

FINAL MEETING SUMMARY

HANFORD ADVISORY BOARD

February 7-8, 2013

Richland, WA

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This is only a summary of issues and actions in this meeting. It may not fully represent the ideas discussed or opinions given. Examination of this document cannot equal or replace attendance and public participation.

Executive Summary

Hanford Advisory Board (HAB or Board) action

The Board adopted two pieces of advice concerning:

- Tri-Party Agreement (TPA) Change Package (advice)
- Independent Evaluation of Procedures and Industrial Hygiene Equipment Used to Monitor Tank Vapors and Flammable Gas (advice)

Board business

The Board will hold committee meetings and calls in February. The Board:

- Selected a new Vice-Chair

- Identified preliminary April Board meeting topics

Presentations and updates:

The Board heard and discussed presentation and updates on the following topic areas:

- Tri-Party Agreement Agencies – Program Updates
- Tank Closure and Management Final Environmental Impact Statement
- Board recommendations for Board diversity and other Board effectiveness issues
- Board member orientation
- HAB Committee reports

Public comment

Public comment was provided.

HANFORD ADVISORY BOARD
February 7-8, 2013 Richland, WA

Steve Hudson, Hanford Watch and Board chair, called the meeting of the Hanford Advisory Board (HAB or Board) to order. The meeting was open to the public and offered periodic opportunities for public comment.

Board members in attendance are listed at the end of this summary, as are agency and contractor representatives and members of the public.

Two seats were not represented at this meeting: Heart of America Northwest (Regional Environmental/Citizen) and University of Washington (University).

The Board meeting was audio-recorded.

Welcome, Introductions, and Announcements

Jeff Frey, U.S. Department of Energy-Richland Operations Office (DOE-RL) and Deputy Designated Federal Official for the Board (DDFO), reminded Board members that the Board operates in accordance with the Federal Advisory Committee Act (FACA).

Steve Hudson welcomed everyone and reviewed the meeting objectives and agenda. He welcomed Kevin Smith, the new manager at the U.S. Department of Energy-Office of River Protection (DOE-ORP).

Susan Hayman, EnviroIssues, reminded those on the phone that GoToMeeting was up and running, and reviewed Board ground rules. She reported that the November meeting summary was certified within 45 days and posted to the Hanford website.

Susan Leckband, League of Women Voters (LOWV), announced that Betty Tabbot, LOWV, has decided to retire from the Board. Susan said that Betty has been involved with the Board since it was created and she has been an incredible voice for the public on nuclear waste issues.

Rob Davis, City of Pasco, said that he is having difficulty finding an alternate for his seat. He asked if Board members knew of anyone in Pasco who might be interested in participating to have them contact him.

Tri-Party Agreement Agencies – Program Updates

U.S. Department of Energy, Office of River Protection (DOE-ORP)

Kevin Smith, DOE-ORP, provided an update on recent activities and accomplishments for DOE-ORP; his presentation is provided as Attachment 1. In addition to the information contained in his presentation slides, Kevin emphasized the following in his remarks:

- He is looking forward to working with the Board on the technical aspects of the Hanford cleanup. He reviewed his professional background and highlighted that he has been involved with DOE Environmental Management (DOE-EM) and nuclear safety for a long time.
- DOE-ORP has been using the new FoldTrack technology for single-shell tank (SST) retrievals. The FoldTrack device removes sludge and is remotely operated. The FoldTrack is scheduled for deployment in Tank C-110 in Fiscal Year 2013.
- The leaked material in double-shell tank (DST) AY-102 is about 40 square feet and approximately ¼ inch thick. The material has changed color and tone but monitoring indicates it seems to be confined. DOE-ORP continues to monitor other DSTs but have found no signs of additional leaks.

U.S. Department of Energy-Richland Operations Office (DOE-RL)

JD Dowell, DOE-RL, provided an update on recent activities and accomplishments for DOE-RL; his presentation is provided as Attachment 2. In addition to the information contained in his presentation slides, J.D. emphasized the following in his remarks:

- In December, while conducting nondestructive assessments, DOE-RL found there is potential that an orphan piece of transuranic (TRU) waste is in the Environmental Restoration Disposal Facility (ERDF). DOE-RL is conducting an evaluation but expects to continue retrieval from the 618-10 Burial Ground in February.
- DOE-RL expects to start remediation on two other deep chromium contaminated areas in 2013 that should be completed in 2014.
- DOE-RL finished cocooning the N Reactor in the fall of 2012. There are still 12 waste sites associated with the N Reactor that require work. DOE-RL will characterize the waste, begin retrieval, conduct bioremediation, and then install a barrier.
- Four workers were recently exposed to contamination in the Plutonium Finishing Plant (PFP). The workers were only exposed to small doses of radiation during decontamination procedures, but the incident highlights the hazards of the cleanup work. DOE-RL is committed to keeping workers safe.

- DOE-RL is looking at succession planning as their employees begin reaching retirement. DOE-RL would like to be proactive in ensuring that experience and expertise about the Hanford cleanup are maintained.

U.S. Environmental Protection Agency (EPA)

Dennis Faulk, Environmental Protection Agency (EPA), reminded the Board that his office at EPA has been taking on new projects. Each of his staff has taken on one new project while Dennis has picked up eight new projects. He is working on prioritizing his work and staying on top of all the projects. He said that JD covered most of the work that EPA oversees and added the following:

- He was glad to see that JD presented the issues facing the current cleanup efforts. He has heard from the public that they want to hear about both the accomplishments and challenges at Hanford.
- The TPA agencies know the location of the drum that might contain TRUwaste at ERDF and it should not be difficult to retrieve the drum if necessary.
- When the C7 chromium dig was backfilled, it was contoured to provide better habitat for wildlife.
- Lisa Jackson, EPA Administrator, will be leaving the agency; her replacement has not been named.

Washington State Department of Ecology (Ecology)

Jane Hedges, Washington State Department of Ecology (Ecology), provided an update on recent activities and accomplishments for Ecology; her presentation is provided as Attachment 3. In addition to the information contained in her presentation slides, Jane emphasized the following in her remarks:

- Ecology will be working to answer the public's questions about the revised Hanford Facility Dangerous Waste Permit (Site-Wide Permit) draft. Additionally, Ecology is working to clarify that while the draft permit is being worked on the existing permit is still in effect.
- Governor Jay Inslee's new policy direction supports the need for new multi-purpose tanks given the delay and issues with the Waste Treatment Plant (WTP). This policy shift was motivated by the leak in DST AY-102.

