

FINAL MEETING SUMMARY

**HANFORD ADVISORY BOARD
RIVER AND PLATEAU COMMITTEE**

*May 6, 2014
Richland, WA*

Topics in this Meeting Summary

Opening..... 1

Advice Development: 100-F Remedial Investigation and Feasibility Study (RI/FS) and Proposed Plan Revision 0 2

Committee Discussion on Fiscal Year (FY) 2016 Budget Priorities for RAP Topics..... 4

Briefing on the Waste Encapsulation Storage Facility (WESF) Path Forward (joint w/ Tank Waste Committee) 7

Committee Business..... 9

Attendees 12

This is only a summary of issues and actions in this meeting. It may not represent the fullness of ideas discussed or opinions given, and should not be used as a substitute for actual public involvement or public comment on any particular topic unless specifically identified as such.

Opening

Pam Larsen, River and Plateau Committee (RAP) chair, welcomed the committee and introductions were made. The committee adopted the March 2014 meeting summary. The committee had already adopted the April 2014 meeting summary via email in mid-April, per the committee’s discussion during the April RAP Committee meeting. The April meeting summary was adopted early so that it could be included as an attachment to Ecology’s submission to the National Remedy Review Board (NRRB) concerning an exemption from full-NRRB review on the proposed 100-D&H cleanup plan.

Announcements

Steve Hudson, Hanford Advisory Board chair, briefly discussed the Environmental Management Site Specific Advisory Board meeting, noting that it was enlightening and successful. Documents from the meeting may be found at <http://energy.gov/em/downloads/chairs-meeting-april-2014>. He especially encouraged interested parties to look into the graphics. Pam noted that the Groundwater Demonstration, done by Mark Triplett, PNNL Risk and Decision Sciences, used Phoenix software to render 3-dimensional graphics of tank interiors, as well as the ground underneath tanks. She noted that Phoenix

graphics could potentially be incorporated into future RAP or TWC meetings, as the information may be helpful for future decision-making.

Steve also noted that RAP had received a letter from Ecology regarding 100-D&H NRRB exemption request. Pam stated that it was a great read and that the response from Ecology was swift. Pam and Steve both passed compliments along to Madeleine Brown, Ecology.

Steve encouraged committee members to brainstorm topics for the Hanford Advisory Board FY2015 Work Plan prior to the June executive leadership retreat. He stressed that only the most important and pressing topics should be incorporated into the Work Plan, and he emphasized that anyone willing to introduce a new topic should also be willing to serve as an issue manager for that topic.

Steve ended by referencing a recent incident at New Mexico's Waste Isolation Pilot Plant (WIPP). Images taken by WIPP workers show bags of magnesium oxide (MgO), which were placed on top of waste containers, torn open and spilled about underground storage Panel 7, Room 7. The disturbance may be indicative of a chemical reaction and heat damage is present; however, there is currently no explanation for the cause of the event. Steve described that the MgO was placed with the waste as a barrier against radioactive material release. The MgO compound is not hazardous in and of itself; it is simply present in the underground facility as an engineered barrier. No one yet knows where the bag surrounding the MgO went or what mechanism caused its disappearance. The reason that this topic is one of interest to the Hanford Site is because there is Hanford waste that is slated for storage at the facility. Shipments of waste to WIPP have been suspended pending investigation of the event.

Advice Development: 100-F Remedial Investigation and Feasibility Study (RI/FS) and Proposed Plan Revision 0*

Introduction

Dale Engstrom introduced the topic, recognizing that the Issue Managers had anticipated the release of the Proposed Plan Revision 0 (Rev 0) by the May RAP Committee meeting. However, Kim Ballinger, DOE-RL, confirmed that the new anticipated release date for Rev 0 is later in May, with a 60-day comment period to follow.

Dale expressed concern that the release of the revision only leaves the HAB with two weeks to create advice and bring it forward for the June 4th and 5th Board meeting, acknowledging that the tight timeline made it unlikely that the Board would be able to speak to any changes incorporated into the latest revision within the 60-day comment period.

