

FINAL MEETING SUMMARY

HANFORD ADVISORY BOARD

December 11-12, 2013

Richland, WA

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This is only a summary of issues and actions presented at 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.

Executive Summary

Hanford Advisory Board (HAB or Board) action

The Board adopted one piece of advice regarding openness and transparency and approved two SSAB letters regarding 1) graphic representations of legacy waste disposition pathways, and 2) maintaining cleanup dollars for projects already started when faced with budget reductions (passed with one suggested typographical error correction) .

The Board also held a sounding board on DOE's Hanford Tank Waste Retrieval, Treatment, and Disposition Framework document.

Board business

The Board will hold three committee meetings in January (River and Plateau Committee; Health, Safety and Environmental Protection Committee, and Tank Waste Committee), and may hold an in-person meeting for the Executive Issues Committee. The Board also identified preliminary March meeting topics.

Presentations and updates

The Board heard presentations on:

- Tri-Party Agreement agency program Updates
- Tank Waste Retrieval, Treatment and Disposition Framework
- Waste Disposition Across the DOE Complex

Public comment

No public comment was provided.

HANFORD ADVISORY BOARD

December 11-12, 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 opportunity for public comment.

Steve introduced three new members of the Board: Gabe Bohnee representing the Nez Perce Tribe, Armand Minthorn representing the Confederated Tribes of the Umatilla Reservation (CTUIR), and Gregory Korshin representing the University of Washington.

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).

Susan Hayman confirmed adoption of September meeting summary. She said one comment was received on readability and the summary was posted to the website along with all presentations.

Steve said that the Board is being asked to decide whether to sign three separate letters drafted by the Site-Specific Advisory Board (SSAB). The Board can choose to sign any of the letters or to not sign and can discuss the issues but will not be able to make any edits to the documents. The first letter concerns the availability of graphic representations of legacy waste disposition pathways. This letter did not raise any concerns during the SSAB meeting and no changes were made to the draft document. The second letter concerns the impacts of budget cuts, particularly to project funding. This letter was drafted by New Mexico in response a number of projects being abandoned after funding was no longer adequate to sustain the work; sites should not be penalized for failing to complete an agreed-upon project when funding is no longer available. Steve said the third letter caused a lot of conversation during the SSAB meeting. The Board received an earlier version of the letter during the September Board meeting and it has since been revised. This letter deals with the distribution of materials that have been exposed to radioactivity, primarily materials from the Portsmouth Site. The Portsmouth Site has a large amount of contaminated nickel that could provide additional funds for cleanup if it could be recycled and sold. The letter requests DOE change the policy on recycling materials that have been exposed to radioactivity. The Board will take action on these three letters during Board business on Thursday.

Tri-Party Agreement Agencies – Program Updates

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

Jon Peschong, DOE-RL, reviewed DOE-RL accomplishments in Fiscal Year (FY) 2013, cleanup plans for FY 2014, and budget information; his presentation is provided as Attachment 1. In addition to the information contained in his presentation slides, Jon emphasized the following in his remarks:

- Completing the 2015 Vision, which has been an ongoing process since 2008, will require an additional \$50 billion in funding. Goals laid out in the vision are 90% complete but there are several challenging projects that will not be finished by the end of 2015.
- FY 2013 key performance goals are 92% complete. DOE faced some typical cleanup challenges that have delayed some of the key accomplishments.
- Cleanup in the 300 Area is largely complete, except Building 324 and the 340 Vault. The vault is expected to be transported to the Environmental Restoration and Disposal Facility (ERDF) in January or February; removal was delayed because of contamination found under the vault. The 1,100 ton vault will be lifted as one unit by crane, transported to a crawler, and then disposed of at ERDF. The benefit to this approach is that it avoids putting workers at risk for disassembling the vault.
- The Plutonium Finishing Plant (PFP) is one of the most contaminated and biggest hazards areas of the Hanford Site. Cleanup may be one to two years behind schedule, but progress is continuing. Work has been delayed due to emergent problems with unexpected chemicals found in PFP.
- DOE-RL has laid out key performance goals for FY 2014 that reflect goals from the 2015 Vision. These goals will continue to be updated as work progresses throughout the year.
- The budget formulation process is a multi-year endeavor where several budget years are under various stages of development simultaneously. DOE receives lifecycle baseline updates in the summer that will help determine what field work is expected in the coming year. The baseline also feeds into the regulatory, stakeholder and tribal budget formulation process. The FY 2016 budget is currently in this formulation stage. DOE will submit a FY 2016 budget request to the Office of Management and Budget (OMB) in July/August 2014. During the summer of 2014 DOE will also receive baseline updates that will guide the FY 2015 field work. The Lifecycle Scope, Schedule, and Cost (LSSC) Report is scheduled to be issued in January 2015, based on information from the 2013 lifecycle baseline update. The LSSC Report requires 18 months to develop; consequently the LSSC Report and budget request are based on two different sets of data.
- DOE-RL operated with a budget of \$943 million in FY 2013. The FY 2014 president's budget is \$993 million. Any increase in funding would likely be spent on groundwater and sludge removal since those areas were most affected by recent decreases in funding.

- DOE-RL has also identified a number of additional cleanup priorities to address once the 2015 Vision has been completed. The vast majority of work along the River Corridor will be complete, expect for the 100-K burial sites, removal of the sludge (expected to be complete in the 2016 timeframe), and the 618-10/11 burial grounds. Once work along the River Corridor is complete, DOE-RL will focus on the Central Plateau.

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

Kevin Smith, DOE-ORP, provided an update on DOE-ORP activities and accomplishments; his presentation is provided as Attachment 2. In addition to the information contained in his presentation slides, Kevin emphasized the following in his remarks:

- DOE-ORP appreciates the Board and values their advice. Kevin introduced a number of DOE-ORP employees present at the meeting and noted that DOE-ORP has committed resources to support HAB activities.
- Community involvement is very important for DOE-ORP; the agency employs many subcontractors and supports a variety of local community groups as well as educational programs.
- Twenty single shell tanks were investigated that appeared to have declining levels of liquids. Of those 20 tanks, 19 do not appear to be actively leaking. Between January 2011 and April 2013, tank T-111 lost approximately two inches of liquid height. The tank seems to have reached a stabilization point and no additional liquid has been lost.
- The leak in Double-Shell Tank AY-102 appears to be affected by humidity and temperature on a seasonal basis; the tank is oozing approximately one cup sized volume of material a week. The leak remains contained in a relatively small area of the annulus and will go through cycles of drying and then reappearing. The tank continues to be monitored very closely. DOE has been able to use an innovative drain line inspection technique to look inside the pipes connected to AY-102 that could be used in the future to inspect the bottom of other tanks.
- Construction of the pretreatment facility is in a preservation phase to protect investments while construction is on hold. There are several teams examining the pretreatment technical issues. DOE is working with the Defense Nuclear Facilities Safety Board (DNFSB) on these issues. The high-level waste and low-activity waste facilities are both under limited construction.
- In order to improve transparency, DOE has been developing a comprehensive table of various tank activities that will be available to the public online. Raw data will also be available online including full analyses by DOE.
- Tank farm and Waste Treatment and Immobilization Plant (WTP) activities are limited by budget restrictions. The control points for DOE-ORP lead to funding challenges because DOE is unable to move money from one area to another, limiting DOE's flexibility in responding to budget

challenges or dealing with emergent issues. DOE is actively working to address this issue through OMB and others.

- Washington River Protection Solutions (WRPS) will be restructuring in FY 2014 to align the workforce with the expected scope and funding.
- DOE-ORP is facing a number of challenges, such as the constant struggles with aging infrastructure. The technical issues have been the primary focus for DOE-ORP, which have become programmatic. DOE had a good breakthrough over the last several months regarding possible resolution of technical issues and a path forward for waste disposition. This information will likely be available around Valentine's Day and be available for the next Board meeting. Maintaining the quality standards of a nuclear facility has also been a challenge between DOE and the contractors. Safety and design guidelines often came after systems and infrastructure was already in place, so improvements are ongoing.

