



**FINAL MEETING SUMMARY**

**HANFORD ADVISORY BOARD**

*June 6 & 7, 2018*

*Richland, WA*

**Topics in this Meeting Summary**

Executive Summary ..... 2

Welcome, Introductions, & Announcements ..... 3

Tri-Party Agreement Agency Updates ..... 3

Draft Advice: 100-B/C Proposed Plan Advice ..... 12

Public Comment ..... 13

EM SSAB Activities / FACA Overview ..... 13

Draft Advice: FY2020 Budget Priorities ..... 16

FY2019 HAB Proposed Work Plan and Calendar ..... 17

HAB Committee Reports ..... 18

EM SSAB Recommendation Thumbs Up/Thumbs Down ..... 22

Board Business ..... 22

Round Robin ..... 23

Attachments ..... 24

Attendees ..... 24

*This is only a summary of issues and actions discussed at this meeting. It may not represent the fullness of represented ideas or opinions, and it 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 (Board or HAB) Action**

There were two pieces of advice adopted during the June Hanford Advisory Board meeting.

### **Hanford Advisory Board Business**

The Board will hold two committee calls in June. The Board discussed the following:

- Draft Advice: 100-B/C
- Draft Advice: FY2020 Budget Priorities
- Environmental Management (EM) Site Specific Advisory Board (SSAB) Recommendation thumbs up/thumbs down vote
- Scheduling for upcoming committee meetings and phone calls
- Recommendation/Selection of HAB Leadership
- Potential products for the September Hanford Advisory Board meeting

### **Presentations & Updates**

The Hanford Advisory Board received the following presentations and updates:

- Tri-Party Agreement (TPA) Agency Updates
- EM SSAB Activities/Federal Advisory Committee Act (FACA) Overview
- Unveiling of FY2019 HAB Proposed Work Plan and Calendar
- Draft Advice: 100-B/C
- Draft Advice: FY2020 Budget Priorities
- Round Robin discussion of the Committee of the Whole (COTW)
- HAB Committee Reports

### **Public Comment**

There was one public comment received at the June meeting.

Susan Leckband, League of Women Voters and Board Chair called the meeting to order. The meeting was open to members of the public and offered opportunities for public comment.

The Board meeting was audio-recorded.

### **Welcome, Introductions, & Announcements**

Kyle Rankin, U.S. Department of Energy (DOE) Richland Operations Office (RL) and Co-Deputy Designated Federal Officer (DDFO) for the Board, noted that the meeting was in accordance with the FACA.

Susan Leckband provided members with an overview of the meeting agenda and objectives.

Susan confirmed the adoption of the March 2018 Board meeting summary<sup>1</sup>.

Geoff Tyree, Deputy Director for Public Affairs at RL stated that Mark Heeter will be going back to media relations and Kristen Holmes will be working with the HAB as the point of contact for RL.

Lindsay Strasser, HAB Facilitator, provided members with informational announcements.

### **Tri-Party Agreement Agency Updates**

*U.S. Department of Energy – Richland Operations Office*

Doug Shoop, RL Manager, provided Board members with a presentation highlighting recent Hanford Site activities. Doug noted the following key points in his presentation<sup>2</sup>:

#### ***Plutonium Uranium Extraction Plant (PUREX) Tunnels***

- Doug noted that it has been one year since the partial collapse of PUREX tunnel 1. He stated that work crews stabilized tunnel 1 with grout.
- RL and DOE Office of River Protection (ORP) teamed together to conduct a comprehensive review of other risks at Hanford. This investigation determined if there were other vulnerabilities similar to PUREX tunnel 1.
- PUREX tunnel 2 is being monitored, as it was also determined to be at risk for failure. Contractors are conducting preparatory work to stabilize the tunnel using grout, which is scheduled to begin this summer.
- The risk review identified a structure inside the PUREX canyon called N-Cell, which has a high amount of plutonium within the cell. It was determined that if the N-Cell glove box were to fail, a potential spread of contamination could happen within the PUREX facility. Although, the contained structure of the facility would prevent a release of contamination to the environment, it would make the future cleanup of the canyon difficult.

