



U.S. Department of Energy

Office of River Protection



JUN 30 2006

06-ESQ-057

Mr. Todd Martin, Chair
Hanford Advisory Board
1933 Jadwin Avenue, Suite 135
Richland, Washington 99352

Dear Mr. Martin:

HANFORD ADVISORY BOARD (HAB) ADVICE #185 TANK CLOSURE & WASTE MANAGEMENT (TC & WM) ENVIRONMENTAL IMPACT STATEMENT (EIS)

Thank you for the time you took to provide advice related to the TC & WM EIS. Your continued interest and involvement in the TC & WM EIS is appreciated. Some comments address specific items, and others address policy statements. Some comments were not scoping comments but were comments on how information in previous EIS documents was presented. Our responses are attached. Attachment 1 is the "Responses to HAB Advice Cover Letter," Attachment 2 is "Responses to New HAB Advice," and Attachment 3 is "Responses to Previous HAB Advice."

We found your advice useful in describing similar expectations that the U.S. Department of Energy (DOE) and the State of Washington Department of Ecology (Ecology) share related to transparency and quality assurance related to the TC & WM EIS. DOE and Ecology share these expectations. DOE and Ecology also agree additional characterization may be needed for some permits. However, both agencies believe that sufficient characterization exists to complete the TC & WM EIS.

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Mr. Todd Martin
06-ESQ-057

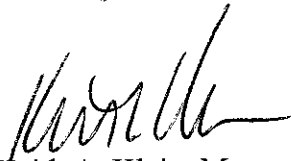
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If you have any questions concerning the responses, please contact Mary Beth Burandt, DOE TC & WM EIS National Environmental Policy Act Document Manager, (509) 372-7772, or Suzanne Dahl, Ecology Project Manager, (509) 372-7892.

Sincerely,

for

Roy J. Schepens, Manager
Office of River Protection


Keith A. Klein, Manager
Richland Operations Office


J. Manning, Director
State of Washington
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Attachments: (3)

cc w/attachs:

C. Borgstrom, EH-41
D. E. Frost, EM-30.1
S. Dahl, Ecology
J. Lyon, Ecology
N. Ceto, EPA
D. A. Brockman, RL
K. Lutz, RL

Attachment 1
06-ESQ-057

Responses to HAB Advice Cover Letter

“Responses to Hanford Advisory Board (HAB) Advice #185 Cover Letter”

General Comments

1. Schedule: In your advice #7185, the HAB stated the concern that the timeline to develop and issue the Tank Closure and Waste Management (TC & WM) Environmental Impact Statement (EIS) is too short.

A: Both the U.S. Department of Energy (DOE) and the State of Washington Department of Ecology (Ecology) feel it is important to do this EIS correctly. As stated in the Memorandum of Understanding (MOU) between both parties, we are working to have a final EIS by June 2008. Just as the HAB supported the settlement agreement and ending the lawsuit, it is important that we complete this EIS to support treatment, disposal, and closure decisions that need to be made. As we proceed, we will keep you updated on our progress toward that goal.

2. Waste Streams: All known existing and planned waste streams on the Hanford Site should be included in the analysis to provide a sound foundation for cleanup decisions and remedy selections. After credible characterization is done, the cumulative impact analysis will need to address the impacts from policy choices and alternatives for such things as:

- a) Retrieving pre-1970s and other buried and discharged wastes;
- b) Contamination from High-Level nuclear waste tank leaks; and
- c) Long-term stewardship.

A: We agree that all known existing or planned waste streams should either be included in the alternatives or the cumulative impact sections of the EIS. There are waste streams and processes that DOE needs to make near term decisions on (in the next five to 15 years)—these are covered in the alternatives. For activities that have a previous National Environmental Policy Act (NEPA) Record of Decision (ROD), are a Comprehensive Environmental Response Compensation and Liability Act (CERCLA) activity, or are otherwise not ripe for decision making, these will be included in the cumulative impacts analysis. See also the answer to # 4 related to characterization.

3. Alternatives: The analyses of alternatives in the EIS, after characterization, must address what will be done with the wastes retrieved; what are the quantities and types of wastes which may remain, need treatment or disposal, and what are the impacts from each alternative.

A: We agree that the EIS should identify the assumptions, treatment, and disposition pathways for waste streams in both the alternatives and cumulative impacts analyses.

