

**FINAL MEETING SUMMARY**

**HANFORD ADVISORY BOARD**

*June 10-11, 2015*

*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 Action**

The Board adopted one piece of advice regarding the FY 2016 and 2017 Budget Priorities.

**Board Business**

The Board debriefed the leadership workshop, approved the EMSSAB letter, and identified preliminary September Board meeting topics.

**Presentations and Updates**

The Board heard presentations on:

- Agency Updates
- Tank Vapor Implementation Plan

- PHOENIX Tank Farm Demonstration

**Public comment**

One public comment was provided.

**HANFORD ADVISORY BOARD**  
*June 10-11, 2015 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.

The Board meeting was audio-recorded.

**Welcome, Introductions, and Announcements**

Joni Grindstaff, U.S. Department of Energy (DOE) – Office of River Protection (ORP), welcomed everyone and noted that the Board is meeting in accordance with the Federal Advisory Committee Act.

Cathy McCague, EnviroIssues Facilitator, reviewed the meeting agenda and objectives. She confirmed the adoption of the April Board meeting summary. Steve encouraged Board members to review the meeting summaries after Board and committee meetings to understand what is being addressed by the HAB.

Steve said the questions and comments captured after the April Board meeting Contractor Panel have been collected and provided to the agencies for further feedback. He asked Board members to provide any corrections or explanation if their comments were not sufficiently captured.

Cathy reviewed Board ground rules.

Pam Larsen, City of Richland (Local Government), noted that a few Board members will be retiring from their positions. She thanked Maynard Plahuta for his years of dedicated service.

**Tri-Party Agreement Agencies – Program Updates**

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

Stacy Charboneau, DOE-Richland Operations Office (RL), provided a presentation on recent activities at DOE-RL. Her presentation is provided as Attachment 1. In addition to her presentation, Stacy noted:

- 300 Area remediation has been extremely successful, with over 200 facilities demolished and 300 waste sites remediated. The 324 Building contractor is currently working on a design plan for that facility, which will be a complex project over the next few years.
- Trench remediation for the 618-10 Burial Ground is expected to be completed by the end of the year, with 92 vertical pipe units (VPUs) to remediate.
- The large soil contamination remediation areas in the D Area are being revegetated after DOE-RL went after chromium contaminations that went into the groundwater 85 feet below the surface. The decision to dig deeper to contain the contamination in the soil was made in conjunction with the Tri-Party Agreement (TPA) agencies. Groundwater continues to be remediated through the pump and treat system.
- N Area remediation is complete. 1.4 million tons of contaminated soil have been taken to the Environmental Restoration Disposal Facility (ERDF), revegetation is complete, and the N Reactor has been cocooned.
- There is a new set of milestones to complete K Basin sludge retrieval from the Columbia River to the Central Plateau. Equipment is being prepared to go to the K West Basin to help with sludge

removal. Cold commissioning and readiness testing will begin in 2016, and the new milestones are consistent with that target.

- K East sludge has been removed, and the K East Basin facility has been demolished. Sampling is being conducted under the K East Reactor, as the reactor building has leaked in the past. Bore holing will help DOE-RL understand the location and extent of contamination before they excavate and conduct soil remediation.
- To date, six of nine reactors have been cocooned. The remaining reactors will become a part of the Hanford tour, and maintenance will continue to ensure their safety while they decay.
- The Plutonium Finishing Plant (PFP) is DOE-RL's priority, with a slab-on-grade milestone due September 30, 2016.
- The third and final glove box in the McCluskey Room is being removed. Crews are wearing extra protection because one respirator is not enough, though the addition of a body suit makes it difficult to work in the recent extreme heat at the site. There is air inside the suits to keep workers cool but removing them gets hot. Work will continue when temperatures cool.
- Ventilation system upgrades at the Waste Encapsulation Storage Facility (WESF) is at 90 percent completed design. Future plans at WESF include removing the cesium/strontium capsules from the basin and into dry storage, until there is a path forward for final disposition. Disposition could include bore holes.
- While the Waste Isolation Pilot Plant (WIPP) is in recovery, DOE-RL will be focusing on packaging waste that has already been retrieved, rather than continuing retrieval efforts for transuranic (TRU) waste that would add to the waste storage on site. DOE-RL has worked with the Washington State Department of Ecology (Ecology) to adjust the milestones for TRU waste to ensure waste is ready to ship to WIPP when the time comes. Further retrieval will continue after that.
- DOE has been charged by the Secretary of Energy to examine facilities on site that could be moved into a remediation profile, as part of an exercise to limit liabilities and risks. Stacy put together an excess facilities portfolio for the next 10 years that examines maintenance costs and determines needs for making the facilities demolition ready. An example facility is the U Canyon.
- A significant investment will be needed over the next four to five decades to upgrade the site's degrading infrastructure, including old water and road systems, which contribute to risk on site. Stacy said DOE has regulator support to improve infrastructure, rather than just safely maintain, in order to be successful in the long-term mission. DOE will be making millions of dollars' worth of improvements over the next 10 years.
- For Fiscal Year (FY) 2017, \$1.9 billion was identified to ensure compliant work, but DOE-RL typically receives funding around \$1 billion. The President's proposed funding for FL in FY 2016 is less than \$1 billion. DOE-RL would like to be able to execute enough work to maintain their workforce and set milestones on priority work. DOE-RL will be holding conversations with the regulators to that effect over the next year. Stacy noted that DOE-RL will continue to request compliant funding in other FYs.
- The U.S. National Parks Service (NPS) recently toured Hanford and the B Reactor, which they enjoyed. NPS and DOE will be working together under a memorandum of understanding to identify other sites for inclusion in the Manhattan Project National Historic Park.