Washington State Department of Ecology (Ecology)

Jane Hedges, Ecology, provided an update on Ecology activities and accomplishments; 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 has received notice from DOE that several Consent Decree (CD) milestones are at risk. Ecology was notified in June 2013 that the High-Level Waste (HLW) milestone is at risk and in November 2011 that the milestone for the SSTs is in jeopardy. Ecology met with the DOE and the Department of Justice (DOJ) on December 10 to hear a status update on all the milestones in the CD and listen to the issues. Information from that meeting will be shared with upper level management to determine the next steps.
- Ecology received over 5,000 comments on the Resource Conservation and Recovery Act (RCRA) Permit Revision 9 and is in the process of reviewing and developing responses to those comments. To date 1,123 responses have been developed.
- The Hanford Site is currently operating under RCRA Permit Rev 8c, which is being modified as needed to keep consistent with site changes. Class 3 modifications to the permit are unusual and can be confusing; most modifications fall under Class 1 or Class 2. Class 3 modifications require the agency requesting the modification to host a public meeting. Ecology will accept any public comments and consider those comments while reviewing the permit modification and then hold an additional public comment opportunity on Ecology's revision of the permit modification.
- Ecology is in the middle of several public comment periods and has participated in a number of recent outreach opportunities for various community groups.

U.S. Environmental Protection Agency (EPA)

Dennis Faulk, EPA, provided an update on EPA activities and accomplishments. Dennis noted the following key points:

- EPA was greatly affected by the government shutdown; most of the agency was closed for 16 days in October. Notably, the State of the Site meetings originally scheduled during October were cancelled and will be rescheduled in the April/May timeframe.
- The 300 Area Record of Decision (ROD) has been issued. Final RODs do not exist for the Hanford Site; the term “final” is only used to distinguish from RODs that have been classified as interim RODs. The RODs at Hanford are living documents. The 300 Area will be cleaned to industrial standards and will be subject to reviews every five years; ensuring that ROD requirements are met will be a long-term effort.
- The Hanford Site 2012 Groundwater Report has been issued and is available on the Hanford website. EPA has issued some useful guidance on groundwater remediation, including some criteria for how to determine when groundwater cleanup is complete. EPA recommends taking a well-by-well approach, although this is very difficult to achieve.
- There are several high-priority projects for EPA that are not currently being addressed due to a lack of funding. EPA believes the K-Basin sludge project should be completed but that work is not currently funded. Groundwater remediation is also a high priority for EPA but DOE does not currently have a groundwater remediation strategy and there are no regulatory drivers that would force that work. EPA believes apatite barriers should be put in place where wells are already being drilled. EPA is hopeful that funding can be found to support this work.
- EPA issued two enforcement actions over the previous six months. One action fell under the RCRA program based on findings from an inspection team; four counts were issued against DOE for operating an unpermitted facility and EPA levied a \$136,000 penalty. Last month EPA also issued a penalty regarding asbestos. DOE has since brought in additional resources to deal with the asbestos issues and the situation is improving. The asbestos fine was for \$115,000; this fine was taken from the contractor’s profits and not from cleanup dollars.

Emy Laija, EPA, added that the agencies are seeking Board input on potential dates for rescheduling the State of the Site meetings. week in April and one week in May are being proposed. The agencies are proposing to hold the Tri-Cities meeting during the week of April 29 to coincide with the Board meeting.

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.

C. The agencies appear to be making improvements on openness and transparency, which the Board appreciates.

Q. Is PFP still expected to be slab on grade by 2016 given the surprises found during the cleanup, and budget issues?

R. [DOE-RL] PFP will likely not meet that deadline; it is a tough challenge that DOE is currently trying to work through and efforts are funding dependent. An increase in the budget might allow for additional work to be completed. The governor's baseline for PFP was 2019 and DOE will be able to beat that deadline even if the Tri-Party Agreement (TPA) milestone is not met.

Q. What are the quality assurance issues DOE-ORP is facing with WTP and what are the concerns going forward?

R. [DOE-ORP] Quality standards have changed substantially recently, which has changed DOE contractor requirements at the Hanford Site. Accurate record keeping and documentation is very important to ensure quality standards are met and that facilities are built correctly. Some of the earlier work completed at WTP was not required to adhere to the same types of specifications required today.

Q. Does DOE have a contingency fund to deal with emergent issues?

R. [DOE-RL] When planning work for the upcoming year, DOE does try to anticipate what could go wrong and calculate the amount required to deal with those potential issues. However, funding DOE holds aside is funding that will not be used for cleanup. Therefore, DOE's contingency plans include options to move money when an emerging issue is determined to be more critical than other cleanup efforts.

Q. Why isn't there a push to pump AY-102?

R. [DOE-ORP] Whenever DOE decides to pump a tank the agency must analyze if there is more risk to remove the material or leave it in place. DOE does have the ability to pump the supernate, but removing the sludge is a larger challenge for AY-102. Budget is slowing the entire process.

R. [Ecology] Ecology believes this material does need to be removed from AY-102 to meet environmental regulations and this material should be removed before the current proposed date of 2019. However, Ecology also does not want to create safety issues for workers, so the agency is working with DOE to determine the best path forward.

Q. Would DOE-ORP benefit from Board consideration of any of the challenges identified during the presentation?

R. [DOE-ORP] The Board could have a role in any one of these issues. Right now the budget is the major driver of all work at the Hanford Site. The budget for DOE-ORP will more than double once waste treatment operations begin. Tank farm infrastructure is also an important topic because of potential impacts to the environment and to later retrieval efforts.

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

Hanford Tank Waste Retrieval, Treatment, and Disposition Framework

Introduction of the topic

Dirk Dunning introduced the topic of the Hanford Tank Waste Retrieval, Treatment, and Disposition Framework (Framework). The Framework was developed in response to emerging technical issues with the proposed waste treatment mission; it is a starting point for conversation between DOE and Ecology on how to successfully complete the WTP and move forward with waste treatment.

Agency presentation

Ben Harp, DOE-ORP, provided a presentation on the Hanford Tank Waste Retrieval, Treatment, and Disposition Framework. His presentation is provided as Attachment 4. In addition to the information contained in his presentation, Ben emphasized the following in his remarks:

- The Framework describes an approach for immobilizing tank waste as early as practicable. However, the Framework is not a proposal; it is only a framework for discussion on resolving the technical issues.
- The Framework outlines a three phased approach to construction and startup of WTP. The first phase involves construction and startup of WTP. The second phase moves to the HLW Facility as technical issues are resolved. Phase three is completion of the full pretreatment facility.
- DOE is working through several current actions, including preparing contract direction to the contractor on WTP, submitting mission need for tank waste characterization and staging, transuranic (TRU) waste designation process, preparing a Class 3 permit modification for the Waste Isolation Pilot Plant (WIPP), and resolving the technical issues.

Agency perspectives

Jane Hedges, Ecology, said the Ecology believes there is merit in immobilizing waste as soon as possible. The state also understands the merit of having redundancy of facilities to provide a backup in case there is a failure. Ecology has been working to obtain the needed information to fully understand the facilities being proposed, including the particulars for new facilities and infrastructure needs along with scheduling and a cost benefit analysis. Ecology would like to understand how the proposal laid out in the Framework would impact WTP timing. Critical for Ecology is to understand the out-year schedule, particularly for retrieval, which Ecology believes is most critical for protecting the environment. Ecology is not prepared to either support or reject the Framework until fully understanding all of the issues. Ecology is concerned about material that may not assay out under the TRU category becoming categorized as low-activity waste (LAW) to be disposed of in the near-surface at Hanford; this waste should be consisted HLW.

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. It is unclear whether the different phases can be classified as construction phases or treatment phases or both. How much work can be done simultaneously? When does treatment begin?

R. [DOE] There will not be a pretreatment facility in Phase 2 so HLW would be moved into a control room with extra tanks for flushable water, this would be the HLW characterization facility while pretreatment comes online. The hardened control rooms and tank space with flush water go beyond the design requirements today and would serve as a backup facility for HLW in case any of the pretreatment systems are down for maintenance or other reasons.

