's natural resource damage liability.
    - *TPA Response: The DOE has a Biological Resources Management Plan (BRMP), which has existed for many years. That Plan is used to avoid or minimize impacts to high-quality habitat. The BRMP provides guidance to replace disturbed high-quality habitat at a higher than one-to-one basis. This guidance applies to activities done in the Central Plateau.*

15. The Board advises DOE to combine radiological and non-radiological cancer risks to meet the standard that Washington State has determined is protective of human health, based on the requirements of Model Toxics Control Act and Comprehensive Environmental Response, Compensation and Liability Act regulations. The Washington State standard has an upper limit of lifetime risk for combined carcinogens of 1×10^{-5} (HAB Advice #268).
    - *TPA Response: The CERCLA risk range is 10^{-4} to 10^{-6} and covers both radionuclides and chemicals. The State identifies industrial (MTCA Method C) cleanup levels should be set to 10^{-5} cancer risk or hazard index of one for chemicals. For chemicals, DOE is using cleanup levels set to 10^{-5} based on the State's corrective action authority. For radionuclides, US EPA guidance and thresholds are used to derive cleanup levels.*

16. The Board repeats its advice to the Tri-Party agencies that pre- and post-1970 transuranic waste be removed from the Hanford Site (HAB Advice #207).

    - *TPA Response: Pre-1970 buried solid wastes, some of which are contaminated with transuranic isotopes, are generally located in landfills that are part of the 200-SW-2 operable unit. Remedial alternatives of these landfills will be addressed as part of the CERCLA RI/FS process for 200-SW-2. Removal, treatment and disposal of post-1970 transuranic and mixed low-level waste is required by existing TPA milestones (M-91). Transuranic waste removed because of the M-91 milestones has to be removed from the Hanford Site for disposal at WIPP.*

17. The Board advises the Tri-Party agencies to utilize previous Board advice for decision making in regard to waste characterization and risk assessment, the use of caps, protection of groundwater, and burial ground cleanup decisions on the Central Plateau (HAB Advice #170, #173, #174, #197, #207, #226, #229, #231 and #243, as well as the HAB Values White Paper [11/3/12]). There has been a long history of Board advice on the Central Plateau that applies directly to the issues being addressed here.

    - *TPA Response: The Tri-Party Agencies will continue to consider your advice as we complete RI/FS work plans, and develop RI/FS reports.*

Thank you again for you advice on this subject. The discussion between the TPA agencies, HAB, and stakeholders on cleanup of the Central Plateau will continue for several years and this interaction is another useful part of the conversation. We look forward to your continued involvement as Hanford cleanup progresses. If you have any questions, please contact Kristen Skopeck, Richland Operations Office, at (509) 376-5803 or kristen.skopeck@rl.doe.gov.

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