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

Kevin Smith, DOE-ORP, provided a presentation on recent activities at DOE-ORP. His presentation is provided as Attachment 2. In addition to his presentation, Kevin noted:

- DOE-ORP is working with Ecology on a path forward for the third technology to be used on C-Farm tank C-102. C-111's pumps are being repaired, and C-105 is being retrieved again after surface tension issues were resolved.
- The Low-Activity Waste (LAW) Facility has 77 percent completed construction and is about 10 percent along with commissioning activities. Brick installation for the melter refractory has been completed.
- Progress on the Analytical Laboratory is at 23 percent complete for startup and commission. DOE-ORP elected to forgo some technologies until later in the design process in order to use the best, most current technologies available.
- Construction is 43 percent complete on the High-Level Waste (HLW) Facility. Work progresses at an appropriate pace based on work that can be done before the Documented Safety Analysis is in place. Full construction is projected to be authorized within 12 to 18 months.
- DOE-ORP is working to resolve technical issues at the Pretreatment (PT) Facility, maintaining the facility in the meantime and only conducting production engineering necessary for issue resolution. Construction will resume when technical issues are resolved.
- The One System program was re-chartered to drive the start of operation for Direct-feed LAW (DFLAW). The contractors will be working cohesively, including consolidating their phone and email systems. The One System teams anticipates the integration of their guides and standards to be completed in September 2015.
- Because Tank Farm workers wear self-contained breathing apparatuses (SCBA), Tank Farm work has shifted to night activities to minimize the impact of the recent heat wave.
- DOE-ORP is looking into LaserWarn™ System, a vapor detection software, after the recent Industry Day to identify new technology solutions for chemical vapor detection.
- Infrastructure design is underway at A and AX Tank Farms before retrieval begins, based on lessons and efficiencies learned from C Farm.
- AY102 has leaked less than 60 gallons of material into three locations in the annulus; the leak is fully-contained between two tanks. DOE-ORP has not been able to determine why the leak oozes at that particular rate. The tank is being prepared for retrieval.
- The plan for DFLAW is to move the liquids from the double-shell tanks (DST) through the LAW Pretreatment System (LAWPS) then into the LAW Facility while the other Waste Treatment and Immobilization Plant (WTP) facilities are completed.
- LAWPS has been approved for Critical Decision 1, so DOE-ORP is moving forward with the preliminary design and setting up testing to demonstrate integration. Results will provide the confidence it will work as it should and achieve Technology Readiness Level 6.
- DOE-ORP is being very proactive about providing presentations to the public, greatly increasing their public involvement efforts and reaching twenty times more people in 2015 than in 2014.

*Washington State Department of Ecology*

Jane Hedges, Washington State Department of Ecology (Ecology), provided a presentation on recent activities at Ecology. Her presentation is provided as Attachment 3. In addition to her presentation, Jane noted:

- M-091 will be available for comment this summer. M-091 is the TPA milestone dealing with TRU waste retrieval, treatment, and disposal. Ecology and DOE-RL have been working to ensure M-091 addresses environmental concerns, as well as waste storage issues now that WIPP is offline. Hanford will focus on repackaging already retrieved waste for better storage rather than retrieving more.

- Ecology is pleased with the progress and communication with DOE-ORP concerning the settlement agreement on AY-102. The two agencies' technical teams communicate daily on their progress.
- Air Operating Permits are out for public comment until early July.
- Jane introduced the new Ecology Facilities Transition Project Manager Stephanie Schleif who is replacing Rick Bond.

*U.S. Environmental Protection Agency (EPA)*

Dennis Faulk, U.S. Environmental Protection Agency (EPA), provided a presentation on recent activities at EPA. Dennis noted:

- EPA will be hiring two new employees for the Hanford office and are actively recruiting new college graduates.
- Though there is a new schedule for moving forward at K Basin, there is also a four-year delay. Dennis has confidence that the mock up for how to complete the work will transition into the solution for completion. EPA penalized DOE \$125,000 for missing the original milestone.
- EPA is working on a response to the Board's recent advice on Central Plateau Inner Area principles and work plans. Dennis encouraged the Board to read the response and request a River and Plateau (RAP) Committee briefing on the work plans if necessary.
- The change package to renegotiate the Remedial Investigation/Feasibility Study (RI/FS) schedule for the Central Plateau should be available in the August timeframe. The work plans were due at the end of 2016 but have not been started yet.
- EPA is interested in what DOE-RL means by "slab-on-grade" for completing the PFP, which will then be turned over to EPA for management, if they accept the final results. Dennis encouraged DOE-RL to involve EPA in that discussion.
- Now that the ERDF waiver has been approved, a public comment opportunity will be provided soon on the work plans for waste placement.
- The D/H Area Proposed Plan should be out for review near the end of the FY. It is an Ecology-lead project, but EPA has regulatory authority for approval.
- EPA will be distributing a survey to gauge the public's use of the physical Hanford information repository, as well as their access to digital resources. He noted new EPA guidance that moving to strictly digital access to the Administrative Record is acceptable.

Dennis thanked the Board's public interest groups for hosting the community-led State of the Site meetings that received excellent turnout, including from students. He said it was an engaging community dialogue, noting Ecology's creative presentation at the last meeting.

*Board discussion*

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

C. I am concerned about the concrete degradation at WESF, especially since the only data is from the Savannah River National Laboratory (SRNL). When funding closure, DOE-RL should provide some funding near the end in order to bore into the hot cell concrete to gather data critical for other sites. I am encouraged by the investments in infrastructure and Manhattan Park because they speak to future land use. It may be time to go out for public comment on future land use along the River Corridor if these other investments are being made now.

Q. Will the River Corridor contractor be authorized to get as far as they can with the VPUs at 618-10 Burial Ground before their contract expires?