C. It would be helpful to include the Phase 2 and Phase 3 flow charts from the DOE-ORP morning presentation in the Framework.

Q. Has Ecology completed an engineering review of the designs in the framework?

R. [Ecology] Ecology has an engineering team that completes design review for various facilities but DOE has not provided specific designs for the proposed new facilities. The team has reviewed the framework document and provided some input on the information available, but does not have enough information at this time to complete a full review.

Q. The Framework does not include any sort of analysis of whether there may be a better glass matrix that could be used for waste treatment other than borosilicate glass. Will DOE ever consider any alternative glass form? There are glass forms that could be used to solve some of the pretreatment facility problems and improve solubility as well as reducing the total number of glass logs that would be produced.

R. [DOE] DOE has heard conversations from the Tank Waste Committee (TWC) recommending that DOE consider alternative glass forms and consider Hanford from a high-level systems approach process. DOE has been working on additional technical questions not in the Framework and has been discussing glass models. DOE will be able to share more information in the February timeframe.

Q. There are legally binding milestones associated with WTP. How would this new phased approach get approved?

R. [DOE] DOE met with the state yesterday as part of the three year review of Hanford cleanup efforts and have been in discussions about a path forward for WTP using the Framework as a basis. Changes to the proposal are expected by February. DOE would need approval and there is a process outlined in the CD.

R. [Ecology] Changes to the milestone would need to be approved in federal court since these dates are part of a federal court order. If DOE and Ecology agree on a path forward, the two

agencies would explain to a judge why the new process is sound. If DOE and Ecology do not agree, the agencies would present different proposals to a federal judge and the court would make a determination.

Q. Is DOE-ORP re-baselining their budget over the next few years to support the proposals in the Framework?

R. [DOE-ORP] DOE is evaluating its FY 2014 and FY 2015 budgets. The top priority is to be in compliance with CD milestones so the budget must support retrieval goals and then additional work can be funded among other priorities. DOE anticipates some funding to support a tank characterization facility but there is no funding identified for TRU at this point. There are two separate funding areas: WTP and the tank farms. Capital funds are being used to support the technical issue resolutions before pretreatment begins.

Public Comment

There was no public comment.

Waste Disposition across the DOE Complex

Agency presentation

Frank Marcinowski, DOE – Office of Environmental Management (EM), provided an update on EM complex waste management; his presentation is provided in Attachment 5. In addition to the information contained in his presentation slides, Frank emphasized the following in his remarks:

- Some real estate was lost at the WIPP facility as a result of contact-handled TRU waste being shipped before the regulatory requirements so DOE must recover that. DOE received approval in the past year for all shielded containers so lead-lined drums can be handled like contact-handled TRU waste. DOE is also considering the possibility of boring holes into facilities that would allow additional real estate for disposal, although there might be a larger footprint.
- Nevada Nuclear Security Site (NNSS) continued soil and groundwater remediation activities. The work is driven by funding; if waste is not generated there is no disposal need so NNSS accepted less waste than what was forecast. Part of the reduced waste level was expected because of the loss of American Recovery and Reinvestment Act (ARRA) funding.
- DOE considers commercial disposal options when complaint, cost effective, and in the best interest of the U.S. government. EnergySolutions in Clive, Utah and Waste Control Specialists LLC (WCS) in Andrews County, Texas both provide an additional disposal alternative across the DOE complex that will continue to be used in the future.

- There has been a great deal of waste disposed of across the DOE complex but there is still a lot of waste remaining. DOE has 20 waste streams that are labeled problematic, which is a reduction from 128 waste streams.

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. The Board is being asked to consider three pieces of SSAB advice during the Board meeting, one of these involves the recycling of metals. Allowing the release of some materials could generate additional funding for sites that are able to sell these materials. Can DOE-EM provide information on this issue?

R. [DOE-EM] The recycling issue is currently being championed by the National Security Agency (NSA) and involves the release of non-contaminated materials from contaminated areas. Recycling of these materials is not a big revenue generator; the major benefit is cost avoidance. DOE is examining the issue. The other question under consideration specifically relates to nickel, which was the driver of the original moratorium against recycling materials from irradiated areas in 2000. New technologies now allow nickel to be decontaminated to the point where it is cleaner than background radiation levels, according to the manufacturer. DOE is evaluating these claims. In the meantime, Portsmouth has been gathering excess nickel, hoping that they will be able to sell it for added cleanup revenue. There is a desire to extend recycling to additional materials, particularly to precious metals. It is too early to determine if these efforts will be successful.

Q. How would the sale of precious metals or other materials be transferred into money for cleanup? Wouldn't that money have to go to the Treasury or the general fund?

R. [DOE-EM] A barter-type arrangement would likely need to be arranged similar to what is occurring with certain uranium inventories. In that case, uranium is transferred to the contractor who puts the material on the market and the money is set aside to fund cleanup of the site. The contractors would be the agent for any materials being sold.

Q. The Hanford Site has an abundance of both contact-handled TRU and TRU waste. Some of the available space for these types of waste at WIPP is no longer available. The Board would like assurance that DOE believes there will be enough space for all Hanford TRU waste.

R. [DOE-EM] DOE-EM is aware that TRU efforts at the Hanford Site keep being delayed. This is the situation for waste streams at a number of other sites as well. Many areas would benefit from WIPP remaining open longer than the current 2030 closing date; the mission will likely be extended beyond that time. DOE is confident they will be able to manage the current inventory of TRU waste that is understood to be present across the complex.

Draft Advice: Openness and Transparency in the Hanford Tank Waste Retrieval, Treatment, and Disposition Process

Introduction of advice

Liz Mattson said the advice on openness and transparency is largely focused on the Board's desire to be a part of the discussion on a path forward for the waste treatment mission. The Board has been unable to examine many of the technical issues in detail and is concerned about the amount of information that is being shared. The upcoming sounding board will provide an opportunity for Board members to comment on some of the technical questions and help determine possible next steps for the Board, while this advice reflects the Board's dissatisfaction with the lack of information about these technical questions.

Agency perspectives

Ben Harp, DOE-ORP, said DOE is working to fully understand what the issues are and developing a plan to move forward with some of the projects being proposed.

Jane Hedges, Ecology, said Ecology believes the advice is sound and concurs with the recommendations.

Board discussion

The following key points were noted during the Board discussion:

- Public involvement opportunities for this Framework should be identified. The Framework could require a significant modification to the RCRA Permit and to the WTP. When will the public be able to comment?
 - *R. [Ecology] Through the Consent Decree process the agencies do seek extensive public comment before entering in any agreement.*
- The title implies that the Board would like openness and transparency across all aspects of the Hanford cleanup but then refers to a very specific example. The title should be changed or the content of the advice should be broadened. One Board member noted that the first advice point does reference the need for general openness and transparency. The rest of the advice reinforces that need with the specific example of the Framework.
- A second Board member added that there are also concerns about information sharing on System Plan 7. The advice should include concerns about openness across the entire Hanford Site into the future. A sentence should be added to this advice that mentions system planning and other aspects of the site where openness is of particular concern.
- One Board member objected to the advice moving forward if the word "technical" was included to recommend that DOE seek Ecology's technical review since Ecology is a regulatory agency

and the Board is not aware of Ecology's technical expertise. Regulatory discussion can include technical concerns but the Board should not be advising DOE to consult with Ecology on technical matters.