4. Characterization: DOE currently estimates the EIS will take two years to complete (with a ROD issued in June, 2008). The HAB is concerned that the schedule does not allow for the necessary characterization. While the HAB is not suggesting an open-ended characterization project, reasonable characterization of waste sites not currently adequately characterized is necessary to support credible analyses. The schedule for the EIS should be driven by characterization, data, and analysis needs, not an arbitrary timeline.

A reasonable timeline should be provided to the public regarding the time required to characterize waste releases and residues to meet the minimum requirements for a credible cumulative impact analysis.

A: Both DOE and Ecology believe there is sufficient characterization information to support this EIS. The goal of NEPA is to complete an impact analysis to support decisions that an agency needs to make related to a proposed Federal (or State, in the case of State Environmental Policy Act [SEPA]) action early enough in the decision making process to be useful. As a result, there must be a balanced judgment concerning an agency's decision to start the NEPA process early enough to inform its decisions, recognizing that information may be incomplete or missing. The Council on Environmental Quality regulations have long recognized this tension and provide an appropriate way to proceed with an EIS despite incomplete or unavailable information (40 CFR 1502.22). For example with respect to the tank farms, eight of the 18 tank farms have undergone vadose zone characterization and two more are currently in process.

Characterization activities will continue on the Hanford Site as required by the Hanford Federal Facility Agreement and Consent Order (HFFACO) for both Resource Conservation and Recovery Act (RCRA) and CERCLA activities while this EIS is being prepared. Additional information may be necessary before final permit decisions are made.

5. Cumulative Impact Analysis: As support for this concern, in response to HAB Advice #148 (August 2003), the U.S. Environmental Protection Agency Region 10 Hanford Project Office stated that sitewide analysis of cumulative impacts could be initiated by 2008 based on the completion of CERCLA and RCRA facility investigations.

A: DOE has agreed, as part of the settlement agreement, to conduct a comprehensive cumulative impact analysis and to revise, update, or redo the groundwater, human health and transportation analyses as a result of the Quality Assurance (QA) review of the Hanford Solid Waste (HSW) EIS. A considerable amount of work has been done to document, QA, and update information to support the cumulative impact section since the HSW EIS. The goal of the cumulative impacts analysis is to put the alternatives in the context of other activities occurring onsite.

6. State and Federal Requirements: The EIS must recognize, incorporate, and meet the requirements, methodologies, and standards of all applicable Federal and state regulations. Failing to meet these requirements could result in an EIS that is not acceptable to Washington State and result in wasted time, money, and effort.

A: We agree, the EIS will describe how the proposed action and alternatives are related to State and Federal laws and regulations. As stated in the Settlement Agreement re: WASHINGTON vs. BODMAN (Civil No. 2:03-cv-05018-AAM), both agencies are undertaking this expanded EIS with the intent to satisfy applicable NEPA and SEPA requirements so that clean up work at Hanford can continue.

7. Hanford Federal Facility Agreement and Consent Order: The EIS should include analysis of at least one alternative that complies with the HFFACO for treatment and removal of tank wastes.

A: DOE strongly supports the values identified in the HFFACO, including requirements to retrieve the waste from the tanks, treat it, and close the tanks, and we are committed to implementing those values. Due to recent delays to the Waste Treatment and Immobilization Plant, it is unlikely that the existing HFFACO dates will be met.

Ecology expressed a similar concern as this HAB advice related to the treatment dates in the HFFACO of 2028. DOE and Ecology are working to evaluate issues related to meeting 2028 and will continue to discuss throughout the summer.

8. Past Board Advice: The EIS should be accompanied by a peer-reviewed QA process. Past HAB Advice (#162) recommended an independent panel to review the groundwater risk assessment work in the Tank Closure EIS, Solid Waste EIS, and Composite Analysis on behalf of the HAB. This panel was never constituted. However, this EIS provides an opportunity for the spirit of this advice to be included during the development of the TC & WM EIS.

A: We agree that this EIS provides an opportunity to meet the spirit of the advice. DOE has agreed to redo groundwater analyses from the HSW EIS, and the TC & WM EIS cumulative impact analysis will be the only comprehensive cumulative analysis onsite. This analysis will also be used as a composite analysis to support DOE O 435.1.