*R. [DOE-RL] At current funding levels for FY 2016, it will be challenging to go after the VPUs, but we are working on mock up testing and proceeding with readiness activities to begin the work in 2016, if we can. We are discussing with DOE-Headquarters (HQ) what we can do in 2015 in order to be successful in 2016.*

Q. Is work complete on the Secretary of Energy's S1 team analysis?

*R. [DOE-ORP] Full-scale vessel testing (FSVT) is required to complete the analysis. The issues have morphed overtime and are ongoing until a complete technical document is completed. The FSVT Facility is currently working well.*

Q. There is approval for LAWPS under Critical Decision 1. What is Critical Decision 2 and the path forward?

*R. [DOE-ORP] We are looking into whether we can do Critical Decision 2 and Critical Decision 3 together to reduce the amount of physical time, and feeding the LAW Facility and LAWPS is a critical path to doing that. No specific dates have been identified, but we will let the Board know as soon as possible.*

C. In the 1980s, the Board was concerned about groundwater and dismantling PFP. Hard work has been accomplished on both those fronts, and today's presentations demonstrate what we have been asking for since the beginning.

Q. The Consent Decree (CD) proceedings and embargoed information has been frustrating. Are the July 23 arguments open to the public?

*R. [DOE-ORP] The last arguments were open, so I anticipate this round is as well.*

Q. The Board has a history of being concerned about TRU that was buried before 1970, but the contamination is the same. Is there a redefinition of TRU based on its contents?

*R. [DOE-RL] No.*

Q. Traffic is a significant safety issue for the site. Are there any plans to add lanes or make other improvements?

*R. [DOE-RL] Mission Support Alliance and other contractors are looking into traffic concerns. They are exploring adding lanes or changing lane directions based on peak traffic hours. Recently, there have been more contractors working the same shift, so traffic has increased. We have the funding now to make changes and be successful.*

Q. Which chemical vapors can be identified with the LaserWarn™ System?

*R. [DOE-ORP] The system would need to be recalibrated for the chemicals at Hanford. The materials the system was designed for are for combat situations, and it works well. We will need to modify it for the chemicals we are concerned about.*

Q. Is there a list of chemicals the system will be modified for?

*R. [DOE-ORP] There are a number of chemicals, and each tank has a different chemical composition. We know there are nine typical chemicals, and the modifications will be determined once we identify whether we can eliminate some chemicals by using other detection methods, like better ventilation control. It will be a tank by tank basis and a two year process to make these determinations, and we will provide other updates.*

C. I am interested to know what the top 10 chemicals are at Hanford.

*R. [DOE-ORP] That list can be provided.*

## **PUBLIC COMMENT**

Carl Grando provided public comment concerning DOE-HQ's political agenda for operations at Hanford. A copy of his comment is provided as Attachment 4.

Steve thanked Carl for his comment, noting that any Board member interested in his issues can review the information he has provided.

## **Draft Advice: FY 2016 and 2017 Budget Priorities**

### *Issue manager introduction*

Jerry Peltier, City of West Richland (Local Government), introduced the advice and provided an overview of the budget process. He said the Board's yearly budget advice is based on DOE's public briefings, which he thought did not provide enough detail. The advice addresses specific Board concerns, in detail, as well as a path forward over the next few budget cycles. Jerry said the Budget and Contracts Committee (BCC) asked for input from RAP and the Tank Waste Committee (TWC) and received ample information, so the advice is representative of more than one committee.

### *Agency perspectives*

Jon Peschong, DOE-RL, said DOE-RL knows what is important at Hanford, like the deteriorating waste containers at the Central Waste Complex and treatment of the cesium strontium capsules, both of which require funding in the near term. Jon clarified that there is only one instance of perched water in the B/C Area. There are 45 total instances of water that is difficult to get to, but not perched water. The background section of the advice will need to be clarified to only one instance of perched water.

Delmar Noyes, DOE-ORP, thanked the Board for their input. He noted the transparency of how DOE-ORP conducts business may be constrained by ongoing legal decisions, but the local DOE offices, as well as DOE-HQ, look forward to the Board's perspective on relative priorities.

John Price, Ecology, suggested the Board reconsider the order of their advice, perhaps grouping them by subject matter. He said the order of the advice points could be misinterpreted as ranked by priority. John also suggested the Board address double-shell tanks (DST) and single-shell tank (SST) retrieval separately, as both are important, but the current phrasing makes SST retrieval look subordinate.

Dennis encouraged the Board to address funding for 618-11 Burial Ground, which is still a priority for EPA, with a milestone set for 2018 that will not be met. If it is a priority for the Board, the agencies need to hear it to begin work in 2016 and 2017.

## *Board discussion*

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

- One Board member suggested the advice concerning funding for the Board be stricken, as advice should address funding cleanup efforts. The Board discussed the need to include Board funding in the advice to support cleanup decisions on behalf of the public. One Board member suggested moving the advice point to the bottom of the list rather than the top and adjusting the language to address public involvement efforts as a whole, rather than just the Board.
- One Board member supported the idea of re-ordering and grouping the advice points based on subject matter. Reordering the bullet points would mean also rearranging the rest of the advice content to read in the same pattern. The Board discussed issues with reorganizing the advice points, including making it too easy for agency representatives to only read what is important to them and not the whole advice. The Board determined to add a sentence at the top of the advice points to clarify that their order does not represent prioritization.
- One Board member spoke to the importance of the advice for multiple audiences like Congress and the media, not just DOE. He said it is important for the advice to address the recent Government Accountability Office (GAO) Report, as it demonstrates the Board bases their advice on credible reviews and the concerns they raise. Additionally, he said there used to be regional public budget meetings which have not occurred in a few years due to budget cuts, yet DOE is spending money to send representatives to do individual presentations across the region. At the Tri-Cities budget meeting this year, DOE-RL did a good job of presenting the range of what could happen with various funding levels, but DOE-ORP failed to provide any detail. He said it is legally required for the public to have access to and provide comment on each office's budget submittal before it is submitted to DOE-HQ. Delmar said DOE-ORP is in the process of preparing the FY 2017 budget and will share it as soon as possible.
- The Board discussed advising DOE-RL to move forward with remediation of the 618-10 Burial Ground VPUs and the 324 Building, both of which have a milestone deadline of 2018 but are not being prioritized in the current budget projections. The work should be completed while a trained workforce is still in place. The Board determined to advise that funding to begin the process for the 618-11 Burial Ground should follow an increased priority to complete 618-10, specifically noting the importance of moving forward with a trained workforce.