- *The advice point was developed after discussion in TWC meetings where Ecology was specifically asking that they be included in technical discussion and were having difficulty getting some of the information needed.*
- *[Ecology] Ecology needs technical information in order to make regulatory decisions. Ecology does not have an issue with a change in wording; the concern is only that Ecology have the information needed to make decisions and issue permits.*
- The word "implementation" was used when describing the framework during the presentation. That leads to the belief that this framework is not just a conversation; implementation implies that DOE intends to move forward with the proposal in the document. One Board member expressed concern about whether the Board is characterizing the Framework properly in the advice.
- The genesis of this advice was the Board's extreme dissatisfaction over the lack of information provided by DOE regarding the WTP. No information was available for a year and a half. The crux of the problem is not what Framework is; the Board is concerned that they were not even able to hear information developed by the technical teams. The emphasis of the advice has shifted from this original concern.
- The Board had different expectations for what the Framework document would include than what was actually issued. DOE stated that there would be a plan issued on September 20 but the Framework document does not include a plan. The Board is dependent on information sharing and had been waiting on information which did not meet its expectations.
- There was some discussion on who the advice would be addressed to. Board members wanted the letter sent to a high office with authority to address the Board's advice points. Others thought addressing the advice to the local offices would be more meaningful since the local office would actually be implementing any changes. The Board decided to address the advice to Secretary Huzienga, DOE-EM, and Ecology, with copies sent to the local offices and usual delegates as well as the Secretary of Energy and the U.S. Department of Justice.

After edits to the advice to clarify some of the advice points and background as well as the addition of some language from the originally proposed draft letter to the general council, the advice was approved.

Draft Letter: DOE Coordination with General Council

Introduction of letter

Susan Leckband said this letter was drafted because of the Board's frustration in the inability to receive information from DOE. The piece of advice just discussed covers most of the points included in the letter. The letter was originally intended to be sent to the DOJ, which is not an agency included in the Board charter for sending advice. During Executive Issue Committee (EIC) discussions the previous evening, the EIC decided to recommend that the letter not move forward; the letter is unnecessary and could detract from the advice that was adopted.

Agency perspectives

The agencies did not offer any comment.

Board discussion

The following key points were noted during the Board discussion:

- The Board agreed that the letter should not move forward as written but noted that there are important points contained in the draft that should be incorporated into other Board products, especially advice that may be developed after the Framework sounding board.
- One Board member thought the letter was better than the advice; the letter is shorter and more direct without being obstructed by extraneous information; plus the intended recipient of the letter is at a higher management level.
- Several Board members had questions on who the letter could be addressed to. Susan H. said her understanding is that since the Board is an EM Board, the highest level they can advise is the highest level at EM. Anyone can be copied on the advice, however.
- DOJ is using the attorney-client relationship between themselves and DOE as a reason for not sharing some of the information requested. Since DOE is effectively the client, they are the agency in charge. At some point someone needs to step up and make a hard decision on whether to take a legal risk and share information. The question is too complicated to include in the advice being considered but should be a topic for future Board conversation.
- One Board member noted that contactors sign a non-disclosure agreement, which should not be equated with being sworn to secrecy. The Board would like DOE to follow a model of presenting information, discussing the issues, then making a decision that it can defend against any opposition. Instead, the Board is faced with a model of decide, announce, and defend.
- One Board member expressed concern about advising DOE to release recommendations from technical experts. Those experts were under contract and the Board is not aware of what restrictions those experts were operating under; they may be uncomfortable having their conclusions released to the public.

- Other Board members do not feel the attorney-client privilege argument is appropriate in this case and do not understand why experts would be concerned about having their professional conclusions available. There would be no harm in simply providing information on the technical issues and the options being considered.

The Board agreed to retain points from the letter for future Board advice or other products but to not move forward with the letter at this time.

Committee Reports

Public Involvement and Communications Committee (PIC)

Liz Mattson reminded Board members that everyone is considered a part of the PIC committee and is able to join an additional two committees. PIC held a meeting the previous day, which was the first since September. During the meeting PIC discussed the TPA public involvement calendar and strategic public involvement, including a basic tutorial of some social media tools and innovative public outreach approaches. The committee has been focused on the question of what makes public involvement successful. PIC has also been discussing possible public involvement approaches for 100-F, which is the first proposed plan for a large reactor area on the Columbia River that will be issued for public comment. PIC plans to meet again during the week of the March Board meeting where they will hear a quarterly update from the TPA agencies. The committee will continue developing the March agenda on upcoming committee calls.

Tank Waste Committee (TWC)

Dirk Dunning said TWC had a productive year. The last meeting was focused on the Framework document. In January the committee will speak about a number of additional topics and will refine the agenda during the upcoming committee call. TWC plans to follow up on recommendations from the Framework sounding board and potentially begin developing advice on the Framework to be brought to the Board in March. TWC will receive a glass tutorial in February and an update on the tanks. DOE will also be briefing the committee on tanks that they believe are TRU with a discussion on the process for classifying tanks as TRU and how that will impact cleanup.

River and Plateau Committee (RAP)

Pam Larsen said RAP last met in November. Topics included: an update on the River Corridor cleanup, a briefing on the Plutonium Finishing Plant and the remedial work plan, and a briefing on the cleanup strategy for the Central Plateau. RAP plans to hold a half-day meeting in January to discuss the 100-F Remedial Investigation/Feasibility Study (RI/FS) and proposed plan that is scheduled to be released in late January or early February. RAP will also hear a briefing on the annual Hanford groundwater modeling report. RAP has begun working on potential draft advice for the 100-N RI/FS and Proposed Plan that will be resumed once the proposed plan is available for comment.

National Liaison

Shelley Cimon attended the RadWaste Symposium in September. She provided a synopsis report that was emailed to the entire Board. The presentation by DOE-EM on waste disposition across the complex reflects what she heard in the symposium about the programmatic picture complex-wide. Shelley said she will be further examining where Hanford Site waste management compares to other sites. She made some recommendations to the EIC that were accepted for a future work plan and she will be further examining potential issues for each of the committees.

Executive Issues Committee (EIC)

Steve Hudson said the EIC has been meeting more often than usual because there are quite a few issues under discussion that will have consequences for the Board. The EIC has been discussing the HAB distribution lists and will be making some changes to make it easier to communicate among committee members. EIC has also been discussing the Board's role in the SSAB and the desire to have a more formal process, plus concerns about the budget. EIC has been discussing changes in how the National Liaison position will work. The EIC is also in the process of looking at the Board ground rules and will share their recommendations with the full Board in the near future.

The coming year will continue to be busy. Richland will be hosting the SSAB meeting April 22-24. Board members may be asked to participate in some way. The 20th anniversary of the HAB will take place this year as well. Board diversity and membership is another topic that will be important to consider. The EIC would like to share a report on Board diversity during the next Board meeting in March.

Site-Specific Advisory Board (SSAB)

Steve Hudson said the SSAB met in Ohio and there were three strong EM program updates, including a presentation on waste disposition and on budget. The conclusion from the budget update is that the budget will be flat over the next several years. There were also two information sessions during the meeting: one on recycling policy and another on community involvement for DOE decision-making. The community involvement session focused on recent public involvement efforts at Portsmouth where DOE hired Ohio State University to conduct an extensive community involvement survey. Three letters were also developed during the meeting that the HAB is being asked to consider and that were handed out yesterday to Board members for action this afternoon.

Health, Safety and Environmental Protection Committee (HSEP)

Becky Holland said HSEP held a meeting in November with joint TWC, RAP, and PIC topics. Meeting topics included an update on the safety culture team, an update on the recent U.S. Department of Energy – Office of Health, Safety, and Security oversight review of safety systems at the Hanford Tank Farms, and emergency response preparedness and observations from an emergency drill held in August. HSEP will be meeting in January to hear and discuss where the committee is headed on safety culture related to the HAB work plan; this is a joint topic with TWC. HSEP will also hear a proposal from issue managers on the framing for a February primer on radiation from Tony Brooks and other presenters; the committee

may develop information from the scheduled February presentation for the entire Board. There will also be an update on changes to the Beryllium Program. HSEP will also be touring the Emergency Operations Center, Joint Information Center and Benton County Emergency Management Center. The committee will have a call next week to refine the agenda.