Ecology and DOE agree with the Science Applications International Corporation (SAIC) proposal to have an external panel, made up of non-Hanford, DOE, or site contractor personnel, to review the assumptions used in the groundwater model, and provide advice to SAIC. We believe this goes a long way to meet the intent of Advice #162, as the HAB itself acknowledged a need for technical assistance, because the issues were “beyond the expertise of the vast majority of the Board members.” In addition to the external panel, Ecology has agreed to conduct periodic QA slices throughout the EIS process. DOE Headquarters has also committed to providing QA reviews as appropriate. We will keep the HAB updated as the EIS progresses.

9. Public Involvement: Additionally, DOE and Ecology should work with the HAB to create public involvement mechanisms that ensure regular dialogue between risk assessors, document authors, and stakeholders concerning the status of the EIS and its assumptions, analyses, methodologies, etc. This dialogue can be used to illustrate how HAB comments have been incorporated into the EIS, will assist the agencies in real-time problem resolution, and will hopefully build HAB support for the final EIS.

A: We agree that regular dialogue is important as the EIS is being developed and felt that we had some successes with the Tank Closure EIS processes which was expanded to include HAB initiated issues manager workshops, regular presentations at committee meetings, and a TC & WM EIS-specific website to update the EIS’s status and issues. As a result of the MOU for the TC & WM EIS, DOE and Ecology have also agreed to maintain an issues list. As a result of scoping, the HAB public involvement committee was asked for feedback on getting the word out including review of advertisements and the use of a listserv. If the HAB has additional specific ideas which could be implemented we would appreciate your input and please, contact the TC & WM EIS NEPA Document Manager.

Attchment 2
06-ESQ-057

Responses to New HAB Advice

“Responses to new Hanford Advisory Board Advice”

TOPIC ONE: Actions, alternatives, and impacts for all Hanford waste sites.

1. Scope should include a roadmap to locate actions, alternatives, and impacts for all identified waste sites on the Central Plateau

A: We agree that the Environmental Impact Statement (EIS) should identify the waste sites on site, regardless of whether those waste sites are related to the alternatives or the cumulative impacts

2. Disposition alternatives for the Fast Flux Test Facility (FFTF), Plutonium Reaction Test Reactor (PRTR) and N Reactor should be included in a separate, self-standing EIS which should also update actions, alternatives, and impacts for the eight production reactors (B, C, D, DR, F, H, KE, and KW.) The cumulative impact of all 11 reactors should be included in the TC & WM EIS.

A. We disagree with including all the reactors in the alternatives. As identified in the Notice of Intent, FFTF will be included in the alternatives since it was included in an on-going EIS. The production reactors are already covered by an existing EIS, and therefore, will be addressed in the cumulative impacts section.

3. Scope should include cumulative impacts of all wastes proposed to be disposed. In addition, the burden from prior disposal and contamination needs to be considered, along with mitigation measures. Analyses should be based on State cleanup and health-based standards and the Native American subsistence scenario, not solely U.S. Department of Energy's (DOE) own standards.

A. We agree that the EIS should address the impact of waste to be disposed as well as other contamination which may remain on site. The EIS should describe how the alternatives are related to State and Federal laws.

4. Scope should include consideration of the range of alternatives for cleanup and closure of the unlined burial grounds which includes pre-1970 waste sites and chemical wastes. The alternatives presented should be retrieval and cleanup to the extent practical in compliance with applicable requirements.

A: We agree that all known existing or planned waste streams should either be included in the alternatives or the cumulative impact sections of the EIS. There are waste streams and processes that DOE needs to make near term decisions on (in the next five-15 years), these are covered in the alternatives. For activities that have a previous National Environmental Policy Act Record of Decision (ROD), are a Comprehensive Environmental Response Compensation and Liability Act (CERCLA) activity or are otherwise not ripe for decision making, these will be included in the cumulative impacts analysis.

5. Scope should include an estimated inventory of wastes in the burial grounds, cribs, and soil around leaking Single-Shell Tanks, and characterizing the extent and mobility of contamination as required by applicable laws. The EIS should include an explanation pursuant to 40 CFR 1502.22 of how the cumulative impact analysis can be performed when inventory and characterization data do not exist.

A: We agree that the EIS should identify the inventory of waste in the tanks and burial grounds. When information is incomplete or unavailable, the EIS will address the requirements of 40 CFR 1502.22.

6. Scope should include alternatives for the treatment of tank wastes as entirely separate from alternatives for closure of tanks.