Committee Questions and Responses

* Attachment 1: Transcribed Flipchart Notes

Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments.

C. A suggestion for moving forward—when Rev 0 is released, we can look through it and consider whether or not it is necessary for the Board to weigh in on incorporated changes to the Proposal Plan. Potentially, the Board could ask for an extension if needed. A second option may be to simply ask DOE to hear our advice even after the closure of the comment period. Both options present potential pathways forward.

Q. Would there be the possibility of simply having a telephone call that would bring us up to date on any of the revisions that may invalidate one or more of our past advice points? If there are no significant changes to the issues that we have addressed, we could go forward with the work that has already been done. It may be nice to move forward into the June Board meeting with the efforts that we have been developing.

C. The Yakama Tribe was presented with some information concerning the update—the information that was shown demonstrated that nothing has been changed in Rev 0 save for some of the included figures. We could wait until Rev 0 comes out, and then present the advice that was crafted for Draft A [HAB Advice #268 100-F RI/FS and Proposed Plan Draft A].

C. The problem that we are facing is related to the timeline—it is too tight. If Rev 0 is to be released in mid-late May, there simply is not enough time for the Board to react appropriately to it before the June Board meeting.

R. The consensus of the committee seems to be that we should wait to see if Rev 0 produces any changes to drafts that we have already seen, then we should work to comment on the changes appropriately. Is this correct?

R. A concern with that course of action is that we need to speak to a document, not to a conversation or expectations. It is certainly a concern that Rev 0 will be released so closely to the June Board meeting.

C. Potentially, we could use specific pieces of HAB advice [HAB Advice #268 100-F RI/FS and Proposed Plan Draft A] and submit them as comment during the Rev 0 public comment period. We could ask the Board for permission to submit past advice.

R. If we pursue this avenue, our comments may not be formal, targeted HAB advice, but those comments would still make their way into the queue.

R. A letter sent from the Chair could say that the HAB is submitting comments to the Proposed Plan Rev 0. The letter could also reference preference for remove-treat-dispose (RTD).

Q. Could the HAB ask DOE to send a request to the team that is working on Rev 0 and request that they provide us with an outline of differences between Rev 0 and Draft A?

R. [DOE-RL] A presentation with that information was provided to the full Board at the March Board meeting. That is why DOE provided the presentation – to provide early information for the Board to consider.

C. There is really no difference aside from the technetium-99 question. That seems like the most pressing issue, and, if it is, we could have a conversation concerning that right now.

R. Rather than get wrapped up in technetium-99, we have always said that the Columbia River should not have institutional controls (IC). Instead of calling out 100-F as a single site, the HAB could reiterate that it has always been in favor of RTD instead of IC. This may be a better way of stating what the Board is trying to get at.

R. Regardless of what we say, the timeline is very tight.

C. On this issue, DOE has given the HAB the opportunity to weigh in early on in the proposal development process [Draft A process]. However, the release of Rev 0 does not work with the Board's timeline and is restricting HAB's ability to participate fully.

The committee agreed that it would like to submit previously adopted HAB Advice #268 100-F RI/FS and Proposed Plan Draft A as public comment during the Rev 0 public comment period. This would be submitted via a letter from the Board Chair. This action will need to be approved by the Board at the June Board meeting.

Committee Discussion on Fiscal Year (FY) 2016 Budget Priorities for RAP Topics*

Ed Revell began the budget priorities conversation by reminding the RAP committee that the DOE is having a public budget workshop on May 14, 2014, and he encouraged everyone to attend. He stated that this will be the first time that the public will be given priorities and budget numbers for FY 2016 by DOE. The Budgets and Contracts Committee will meet on May 15, 2014, following the public budget workshop.