Budgets and Contracts Committee (BCC)

Jerry Peltier said the budgeting process is open-ended and operating under a continuing resolution is challenging since nobody knows how much money DOE will receive. BCC was working on a prioritization system for Hanford cleanup over the previous six months; that work is pending a firm budget decision from DOE. The committee is concerned about appearing to devalue a project by giving another project higher priority. The LSSC Report will be coming out this year based on information from 18 months before the issue date. The report is already out of date since funding at the Hanford Site was not sufficient to meet original cleanup expectations from the initial data. The funding does not exist to support the cleanup as scheduled. BCC typically receives budget information in March and will hope to hear presentations from DOE-RL and DOE-ORP at that time so BCC can prepare advice in time for the May Board meeting.

Status of the FY2014 HAB Membership Package

Kim Ballinger, DOE-RL, said letters requesting applications have been sent in October to the 38 nominees for Board members and alternates (i.e. the positions up for renewal this year). She will be putting packets together over the next week and sending all information to DOE-Headquarters by the end of January.

Susan Leckband said the EIC will be working with the facilitation team to seek information from the various seats about any actions they have taken to increase diversity and to engage more members of the public.

Sounding Board – Hanford Tank Waste Retrieval, Treatment and Disposition Framework

Introduction of process

Susan Hayman, EnviroIssues, reviewed the sounding board procedures and noted that each Hanford Advisory Board (Board or HAB) member and alternate is allotted two minutes to share the perspective of the seat and constituency represented. Once all Board members and alternates have the opportunity to comment, they will be offered a round 2 opportunity if time allows. Susan invited members to frame their comments with the following prompts:

- What are your expectations for agency action, based on this Framework?
- What action, if any, should the Board take in response to this Framework?

Sounding board

Ed Revell, Tri-Cities Industrial Development Council

The Framework is a setback; people had high expectations and wanted a more substantial document than was issued. The Board should conduct a data gap analysis to determine in what ways the Framework falls short of expectations and how the Framework can be improved. A number of people seem to be dissatisfied that the Framework is not farther along in planning. It seems that there is never enough information to satisfy people who are in an oversight role.

Shelley Cimon, Public-at-Large

There are no completion dates in the Framework; the timing of waste treatment startup is a moving target. The Framework does not provide an understanding of design changes or financial requirements and what all the different elements mean for the larger picture of Hanford cleanup. Congress does not get a compelling case for funding with the Framework. The Waste Treatment Plant (WTP) needs to be funded through all phases in order to begin waste treatment. The Framework also does not identify any outstanding technical issues that could halt the entire process.

There needs to be a common understanding and a common story for the Hanford Site to sell to Congress. We need to be able to say that we believe successful cleanup can be accomplished following certain steps that everyone can understand. The expert deliberations should be made available so the Board can understand the technical details that underlie the assumptions used in the Framework. We cannot accept the assumption that the integrity of the tank farms over the next 10-20 years is a given. There is an obligation to build more tanks now to protect the site; this is not incorporated into the Framework and contingencies are not included.

Lynn Davison, "Non-Union, Non-Management" Employees

I accept the Framework and basically support the concepts as presented by DOE management as a discussion of possible solutions. An open and honest discussion of the concepts with the stakeholders, of which HAB is a foremost, is crucial where ideas can be brought forward and discussions be given due consideration. The Washington State Department of Ecology (Ecology) and the U.S. Environmental Protection Agency (EPA) should insist that they be heard through deliberations. The Framework is still early in development. The key concern of most stakeholders is how risk is managed and addressed. Everyone is concerned about the tanks. The Framework should address how to manage risk in the best way possible using the resources available. In general, the Board wants cleanup activities to begin sooner rather than later. Finally, the Board expects cost efficient use of the funds that Congress allocates to the Hanford Site.

John Howieson, Physicians for Social Responsibility

The U.S. Department of Energy (DOE) has a long history of secrecy beginning with the Manhattan Project. I hope DOE becomes more honest and transparent in the agency's relationship with the public. The reasons for secrecy are not clear to many HAB members. The former Secretary of Energy, Steven Chu, formed a panel of experts and directly went against the assertions from DOE that it seeks to achieve transparency. The Framework is not a plan or a proposal. The Board and the public should be given

information from the expert review panels and DOE should reveal the problems to be discussed with WTP design, including the most critical issues and the solutions that were advocated by the expert panel. This information is necessary so that the public understands the issues and can offer advice on resolving the problems.

Gabe Bohnee, Nez Perce Tribe

The tribes have a unique perspective and a unique way of communicating, through the Board and other venues to help generate ideas. The Nez Perce maintains our ability to act as more than stakeholders with the federal government. The Nez Perce is disappointed with the Framework effort. The Hanford cleanup is not only DOE's problem; it is our problem too. The issue is political as the WTP design-build proposal was sought for Congressional approval because of the challenges in accepting the entire package for waste treatment. We need the right information to move forward and when that information has been provided in the past, the Board has been able to respond appropriately.

Dan Serres, Columbia Riverkeeper

Some of the terminology in the Framework is difficult to understand. A gap analysis would be useful to determine what information is missing and what the Board expected the Framework to contain. DOE identified some of the information that is not included in the Framework during the presentation yesterday. Accurate definitions are needed to understand exactly what is meant by "processing" and "preconditioning." What do these involve? The Framework also does not include a commitment for more tanks leading to operation of the WTP and whether waste can be reliably treated or just moved to more reliable storage. The Tank Waste Committee (TWC) should review the Framework carefully. The Framework contains some bad ideas; shallow burial of waste, for example. The HAB may wish to offer advice on those ideas raised in the Framework that the Board believes are dead ends from the start.

Rob Davis, City of Pasco

The Board should identify their expectations for the Framework. Information becomes outdated very quickly and it is important for DOE to continuously update the Board as work evolves and changes. The technical issues will require at least two years for resolution plus developing the baseline budget and beginning projects again. Everyone is hopeful that construction can begin again on the high level waste facility. The Board should have a placeholder in every one of the next five meetings for an update from DOE specifically on the Framework and the status of the issues it is addressing.

Floyd Hodges, Citizens for a Clean Eastern Washington

I agree with Shelley's statement. The lack of information about what the technical experts are saying is concerning. If we do not have any of the data used to inform the decisions, we do not have any way to evaluate those decisions.

Gary Garnant, Grant & Franklin Counties

The Hanford Site has become much more open with information being shared than when more classified projects were being conducted at the Site. The Framework is helpful as a place to start but it does need to include more information in order to provide a better sense of where the cleanup is heading.

Gerry Pollet, Heart of America Northwest

Heart of America Northwest would like a more detailed Framework; right now the Framework contains an abstract background and a foreground with near-term actions. The public cannot provide informed input without transparency and information sharing. One of the most concerning aspects of the Framework is that it does address near-term action for the highest risk tanks, such as addressing leaking single-shell tanks. Though it has been resistant to doing so, DOE should conduct treatability studies of PermaFix as an option. The Framework should also include a statement on the need for new double-shell tanks (DSTs) as well as borehole monitoring. In order for DOE to credibly claim that the single-shell tanks (SSTs) are not leaking, borehole monitoring should be reinstated instead of only relying on evaporation monitoring.

Dirk Dunning, Oregon Department of Energy

There are important concepts outlined in the Secretary's Framework, such as direct feed of waste to both the low-activity and high-level waste melter, and the potential for treating some tank waste as a transuranic-waste stream destined for the Waste Isolation Pilot Plant (WIPP). However, the proposals suggested in the Framework are wholly lacking in detail. The full intent of the functions of each individual proposal are unclear. How these might interact with one another is also unclear. Accordingly, we cannot judge the merits of the proposals, whether they are worthy of our endorsement and support, or what hurdles may need to be surmounted to make them workable.

In general, details are lacking in the overall proposed approach, what "significant" design and operational changes are necessary to the WTP and tank farms that would allow direct feed, information about cost and schedule of the proposed new facilities, any impacts to ongoing work from new projects.

The framework- for the first time- raises the issue of disposing of some non-vitrified tank waste in shallow burial. This could greatly increase the environmental and public health risks that remain on site. Oregon does not support that approach. We are still waiting for the technical details on how DOE intends to move forward with resolving the major technical problems at the WTP. The State of Oregon and the HAB want to see this project become successful. It's time to end the secrecy and the lack of detail and have an open discussion.