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<sup>1</sup> [March 2018 Board Meeting Summary](#)

<sup>2</sup> [DOE-RL Agency Update](#)

### ***K Area Sludge Removal Project***

- As part of the risk review, the sludge in the K Basin was determined to be a significant risk to the environment and human health. The contractor completed the prototype facility and equipment to move the sludge 18 months ahead of schedule and \$20 million dollars under budget. The contractor completed the Operational Readiness Review (ORR) and DOE authorized the start of the project.
- Another risk identified are the sand and garnet filters used to process the water in the basin, as they were determined to be highly contaminated. The debris under the basin will need to be characterized. The basin will need to be dewatered, which contains 1.2 million gallons of contaminated water. The K West basin will be filled with grout, demolished and disposed of materials.

### ***324 Building and 300-296 Waste Site***

- The contractors are making great progress with cleaning out the hot cells. The mockup facility is in use and equipment is being installed and tested, while workers create procedures for operating the equipment.

### ***Cesium and Strontium Capsule Dry Storage***

- The contractors are making great progress and have 60 percent design completion. The permit application has been submitted to Ecology. Contractors are conducting geotechnical work associated with the concrete pad that will house the canisters.

### ***Legacy Waste Processing***

- As part of the risk review, DOE is reviewing the legacy waste boxes that are stored outside. These boxes are exposed to all types of weather conditions. It was determined that the covers on the boxes continue to degrade. DOE is exploring the possibility of working with Idaho National Laboratory to ship some of the transuranic waste to the mixed waste treatment project in Idaho.

### ***Plutonium Finishing Plant (PFP)***

- 90 percent of the waste has been processed into low-level waste packages with 60 percent of the waste packaged into super sacks. The super sacks are stored in a shipping container. There are 21 super sacks with two processed to date. The remaining 10 percent have either been size reduced or are getting ready to be size reduced. There are less than five grams of plutonium in the debris. There are 300 grams of waste that need to be remediated.

### ***216-Z-9 Crib External Structures Risk Mitigation***

- The 216- Z-9 crib is in the proximity of PFP. The 216- Z-9 crib has about 59,000 grams of plutonium. The 216- Z-9 crib interim stabilization is a high-risk priority due to the possibility of collapse.

### ***Legacy Tanks***

- The 241-Z-361 tank is in the proximity of PFP. The 241-Z-361 tank contained liquid waste plutonium bearing materials at one point, which was mostly removed. There is still sludge remaining on the bottom of the tank to date, which is about 29,000 grams of plutonium.

### ***Collapsed Cribs and Tank Covers***

- There are many cribs out on site, which were used to dispose of liquid waste. It has been determined some subsidence has occurred at the 216-Z-1 crib and the 216-C-9 crib. There has also been a subsidence with the 241-CX-70 tank cover.

### ***Excess Facility Risk Mitigation***

- It has been determined that the 224B Building and 224T Building are at risk. These buildings have a significant amount of source term and will need to be stabilized in the near future.

### ***Hanford Site Infrastructure***

- DOE has \$189 million worth of projects requiring infrastructure updates during the next few years. These upgrades include the electrical systems, water systems, fire systems, sewer systems, etc. There are 54 projects in total and 13 emergency vehicles will be needed in the future. \$86 million dollars will go to the startup of the Direct Feed Low-Activity Waste (DFLAW) system facilities.

## *U.S. Department of Energy – Office of River Protection*

Ben Harp, ORP Deputy Manager, provided Board members with a presentation highlighting recent ORP activities. Ben noted the following key points in his presentation<sup>3</sup>:

### ***DFLAW Overview***

- Ben provided an overview of the DFLAW process. The DFLAW system consists of many different facilities and processes. ORP is leveraging Fukushima and Savannah River Site (SRS) technologies. Ben noted that on [slide 5 of the presentation](#) displays the conceptual layout of the DFLAW system.