The turnaround time for addressing budget issues is quick (30 days), and there is only one HAB meeting during that 30-day period (the June Board meeting). Ed discussed some potential threats to schedule, priorities, and dollars:

- Construction (or lack thereof) of new double-shelled tanks
- Potential litigation between the State of Washington and DOE

* Attachment 1: Transcribed Flipchart Notes

- The availability of useful, meaningful budget information from DOE (past examples of this information are mixed—the HAB must work to state those issues that are most pressing [e.g. 1618-10 & 11, Cesium removal from WESF to dry storage, etc.]
- Shrinking site work not being a priority in the upcoming budget

Ed continued by noting a personal observation. In his opinion, commenting on budgets and priorities is important, but it is sometimes necessary to also comment on process. The process has not been robust over the past four years, as Hanford Site cleanup funds have been subject to freezing, sequestering, underfunding, and other conflict. There have been a range of severe procedural issues, and he encouraged the HAB to consider these confounding procedural factors in future deliberations.

Committee Questions and Responses

Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments.

C. When in Washington, D.C., local government representatives requested a meeting with those in charge of the Consortium for Risk Evaluation with Stakeholder Participation (CRESP) study to express frustration that CRESP is pulling Hanford Site cleanup money to conduct a study that has already been done. CRESP has not involved the HAB since the beginning of their work. If their goal is engagement, then the Board needs to be engaged.

R. [DOE-RL] CRESP is presenting an academic assessment of their work to the Board at the June meeting.

R. Will this be a round-table discussion? People are going to have strong opinions to share, and that would be a good way to have a discussion.

C. The Hanford Site cleanup effort is facing a problem: there is not going to be enough money to accomplish all of the tasks that need to be done. Not only is the Hanford Site competing with other cleanup efforts across the county, internal Hanford Site efforts are competing with one another. In the past, HAB has intentionally stayed away from the practice of setting cleanup priorities. Is this a practice that the HAB should continue with?

R. The HAB has always steered away from setting priorities or ranking cleanup efforts for an important reason— all cleanup that is stipulated by the Tri-Party Agreement (TPA) is required. Prioritizing is a slippery slope, as if DOE is being given permission to do X, but not do Y or Z. In reality, everything needs to be done, and everything is required to be done.

R. Cleanup is prioritized in areas where there is potential for movement of contamination (e.g. 324 Building, WESF Capsules, K Basin). Perhaps this could be a general statement that the HAB could make—that cleanup is most important in areas where there is potential for movement. This is consistent with what the Board has said in the past.

R. Prioritizing in any form is dangerous. DOE owns this cleanup effort. Whether they can get it done by 2016 or by 2056, the agency is obligated to complete everything.

R. There are some concerns at the Hanford Site that are more pressing (time-wise), but officially stating that one thing is more important than another potentially opens the door to phasing out lower-ranking efforts.

R. The HAB sometimes struggles with the trap of prioritizing. One issue of concern is groundwater moving into the Columbia River, and it is very important that groundwater cleanup is funded to the point that there are enough wells fed into the system that they've built. This is a vital matter, and the well-being of future generations is dependent upon the effort. Contaminants in the groundwater are a very big deal.

R. There are imminent, uncontained, and moving concerns at the Hanford Site at this moment. Rather than assigning numbers to issues and prioritizing them, the Board should focus on policy prioritizing, or prioritizing based on principles.

C. The Hanford Site has lost \$85 million to outside sites this year (including Los Alamos and Savannah River), and Ecology does not seem to want to recognize the funding limitations that the cleanup is facing.

C. As we move forward, process is something that the HAB may wish to focus on, as it has become very prohibitive. Budget information from DOE used to come out very early (around February); now DOE Headquarters gives the Office of River Protection and Richland Operations budget information very late and does not permit them to share much of it. Perhaps the process is something that should be looked into and commented on.

R. Process and budget also need to be separate from one another.

R. How can the system be influenced? DOE Headquarters is in another world, and DOE is not a high priority for the Office of Management and Budget (OMB) people—it's just another agency. The sites themselves work cooperatively to push for DOE funding.