After minor edits, the Board approved the advice.

## **Board and Committee Reports**

### *Health, Safety, and Environmental Protection Committee (HSEP)*

Becky Holland, Hanford Atomic Metal Trades Council (Hanford Workforce) reviewed HSEP committee accomplishments over the last six months, including work on the employee concerns and beryllium programs, the Tank Farm Vapor Implementation Plan, and joint committee work with RAP on emergency response, as well as with TWC on flammable gas issues and the tank vapor advice. At their June 18 meeting, HSEP will discuss DOE-ORP responses to the tank vapor advice, receive an update on the beryllium program and corrective action plan, receive a presentation on Washington River Protection Solution's (WRPS) safety culture survey and discuss future work plan topics including traffic safety

### *Budgets and Contracts Committee (BCC)*

Jerry said BCC has been busy working on the budget advice. BCC could possibly issue advice in time for the September Board meeting if DOE-ORP releases their FY 2017 budget. Jerry thanked those who provided input on the budget advice, noting that it was a group effort.

#### *River and Plateau Committee (RAP)*

Pam recognized committee members and thanked them for their participation. Issues RAP has addressed already in 2015 include: deferred maintenance for structures on site, lack of deferred maintenance at WIPP, and Central Plateau Inner Area principles and subsequent advice. In 2016, RAP will work on the D/H Area Proposed Plan and record of decision (ROD), continued issues at WIPP, Deep Vadose Zone (DVZ) issues, 324 Building and VPU remediation, and the ERDF ROD amendment. RAP will hold a conference call on June 16 when they will discuss RI/FS work plans for DVZ1 and receive a briefing on cesium and strontium capsules. Pam proposed moving August committee week to accommodate conflicting schedules.

Dennis noted the draft change packages for the Central Plateau will be ready to share with RAP in August, and public comment on the packages will overlap with the September Board meeting. Transitioning ownership of PFP will also be prime for advice in September.

#### *Public Involvement and Communications Committee (PIC)*

Liz Mattson, Hanford Challenge (Regional Environmental/Citizen), said PIC held their meeting prior to the Board meeting to discuss the TPA public involvement calendar, debriefed the contractor panel presentations, received a briefing on Hanford regulatory terminology, conducted self-assessments for public involvement, and worked on the WTP Communications Strategy. She noted that some PIC members do not feel the strategy is an appropriate use of the Board's time. She will continue drafting a survey to distribute to the Board for further input on the strategy. Liz noted the terminology presentation is a good example of basic information to share with others; it will be available on the SharePoint site. She asked for suggestions for other basic presentations to further educate the Board. PIC will have a conference call in June to discuss the TPA M-091 change package and potential for public involvement.

#### *Tank Waste Committee (TWC)*

Bob Suyama, Public-at-Large, said TWC has worked collaboratively the past six months with other committees on tank vapor issues and budget advice. They recently received a presentation on the Tank Vapor Implementation Plan, which is being presented to the Board today. TWC is also tracking DFLAW and continue to work on the WTP Communications Strategy with PIC. Bob said there will be an issue manager meeting in July to better understand what will go into the strategy and the Board's involvement. TWC will continue to work on risk-based retrieval, treatment, and closure, as well as the closure permit for Waste Management Area C. In August, TWC will review issues identified in the GAO Report, DFLAW, cesium issues, and the WTP Communications Strategy.

Bob said he supports moving committee week, per Pam's suggestion. Dennis concurred.

#### *Executive Issues Committee (EIC)*

Steve said the EIC held a workshop in May to draft the FY 2016 Board work plan and calendar, as well as update work plan process guidelines and public comment guidelines. The EIC has been working to provide new presentations and formats for the Board meetings, including the recent contractor panel and evening meeting session to involve more perspectives and the public. The EIC also recently discussed the

DOE-Environmental Management Site-Specific Advisory Board (EMSSAB) letters that are forwarded for Board approval. Steve said all Board members are welcome to attend the EIC meetings.

#### *National Liaison*

Shelley Cimon, Columbia Riverkeeper (Regional Environmental/Citizen), said there is a programmatic initiative from DOE-HQ to look at the disposition pathway for strontium and cesium capsules, as well as other types of waste that may be accepted for disposition. She said there has not been much change at WIPP, as disposition will be limited until 2016 with full operations projected for 2018. Shelley spoke to the May 7 GAO Report that says DOE needs to look at other alternatives for WTP and tank waste characterization. It also says the WTP is not up to industry best practices, cost and schedules should be revised, and an external entity should be enlisted for oversight. DOE will have to address issues identified in the report within 60 days. DOE has committed to responding, though their response may not be publically available.

Pam said she has discussed the GAO Report with Jane Hedges, and that Ecology believes the issues identified have already been addressed. The report was issued after some of the issues were already resolved. Joni said Hanford is subject to external reviews every fiscal year, and it takes a lot of resources to support those reviews. Sometimes the reviews are supportive, yet the perception is the reviews are always bad.

Dennis encouraged the Board to review the national Consortium for Risk Evaluation with Stakeholder Participation (CRESP) Report that says Hanford's funding for chasing chromium was wasted based on resulting risk reduction. He said the local report provides some good information, but he is concerned about how the national-level report will be used. The CRESP report is on the HAB's draft work plan for next year so the Board will be able to track the results of the report.

#### *Environmental Management Site-Specific Advisory Board (EMSSAB)*

Steve and Susan Leckband, Washington League of Women Voters and Board vice-chair, attended the most recent EMSSAB meeting in Georgia, which included a tour of SRNL. Steve said there are rows of large trees at SRNL that prevent tourists from seeing all the buildings at once, so the site does not seem so stark. There are also test plots for natural resources and a tank the size of a football field; 10 more of the same size tank will be built on site. The second day of the meeting, the EMSSAB received a presentation on the budget and budget impacts and the DOE Communications Strategy. Steve has provided copies of the supporting materials for Board members to peruse. He asked for any feedback on the EMSSAB budget document as he is helping to rewrite it.