Paige Knight, Hanford Watch

The Framework is missing details on the technical problems and sequencing of the startup process as well as findings from the technical experts. It is unclear how the vague proposals in the Framework will affect vitrification. Additional setbacks will be very difficult to handle since waste treatment has always been challenging. Additional buildings and processing are dependent on timing and money to ensure the start of waste treatment. Full transparency must be demanded of DOE and insisted on by the agencies and the Board.

Bob Suyama, Public-at-Large

TWC went on a tour of the vitrification plant several months ago and saw its key facilities. All construction had been halted while the expert team was conducting their review. It was depressing to see

that no work was occurring. The DSTs are approaching their design life. Once a path forward is determined there will be a lot of engineering time; it will be a long time before construction begins again. In the interim, construction of additional DSTs should be considered. The Board has given advice on the need for additional DSTs in the past but nothing has happened as a result. Years have passed and there still has not been any progress on addressing the need for tanks that still have design life and will be able to handle waste until it can be vitrified.

Kristen McNall, Oregon Hanford Cleanup Board

DOE should be well beyond a Framework by this point. There is a lot of information available that should inform a more detailed path forward. The Framework is a bit of a chameleon in that it is not a proposal but it reads very much like a proposal. The Framework is noted as being a response to HAB Advice #272 in DOE's response to that advice. However, the Framework does not include enough detail to where the Board can provide any sort of informed statement on if we agree with the document or not. The Board is always asking for more information from DOE and the technical experts. The public pays for this work and the information belongs to the public. The Board needs to continue pushing for more information and for DOE to make the technical documents available to analyze and to provide a basis for advice.

Susan Leckband, Washington League of Women Voters

I agree with Kristen's statement.

Pam Larsen, City of Richland

As someone who lives in Richland and works for the elected officials of the people who work here, this Framework is a step in the right direction. DOE's presentation on the Framework is encouraging and DOE is assembling a strong team to address the issues. The lack of information appears to be more of an issue with the Department of Justice (DOJ). It is encouraging that the Framework identifies some options and the importance of starting vitrification as soon as possible. The waste needs to be removed from tanks and treated. The phased approach to WTP construction is encouraging because it can allow low-level waste treatment earlier. Next steps should include contact handled transuranic (TRU) waste going to the Waste Isolation Pilot Plant (WIPP). A treatability study needs to be pursued. The Framework is good for the region and provides hope and a realistic assessment of the situation.

Armand Minthorn, Confederated Tribes of the Umatilla Indian Reservation

The Framework needs to allow all stakeholders equal participation. Any agency action should be facilitated or enabled by a working framework. Any agency actions which could put resources at risk should be considered directly with the tribes so that the risk to those resources are lessened, eliminated or mitigated. Agency action also should have an avenue to interact directly with tribes; the tribes utilize their government-to-government relationship. Those policies should be followed so that agency actions either being implemented or proposed to be implemented are reviewed with the tribes.

Gregory Korshin, University of Washington

I agree with much of what has already been said. Without a timeline, the entire Framework is hazy. From a technical standpoint, there is not a lot of information on the technical challenges regarding the pretreatment problems and how those can be overcome; this is the central technical question. There

should also be some sort of statement on the technical and scientific challenges with implementing the WTP and how those can be addressed. There should be clear rationalizations with an outline of the struggles and always working towards the goal to address pretreatment.

Al Boldt, Hanford Challenge

The framework limits analysis to completion of WTP construction and new systems to supply feed to the WTP for a phased startup. The framework is deficient in 1) not including other DOE-ORP future needs of supplemental LAW treatment and additional DSTs, 2) not including cost and schedule information, 3) not addressing resolution of systemic design quality assurance deficiencies identified by two DOE reports, and 4) not performing a full systems analysis for completion of the mission.

The framework document acknowledges potential Pretreatment and HLW vitrification modifications and identifies an additional five new facilities to startup the WTP. The framework document fails to acknowledge or identify two other new facilities to complete the tank waste treatment mission. These new facilities are 1) new DSTs required as a result of delays in instituting the new plan, and 2) the Supplemental Treatment Facility (second LAW).

The framework is deficient in not reporting cost and schedule impacts associated with the new facilities and impact by delay on existing WTP facilities. This information is critical for potential TPA revisions and for Congressional acceptance. As resolution of the Pretreatment Facility technical issues may be expected to require several years, this delay in presentation of cost and schedule impacts is unacceptable. DOE should be requested to immediately provide cost and schedule information for the proposed framework activities with the exception of the Pretreatment Facility.

By definition, the framework was limited in scope to analysis of the WTP requirements, completion of construction, and a phased startup. This document should be used as input into a complete systems plan/analysis of the entire tank waste treatment mission. The facilities identified in the framework document and other new facilities required to complete the mission may extend the mission by a decade or more and may require more than \$20 billion additional capital and operating costs. The system plan should identify and evaluate lower cost/faster mission completion alternatives to the alternative identified in the framework document. The Board should issue advice for the path forward.

Richard Bloom, City of West Richland

The Framework is a framework and is an example of how DOE delivers its “bad news” to some extent. The question is how the Board will accept this bad news. DOE does not include a clear path forward for how high-level waste will be treated because DOE does not have a clear path forward. The Framework is also missing an integrity assessment on the DSTs and tank capacity issues.

The Board needs to understand some of the underlying issues of pretreatment and high-level waste treatment. The Board can ask for information on the options but should focus on whether the Board supports direct-feed LAW or TRU waste retrieval.

Dick Smith, City of Kennewick

The first impression after seeing this Framework is that it includes the same stories and all the possibilities that have been told over the past 6-8 years, all combined together. The baseline includes the plan to complete pretreatment. The question is whether any of these possibilities are viable, and that

cannot be determined with the information available. The whole scheme is still totally success-oriented – if one part of the plan fails, then other parts of the plan may fail as well. There is no information on schedule, cost to help evaluate whether the project will be successful.

One improvement that DOE continues to be resistant to considering is changing the glass matrix material into something that is more viable with the type of waste in the tanks. The Framework does not mention the possibility of using iron phosphate glass or another material with a higher solubility for waste.

Becky Holland, Hanford Atomic Metals Trades Council

I agree with all the statements on the lack of detail regarding cost and schedule. My biggest concern is that the Framework does not include anything about the risk to workers or to public health. The Framework seems to be a reflection of the culture at the Hanford Site right now; a lack of communication and a lack of respect for the workforce. The public should be concerned about the dangerous, high risk work occurring right now. The Hanford Site needs a dedicated workforce in order to complete the cleanup, which is built on accomplishments. The morale of the Hanford Site workforce is a major concern and whether treatment can ever be completed.

Mike Korenko, Public-at-Large

The Framework is a conceptual document that should have been written 10 years ago. The idea of treating waste at WTP and moving it offsite is a good idea. Hanford is a complex project that is not being managed like a complex project. There is no real understanding of the end state, the options or the lifecycle costs. There is no way to judge the impact of any changes in the plan, such as potential cost savings or reduced risk. There is no real way to sense the options. For example, the use of phosphate glass could reduce the end state of the Site by a decade and save billions of dollars, but is being dismissed because DOE has already decided to use borosilicate glass. It is unclear why DOE has dismissed phosphate glass when there are obvious reasons it should at least be considered as a waste treatment option.

Tom Carpenter, Hanford Challenge

[Introduced and acknowledged Walter Tamosaitis in the audience.] The Board should note that smart people with integrity often do not last within the Hanford system. Many of the top technical people have gone against the design of the WTP and been disenfranchised. The discussion today stems from a lack of safety culture. There have been a number of investigations concluding that the quality assurance profile of WTP is at risk; many people do not understand the severity of that risk. The Board could advise that before DOE spends more money, the quality assurance issues should be resolved.