R. A lot of problems stem from the intrinsic makeup of the American political system (e.g. changing executive branch leadership with appointments based on politics rather than qualifications). There are aspects that are impossible to change and impossible to work with. There are ways to adapt to these difficulties, though. For example, collaborating with mid-level officials may yield more fruitful, long-term relationships. Collaborating with other sites and building a rapport is important.

C. Budget advice is very frustrating—every year the HAB submits it and then never sees any results from the efforts. Staying at the policy level and shying away from priorities is a solid strategy.

Q. Has HAB budget advice changed at all from year-to-year?

R. Yes. Some years it worked to address technical issues, some years it was more fiscally focused.

The committee identified key points for consideration by the Budgets and Contracts Committee (BCC) as it writes budget advice (captured on attached flipcharts). Ed Revell, as lead issue manager, will bring forward these proposed points/concepts to the BCC.

Briefing on the Waste Encapsulation Storage Facility (WESF) Path Forward (joint w/ Tank Waste Committee) **

Introduction

Pam introduced the WESF topic by giving attendees a brief background of the wastes that are stored at the facility. In the 1970's cesium and strontium were removed from high level waste tanks at the Hanford Site, then placed at WESF in stainless steel containers and stored in water-filled, concrete pools. There are currently nearly 2000 containers stored at WESF (1335 cesium containers and 601 strontium containers). DOE plans to store the capsules until they can be moved into permanent storage; however, a recent report done by the DOE's Office of Inspector General (IG) recognized that there may be problems associated with the concrete and potential seismic risks.

Agency Presentation

Vanessa Turner, DOE-RL, presented an update on WESF, demonstrating the conclusions from the IG report. The IG report did not list any formal recommendations for the facility, but it noted the importance of getting the capsules to dry storage. Due to funding constraints, this move has not taken place yet; however, DOE is driven to meet regulatory milestones. The current timeline calls for a new repository to be operating by 2046, which means that capsules will not be in permanent storage for another 35 years. This lengthy time-frame indicates why interim dry-cast storage is a necessity.

Vanessa continued by discussing the timeline and budget for capsule removal to dry storage, noting that there is a TPA milestone to "determine a disposition path" by 2017. The current schedule calls for design and procurement to occur in FY2017-2018 and for construction to occur between FY2019-2022. Ideally, DOE would see this schedule accelerated, but the agency is resource constrained. As there are currently no plans for a national waste depository, DOE is planning for an interim storage life of 150 years. DOE is also currently working to upgrade existing ventilation systems that are currently working beyond their lifecycles. The upgrade goals include the closure of ventilation system gaps for DOE's top 6 priority facilities, including WESF's K-1 and K-3 ventilation systems.

Regulator Perspectives

Ron Skinnarland, Ecology, stated that WESF is a permitted facility, and that Ecology believes that the capsules are safely stored for the time being. The waste held at the site is a major potential contaminant

* Attachment 1: Transcribed Flipchart Notes

* Attachment 5: DOE Waste Encapsulation Storage Facility: RAP Update (presentation)

source, however, and putting capsule waste into a more permanent form is very important and should be done as quickly as funding and technology allow.

Committee Questions and Responses

Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments.

Q. How much is the interim dry storage project expected to cost? What is the current yearly maintenance cost of WESF?

R. [DOE-RL] High-end estimates place the project at \$130 million. Yearly maintenance currently costs \$7 million.

Q. Do the plans call for interim dry storage to be located on the Hanford Site?

R. [DOE-RL] Yes.

Q. Is there concern for the integrity of the capsules themselves in the near future?

R. [DOE-RL] There is no concern about capsule integrity. There are several capsules—less than 10—which have displayed swelling. These swollen capsules have been over-packed in a third layer, and then welded shut as an added measure of protection. DOE conducts preventative testing each year to determine whether or not this swelling is occurring, and then takes steps to secure the capsules.