Susan said she will help plan the next EMSSAB meeting in September, and she suspects they will receive an update on waste disposition. The meeting may be attended by the new EM-1, Monica Regalbuto, but if not, Mark Whitney will attend. She said how refreshing it was to hear from DOE-HQ's communications manager, who took notes and listened to members' feedback. She asked Board members to provide any information they would like communicated to the EMSSAB for the next meeting to either she or Steve.

#### **Board Business: Debrief Leadership Workshop**

##### *6 month accomplishments*

Steve said the EIC updated the FY 2015 HAB Work Plan to show six month accomplishments as well as what will carry over into 2016. Cathy reviewed the updated work plan, noting that it will be available on SharePoint.

#### *FY 2016 HAB Draft Work Plan*

Steve said the FY 2016 HAB Draft Work Plan (work plan) is a product of the 2015 Leadership Workshop. The document is subject to change between now and September, when the plan will be formally approved and adopted by the Board. Each committee will be asked to review the work plan for their relevant topics during their next committee call or meeting.

Cathy reviewed the draft work plan, noting the 23 topics with five additional topics in the holding bin. The CD is currently in the holding bin, for example, but will rise to the top when the information is publically available. The draft work plan is provided as Attachment 5.

The Board reviewed the work plan and asked clarifying questions. Cathy asked the Board to consider any edits required during their committee meetings, specifically if any topics appear to be missing or should not be on the plan. The final work plan will be presented during the September Board meeting for adoption.

#### *FY 2016 HAB Draft Calendar*

Steve provided an overview of the FY 2016 HAB Draft Calendar (calendar), a product of the 2015 Leadership Workshop. He noted the difficulty of trying to accommodate schedules and holidays, as well as providing enough time for Board members and agency representatives to prepare between meetings.

Cathy reviewed the calendar, noting the shift between Board and committee meeting weeks to allow the agencies time to prepare their presentations and representatives. She asked Board members to provide any feedback before the calendar is adopted in September. The calendar is provided as Attachment 6.

The Board discussed the proposal to move August 2015 committee week, given conflicting schedules. Some Board members noted they had scheduled vacations and planned their travel to the meeting around the existing calendar, and a change now would be difficult. Pam said RAP will need to move their meeting to accommodate EPA's schedule, as their meeting topics depend on their participation.

The EIC will address this issue during their June conference call in order to be respectful of everyone's schedules, not just those at the meeting.

#### *Guidelines for the HAB Work Plan Process*

Steve provided an overview of the draft guidelines for development of the HAB work plan process. The document is provided as Attachment 7. Cathy said the document is a proposal from the EIC as an addition to the Board Process Manual, along with other revisions that will be made this year. The guidelines will be referenced as a guide to assist the Board and committees develop their work plans as well as when new work plan topics arise during committee meetings or on calls.

Susan noted that the guidelines are a great reference for demonstrating how the Board works; she plans on sharing it with her new alternate and others.

The Board reviewed the document and asked clarifying questions. One Board member suggested providing consistency between the language in the flowchart and the topic worksheet. Cathy will work on those changes before September and final approval. One Board member noted that the language seems to

constrain the Board to only topics of priority to the agencies. Dennis said the agencies may not have the resources to support a topic they do not identify as a priority.

Steve asked the Board to provide any final edits to Cathy before final adoption at the September meeting.

### *Public Comment Guidelines*

Steve reviewed changes to the public comment guidelines, which is provided as Attachment 8. While the Board cannot commit to an overhaul of public comment guidelines, they will begin to allow the public to ask clarifying questions during agenda topics if time permits. Additionally, contact information will be provided for other avenues of information and involvement the public can pursue, should the topic they are concerned about not be relevant to the Board.

The Board reviewed the updated guidelines and asked clarifying questions. They discussed the language detailing whether the Board will respond to public comments, determining that any response to the public would need to be consensus, so there should not be an expectation that they will respond.

The Board determined to ask the EIC to rework some of the changes and provide a new draft during the September Board meeting. Susan says she hopes the final product will help the public understand the opportunity available to them and not feel so intimidated when coming before the Board

## **Presentation: Tank Vapor Implementation Plan**

### *Topic introduction*

Bob said the Board has been tracking tank vapor issues since 34 Tank Farm workers were exposed in 2014. DOE put together an independent review team led by SRNL to look into the incidents and provide recommendations for a path forward. The Tank Vapor Assessment Team (TVAT), issued a report in late 2014, which was presented to the Board in February 2015. The Implementation Plan is the next step in implementing the TVAT recommendations.

### *Presentation*

Tom Fletcher, DOE-ORP, provided an update to the TVAT Report and Implementation Plan. His presentation is provided as Attachment 9. In addition to his presentation, Tom specifically noted:

- In March 2014, a number of events led to the need for increased controls, so DOE-ORP reformed a workforce team that was active in 2006 to 2009 to look at what can be done differently. TVAT was also formed, and they released four conclusions in October 2014 on what could happen. The TVAT Report is available in detail online.
- The Report has 10 overarching recommendations under six technical assessment areas. Out of the 10, there are 47 individual recommended actions, 30 of which are addressed in Phase 1 of the Implementation Plan.
- Phase 1 is about people, equipment, and data, including testing to determine which actions will and will not work.
- To accomplish the actions of the Implementation Plan, WRPS has hired an additional 50 to 60 full-time employees for the Industrial Hygiene (IH) department.
- Protective SCBA systems are being used for SST workers where there is no ventilation or there is potential for contamination. It is a conservative measure that will be reassessed for Phase 2. Workers requiring SCBA systems will work primarily on graveyard shifts during hot summer

months. DOE is also looking into personal monitoring devices to monitor for chemicals of concern.

- Enhanced communications focus internally and externally with employees and the broader community. Communication is critical to the success of implementing the plan.
- Data is being collected on all implemented actions to determine what should be revised for Phase 2 and institutionalized as part of an advanced IH system.
- In addition to the Implementation Plan, DOE-ORP is also looking into other approaches that are not reliant on old technology, like capabilities to remove the workforce from interacting with hazards in the first place, or reporting to a central control room. DOE-ORP wants to move away from a heavy reliance on personal protection equipment (PPE), so PPEs become the last line of defense.