A: In order to close the tanks the waste must be retrieved and treated. We agree the EIS should describe the different aspects of the alternatives in a way the reader can understand the different activities involved.

7. Scope should include a discussion of how DOE intends to make tank closure decisions on those tanks where there may be inadequate current characterization to support regulatory closure decisions.

A: The EIS will evaluate the impacts of different closure actions and the impacts on the environment. An EIS is the first step in that closure process. After the EIS is complete, Washington State law requires that a closure permit be issued. The M-45 Milestone and its associated appendices identify additional information which will be needed prior to the actual closure of a specific waste management area.

8. Scope should include the cumulative and route-specific effects of transporting wastes from multiple sites to and from Hanford. For example, the Hanford Solid Waste (HSW) EIS estimated impacts in Oregon and Washington using generic transportation parameters. The analysis did not consider the specific transport route conditions, which may result in alternate routes being used.

A: The Tank Closure and Waste Management (TC & WM) EIS will use the best information on routes at the time the EIS is complete. Representative routes used in an EIS conform to Department of Transportation (DOT) regulations for shipment of radioactive materials per (49 CFR 397.101 and 49 CFR 103), where preferred routes consist of Interstate System highways, Interstate System bypass or beltway around a city, and State designated preferred routes. Selection of routes using DOT guidelines can reduce risk more populated areas and minimize potential exposure. TC & WM EIS will use routes which meet current Federal and State transportation guidelines, regulations, and practices for transporting highway route controlled quantity of radioactive materials. The TC & WM EIS deals with transportation occurring over an extended period of time, highway infrastructure, demographics, or weather conditions could alter the actual route used to transport the waste. Therefore, the selected routes may not be actual routes that would be used in the future.

9. The EIS should not assume additional landfill volume for offsite waste disposal beyond the limits established in the June 2004 ROD.

A: DOE plans to update the waste volumes to be disposed of, approximating those volumes for offsite waste that are in the HSW EIS ROD (i.e., 20,000 cubic meters of Low-level mixed waste, and 62,000 cubic meters of low-level waste).

10. The risks from Hanford waste should be clearly delineated from the risks from offsite waste in the EIS to determine whether acceptable risk levels will be exceeded prior to the addition

of offsite waste. This delineation is needed to determine whether Hanford can accept offsite waste without unacceptable risk to the environment.

A: We agree that the potential impacts from offsite waste should be clearly delineated.

TOPIC TWO: Infrastructure.

Because of delays in the startup and operation of the Waste Treatment and Immobilization Plant (WTP) to beyond 2017, important infrastructure that was originally expected to operate 2007-2018 may exceed design life and need replacement by the time of hot startup. As a result, the scope should include actions, alternatives, and impacts related to replacement of aging infrastructure due to extended Hanford Federal Facility Agreement and Consent Order (HFFACO) schedules

1. Scope should include replacement or life-extension of 242-A Evaporator.
2. Scope should include life-extension of the 222-S Analytical Laboratory, or replacement or consolidation with the WTP Analytical Laboratory
3. Scope should include modifications, additions and/or life-extension of the Effluent Treatment Facility.
4. Scope should include the impact of retrieval delays on the ability to retrieve waste from deteriorating waste tanks with failing infrastructure
5. Scope should include analysis of electrical, water supply, support and transportation facilities, and other general infrastructure.

A: With delays in some of the site plans, we are currently evaluating what infrastructure upgrades may be necessary in the EIS. A final decision related to these and other facilities has not been made and the draft EIS will address this topic.

TOPIC THREE: Compliance with HFFACO, U.S. Environmental Protection Agency (EPA) requirements, and State requirements.

1. Scope should include at least one alternative that is fully compliant with the HFFACO and EPA and State requirements (e.g., emptying the tanks to 99% and characterizing and remediating leaks and releases from the tank farms to the extent practicable.) Any alternative with elements that do not meet HFFACO requirements should only be presented as a “contingent.”

A: See answer to #7 in Attachment 1.

2. Scope should not include consideration of a proposed alternative to leave 10% of the waste in the tanks.

A: We disagree. The HFFACO requires removal to 99%. The goal of the 90% removal is to evaluate the impact of the HFFACO M-45 Appendix H process.

3. Scope should include identification of injury to natural resources to meet the Natural Resource Damage Assessment requirements of CERCLA.

A: Natural resource damages are currently under litigation and the outcome is not known.

TOPIC FOUR: Quality Assurance.