Board questions and response

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

Q. What contaminants does the 200 West Pump and Treat facility treat?

R. Most of the contamination that the 200 West Pump and Treat facility treats is chromate. The pump and treat facility also treats carbon tetrachloride, nitrates, and small amounts of iodine-129. The facility does not treat uranium. The contamination in the Central Plateau is very similar to the contamination along the River Corridor.

Q. Can Ecology give an example of how what might be revised in the draft Site-Wide Permit?

R. Ecology is still reviewing the 5,000 comments they received on the draft permit. Ecology will likely make changes to the waste management and handling sections of the permit. It seems unlikely that changes would be made to the Waste Treatment Plant section. Ecology will provide more details as the process continues.

Q. In the past, a major issue on the burial grounds was the development of voids. What is being done at ERDF to prevent voids?

R. DOE-RL is using large compactors at ERDF to compress the soil to exact compaction levels required by specified protocols. DOE-RL has encountered challenges with handling organic material, such as railroad ties, which decompose and lose their volume. One solution that is being used is to flatten them out and distribute them across ERDF. For tanks and boxes, DOE-RL eliminates any void space by filling them with grout before burying them. All items disposed of in ERDF are tracked with GPS so if necessary, they can be retrieved.

Q. What was the source of the material used to backfill the C7 dig?

R. Only about five to ten percent of the excavated material at C7 was contaminated with chromates. DOE-RL sampled the material and used the clean excavated soil to backfill the area. DOE-RL also used barrow areas as a source for additional backfill material. The contaminated material removed from the dig was transported to ERDF.

Q. What is the estimated slab-on-grade timeframe for the PFP?

R. Slab on grade is expected to be attained in 2016.

Q. Is DOE's tank inventory data, including chemistry monitoring data, available to the public to use for modeling and analysis?

R. AS far as DOE-ORP is aware, tank inventory data is not available to the public. The dataset is very large and combines information from the process history along with monitoring data. The data is used with modeling to inform what is happening over time with the tanks regarding mixing, blending, transport, and treatment.

Q. When will the Board learn about the Secretary of Energy's S1 teams' recommendations?

R. The S1 teams are progressing along a defined path. They are focused on reviewing technical issues and reconfirming the paths that have already been pursued, such as direct feed low-activity waste (LAW). DOE-ORP expects that a lot of progress will be made in the next six months and hopes to provide more information to the Board as it becomes available.

Q. A recent Government Accountability Office (GAO) report identified mismanagement of funds by DOE and Bechtel in the development of the WTP. What is DOE specifically doing about contractor performance evaluations and oversight to improve accountability?

R. DOE is focused on accountability and some of the new changes in the organization have increased that focus. Additionally, the S1 teams may play a role with accountability as they look to move the cleanup forward.

C. It is great to see more reality in the TPA agency presentations by providing a balance of accomplishments and challenges. This transparency helps the public and the Board understand what is happening on site.

Q. How will DOE-RL determine if there is TRU waste in ERDF without excavating the drum?

R. When a drum is retrieved it goes through a non-destructive assessment (NDA), which monitors the drum in two ways. The monitoring data is then input into a model. A contractor safety engineer was reviewing the model and caught what looked to be a drum with a reading of 130 nanocuries per gram when the limit is 100 nanocuries per gram. The model is very complex and this result indicates that DOE-RL needs to determine if the modeling protocol is adequate. DOE-RL is evaluating the situation and is happy to discuss this further with RAP or any other committee who is interested.

Q. When Hanford was a production site it was routine to dump effluent water into the river. Was the chromium content of that cooling water dangerous to the ecosystem?

R. It is hard to determine the impact based on past releases. There is information that releasing chromium above aquatic standards has a large impact on salmon. It is clear that hexavalent chromium does pose an ecological risk now and it needs to be taken care of.

Q. A lot of review teams over the years have looked at the problems with the WTP but they are only focusing on a specific problem and not the whole picture. DOE-ORP is fixated on using boron silicate as a matrix for glass and strongly resists reevaluating that position. Are any of the S1 review teams going to look at reevaluating the use of a different material other than boron silicate?

R. DOE-ORP can't answer specifically if the S1 teams are looking at boron silicate alternatives but will share this perspective with the S1 teams.

Q. What is done with the pollutants and how are they kept environmentally isolated when they are concentrated and removed after going through the 200 West Pump and Treat facility?

R. Any contaminants of concern are separated by a non-exchange process and taken to ERDF for disposal.

C. When DOE states they have cleaned up a certain number of glove boxes, it does not really indicate what has been accomplished. It is better to quantify what was actually cleaned up and what that means for public health and safety.

C. There are already a number of facilities that are operating at minimum safe levels and they cannot take any more funding cuts. The issue of sequestration and site budget require that DOE uses a risk based analysis to decide where they can further cut the budget without compromising safety and the cleanup effort.

R. Public safety and protection of the environment is the top priority and DOE will not violate the integrity of operations or place anyone in a hazardous situation. Both DOE-ORP and DOE-RL want to include the agencies and stakeholders in determining how the budget should be spent to mitigate risk. DOE-ORP used some American Recovery and Reinvestment Act (ARRA) funding to upgrade facilities and they are working to stay on top of minimum safe levels. If sequestration occurs, one likely area that would be impacted is tank retrievals.

Steve closed the Q&A session, and thanked the agencies, again, for their presentations.

Draft Advice: Tri-Party Agreement (TPA) Change Package

Introduction of advice

Pam Larsen, City of Richland, explained that the Tri-Party Agreement (TPA) Change Package was developed in light of the current budget situation. She said that the members of the River and Plateau (RAP) Committee generally feel the Change Package makes sense; the committee is, however, primarily concerned with the soil contamination under the 324 Building. RAP has followed the contamination for more than a year as tests and assessments were completed. The contamination does not appear to be moving into the deep soil but, with waterline breaks occurring last year, there is the possibility the contamination could become more mobile. The advice focuses on recommending that the TPA agencies retrieve the material earlier than outlined in the Change Package.