Tom concluded by noting that he is one of the employees in need of protection from tank vapors, so the success of the implementation actions is as important to him as it is to everyone else.

John Martell, Washington Department of Health (WDOH), said he has been tracking this issue on behalf of Washington State. WDOH has reviewed the TVAT Report and Implementation Plan and provided comments to DOE-ORP. They encourage DOE-ORP to continue providing updates on how they are implementing the recommendations. WDOH believes the addition of ventilation systems at Tank Farms will provide additional protection to workers while implementation is ongoing.

#### *Board discussion*

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

Q. Which gases are being sampled as part of the head space gas sampling and characterization? When will we be able to see the results?

*R. [DOE-ORP] Head space samples have been taken at A and AX Farms, as that is where the near term work will occur. It is similar to what we did in 2004 for comprehensive sampling, and the program will continue where there will be active workforce in the next few years. Characterization results should be available when we are done with sample analysis, usually 60 to 90 days. We can update you once we have verified and validated the results.*

Q. Is your equipment sophisticated enough to collect the right samples? Will it cover the breadth of potential contaminants?

*R. [DOE-ORP] We have the best equipment available that can evaluate over 200,000 chemical samples. We focus on 59 chemicals of potential concern (COPC).*

Q. Is it possible for chemicals to combine and create new vapors?

*R. [DOE-ORP] If it turns into a unique and new chemical, we can capture it. We will have to report back on whether it can capture hybrid chemicals.*

Q. What are the specific COPCs you will be looking for?

*R. [DOE-ORP] We have a list of 59 COPCs that we review annually to ensure is still accurate. A copy of the list is publically available and can be provided to the Board.*

Q. If there have not been any more exposures lately, does that mean the actions are working? Are PPEs being used at all locations, or only where there have been issues? Are PPEs now mandatory?

*R. [DOE-ORP] Releases have not been eliminated, but the rate of occurrence has decreased. There was an emission today that we will evaluate to determine what went wrong and if the actions taken have worked. SCBA systems are required for entering any SST, not just where there have been exposures. DSTs with potential for vapors or lack of ventilation also require SCBA systems. PPE is now mandatory in those conditions. Workers can always choose to upgrade their PPE, even where it is not required.*

Q. Is there any way to reduce the impact of heat on workers in the SCBA systems?

*R. [DOE-ORP] On Monday, June 8, we moved construction crews to the graveyard shift, as well as workers in C Farm and AY-102. Later on, we will transition to a 4:30 a.m. start time for the rest of the summer. Precautions will be taken as long as SCBA systems are being used.*

Q. How often is the monitoring and sampling equipment used in the field, and how many chemicals are routinely monitored?

*R. [DOE-ORP] It is used on a daily basis, accompanied by IH staff in the field doing the sampling and real time monitoring. Gamma analyzers are used when there are real time events, and the mass spectrometers are used daily to look at a greater number of contaminants. We can follow up with more information.*

Q. Is there consistency or a common chemical between the tanks you are evaluating, or is every tank a new set of analytical data?

*R. [DOE-ORP] Every tank is different. We are looking into how we can institutionalize protections for indicator contaminants like ammonia. The personal lapel monitors can record in real time and identify 25 indicators. That data will be used to move forward.*

Q. Are there productivity impacts of workers wearing PPE?

*R. [DOE-ORP] Depending on the job and if they are wearing a scuba system, impacts are between 30 and 50 percent. We are trying to make up for the decrease with additional staffing and team rotations to stay on schedule. We do not want there to be injuries due to heat stress, so we will see how productivity is additionally effected during the summer months.*

Q. How do issues like productivity impacts and additional staffing affect the Tank Farm budget?

*R. [DOE-ORP] We have ensured the Tank Farm budget can comply with the TVAT recommendations, as well as incorporate continued effectiveness. This will be a challenge moving forward as we institutionalize the recommendations. FY 2015 and 2016 address the recommendations as minimum safe requirements until we can ask for additional funding in FY 2017.*

Q. DOE had to address these same issues, with the same corrective processes, in 1993. What is different today that would indicate better success?

*R. [DOE-ORP] The work from 1993 to 2008 focused on occupational exposure limits, or what an employee could be exposed to over a 40-hour work week. Now we are looking at short-term exposures and how to protect against them. We are revisiting everything we have done in the past*

*to see the conditions under which that can occur. TVAT looked at industry standards, but Hanford is unique, and that is a challenge we have to define and institutionalize by ourselves.*

Q. Who are the experts on the DOE-managed expert panel, and is it independent?

*R. [DOE-ORP] The members are listed with the announcement of the panel and include doctors from Harbour View Health Center, toxicological experts, and members of the previous TVAT. They meet on a regular basis to provide another level of perspective. The panel can look into anything they want, but they are not technically independent because it is a DOE contract.*

Q. Aging infrastructure is an issue across the site. Is Tank Farms addressing aging pipes or anything else that could lead to vapor issues?

*R. [DOE-ORP] Tank Farm's issue with infrastructure is that it prevents work from being completed, rather than contributing to vapors. Pumps and other equipment are failing, but we do not possess critical spares.*

### **Presentation: PHOENIX Tank Farm Demonstration**

#### *Issue manager introduction*

Shelley provided an overview of the PHOENIX system, which has been used to look at groundwater for the past five years; another version for Tank Farms has been available for two months. Today's presentation will demonstrate how the Board and their constituents can use the online forum to gather data and better understand cleanup now and into the future. It contributes to DOE's transparency efforts.

#### *Presentation*

Jeremy Johnson, DOE-ORP, said he agrees that PHOENIX provides transparency of information, and he hopes Board members can use the platform to further the goal of transparent operations and communications. He asked the Board to provide any feedback as they learn how to use the tool, because it is a tool developed specifically for internal and external stakeholders.