### ***A-AX Single-Shell Tank Farms***

- There are 10 tanks in A-AX Farms with nine of the tanks in the consent decree and one in the Tri-Party Agreement (TPA). To meet the 2020 consent decree, two of the nine tanks are to be

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<sup>3</sup> [DOE-ORP Agency Update](#)

retrieved, which are AX-102 and AX-104. In order to install new equipment, the old equipment will need to be removed. ORP is on schedule to finish the two tanks by 2020.

#### ***242-A Evaporator***

- The first of two evaporator campaigns for the year has been completed for 166,000 gallons of double-shell tank (DST) space. The second campaign is scheduled for June 2018. A new spare reboiler for the 242-A Evaporator was delivered, which met a consent decree milestone.

#### ***Chemical Vapors***

- The testing of additional engineered controls is being conducted. These are the Nucon thermal oxidation and the Strobic Air Technologies. The tests are being conducted within the worker breathing zones. Once the testing is completed, ORP will determine if the engineered controls will be deployed into the tank farms.
- SY and AP farm conducting non-waste-disturbing work have been approved for the full-face air-purifying respirators. ORP is working with Hanford Atomic Metal Trades Council (HAMTEC) and third-party experts to determine if this equipment can be used at other DST farms.
- ORP submitted a permit package to Ecology for a planned stack extension at AW Farm.

#### ***Waste Management Area C***

- C Farm retrieval has been completed, including the sampling required for the certification report. ORP is in the process of reviewing the certification report prior to submitting to Ecology for final completion. In addition, ORP has submitted the draft Waste Incidental to Reprocessing (WIR) evaluation for public comment with a public meeting planned on June 18, 2018. The WIR determination is one step of the closure process for C Farm.

#### ***AZ-102 Pump Installation***

- AZ-102 received a new 44.5-foot pump and jumpers. The updates to AZ-102 are vital, as this allows the tank to support the future 242-A Evaporator campaigns and AX Farm retrieval operations.

#### ***SX Farm Interim Barrier***

- The first phase of work was completed for the interim barrier project at SX Farm. The SX Farm evapotranspiration basin is the catch pond that runoff water goes to evaporate.

#### ***Waste Treatment and Immobilization Plant***

- Albert Kruger, Scientist with ORP in conjunction with the Pacific Northwest National Laboratory (PNNL), provided a presentation for successfully vitrifying three gallons of Hanford LAW into glass.

- The concrete wall for the Effluent Management Facility (EMF) has been completed. The startup of the permanent plant power to the Low-Activity Waste (LAW) Facility has been completed.
- There are 227 total DFLAW plant systems and areas to be turned over. 88 have been turned over to startup and 22 have been handed over to commissioning.
- ORP and Bechtel participated in a DOE Safety Evaluation Report signing ceremony. This signified approval of the LAW Facility Documented Safety Analysis (DSA). This is another step to transitioning from construction to operations.
- The High-Level Waste (HLW) Facility project has received congressional support. ORP is currently underway with the ramp up of the engineering design activities. For the Pretreatment (PT) Facility, there are two remaining technical issues to be resolved, before the engineering can begin.

***Other Topics of Interest***

- The ORP 6<sup>th</sup> Annual Grand Challenge winner was announced. Matthew Asmussen proposed to develop a technical basis for using cementitious materials for immobilization of treated low-activity waste streams.

*Washington State Department of Ecology*

Alex Smith, Ecology Program Manager, provided Board members with an update on recent Ecology activities. Alex noted the following key points covered in her presentation<sup>4</sup>:

***TPA M-92 Milestone***

- There are three public comment periods related to the storage of the cesium and strontium capsules.
- DOE held a 90-day public comment period for a Class 3 permit modification on the construction and operation of a proposed capsule storage area, which is the removal of the capsules from wet storage to dry storage.
- The TPA Agencies are currently holding a 45-day public comment period for changes to the TPA M-92 milestone. These changes are related to the cesium/strontium, bulk sodium, and special case waste.
- Ecology will hold a 60-day public comment period on the Class 3 permit modification for the proposed capsule storage area.