Shelley Cimon, Public-at-Large, added that the advice asks DOE Headquarters to provide additional money separate from DOE-RL's compliance budget request.

Agency perspectives

Dennis Faulk, EPA, said the advice was succinct and well written. He said it would be great if DOE could get the additional budget to get this work done.

JD Dowell, DOE-RL, said he did not have a comment on the budget aspect of the advice. JD explained that DOE-RL has been monitoring the material movement using geoprobes; the last data point was in January and DOE-RL did not see any changes in the material. He said he doesn't see the material posing a high risk to the river or groundwater and therefore does not see the need to accelerate the schedule on a risk basis.

Jeff Frey, DOE-RL, explained that the use of the term "separate" funding in the advice concerns him. He explained that anytime there is an additional influx in budget there is the potential to make project execution difficult. If DOE does receive separate funding for the 324 Building, that would need to be accounted and reported separately and may restrict the potential for funding urgent or emerging risks that are a higher priority. Jeff also discussed his concern with classifying the contamination under the 324 Building as a high dose risk to workers and the public. There is not enough information to understand fully the human exposure from the 324 Building contamination and he encouraged continued dialogue and understanding for how to interpret radiation and contamination levels.

Jane Hedges, Ecology, agreed with Dennis Faulk and said that the regulators are concerned with the 324 Building contamination and would like to see it cleaned up sooner if additional, separate funding is possible.

Board discussion

The following are the key points noted during Board discussion:

- The Board expressed its understanding of the tight budget situation that DOE faces. However, the Board indicated that it is their role to provide advice outside of standard operations and that asking DOE for separate and additional funding for the 324 Building was important. One Board member explained that because of the high RAD measurements and the 324 Building's proximity to the river and the Richland water source, it posed a huge risk factor in the Board's opinion. It is important to the Board to be on record stating the cleanup of the 324 Building is a priority for them.
- One Board member suggested the advice should state the source of radiation for the contamination. The Board agreed and added that the source is a mixture of cesium and strontium.
- One Board member asked if DOE receives a contingency budget each year. DOE-RL responded that the compliance budget is based on the milestones in the TPA agreement. From the TPA perspective, contingency funds are built into each project instead of having a separate contingency line item within the budget. There are no contingency funds in the budget at the level to meet the challenge of cleaning up the 324 Building.
- One Board member suggested that the Board should spend time learning more about radiation units and radiation biology, and volunteered to give a presentation to the Board on these topics sometime in the future.

After edits to language and content, the Board adopted the advice.

Draft Advice: Independent Evaluation of Procedures and Industrial Hygiene Equipment Used to Monitor Tank Vapors and Flammable Gas

Introduction of advice

Becky Holland, Hanford Atomic Metal Trades Council, explained that in December 2012 there were several days with high humidity where employees were working on the tank farms. The health physics technicians (HPTs) using the monitoring equipment became concerned that the environmental conditions may have exceeded the manufacturer's technical operating specifications and procedures. They questioned if operating the equipment outside of these specifications would result in unreliable test results and validity of the monitoring data. The HPTs went to management and asked about looking into their procedures and whether they could rely on their equipment. The Health, Safety and Environmental Protection committee (HSEP) received a presentation from DOE and Washington River Protection Solutions LLC (WRPS) which led them to believe that an independent review from the National Institute

for Occupational Safety and Health (NIOSH) would assist DOE in dealing with questions about equipment use and data validity.

Steve Hudson indicated that this advice did not have committee consensus before being brought to the Board. Mark Reavis, Central Washington Building Trades, and the committee member previously objecting to the draft advice, said that after hearing the presentation at the HSEP committee he felt confident that there was no need for Board action. He said he has now had time to talk with the issue managers and is not in opposition to the advice moving forward.

Agency perspectives

Brian Harkins, DOE-ORP, explained that the United Steel Workers have submitted a request to NIOSH to review the instrument issue. Additionally, Brian has submitted a request to NIOSH for a full review of DOE-ORP's industrial health program. The request asked NIOSH to evaluate the program to ensure that it was protective of the workforce and help DOE identify any improvements they should make. NIOSH declined his request and Brian said he is now preparing a second request to NIOSH that is narrower in scope.

Board discussion

The following are the key points noted during Board discussion:

- The Board discussed whether it should move the advice further given that DOE-ORP is already requesting an independent evaluation from NIOSH. The Board concluded that their advice was supportive of DOE-ORPs and that it might add credibility to DOE-ORPs second request to NIOSH.
- One Board member asked if NIOSH provided a reason for turning down DOE-ORPs original request. Brian responded that NIOSH gave two reasons. The first was they felt that other programs in the nation had more urgent concerns that required their attention and second that they were concerned that DOE would use their review as a stamp of approval on the Hanford industrial hygiene program. In the second request, DOE-ORP has tried to address NIOSH's concern and clarify that the value of the review is to improve and ensure that the program is protective of the workforce and not about gaining approval from NIOSH.
- One Board member explained that there is no way for technicians or those doing the monitoring to know all the parameters for each instrument. If there is potential for environmental conditions to affect instrument readings, that needs to be clear and identified on the calibration sticker for each instrument.
- Several Board members indicated that they thought that DOE-ORP could conduct an internal review and validation of the instruments' performance under extreme conditions. There was discussion of whether the NIOSH review would provide useful information to deal with the issue of instrument use in extreme conditions and some members said that DOE-ORP should first identify and use their internal resources before requesting an independent review.

- DOE-ORP explained that they are working internally to review the quality of data and the use of the industrial hygiene equipment. They have contacted other DOE-EM sites and have learned that no other site has reviewed instrument use at high humidity. DOE has also contacted the equipment manufacturers to get clarification on equipment specifications to better understand what the issues are if the equipment is used in extreme conditions. As part of the internal review, DOE is testing each instrument to ensure they are calibrated and function as intended in the standard operating range. DOE explained that they see the NIOSH review as something that will focus beyond just the instruments and be a chance to get advice for the whole program with regards to worker safety.
- One Board member indicated said that DOE may need to provide additional training on the use of instruments. Several Board members said they felt that worker training was a separate issue and that it should not be addressed in the advice. One Board member added that if DOE does decide to make programmatic changes, additional training is likely to be a part of those changes. The Board agreed to not add training as part of the advice.
- The Board asked that DOE share any lessons they learn from their internal review and from NIOSH with the other DOE-EM sites.