Q. Is there a conceptual design for the dry-cast storage facility?

R. [DOE-RL] DOE has wanted to do this project for a long time and there has been a conceptual design commissioned in the past. There will likely be an update to this design as the project moves forward.

Q. The concern has been raised that concrete at WESF could fail and the pool could drain. This would be very damaging to the Hanford Site if this were to occur. What would happen in the case of an accident?

R. [DOE-RL] When considering a scenario such as this, risk, cost, and probability are all weighed against each other. Concrete failure has a high risk, but there is a low probability that it will occur.

R. To expand upon the risk— as soon as one pool is drained, the building is lost; there will be no way to enter the building. Available data suggests that five capsules will fail within the first 30 days.

Q. The normal construction timeline for a project such as this is approximately seven years; therefore, DOE's timeline is admirable. New storage for the capsules is needed sooner rather than later. New information is emerging that suggests wet concrete is damaged by gamma radiation. The original risk

assessment is based on the concrete not being degraded; therefore, degradation could now be classified as an unknown event. If the concrete were to ever fail, it would be a catastrophic event. According to the request for information (RFI) that was received— is there assurance that the dry storage does not rely on concrete?

R. [DOE-RL] The RFI that was shared with us did not include that level of detail.

Q. Early on it was referenced that there was confidence that the concrete was stable. Is core sampling a potential option to check for degradation? What method was used to determine that the concrete was sound?

R. [DOE-RL] The CH2M HILL Plateau Remediation Company (CHPRC) cited data that was available to them, and they included assumptions into their report that they deemed to be conservative. CHPRC did not deem that the concrete was so degraded that it was beyond their design parameters. Their modeling methods are not available at the moment.

Q. It is concerning that interim storage is considered to be 150 years. That is not interim.

R. [DOE-RL] Of course 150 years is not ideal, but moving forward with knowledge of the current climate and current events, 150 years is what we are preparing for. It is a realistic and safe estimate.

Q. To the committee: is there anything that we should look into further? Are there any additional concerns?

R. This is an important issues, and HAB should advocate for haste in the construction of more robust temporary storage. DOE should make this a high budget priority. Cesium-135 has a very long half-life; it is both a danger and a concern.

R. [DOE-RL] The concern of the committee is appreciated. This project is something that DOE would like to get done soon, and attention and concern are both appreciated if they help this project move forward quickly.

RAP will continue to track the WESF issue. The committee also agreed that WESF should be a high priority for FY2016 funding (and should be noted in the advice that BCC will develop for the June Board meeting).

Committee Business

April 8, 2014 Site Visit Debrief

Pam opened the floor up to any committee member wishing to discuss or introduce any thoughts or observations garnered from the previous month's tour (joint with Health Safety and Environmental

Protection Committee) to the 300 Area, Environmental Restoration Disposal Facility (ERDF), and the Plutonium Finishing Plant (PFP).

Committee Questions and Responses

Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments.

C. The committees should do more site visits. Seeing things in person allows us to have a better understanding of what is going on inside of the Hanford Site and all of the intricacies that are involved with cleanup efforts.

C. One thing about some cleanup efforts at the Hanford Site (the 300 Area in particular) that is both fascinating and worrisome is the amount of work that has been done and the extent to which the surface infrastructure has been cleared away. This demonstrates a wonderful amount of effort, but it can also be problematic in that contamination still remains at the site—it just lacks surface markers. No matter how clean the Hanford Site looks on the surface, contamination will be present here in perpetuity. HAB needs to be vigilant as we craft our advice, and we need to beat our RTD drum as often as we can. A clean site can be beautifully deceptive; we cannot forget what remains.

*Mid-Course Work Assessment***

The committee visited the Hanford Advisory Board FY2014 Work Plan to briefly assess their progress and efforts. The committee noted that the draft Status column on the Work Plan could be filled in more completely with their efforts, as many of the topics assigned to RAP have been worked on or discussed at the committee level. Hillary Johnson, EnviroIssues facilitator, agreed to add additional highlights to the document (e.g. fruitful committee discussions, presentations, etc) rather than just identifying at which level the topic had been addressed, and redistribute it to committee members via email.