DJ Watson, Pacific Northwest National Laboratory (PNNL) and principle architect of PHOENIX, provided an overview and demonstration of PHOENIX. In addition to presentation as provided as Attachment 10, DJ said:

- PHOENIX stands for PNNL-Hanford Online Environmental Information Exchange. The groundwater version was funded through DOE-RL five years ago, and DOE-ORP funded a version for Tank Farms to demonstrate sensor and environmental data, tank inventory, and more. The Tank Farms platform went public two months ago and is readily available online.
- PHOENIX makes it easier for stakeholders to visualize data, rather than having to figure out how to visualize data packages on their own. DJ reviewed a visualization of how and where data is collected.
- 40 years' worth of data is provided. PHOENIX provides high-level information on what is currently and historically in the tanks, as well as provides extremely detailed information.
- PHOENIX features an extensive help section to help users get where they want to be.
- It has been heavily reviewed by science and legal teams, and is as comprehensive as possible within those parameters.

DJ encouraged Board members to send any comments to him directly through the site's comment feature. Handouts are available at the back of the room to help Board members get started at home.

### *Board discussion*

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

Q. Does PHOENIX feature interior photos of the tanks?

*R. [PNNL] We hope to be able to show before and after retrieval photos in the future, but current photos on the site are outdated.*

C. I suggest you create the same platform based on the Columbia River to help establish a baseline for work in the next 10 years. There is so much data on the river that is hard to interpret, and this would be a great tool for it.

*R. [PNNL] PHOENIX is helping us understand how to better present data to the public, rather than providing them with raw numbers. We want to make data more understandable across the site.*

Q. Can someone use this platform and information to independently reach their own conclusions about cleanup?

*R. [PNNL] That is exactly our intention. We hope that others can use PHOENIX to help focus the decision making conversation on the right topics and draw their own conclusions.*

Q. Is there any information not available? Can others provide analysis?

*R. [PNNL] Several areas are currently lacking, and other aspects can be added as more people interact with the tool.*

Q. Is it possible to select a set of criteria for the material in the tanks? Or to select a sequence of attacking the retrieval and processing the waste?

*R. [PNNL] PHOENIX is a data exposition tool and is not sophisticated enough to select limits or apply sequences.*

Q. Is the site interactive in that users can submit analyzation and have immediate results?

*R. [PNNL] Data retrieval is immediate and interactive, and any questions are submitted directly to my email. I will respond to questions or concerns as quickly as I can, but any analysis should be directed to DOE-ORP.*

Q. How are other attributes added? If we determine an area we would like PHOENIX to explore, can the Board provide advice?

*R. [PNNL] Attributes in PHOENIX are constrained by whatever information is available in the Tank Waste Information Network System (TWINS) database. We are looking into integrating other data sets. The future for this platform is wide open, but at the moment, we only want to add information that is valuable to Tank Farms.*

C. This tool is impressive, and I hope we can invite you to the DOE Intergovernmental meeting to demonstrate to agency directors the tools available to understand cleanup across the complex.

Q. Staff at the Nez Perce Tribe have identified errors in the data. How do issues in the original datasets get resolved?

*R. [DOE-ORP] We are limited to historical data, and in some instances, the story behind the data is lost. Concerns can be addressed by requesting a meeting with DOE-ORP or discussing them when we do performance assessments for waste management areas.*

C. I recommend adding a disclaimer on the homepage of PHOENIX to indicate that historical data is challenging and may not capture the realities of what we think happened before and what we know today. It is important for the public to understand that while we provide the best information we can, it may not be accurate.

C. There is a difference between censor data, which is currently being gathered, and historic inventory. It is important to recognize the difference, as historic inventory may have errors that are very different than censor errors.

*R. [DOE-ORP] Correct. The monitoring data goes back 40 years, but PHOENIX looks at what is currently in the tanks, not the historic inventory.*

Q. Does PHOENIX post information on what is measured, or an idea of what occurred in the past?

*R. [DOE-ORP] We use the best information we have, using data and process knowledge, so it is a little of both. We use the best information on what resides in the tanks, but we do not have samples for everything.*

### **Board Business, continued**

#### *EMSSAB letter*

Steve spoke to the importance of the EMSSAB letter and the process the Board has undertaken to improve it. During the April meeting, they suggested edits, which Steve reported back to the EMSSAB. Some of the Board's comments and edits are reflected in the new draft. In the future, individual Boards will receive the opportunity to review EMSSAB advice before they are required to approve or deny it. Non-substantive edits will also be accepted alongside an individual Board's approval.

The draft letter is provided as Attachment 11.

Steve said he worked to redraft the letter with consideration to all the comments received. The draft in front of the Board today has been approved by the EMSSAB. He noted that the obvious errors in the first paragraph of the letter will be documented for the EMSSAB to address.

#### *Board discussion*

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

- The Board discussed the conflict between not asking DOE to ship all packaged TRU waste to the commercial site, as well as to not leave it sitting at the individual sites. Neither ship it all nor

leave it all is an acceptable solution. The letter's statement is an attempt to recognize that the problem does not have an immediate solution. Steve noted some sites are subject to consequences if shipping permits are allowed to expire. Joni explained the issues with public safety at some sites should their waste be forced to remain on site. She asked the Board to keep in mind that Hanford is not the site that needs the advice, but other sites do. Dennis said to him, the language encourages DOE to resolve immediate needs without losing the bigger picture.

- Steve noted that since the letter was drafted, Los Alamos National Laboratory has reached a deal for the interim storage of their TRU material. Dennis said the advice is still timely, however, because there are other sites still generating waste that will need to be shipped offsite. The Idaho National Laboratory (INL) will have to build new facilities to contain their waste until WIPP is ready, which is an expensive activity that will have to be certified. INL would like to avoid building more storage.
- The Board discussed the assumption that WIPP will re-open for limited shipments in January 2016. Joni encouraged the Board to review TPA M-091, which addresses the changes to TRU waste retrieval and shipment.
- One Board member asked if there would be an impact to Hanford funding should the letter move forward. Dennis said the letter and its recommended changes would have little effect at Hanford, but tremendous impact on WIPP and the other sites. He encouraged the Board to support it.
- One Board member stressed the importance of supporting the needs of other sites, especially the smaller ones who do not receive as much money as Hanford.