After edits to language and content, the Board adopted the advice with Emmett Moore, Washington State University (University) abstaining. Emmett stated that while WSU is in favor of worker safety, there was not enough information for him to make an informed decision on this advice.

Board Vice-Chair Selection

Nominating committee report

Pam Larsen, Board Nominating Committee, shared with the Board the nomination of Susan Leckband for Boar Vice-Chair. Pam explained that Susan was the only nominee for Vice-Chair and that she had submitted a statement on her willingness to serve and her background.

Vice-Chair selection

The Board unanimously selected Susan Leckband as the Board's Vice-Chair. Susan thanked the Board for their support. She explained that she wants to work with and mentor anyone interested in becoming Vice-Chair or Chair in the future.

Board Member Orientation

Presentation

Steve Hudson discussed that there are expectations, commitments, and responsibilities when an individual becomes a Board member. In his opinion, these expectations are effectively framed up in eight documents that every Board member should be familiar with. These documents include:

- The Convening Report on the Establishment of an Advisory Board to Address Hanford Cleanup Issues (1993)
- Memorandum of Understanding among the DOE, EPA and Ecology regarding the Hanford Advisory Board(2008)
- The Board's Operating Ground Rules
- HAB Process Manual
- Past HAB advice
- Hanford Public Involvement White Paper (2002)
- Hanford Public Involvement Plan (2012)
- Oregon Department of Energy's Hanford Cleanup book

The TPA agencies gave a presentation discussing the background and history of the Board, the Board's mission, who the Board's members are and how they are appointed, membership roles and responsibilities, and who supports the Board and how. The Board member orientation presentation is provided as Attachment 4.

Board discussion

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

Q. Why did the Oregon Hanford Cleanup Board not sunset once the HAB was implemented?

R. Oregon felt that since it was not a TPA agency there was value in having its own advisory board to address Hanford issues. The Oregon Hanford Cleanup Board provides advice to DOE and the Governor of Oregon.

Q. Is there concern about having a member and alternate be on the same appointment schedule instead of staggering the appointments to ensure there is always someone to represent the seat on the Board?

R. There are concerns and cases for either appointing members and alternates at the same time or staggering them. Appointing the member and the alternate for a given seat is how DOE Headquarters wants to manage Board membership. If, for any reason, the member and alternate are not approved for their seat, the nominating authority can propose an interim appointment that can be approved by the local DOE office until a permanent appointment can be made and approved by DOE Headquarters.

Q. How common is it for someone to be turned down from a Board seat, and for what reasons would that occur?

R. It is uncommon for a proposed appointee to be turned down by DOE Headquarters. However, it did happen recently for a public at large seat. The main reason that someone would not be approved would be if there are already too many individuals representing that particular interest on the Board.

C. DOE seems to make the assumption that two people representing the same seat are of like mind because they come from the same organization. However, members and alternates who share a seat can have very different, and sometimes opposing, views.

Q. Why is it that even though an organization can appoint an individual to be the representative for their seat, DOE still has the ability to deny their appointment?

R. In the history of the Board there has never been a nomination made by a nominating authority that was turned down. Unless there is some conflict of interest or pressing dilemma, an organization's nominee is not questioned.

Q. How many Board members make a part of their living by serving on the Board and how does the Board ensure that does not become a conflict of interest?

R. Board members can recuse themselves when discussing advice that may provide direct benefits to themselves, such as increasing employee wages.

C. Issue managers play a big role in developing advice and tracking important topics for the Board. It is recommended that every Board member volunteer to be an issue manager. Being an issue manager is an interesting experience and it builds character and develops an appreciation for how the Board operates.

Q. Is there a legal responsibility for the HAB SharePoint site to respond to Freedom of Information Act requests or be open to the public?

R. DOE is unsure if material posted on the SharePoint site is subject o FOIA requests and will get that answered for the Board.

Q. Where does the funding for the Board come from and what is it typically spent on?

R. The Board is funded at approximately \$500,000 dollars a year. The majority of that funding goes to facilitation support, execution of meetings, and Board travel.

Q. If an organization is selected to have a representative on the Board, does that organization ever have to give up that seat?

R. The practice is that the organization holds the seat until they choose to give it up.

Q. Are Board project records kept at the Board Tri-Cities office backed up in case the originals are destroyed?

R. All official HAB records are held at DOE and the Board's Tri-Cities office (EnviroIssues's office) holds all project records. These project records are not currently backed up but looking into duplicating those materials might be worth considering.

Tank Closure and Waste Management Final Environmental Impact Statement (Final EIS)

Presentation

Dale Engstrom, Oregon Department of Energy (ODOE), gave a presentation on DOE's response to HAB Advice #229, provided as part of the comment response section in the Tank Closure and Waste Management Final Environmental Impact Statement (TC&WM FEIS); his presentation is provided as Attachment 5. Dale explained that the Board developed advice after a lengthy review of the Draft EIS. DOE has now finalized the EIS and released a lengthy comment-response document. The Board is interested in understanding how DOE responded to its advice. An issue manager team has been reviewing different parts of the comment-response document to present to the Board. These comments and responses have been shortened for brevity. Dale noted that DOE reviewed the presentation and said that some of the comments and responses were incomplete and may not fully represent DOE's response.

Dale expressed his view that DOE listened to the advice, incorporated some of it, and responded very well to it in the comment response. He said that DOE revised text where appropriate and made the FEIS more understandable. There are still some areas that the Board does not agree with, but he feels that is always going to be the case. In moving forward, the Board would like to better understand the process of how DOE developed the final EIS and discuss this through the Board's committees. Dale explained that the Board should not continue focusing on trying to influence the FEIS and instead look forward to understand how the FEIS will impact future decisions.