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<sup>4</sup> [Ecology Agency Update](#)

### ***System Plan Negotiations update & TPA M-62-45 Milestone***

- Ecology has been in negotiations with ORP, as ORP is the only DOE entity involved with the System Plan negotiations. The System Plan negotiations are related to the tank waste mission and optimization of the scenarios. Ecology and ORP did not reach an agreement by the May 31, 2018 deadline, which has now been extended to June 30, 2018.
- Once an agreement is reached between Ecology and ORP, there will be an opportunity for public comment periods and public meeting(s).

### ***Other TPA Negotiations***

- Other TPA negotiations in progress are Section 5.5 of the TPA Action Plan, which would add detailed information about the Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) integration. This will address the issue of a RCRA waste management unit that is inside a CERCLA operable unit. The other TPA negotiation underway is the M-91 milestone for the transuranic waste management. There will be an opportunity for public comment periods once these negotiations conclude.

### ***Milestone Extensions***

- The omnibus appropriation is still less than the compliance-level budget, so the TPA 149.G allows DOE to request milestone changes due to the lack of appropriated funds. The TPA Agencies are in the process of reviewing the proposed milestone changes. This delay does include milestone listed in HAB Advice #287, which has delayed the TPA Agency response.

### ***Permitting***

- A total of 64 permit modifications have been issued, which are considered either completed or in process to date. As of May 2018, a majority of the Class 3 permit modifications have been focused on the Waste Treatment & Immobilization Plant (WTP), PUREX, and the Capsule Interim Storage.
- The Hanford RCRA permit is required by law to be reissued every 10 years. When Rev. 9 was reissued several years ago, there were deficiencies that the U.S. Environmental Protection Agency (EPA) did not agree with. Rev. 9 was pulled back for further review. In conjunction with DOE, Ecology has been tracking the progress for process efficiencies.

### ***New Faces at Ecology***

- Heather Watts has joined Ecology as a Chemist in the Waste Management section. Heather will be working with Ron Skinnerland's team.
- Alex noted that an employee of Ecology passed away unexpectedly, Dwayne Crumpler. Dwayne was a Hydrogeologist and had worked on site for more than 20 years.

*U.S. Environmental Protection Agency*

David Einan, EPA Region 10 Manager, updated HAB members on recent EPA activities. Key points covered in David's update:

- David expressed his appreciation for all of the hard work from the Board. He stated that the Board does great work with the advice process.
- David stated that during RL's agency update, Doug Shoop mentioned high-risk items. He noted that those high-risk items are very real and EPA is working with the TPA Agencies to ensure those risks are integrated with the milestones to reduce the risk.
- David mentioned that the 100-DH record of decision (ROD) is ready for Administration signature and is hoping to get the signed ROD back in July 2018. He noted that the Administrator issued a clarifying statement stating that ROD amendments would be pulled back to the Administrator and require consultation. This change also applies to remedial action and removal actions. David noted that this is a complication that EPA will need to address going forward.
- David stated that he was given authority to hire another staff member for the local EPA office. He noted that he is very optimistic.

***Board Member Questions (Q), Responses (R), and Comments (C):***

*Note: This section reflects individual questions, comments, and agency responses.*

*Q: "How hot is the characterization that has already been done to the soils under the K Basin? Do we need to start thinking about the staging? Do we leave the K Basin and think about protecting the soils around it? I am also concerned about the soils under the 324 Building. What do we need to do to gain efficiencies with the K Basin at the same time as we work on the 324 Building?"*

*R (RL): "I appreciate your question. The K Basin will need to be reviewed in more detail going forward. At the K East Basin, we knew the expansion joints were leaking with contamination underneath the basin. At the K West Basin, we don't have any indicator that the basin is leaking, although it is a possibility."*

*Q: "There will be a WIR Process public meeting followed by a Tank Waste Committee (TWC) meeting. If WIR determination changes the definition of HLW to low level waste for C Tank Farm, then why can't we grout the LAW after cesium is removed. Why are we still vitrifying it and turning into glass?"*