1. The EIS preparation process should include measures to ensure no repetition of the deficiencies and inaccuracies that the DOE Headquarters review of the HSW EIS found in the health and safety analyses, as with the groundwater and transportation analyses. The TC & WM EIS should contain revised health and safety analyses

A: We agree. The Memorandum of Understanding between DOE and the State of Washington Department of Ecology for the expanded TC & WM EIS was done to strengthen the areas where potential problems could exist. In addition, we have agreed to conduct lessons learned. We are also redoing groundwater, health and safety, and transportation analyses performed for the HSW EIS.

2. Scope should include compliance with 40 CFR 1502.24, which addresses the DOE responsibility for oversight of methodology and scientific accuracy. DOE should ensure the professional integrity and scientific integrity of discussions and analyses in the EIS

A: We agree. The EIS will identify the methodologies, assumptions, and judgments used for all analyses. DOE is extensively and actively involved in the EIS's preparation through the presence of dedicated, multi-disciplinary Federal staff, with a goal of ensuring the integrity and accuracy of the EIS's analyses.

3. Scope should incorporate assumptions that reflect the minimum required default assumptions appropriate for Eastern Washington cleanup sites, including maximum reasonable exposure scenarios

A: We agree. The EIS will identify the methodologies, assumptions, and judgments used for all analyses.

4. Scope should include a discussion of impacts which compare the health-based cleanup and risk standards in State law for cleanup. If decisions are proposed to leave waste or allow potential exposures which would result in violation of those standards, the scope of the TC & WM EIS should outline enforceable commitments to mitigate the impacts, and assess both alternatives for mitigation and impacts from mitigation (e.g., restricting use of a land area or groundwater resource).

A: We agree that all results of the impacts analysis, regardless of the resource area or discipline, will be compared against the potentially applicable State and Federal requirements. Mitigation is included in the alternatives' construct; however, additional mitigation measures may be identified after the analyses have been completed. Until then, it is premature to define specifics.

5. Scope should include analysis of cost/benefit trade-offs of supplemental treatment (both pretreatment and immobilization) and of WTP construction, operations, decontamination, and decommissioning costs pursuant to 40 CFR 1502.23.

A: The EIS will not do a cost/benefit trade-off analysis, but, as we agreed to in previous advice, a companion cost report will be prepared for the TC & WM EIS.

TOPIC FIVE: All known and reasonably foreseeable impacts to groundwater.

1. Scope should include analysis of the impact of catastrophic events such as earthquake, fire, and flood.
2. Scope should include consideration of precipitation change due to climate changes and include impact on vegetation.

A: We received similar comments during the scoping process and are currently evaluating how to address it in the EIS.

Attachment 3
06-ESQ-057

Responses to Previous HAB Advice

“Responses to Previous Hanford Advisory Board (HAB) Advice”

PREVIOUS BOARD COMMENTS

Answer: The topics raised by the HAB on previous advice are listed below but the individual comments have not been repeated. Comments on HAB Advice #133 and #148 deal with the draft Hanford Solid Waste Environmental Impact Statement (EIS) We will evaluate the comments in the development of the Tank Closure and Waste Treatment (TC & WM) EIS. In some cases, the advice referred to deals with concerns related to specific portions of the EIS which will be redone. In other cases the comments related to presentation of results which we will evaluate as the TC & WM EIS development continues.

Specific to HAB Advice #140, we are unable to confirm which advice you are referring to. HAB Advice #140 deals with a request to revise the Notice of Intent and extend the scoping period for the Tank Closure EIS – advice the U.S. Department of Energy accepted. We reviewed the comments against HAB Advice #144, thinking that it was a typographical error. In some cases the advice was similar but the wording not exactly the same. In other cases we could not find the advice identified or the advice was changed substantially so that it no longer has the same meaning as the original advice.

If you would like to discuss this issue in more detail please notify the National Environmental Policy Act Document Manager.

TOPIC ONE: Actions, alternatives and impacts for all Hanford waste sites.

TOPIC TWO: Infrastructure

(No previous comments.)

TOPIC THREE: Compliance with Hanford Federal Facility Agreement and Consent Order, U.S. Environmental Protection Agency requirements, and State requirements.

TOPIC FOUR: Quality Assurance.

TOPIC FIVE: All known and reasonably foreseeable impacts to groundwater.

TOPIC SIX: A clear and comprehensive public review and comment process.