Liz Mattson, Hanford Challenge, added that an issue manager team is developing framing questions to guide the review of the FEIS. These questions are being presented through the committees. As an example, the Public Involvement and Communication Committee (PIC) discussed a handout provided to the Board depicting the differences between the National Environmental Policy Act (NEPA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) public processes; the handout is provided as Attachment 6. She hopes this will help show where public involvement opportunities will likely occur in the future and clarify how the two processes are different.

Agency perspectives

Mary Beth Burandt, DOE-ORP, said that she wants the Board to be aware that DOE found the public comments on the DEIS to be very worthwhile. She hopes that people involved in the process also feel the effort was worthwhile. DOE tried to illustrate in their comment-response document that they valued the public's comments by detailing responses even for those comments that they ultimately disagreed with. Some comments lead DOE to change the DEIS and DOE tried to show this in its responses.

Mary Beth explained the structure of the FEIS. She said there is a reader's guide that provides information on where to find specific information in the FEIS. There is a summary which Mary Beth recommended that Board members read. The summary provides key findings and other areas of importance. For more detailed information on the technical analysis and findings, Mary Beth referred readers to Chapters 4 and 5 and the appendices.

Dennis Faulk, EPA, said that EPA did have a role in the FEIS under the Clean Water Act. He said the EPA reviewed the DEIS, and DOE asked that EPA become a cooperating agency. EPA worked with DOE

to understand their concerns about the tank closure process on the vadose zone and groundwater modeling. He encouraged the Board to review a letter EPA released about the FEIS.

Dieter Bohrmann, Ecology, said that Ecology was also a cooperating agency and that they provided a forward for the FEIS. Ecology approves of the FEIS but they are concerned that there was no selection of a preferred alternative for LAW treatment. There are questions on opportunities for future public involvement and there likely will be opportunities through the permitting process in the future.

Board questions and response

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

Q. Was EPA ultimately satisfied with the groundwater modeling in the FEIS?

R. EPA was satisfied with the groundwater modeling and how it was done in the FEIS based on its scale. EPA had questions about how CERCLA modeling versus EIS modeling worked but ultimately feels the models were similar but just conducted at different scales.

C. The Board hopes that as DOE moves forward with developing the record of decision(s) (RODs) from the FEIS that they continue to involve the Board and the public. It will be important for DOE to articulate how the FEIS will be used to inform upcoming decisions and how those decisions are supported by the FEIS. It would be useful if DOE could inform the Board that a ROD is going to be released prior to its issuance.

Q. The FEIS clearly indicates that DOE does not want to invest in further DST storage; however, if that decision needs to be revisited, how could that be done?

R. Within the FEIS alternatives, there were four waste receipt facilities ranging from one million gallon DST to 84 DSTs. This range does indicate that there was analysis done showing the impacts of building new DST capacity. If DOE did decide to build more DSTs they could release a ROD modification quite easily based on the FEIS.

C. The Board hopes that DOE will continue to involve the River and Plateau Committee (RAP) in discussions about the RODs and work plans.

C. The Mitigation Action Plan issued under the NEPA RODs is not binding and the Board should not expect to get much from that process.

Status of Draft Board Recommendations for Board Diversity, and Other Board Effectiveness Issues

Introduction

Susan Leckband explained that the HAB's Executive Issue Committee (EIC) and the Board have been discussing diversity and effectiveness for a long time. The Board's passion for this issue was highlighted with its concern over a term limit proposal DOE was considering last year that was found unacceptable to

many Board members. The Board issued HAB Advice #259 requesting the Board's involvement in any changes to its makeup and function. DOE responded very positively and is allowing the Board to provide recommendations for improving diversity and effectiveness.

Susan discussed that the EIC first worked with DOE to get a better understanding of what they meant by diversity. She asserted that the Board was developed specifically to allow for a diversity of opinions and interests. Diversity as defined by FACA is a diversity of opinion. DOE is concerned that the diversity on the Board does not adequately reflect the demographics in the area for which the Board serves. The HAB serves a much wider area than any other EM site. Additionally, DOE would like the Board to be more effective at providing outreach and engaging the public about the Hanford cleanup.

The EIC is developing a draft document that outlines possible actions the Board could pursue to increase diversity and effectiveness. The EIC is seeking input from HAB members; there will be many opportunities for review and discussion on this topic by the Board. Some ideas for increasing diversity and effectiveness include:

- Developing a better definition of the affected area for the Board
- Begin succession planning to involve more people from organizations with seats on the Board
- Review how the Board operates and how to use the operating guidelines to increase diversity
- Identify ways to increase general public attendance at Board meetings

Agency perspectives

Jeff Frey, DOE-RL, said he knows that DOE-RL has been working on this issue and advocating for the Board. Jeff explained that there are a lot of different interpretations of the language around diversity and effectiveness. The Board and DOE Headquarters have clear visions for how the Board should operate and by working together they can begin to clarify a more common vision. Identifying issues such as succession planning and public outreach are important and are a step forward.

Dieter Bohrmann, Ecology, said that a lot of thought has gone into this discussion and the issue of diversity and Board effectiveness. The primary discussion will be between the Board and DOE but Ecology is willing to support when possible. He mentioned that when the TPA agencies solicited for a recent Public-at-Large seat, diversity was considered when reviewing applications.

Dennis Faulk, EPA, remarked that this is not the first time diversity issues have occurred between a local board and DOE Headquarters. Dennis said he thinks it is important that the Board is taking ownership of this issue because Board members can affect positive change and control their own destiny. Board members have the potential to diversify their seats much more than the TPA agencies. He added that the Idaho Board allows the public to comment on each discussion topic at their meetings. They also host evening sessions focused on specific topics for the public to attend. These could be potential tools for the Board to consider.