*R (ORP): "The first priority is to get the LAW Facility up and running. ORP is focused on this task. The mission according to the System Plan will go until 2063, so at some point there will be some kind of supplemental processing. Today we will not make any decisions on grout, etc. until after we meet our consent decree and milestones."*

*Q: "In regards to the vapor program, in past there has been limited information given due to the ongoing litigations. Is there any information you can share now? WTP lab timelines are always changing and when the analytical portion will come online?"*

R (ORP): “The vapor litigation is still ongoing. There is data on Washington River Protection Solutions (WRPS) website. As far as the WTP Lab, the startup testing has started but on the slower parts. It is all coming together for the 2022 startup.”

*Q: “Is the Tank Side Cesium Removal (TSCR) part of the DFLAW system and is it progressing? How does this feed into the potential of disposing offsite into a commercial repository?”*

R (ORP): “TSCR is part of the first phase of DFLAW through WTP. It is a five-year project that is a sub-project to the LAW Pretreatment System (LAWPS). The LAWPS project went from \$400 million to \$800 million with a date that went beyond the consent decree. ORP looked at different technologies that we could develop something that would produce enough feed through WTP. Columbia Engineering is building a similar type of technology for the SRS. We are confident that we will have enough data from SRS before we deploy the TSCR system here at Hanford.”

*Q: “There are major contracts that are expected soon. What is the progress with those upcoming contracts?”*

R (RL): “The draft request for proposal (RFP) for the occupational medical services contract was issued and comments were received. The final RFP is underway. The 222S is in process for drafting the RFP. The mission support contract draft RFP was issued and the final RFP is underway. The draft RFPs for the tank farms and central plateau contracts are underway.”

*Q: “Thank you for sharing the list of risks. Is there a written report or list? If so, can it be shared with the HAB?”*

R (RL): “It is not a report, but more of a matrix. I don’t see any reason why we can’t make it available for the HAB. We are committed to looking at the matrix on a regular basis and continuing to add to it as needed.”

*Q: “For the Hanford Site infrastructure, you mentioned the \$189 million dollars’ worth of upgrades over the next few years. It is my understanding that annually it cost \$600 million of RL’s budget on surveillance, infrastructure, and the min-safe budget. Is the \$189 million in addition to the \$600 million?”*

R (RL): “We can commit to providing more detail on the specific projects RL is working on and the cost associated with those projects. It costs RL about \$550 to \$600 million in base cost to pay on a variety of things, so yes the \$189 million is part of the base costs.”

*Q: “I know RL has been focused on the PFP work dealing with the contamination releases, etc. Can you explain or give us some context regarding the lessons learned on how to prevent future incidents?”*

R (RL): “One of the things that CH2M Hill Plateau Remediation Company (CHPRC) has done is to look at the lessons learned and prevention of further contamination spread. The boundary areas have increased since the incidents occurred.”

*Q: “Why is cesium not part of the WIR but other radionuclides are?”*

R (ORP): “I can’t answer your question, but I can get you an answer.”

*Q: "What is the timeframe for dealing with the sub-surface areas of PFP?"*

R (RL): "The PFP sub-surface work is covered by the PW-1, 3, 5 ROD. The ROD is in place but due to lack of funding we have not been able to support the ROD."

*Q: "You mentioned during the agency update, the idea of sending transuranic waste to Idaho. Can you please expand on that comment?"*

R (RL): "No decision has been made for transuranic waste going to Idaho. The federal government and tax payer money invested a significant amount of funds in putting together the advanced mixed waste treatment program in Idaho. That facility was used to treat, package, and transport transuranic waste from Idaho to WIPP."

C: "I encourage DOE to hold more public meetings with public comment opportunities regarding the WIR. I encourage DOE to consider holding some of those public meetings outside the Tri-Cities."

*Q: "Can you describe the TSCR process? Will it pump out the liquid and filter the supernate leaving the saltcake and sludge for later removal?"*

R: "With the TSCR process, we will be filtering the supernate and dissolving the saltcake, which will then become supernate after the salt evaporates. A/AX Farm has a lot of saltcake, so that will become feed for DFLAW until the integrated facility is up and running."