Jerry Peltier, City of West Richland

I agree with Mike's comments that the Framework is a conceptual design document that should have been written years ago. Whenever a project faces major technical issues, especially if these issues require a shutdown, then a list of those issues to be resolved must be developed in order to proceed with the facility. That list should be available somewhere and the Board should be able to see which issues have been resolved and which are still under development. There should be more than a conceptual framework that lacks any detail after spending two years on issue resolution at the WTP. Once an implementation

plan is developed, DOE will have to create a conceptual flow process for how the issues are going to be resolved and what the cost will be. The question is why some of the information, even piecemeal information, is not included in the Framework. Obstacles to implementation should be estimated and should be available for the Board to review. There is a process and the longer we remain in concept mode without getting into the specifics of the process, the longer it will be before there will be any waste treatment at the site.

Maynard Plahuta, Benton County

The Board would be interested in more information in the Framework. Having regular updates from the agencies during Board meetings would be very helpful and allow the Board to start hearing answers to some of these technical questions. TWC meetings would be an appropriate place for these updates to get a better understanding of the issues. I did not expect the timeline and cost information to be included in the Framework, knowing more information would be required before delving into those details. The Framework is basically a conceptual design, and it is very political. The agencies must be conscious of their commitments. It is also frustrating that DOE is not considering some other viable alternatives for waste treatment, such as iron phosphate.

Jeff Luke, "Non-Union, Non-Management Employees"

In 1998, when I first joined the Board, we were discussing the WTP in a different way. The conversation has morphed a number of times and there has never been a great deal of information available. We know about as much today as we did in 1998. The Board, the tribes, and the public are owed a great deal more information than they are receiving and should be given some of the technical information that has been withheld. However, DOE does not know a lot more than what they have shared with the Board. The real issue is quality assurance.

Shannon Cram, Citizens for a Clean Eastern Washington

The details and information in this Framework have been discussed for years. It is frustrating that this is called a framework instead of a plan because it makes commenting on the document difficult. Since it is not a plan, specifics would not be included and we are only given partial knowledge. The Framework loses important information by not being considered a plan. TWC could consider offering two pieces of advice; one could ask for more information generally and the other advice could capture areas that the Board can speak to now such as concerns about in-tank pretreatment.

Mecal Seppalainen, Oregon Hanford Cleanup Board

Even if the Framework is late in being developed, the effort is appreciated. DOE should be honest about needing to start over with a more elegant design process. The history of Hanford is that its processes were well-designed with seemingly minimal risk; there was a focus on chemistry and the physical engineering was secondary. The reliance on hard sciences is missing from the current thinking where engineering is the main focus. Engineering is more expensive. DOE should focus more on looking at the end state. The Board should ask for more information and that the agencies be honest about the need for a revised pretreatment plan.

Dirk Dunning, ODOE (second comment)

The original problem is high level waste in aging tanks that needs to be kept away from people and the environment. Vitrification was the plan chosen to address the issues. Whenever there are large systems like this there will always be unexpected problems. WTP was designed to treat waste so that large amounts would not need to be sent to a repository and could be kept near-surface. If these expectations are taken away, then the entire treatment approach could change. The real risk is the aging tanks. DOE is working to create a more durable waste form to protect people and the environment.

Susan Leckband, Washington Women League of Voters (second comment)

The Board does not ask for information capriciously. The Board works through subcommittees to understand the technical details and provide informed advice. We understand that Board members need to know details to educate the rest of the Board and create advice based on values. We also understand that many of the decisions are not local and that the local DOE offices must carry out directives from other offices. The Board's obligation is to continue pressing for information and to provide the agencies with well-informed advice.

Shelley Cimon, Public-at-Large (second comment)

There was a statement made yesterday that if material assumed to be contact-handled TRU waste from the SSTs is determined to not be TRU then that material will be mixed as low-level waste. The assumption is questionable and should be discussed by TWC. It is important to not approach the cleanup from a fear-based place and instead be optimistic about the progress. The Board hopes that more information from DOE will be forthcoming.

Tom Carpenter, Hanford Challenge (second comment)

Aside from statements about worker safety, the Framework is also missing a statement on the need for new tanks. Whatever the path forward is for the WTP, treatment will be further into the future and more expensive than originally anticipated. It is illegal to have leaking tanks in the ground; there needs to be a place to store this material until it can be processed. DST space is disappearing and there needs to be a plan to address that in case more tanks are found to be leaking.

Al Boldt, Hanford Challenge (second comment)

The biggest concern with the Framework is that construction has been shut down for 16 months while technical issues are resolved and it continues to be shutdown as solutions continue to be studied. The Framework is setting a path with a high risk of failure. There should be more alternatives analysis on the technical issues. Costs will far exceed the amount allocated for disposal in 2015.

Jeff Luke, "Non-Union, Non-Management Employees" (second comment)

The Board should ask Ecology what they expect from DOE based on the Framework. The Board should challenge Ecology to request all the information DOE has relative to the path forward for waste treatment; the Board should receive all information available about the retrieval, treatment and disposal of waste. Ecology has the best chance of receiving a meaningful response.

Shannon Cram, Citizens for a Clean Eastern Washington (second comment)

There are actually people doing this work and that is important to remember. The workers impact how long the work will take and how it is done. It would be helpful to hear from some of these workers during a future Board or committee meeting to get a better understanding of their actual on-the-ground work – what it actually takes to do this work. This gets lost in our abstract discussions.

Dick Smith, City of Kennewick (second comment)

The Board does not know the basis for the conclusions made by the expert review panel and what reference materials they used. The Board cannot determine whether the Framework is based on good information or not, and cannot make any real statement about its value. We cannot be sure the current path forward is the right one.

Rob Davis, City of Pasco (second comment)

DOE should continue providing progress updates to the Board over the next year. Several people have mentioned holding these updates during committee meetings but it is important for the entire Board to be informed. Updates should be offered at full Board meetings while some technical conversations should take place at the committee level.

Mecal Seppalainen, Oregon Hanford Cleanup Board (second comment)

An important next step is an operations plan, beginning and ending volumes, and what to produce at the next step.

Jerry Peltier, City of West Richland (second comment)

The solution describing the path forward is still a long way out. There needs to be an emphasis on building more tanks. Since this may take 8-10 years, it is important to move forward on this now.

Art Tackett, Benton-Franklin Council of Governments

It is important for DOE to continue updating the entire Board on progress in a timely manner. A number of Board members do understand the complexity of the waste stream at Hanford and realize it will take much more work to determine a viable path forward. Those of us who don't would benefit from updates at Board meetings.

Gerry Pollet, Heart of America Northwest (second comment)

The Board tends to focus advice to DOE and does not always remember the Board can advise regulators. Ecology is in a position to take some near-term actions that the Board would like to see under their regulatory authority. Ecology could issue an order that the leaking tanks be emptied or that new DSTs have to be built on schedule. Compliance schedules drive funding.

Steve Hudson, Hanford Watch

The Board should consider the audience this document is written for. The writing lacks a certain robustness and there is some redundancy. After sharing this document with others, the first reaction was that they did not realize the cleanup was as complex as it is. The second question was about how to reach agreement on a path forward for cleanup. People became engaged in the conversation. I believed the report

from the expert review panel would provide some kind of guidebook going forward but did not read the Framework with those expectations. The Framework contained a lot of information that the Board and the community could respond to. There is a general outline of what could be done without getting into the details of how to do it. The Board has many areas of agreement with the Framework that could be built off of for drafting advice.

Agency perspectives on the Sounding Board

Ben Harp, DOE-ORP

This forum should have been done up front so everyone could share their perspectives early in the process. Many people commented on openness from the design team; DOE will take that suggestion and determine if more information can be made available. The non-disclosure agreements may no longer be in effect. A gap analysis from the Board would be worthwhile to be precise on information that should be included. DOE will work with TWC on a path forward.

Suzanne Dahl, Ecology

It is useful to hear these reflections and these suggestions will be taken by to Ecology. Many of the issues the Board is expressing are shared by Ecology. Ecology heard the request that they should be insisting on more detail and a more specific path forward from DOE. The Nez Perce perspective that the Hanford cleanup is a shared problem is appreciated. Tribes do need a different type of access, as does the state of Oregon. It is important to have more information on the basis for this Framework and to learn what the expert review team learned through their investigation. Ecology is concerned about any “bad ideas” in the document and would like to hear the Board’s perspective on what these might include. The need for transparency is an ongoing concern that will continue to be discussed.