Board discussion

The following are the key points noted during Board discussion:

- The Board discussed potential ways to engage students. One member suggested inviting high school students to committee meetings and including them in dialogue about the topics being discussed. Another Board member mentioned that incorporating students can be difficult if they have to miss school to attend meetings. One suggestion was to ask high school or college students to design a strategy for how the Board should best engage students about the Hanford Cleanup. This would be both an engagement tool for those who are designing the strategy but may increase the Board's effectiveness at reaching a younger audience.
- One Board member highlighted the need for a clear definition of diversity. They explained that in their mind diversity means race and class. The Board has had few people of different races and in their experience it has been difficult getting diverse groups interested in Hanford when they have more life pressing issues that they are working to address. Susan Leckband responded that DOE defines diversity as age, ethnic, gender, and racial diversity. DOE is not looking for technical diversity.
- One Board member discussed how the Oregon Hanford Cleanup Board has engaged the public in their work. They hosted focus groups in Oregon on the disposal of plutonium and asked the public specific questions at each focus group. The meetings were well attended and provide a similar opportunity to the State of Site (SOS) Meetings that the TPA agencies offer.
- The Board discussed how to stimulate public engagement at Board meetings. If DOE wants to engage the public throughout the affected area of Hanford, then it will be important to hold Board meetings in different locations. Additionally, if the Board hopes to engage the public at Board meetings it will need to change how the Board frames topics and develops agendas. One Board member pointed out that the public comment opportunity during Board meetings provides no mechanism for dialogue or response from the Board.

Committee Reports

River and Plateau Committee (RAP)

Pam Larsen said that at the January RAP meeting they discussed the TPA change package, had a presentation on the F-Operable Unit, and the 100 DH Operable Units Proposed Plans. She thanked the presenters for providing useful information. RAP also discussed the TC&WM FEIS and the need to better understand the groundwater modeling that was used in the analysis. RAP is hoping to receive a presentation on that soon.

Pam reviewed topics for the February RAP meeting:

- Learn about land transition between DOE programs
- Discuss the 300 Area Remedial Investigation Feasibility Study and Proposed Plan

- Continued discussion on the TC&WM FEIS

Budgets and Contracts Committee (BCC)

Jerry Peltier, City of West Richland, said there is not much to report from the BCC. Without a budget for the site it is difficult for the BCC to review and provide input. He said that DOE will plan on providing a budget presentation to the BCC when the budget is released. If sequestration occurs than the BCC is hoping to have the opportunity to provide feedback and input on how the budget should be reprioritized.

Tank Waste Committee (TWC)

Dirk Dunning, Oregon Department of Energy, said that the TWC is reviewing many of the same issues as HSEP, but with some different concerns. At the last TWC meeting, the committee discussed:

- The AY-102 leak and whether it may need to be pumped
- The single-shell tank retrieval
- Tank mixing
- TC&WM FEIS

In the months ahead the TWC will be focusing on:

- WTP technical issues
- AY-102 pumping
- Tank integrity
- Groundwater modeling used in the TC&WM FEIS along with RAP

Health, Safety, and Environmental Protection Committee (HSEP)

Mike Korenko, Public-at-Large, reviewed the topics that HSEP will focus on in the next three meetings:

- Respond to HAB Advice #258 on safety culture at the WTP.
- Concrete degradation at the Waste Encapsulation and Storage Facility (WESF) and accident scenarios
- Future waste transfer lines between the tanks and the WTP
- Process for changing the safety basis at the WTP
- Learn about what is happening with the potential for hydrogen gas build up in DSTs and safety concerns

- Traffic safety

Mike explained that an emerging area of interest for some committee members is the potential that WTP requirements may be more restrictive than necessary. HSEP is concerned that the requirements may cause more safety issues and jeopardize the plant's operations. Mike said HSEP is getting feedback on the topic and will be discussing at future meetings.

Public Involvement and Communications Committee (PIC)

Liz Mattson invited Board members to participate in PIC meetings. She reviewed what the committee discussed at their February meeting:

- The meeting was preceded by a TPA Quarterly Update on public involvement where the TPA agencies discussed upcoming comment periods and public meetings.
- The PIC discussed SOS Meetings scheduled for October 2013. Liz asked that if anyone's organization was interested in mobilizing attendance for SOS Meetings they should contact the TPA agencies or attend the April PIC meeting.
- The 300 Area Proposed Plan is set to be released for public comment in March or April with public meetings potentially in June.
- The TPA Agencies have updated the Hanford Public Involvement Plan and incorporated HAB advice on the plan.
- The PIC reviewed public involvement framing questions related to the TC&WM FEIS.
- Ecology gave an update on the Site-Wide Permit reissue process.

The PIC will have a call in March and their next meeting will be in April.

Site-Specific Advisory Board (SSAB)

Steve Hudson discussed the upcoming SSAB meeting that will be hosted at Hanford on April 23 to 25. At the meeting, DOE Headquarters will give a presentation. Part of the meeting will be a tour of the Hanford site. Steve recognized the DOE team for their great work in organizing the meeting.

Executive Issues Committee (EIC)

Steve Hudson said the EIC has met twice since the November Board meeting. The EIC has discussed the following:

- Board diversity and effectiveness
- Board and Hanford budget
- Decreasing phone call participation for committees

- 2013 leadership retreat

National Liaison

Shelley Cimon explained that she has put together a list of publications that have been released in January. She reviewed the list of publications:

- On January 11, the Investigator General released an audit on DOE management of surplus nuclear materials discussing consolidation and disposition of materials.
- On January 22, the Government Accountability Office (GAO) released a report saying DOE need to provide better information to determine if non-major projects meet performance targets for scope and cost.
- DOE released a strategy for the management and disposal of used nuclear fuel and high-level radioactive waste. This was a response to the Blue Ribbon Panel report and focuses on a timeline for the new waste management system encompassing transport and disposal.
- DOE-EM launched a new upgraded website that is more user friendly.

Board Business

February committee meetings and calls

Susan Hayman reviewed February Committee meetings and calls:

- February 12: RAP 9:00 a.m. to 2:30 p.m.
- February 13: HSEP 9:00 a.m. to 4:00 p.m. (joint with TWC)
- February 19: HSEP Call 9:00 a.m.
- February 19: RAP Call 1:30 p.m.
- February 19: TWC Call 3:00 p.m.
- February 21: EIC Call 2:00 p.m.

Preliminary April Board Meeting Topics

Susan Hayman reviewed the list of potential meeting topics for the April Board meeting, including:

- Potential advice on the Hanford cleanup budget

The Board discussed the possibility of either canceling or pushing back the April Board meeting to May if no further topics emerge. It was also suggested that the Board could use time at the April meeting to do a site tour.