Identify Potential Topics for the Executive Issues Committee (EIC) Leadership Retreat

The committee identified several potential topics for the EIC to discuss at the annual Leadership Retreat, as well as potential topics for the HAB FY2015 Work Plan:

- Advice and responses to advice
- HAB calendar and timing to ensure advice can be issued at the appropriate time
- Potential FY2015 topics for EIC to consider: PUREX tunnels, DOE Order 435.1/redefinition of waste classification, SW-2 Burial Grounds, 324-B cell vadose zone plume, 618-10 and 618-11 , and the Waste Encapsulation Storage Facility

* Attachment 1: Transcribed Flipchart Notes

* Attachment 2: Hanford Advisory Board FY2014 Work Plan

- Potential Committees of the Whole topics for FY2015: WIPP impacts, WTP/Consent Decree/integration, DOE Order 435.1/redefinition of waste classification

Update 3-Month Work Plan ***

The committee updated its 3-Month Work Plan and will request a full-day meeting in June that will include the following topics:

- A briefing regarding principles for Central Plateau Cleanup.
- An update on the current status of the Hanford Long Term Stewardship (LTS) program and Lessons Learned from the 100-F Area transition to LTS.
- An update on PFP, focusing on impacts to the demolition schedule or budget as a result of the recent contamination incident.
- Briefing on the interim storage of transuranic (TRU) and mixed waste at the Central Waste Complex (CWC).
- Committee business, including an update of the 3-Month Work Plan and developing the August Potential Meeting Topics Table.

The committee discussed the topic of interim storage of TRU and mixed waste at the CWC, especially in light of the recent occurrences at the WIPP facility. The committee identified this as being an important issue for discussion for several reasons. One potential cause of the WIPP incidents is the presence of unexpected chemicals in storage drums; the committee wondered if this could potentially be a problem at the Hanford Site, particularly with waste currently stored at the CWC. Second, the committee was interested in hearing about the suspension of WIPP waste intake, and if/how it will affect the movement and treatment of Hanford waste. The committee agreed that the WIPP incidents highlight the need for waste treatment at the Hanford Site as soon as possible.

Attachments

Attachment 1: Transcribed Flipchart Notes

Attachment 2: Hanford Advisory Board FY2014 Work Plan with facilitator notes regarding the status of each topic (draft)

Attachment 3: 2014 June Potential Committee Meeting Topics

Attachment 4: RAP Committee 3-Month Work Plan

Attachment 5: DOE Waste Encapsulation Storage Facility: RAP Update (presentation)

* Attachment 1: Transcribed Flipchart Notes

* Attachment 3: 2014 June Potential Committee Meeting Topics

* Attachment 4: RAP Committee 3-Month Work Plan

Attendees

Board members and alternates

Shelley Cimon	Pam Larsen	Ed Revell
Dirk Dunning	Susan Leckband	Dan Serres
Dale Engstrom	Liz Mattson (phone)	Richard Smith
Barbara Harper (phone)	Kristin McNall	Bob Suyama
John Howieson	Maynard Plahuta	Jean Vanni
Steve Hudson	Gerald Pollet	

Others

Kim Ballinger, DOE-RL	Madeleine Brown, Ecology	Rick Moren, MSA
Al Farabee, DOE-RL	Stephanie Schleif, Ecology	Rodney Skeen, CTUIR
Kris Skopek, DOE-RL	Ron Skinnarland, Ecology	Keith Klein, Longenecker & Associates, Inc.
Alex Teimouri, DOE-RL		Hillary Johnson, EnviroIssues
Vanessa Turner, DOE-RL		Ryan Orth, EnviroIssues
Joe Voice, DOE-RL		Brett Watson, EnviroIssues