Jeff Frey, DOE

This sounding board is useful in providing an early, open dialogue. It will provide a better focus for the subcommittee working on this document. DOE heard a lot of discussion on the Framework and some tangential issues. The Board will now need to consider what they need to focus on and consider with the Framework. The idea of conducting a gap analysis is very useful. It will help the Board define what information it will need to complete its review of the Framework and any future advice. There is new information in the Framework for the Board to consider. New capabilities for direct feed pretreatment and characterization and staging are conceptually introduced. There are also redundancies to the system that are new, and provide operational flexibility.

Public Comment

There was no public comment.

Board Business

Action on the three EM-SSAB letters

The Board considered the three SSAB letters, beginning with the letter representing graphic representations of the EM legacy waste disposition paths. Susan Leckband said the genesis of the recommendations was seeing the agencies begin to use maps showing what types of waste would be deposited in various locations during recent presentations. These types of materials posted online for the public could be very helpful in understanding where waste will end up. The Board approved the letter. The Board then considered the letter recommending that cleanup remain a top priority so that projects already underway should continue even when facing reduced budgets. Some Board members felt this type of recommendation could tie agencies hands and force them to continue with projects that may be lower priority rather than starting a higher priority project. There are numerous examples at the Hanford Site where projects are begun and then delayed as funding becomes scarce or another project is determined to be more important. Some members felt the letter was too broadly written. Steve said the intent of the letter is focused toward EM to protect human health and the environment; the background is broad but the Board should focus more on the intent of the recommendation – to keep cleanup dollars for cleanup projects and not force abandonment of projects when the budget is tight. The Board approved the letter with one caveat: Board members believe the final sentence under “Recommendation” on the second page should have read “Federal budget cuts should not include cutting funding for remediation or clean-up effort.” The letter will be sent approved to the EM-SSAB with a conditional recommendation for this wording change.

The final SSAB letter deals with the recycling of material that has been exposed to radiation.

- One Board member felt the letter itself is reasonable although the expectations are high. DOE already requires that any property that can be disposed of, be disposed of before remediation begins. In this case with nickel, there should be assurances that no contaminants will be going out to the public.
- Some Board members felt the letter was overly broad; it covers many areas and then touches on one specific issue. They felt the Board should not support this letter. Some Board members pointed out that there was a large amount of public involvement regarding this issue when the moratorium was being developed and there continues to be public interest in the topic. Changing the policy on recycling materials would need to involve larger societal discussions. The Board believes any proposed changes to the policy should be subjected to the same intensive public involvement process.
- The higher standards included in the advice are substantially less protective than state and federal cleanup standards; the letter would seem to call for a weakening of standards.
- The Board would like to have this as a topic of conversation during the SSAB meeting in April. The letter could be reframed for further discussion and the Board could explain why it does not support the letter as written. The SSAB did agree to discuss previous public involvement efforts and some of the other concerns being brought forward by the Board.

The Board decided not to approve the letter but plans to propose a topic about contained materials recycling during the April SSAB meeting.

Effects from the Federal Government Shut-down

The Board and agency representative do not believe there will be additional impacts to the FY2014 HAB Work Plan or calendar from the government shut down; it was determined that these documents do not need to be revised.

EIC recommendation on HAB Ground Rules for Conduct

The EIC is preparing recommendations to update the HAB Ground Rules and will bring these recommendations forward to the Board during the March Board meeting. The EIC will be spending more time during their January meeting discussing the rule on personal attacks and how to frame respectful disagreement.

Identification of preliminary March Board meeting topics

- DOE-ORP would like a discussion of how it plans to resolve some of the WTP technical issues.
- EPA would like to have a conversation about the how HAB advice was reflected in the 300 Area ROD. This may start with the RAP committee.
- Several potential pieces of advice may also be coming forward, depending on various committees.
- A topic on emergency preparedness has been proposed for a potential presentation to the Board.
- There may also be a presentation on the 100-F Proposed Plan; public comment would be scheduled to coincide with the Board meeting. This topic may be appropriate for a sounding board.
- Two Board members expressed interest in discussing the proposed TriDec land exchange. The EIC previously determined the exchange is beyond the Board's purview but there may be questions that are pertinent to the Board.

The EIC will consider these topics when developing the March agenda.

DOE is expecting to announce that the ROD for the Tank Closure and Waste Management Environmental Impact Statement (EIS) will be available December 13. There will be no public comment opportunity associated with the release of the ROD. The ROD will likely be addressed in a future TWC meeting.

Attachments

Attachment 1: DOE-ORP agency update

Attachment 2: DOE-ORP presentation on Hanford Tank Waste Retrieval, Treatment, and Disposition

Framework

Attachment 3: Ecology nuclear waste program agency update

Attachment 4: DOE-RL agency update

Attachment 5: EM Complex waste management update

Attendees

HAB Members and Alternates

Tom Carpenter, Member	Art Tackett, Member	John Howieson, Alternate
Robert Davis, Member	Mecal Seppäläinen, Member	Barbara Harper, Alternate
Gary Garnant, Member	Dan Serres, Member	Mike Korenko, Alternate
Harold Heacock, Member	Richard Stout, Member	Larry Lockrem, Alternate
Rebecca Holland, Member	Bob Suyama, Member	Liz Mattson, Alternate
Steve Hudson, Member	Eugene Van Liew, Member	Kristen McNall, Alternate
Greg Korshin, Member	Floyd Hodges, Member	Emmett Moore, Alternate
Pam Larsen, Member	Gabe Bohnee, Member	Melanie Myers-Magnuson, Alternate
Susan Leckband, Member	Armand Minthorn, Member	Ed Revell, Alternate
Jeff Luke, Member	Richard Bloom, Alternate	Dave Rowland, Alternate
Ken Niles, Member	Al Boldt, Alternate	Richard Smith, Alternate
Bob Parks, Member	Shelley Cimon, Alternate	Margery Swint, Alternate
Jerry Peltier, Member	Shannon Cram, Alternate	Jean Vanni, Alternate
Maynard Plahuta, Member	Lynn Davison, Alternate	
Gerald Pollet, Member	Dirk Dunning, Alternate	

AGENCY, CONTRACTOR, AND SUPPORT STAFF

Frank Marcinowski, DOE-EM (phone)	Dennis Faulk, EPA	Todd Nelson, BNI
Lisa Domnoske, DOE-ORP	Emy Laija, EPA	Laura Cusack, CHPRC
Tom Fletcher, DOE-ORP	Madeleine Brown, Ecology	Dale McKenney, CHPRC
Lori Gamache, DOE-ORP	Dieter Bohrmann, Ecology	Nicole Addington, EnviroIssues
Ben Harp, DOE-ORP	Robbie Biyani, Ecology	Tammie Gilley, EnviroIssues
CS Louie, DOE-ORP	Jane Hedges, Ecology	Susan Hayman, EnviroIssues
Gary Olsen, DOE-ORP	Jeff Lyon, Ecology	Sharon Braswell, MSA
Steve Pfaff, DOE-ORP	Dan McDonald, Ecology	Michael Turner, MSA
Kevin Smith, DOE-ORP	Ron Skinnarland, Ecology	Reel Wiel, MSA
JD Dowell, DOE-RL		Mark Freshley, PNNL
Jeff Frey, DOE-RL		Reid Peterson, PNNL

Karen Lutz, DOE-RL		Peter Bengtson, WCH
Geoff Tyree, DOE-RL		Scott Sax, WCH
		Rob Roxburgh, WRPS

MEMBERS OF THE PUBLIC

Emily Bays	David Forehand	Jim Lynch
Robbie Biyani	Theresa Labriola, Columbia Riverkeeper	
Annettee Cary, Tri-City Herald	Jim Lynch	