Public Comment

Mark Keffler, International Brotherhood of Boilermakers (IBB), said he is a business manager for boiler makers in Eastern Washington. He discussed that he is not aware of what material is stored in the tanks at Hanford. He said he has been reading articles in the paper saying the timeline for building new tanks at Hanford would take five to seven years and cost \$100 million per tank. He remembers building eight double shell tanks in just over a year and a half and is curious where the figures DOE are providing are coming from. He would expect that given new technology the timeline for building new tanks would be quicker. Mark also discussed that he has heard that DOE is interested in bringing tanks in from outside vendors, which has occurred at the Vit Plant, instead of building them onsite. There have been extensive problems with the documentation and quality of the tanks brought in from outside vendors. Bringing in tanks from outside vendors hurts the local economy and who provide the highest quality.

- Tom Fletcher, DOE-ORP, responded that his department built the first DSTs at Hanford and he agrees that building new DSTs should not take seven years.
- JD Dowell, DOE-RL, agreed that five to seven years to build DSTs sounds like a long time. He added that building new DSTs represents a change in direction in DOE's systems plan which would take time to shift. Also, DOE would have to look into design, protocols, and a more complex system for dealing with tank wastes and those changes and regulatory procedures require substantial time.

Mike Luzzo remarked that he was confused on a number of points discussed during the Board meeting. He indicated that it was not clear if the discussion of hydrogen was related to a gas or water issue. If it relates to hydrogen as a gas then the question is about combustibility and a need to measure hydrogen in the tanks. If it is a water issue then DOE needs to turn it into a solid waste form and take it for disposal. Regarding the potential voids at ERDF, he asked how large they were. Additionally, he cautioned the Board on confusing units between RADs and picocuries.

- Tom Fletcher, DOE-ROP, responded that the hydrogen of concern is a gas and the potential for a gas eruption. Currently, DOE is not sure what the probability of that happening is. He also discussed that there is a difference between lifetime exposure versus ingestion dosage and its human health impacts. This is why there may be confusion in discussing RADs and picocuries.
- JD Dowell, DOE-RL, added that DOE is concerned with hydrogen gas displacement trapped in sludge in the tanks. They had one tank with a large event of hydrogen released from a trapped gas pocket. DOE is now evaluating the gas risk.

Miriam German, No Nukes NW, said that she is interested in knowing if anybody is working on finding a viable solution to the DSTs because they are not working. She also is wondering what happens to the money that DOE receives for the Hanford Cleanup. Miriam explained that she went to a hearing where DOE was accused of mismanaging funds. She asked who has the authority over DOE to ensure they continue to make progress on the Hanford cleanup and ensure accountability for the money it receives.

- JD Dowell, DOE-RL, said that DOE should be accountable and transparent to the public on how it spends money. He explained that when the public hears about projects like the big dig at C7

they personalize that to their life and have difficulty understanding why digging a hole could be so expensive. DOE has to consider the substantial safety costs in order to do its work. He welcomed questions about accountability and use of funds at Hanford.

Laura Hanses provided public comment as a private citizen, and spoke about the contract negotiations occurring with the Hanford Atomic Metal Trades Council (HAMTC). Laura said that earlier in the day it had been mentioned that HAMTC does not have a contract. She pointed out she was wearing a HAMTC shirt to show her support and share with the Board her perspective and feelings about the contract negotiations. She mentioned that she wrote a letter to the Tri-City Herald that she wanted to share. In her letter she said that the primary contractors are requesting a four percent pay cut, an increase in cost for benefits, and mandatory overtime. In reality, this would lead to a more than four percent pay cut for workers because of the increased cost of benefits and increases in taxes. She explained that HAMTC has already made adjustments to cut costs; she provided as an example that employees now pay for their own transportation to the site. There used to be a bus service that was subsidized, but now everyone commutes for two hours every day for no compensation. Workers at the Waste Treatment Plant (WTP) do get some benefits and stipend from their manager for transportation.

She said that HAMTEC has 2,500 employees, compared to 10,000 employees overall at Hanford; the only workers who make less than HAMTC workers are secretaries and administrative staff. There are operational specialists, engineers, planners, and endless layers of managers, all with pay scales higher than HAMTC workers. She said there are lots of places where salary adjustments could be made, but cuts should not happen to the backbone of where the real work takes place. She remarked that it is alarming and concerning that people who go to work every day and take the real risk and do the physical labor, wearing PPE (personal protective equipment) and respirators are so undervalued. She spoke of HAMTC's recent contribution to safety on site, as it was a health physics technician that brought to question the routine use of monitoring instruments outside of their stated operating parameters. She said there is no replacement for the experienced Hanford workforce.

Regarding the mandatory overtime, Laura mentioned that the contractor proposes to pay overtime (double-time) only after individuals work 56 hours, which is an alarming number. This type of overtime requirement indicates that they are understaffed and the contractor wants to save money on training and benefits that would be required for more workers. Mandatory overtime also indicates that the contractors do not care about the health of workers and the welfare of their families. The bottom line is that Hanford cleanup cannot take place without HAMTC workers. These workers are the last line of defense if something happens and the first line of defense in preventing it. Their work benefits everyone and salary cuts could take place elsewhere. She said the overtime expectation forces people to choose between their health and family welfare or to work in a job with a 'sweatshop' mentality. Laura said the management and leadership approach to Hanford contractors is unacceptable, and the Board needs to be concerned by their message and viewpoint. If anyone has questions, Laura said she would be happy to talk with them.

Keith Smith provided public comment as a private citizen, and remarked that he wanted to expand on Laura Hanses comments about the contract negotiations occurring with HAMTC. Keith explained that he has a lot of diverse experience at Hanford. He was an auto mechanic for 20 years and a union official for 18 of those years as a recording secretary for HAMTC. He said that he knows how these contract negotiations work. His concern is that DOE claims the negotiations are out of its hands. From his

experience DOE always had some involvement in the negotiations, and he doubts that has changed. He said he experienced several occasions when DOE met with HAMTC about contract and labor issues and directly affected what the contractor did in bargaining. DOE's potential complicity in this current issue is a concern to him, as someone is telling the contractor where and how to make these cuts. He wanted the Board to be aware and understand that DOE does have input and influence in the negotiations. Additionally, he mentioned that he believes there is an anti-union sentiment among some DOE staff. This sentiment extends to thinking that work can be done off-site better than on-site, despite evidence to the contrary. He said it is important for the Board to understand that DOE may not be as neutral in the contract dispute as they claim.