The Board approved the EMSSAB letter.

Emmett Moore, Washington State University (University), declined to support the EMSSAB letter and submitted the following statement for the record:

I fully support the safe restart of the WIPP as well as the safe transport, treatment, storage, and disposal of TRU waste wherever it may be located. However, I declined to support the EMSSAB letter because the letter is not well written. It contains misplaced sentences, is confusing in places, and contains at least one unsupported conclusion. My colleagues (constituents) in the Washington State University Department of English would laugh at me if I were to approve this letter. The very first sentence in the letter is misplaced. Who knows what is meant by "this waste" at this point in the letter? I'm confused by the sentence in the third paragraph that reads, "And while it does appear unwise to duplicate the permitting process at multiple sites, it is equally unwise to concentrate on just the one site that can truly facilitate permanent long-term disposal of TRU waste." It seems to me from this statement that the EMSSAB is not in favor of disposal of TRU waste at either a single site or at several sites. The unsupported conclusion is in the Summation section where the EMSSAB states that "the [EMSSAB] recommends that DOE-EM Headquarters ...conduct required environmental impact studies..." NEPA compliance is not mentioned anywhere else in the letter.

#### *Preliminary September Board meeting topics*

Cathy reviewed the following tentative meeting topics for the September 9-10, 2015 Board meeting at the Pasco Red Lion:

- Annual agency/committee reports
- New member orientation

- SharePoint tutorial
- TPA M-091 Change Package advice (tentative)
- DOE-ORP budget priorities advice (tentative)
- HAB work plan process and public comment guidelines
- FY 2016 HAB Draft Work Plan and FY 2016 HAB Draft Calendar
- RI/FS schedules, TPA M-15 Change Package (tentative advice)

*Closing remarks*

Steve thanked Board members for their participation and thanked Maynard for his many years of Board service.

The meeting was adjourned.

**Attachments**

**Attachment 1:** DOE-RL presentation

**Attachment 2:** DOE-ORP presentation

**Attachment 3:** Ecology presentation

**Attachment 4:** Carl Grando, public comment

**Attachment 5:** FY 2016 HAB Draft Work Plan

**Attachment 6:** FY 2016 HAB Draft Calendar

**Attachment 7:** Draft Work Plan Process Guidelines

**Attachment 8:** Draft Public Comment Guidelines

**Attachment 9:** Tank Vapor Implementation Plan presentation

**Attachment 10:** PHOENIX presentation

**Attachment 11:** EMSSAB letter

**Attendees**

**HAB MEMBERS AND ALTERNATES**

Gabe Bohnee, Member	Susan Leckband, Member	Bob Legard, Alternate
Don Bouchey, Member	Melanie Myers-Magnuson, Member	Larry Lockrem, Alternate
Janice Catrell, Member	Bob Parks, Member	Jonathan Matthews, Alternate
Shelley Cimon, Member	Jerry Peltier, Member	Liz Mattson, Alternate
Alissa Cordner, Member	Gerry Pollet, Member	John Martell, Alternate
Lynn Davison, Member	Maynard Plahuta, Member	Peggy Maze Johnson, Alternate
Sam Dechter, Member	Bob Suyama, Member	Kristen McNall, Alternate
Gary Garnant, Member	Gene Van Liew, Member	Emmett Moore, Alternate
Becky Holland, Member		Edward Pacheco, Alternate
John Howieson, Member	Dale Engstrom, Alternate	Ed Revell, Alternate
Steve Hudson, Member	Jeff Hunter, Alternate	Dan Serres, Alternate
Pam Larsen, Member	Mike Korenko, Alternate	Richard Smith, Alternate

**AGENCY, CONTRACTOR, AND SUPPORT STAFF**

Stacy Charboneau, DOE-RL	Delmar Noyes, DOE-ORP	Sharon Braswell, Northwind/ DOE-ORP
Mark Heeter, DOE-RL	Jake Pesek, DOE-OIG	Rich Marshall, Northwind/ DOE-ORP
Naomi Jaschke, DOE-RL	Lindsey Poppe, DOE-OIG	Jennifer Copeland, MSA
Shannon Ortiz, DOE-RL	Dennis Faulk, EPA	Michael Turner, MSA
Jon Peschong, DOE-RL	Emy Laija, EPA	Daniel Noonan, WPSR
Kristen Skopecck, DOE-RL	Jane Hedges, Ecology	Sonya Johnson, CHPRC
Vanessa Synoground, DOE-RL	Dieter Bohrmann, Ecology	Peter Bengston, WCH
Geoff Tyree, DOE-RL	Madeleine Brown, Ecology	Alicia Gorton, PNNL
Kevin Smith, DOE-ORP	Heather John, Ecology	Patrick Royer, PNNL
JD Dowell, DOE-ORP	John Price, Ecology	Mark Triplett, PNNL
Tom Fletcher, DOE-ORP	Stephanie Schleif, Ecology	Dawn Wellman, PNNL
Joni Grindstaff, DOE-ORP	Tammie Gilley, EnviroIssues	Dale McKenney, CHPRC
Jake Talley, DOE-ORP	Cathy McCague, EnviroIssues	Tom Rogers, WDOH
Jesska Thompson, DOE-ORP	Melissa Thom, EnviroIssues	

**MEMBERS OF THE PUBLIC**

Gary Busselman	Alexandra Gilbert, HOANW	Angela Malorni, Hanford Challenge
Annette Cary, Tri-City Herald	Lee Gliddon, Knowledge Relay	Diana Shankle
Rick Dearholt	Carl Grando	Chrissy Swartz, HOANW
Tom Galioto	Dylane Jacobs, HOANW	Stephanie Waggener
Roy Gephart	Zoey Kapusinski, Hanford Challenge	Linnea Williams