Mike Luzzo provided additional public comment. He asked if the industrial hygiene problem discussed by the Board had to do with workers trying to measure heat stress and instrumentation. He also asked for clarification between the use of nanocuries and becquerels when measuring hazard contamination levels. The Tri-City Herald released an article about low level radiation ingested by workers and he felt this was related to worker training issues. He suggested that DOE ensure training that will maintain worker safety and health.

- Jeff Frey, DOE-RL, responded that the industrial hygiene safety discussion had to do with the ability of instruments to perform at high humidity levels which has prompted a broader review of the program. Jeff also explained that the worker exposure issue dealt with small doses of radiation measured at three millirem. These dosages are not large compared to the true relative health impact. However, to DOE it represents an upset in operational conditions and indicates the potential for worker exposure. Additionally, it is DOE's responsibility to oversee worker training programs. Lastly, Jeff mentioned that the potential TRU material in ERDF was measured to be 130 nanocuries per gram which exceeds the definition of TRU waste at 100 nanocuries per gram.

Gloria Cummins asked two questions related to the TC&WM FEIS and its discussion of solid waste and upcoming decisions. She asked where and when DOE will address the important issue of off-site waste and where she could find additional analysis and the decision on the disposition for pre-70 TRU be addressed. She said the FEIS comment-response document says that decision is related to the CERCLA process.

- Mary Beth Burandt, DOE-ORP, responded that the FEIS defers importation of off-site waste until the WTP is operational and at that point further NEPA review will be necessary. Regarding Pre-70 TRU waste, Mary Beth said that the FEIS discusses that as a cumulative impact but it is not in the scope of the EIS. She said she would get back to Gloria and provide further information on the decision process for Pre-70 TRU waste.

Laura Hanses provided additional public comment saying that it does not appear that the labor dispute will be resolved soon. She said she wants to know what DOE's plan is if the dispute continues and whether they have considered putting an alternate contract in place, so employees can have union dues taken out of their pay and still be on-site until other contractors can work with them. As a non-labor employee, she asked how the dispute affects the rest of the workers on-site, especially if HAMTC is not out there.

- Jeff Frey, DOE-RL, said he has not been involved in the recent dialogue with the contractor and HAMTC but DOE is considering encouraging them to work together to collaborate throughout the negotiations. He indicated he is not involved in developing a contingency plan if the contract negotiations are not resolved soon.

After the public comment opportunity, the Board discussed its process for responding to questions or comments made by the public. Some Board members feel it is the Board’s responsibility to respond to public comments but that they do not have clear operational guidelines on how to respond. The Board does direct public comments to the agencies when applicable and ask that they provide answers to any questions that are asked. Steve Hudson indicated that the EIC will review the issue of responding to public comments and discuss ideas for how the Board could ensure that public comments receive responses.

Closing Remarks

Steve Hudson thanked everyone for attending. The meeting was adjourned.

Attachments

- Attachment 1: HAB DOE-ORP Program Update
- Attachment 2: HAB DOE-RL Program Update
- Attachment 3: HAB Ecology Program Update
- Attachment 4: Hanford Advisory Board Member Orientation
- Attachment 5: HAB Advice on the TC&WM EIS and DOE Responses
- Attachment 6: NEPA vs. CERCLA Process

Attendees

HAB MEMBERS AND ALTERNATES

Antone Brooks, Member	Maynard Pluhata, Member	John Howieson, Alternate
Robert Davis, Member	Howard Putter, Member	Paige Knight, Alternate
Lynn Davison, Member	Mark Reavis, Member	Mike Korenko, Alternate
Gary Garnant, Member	Dan Serres, Member (Phone)	Larry Lockrem, Alternate
Sam Dechter, Member	Keith Smith, Member	Liz Mattson, Alternate
Earl Fordham, Member	John Stanfill, Member	Emmett Moore, Alternate
Norma Jean Germond, Member	Richard Stout, Member	Vince Panesko, Alternate
Harold Heacock, Member	Eugene Van Liew, Member	Ed Revell, Alternate
Floyd Hodges, Member		Dave Rowland, Alternate
Rebecca Holland, Member	Al Boldt, Alternate	Mecal Samkow, Alternate
Steve Hudson, Member	Shelley Cimon, Alternate	Richard Smith, Alternate
Pam Larsen, Member	Dirk Dunning, Alternate (Phone)	Margery Swint, Alternate
Susan Leckband, Member	Dale Engstrom, Alternate	Art Tackett, Alternate
Ken Niles, Member	Laura Hanses, Alternate	Jean Vanni, Alternate
Jerry Peltier, Member	Barbara Harper, Alternate	Steve White, Alternate

AGENCY, CONTRACTOR, AND SUPPORT STAFF

Paula Call, DOE-RL	Emy Laija, EPA	Lorna Dittmer, CHPRC
JD Dowell, DOE-RL	Dieter Bohrmann, Ecology	Sonya Johnson, CHPRC
Jeff Frey, DOE-RL	Madeleine Brown, Ecology	Todd Nelson, Bechtel
Tiffany Nguyen, DOE-RL	Jane Hedges, Ecology	John Britton, WRPS
Mary Beth Burandt, DOE-ORP	Ron Skinnerland, Ecology	Felix Miera, WRPS
Tom Fletcher, DOE-ORP	Sharon Braswell, MSA	Daniel Brody, EnviroIssues
Brian Harkins, DOE-ORP	Dru Butler, MSA	Tammie Gilley, EnviroIssues
Kevin Smith, DOE-ORP	Rob Phillips, MSA	Susan Hayman, EnviroIssues
Alex Teimouri, DOE-EM	Rae Weil, MSA	
Dennis Faulk, EPA	Barb Wise, MSA	

MEMBERS OF THE PUBLIC

Annette Cary, Tri-City Herald	Miriam German, No Nukes NW	Theresa Labriola, Columbia Riverkeeper (phone)
Shannon Cram, UC Berkley (phone)	Mark Keffeler, IBB	Mike Luzzo