*Q: "There have been some questions raised about TSCR not proven technology at the level that we need for operation at Hanford. Can you comment on that statement?"*

R (ORP): "The ION exchange media being used has been tested extensively with DOE. We are trying to leverage the data we collect from SRS, which will be operational before it is deployed here at Hanford. In addition, there are small scale testing being conducted. There is a series of testing that will be completed to ensure that TSCR will work with our system."

C: "None of the waste in the tanks is incidental to reprocessing, as it is all a direct result to reprocessing. The WIR provision in the law was intended to ensure gloves, pieces of equipment, and tools that became radiated during reprocessing didn't get defined as high-level waste. It is a misapplication of the provision."

*Q: "Is there going to be two crews for the melters? How does that work?"*

R: "We are going to staff for both melters. We will ramp it up slowly when it first starts."

*Q: "Can you comment whether the typical schedules for TPA milestones need to be changed due to the Administrator taking back signature authority on RODs over 50 million?"*

R (EPA): "The Administrator is only signing remedial RODs. The milestones are unchanged. They stay with the region and TPA. We don't usually have milestones associated with the RODs that require the Administrator's signature."

*Q: “The DOE/EPA limits for ground disposal of plutonium is 100 nanocuries per gram. On Tank C-102 data indicate the plutonium levels in the residual waste is at 5,200 nanocuries per gram. How does DOE reconcile the WIR designation against the plutonium disposal requirements?”*

R (ORP): “I don’t know the specifics of that, so I will have to take a look at it and get you an answer later.”

### **Draft Advice: 100-B/C Proposed Plan Advice**

Jan Catrell, Public at Large and River & Plateau Committee (RAP) Chair introduced the 100-B/C draft advice,<sup>5</sup> which is based on the draft Remedial Investigation/Feasibility Study (RI/FS) and the draft Proposed Plan. She expressed her gratitude to the issue manager team for all of the hard work that was accomplished over the course of three months. Jan also thanked the RAP committee for providing consensus to move the draft advice to the Board meeting for approval. Jan stated that the Board is asking the TPA Agencies to consider the draft advice when finalizing the RI/FS and Proposed Plan. Jan provided a brief summary of the draft advice background and bullet points.

#### *Agency and Regulator Responses*

Kyle Rankin, Co-Deputy DDFO thanked the 100- B/C issue manager team for all the hard work accomplished with the draft advice.

Laura Buelow, EPA thanked the 100- B/C issue manager team for all of the hard work put into the draft advice. Laura stated that EPA is hopeful the 100 B/C Proposed Plan will be release for public review later in 2018. EPA is working with DOE to revise the draft RI/FS and draft Proposed Plan and will wait for the formal advice from the Board. Laura stated that she wants to ensure that the advice is considered prior to the finalization of the RI/FS. Laura noted that this is the third ROD along the 100 area and is consistent with the other operable units (OUs). The cost for pump-and-treat will be in the range of \$100 million dollars. Laura stated that the digs along the river corridor are at least 15 feet deep but can go down further for some of the contaminates in the soils. She noted that the deep institutional controls that are being proposed for groundwater is to prevent direct exposure to the environment and human health. Laura expressed her appreciation for the feedback on the separate alternatives in the draft Proposed Plan.

Nina Menard, Ecology stated that her team is in the process of reviewing the draft RI/FS and draft Proposed Plan. Nina stated that she echo’s some of Laura Buelow’s comments. She noted that she has some concerns regarding the direct contact contamination below 15 feet that is being addressed with institutional controls. Nina mentioned that contamination below 15 feet does not need to be addressed, but DOE is addressing it with implementing institutional controls. Nina noted that she has concerns about the cost of the pump-and-treat.

Susan Leckband open the discussion for members to provide suggested revisions, comments, and/or questions.

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<sup>5</sup> [HAB Advice #296: 100 B/C](#)

Following the incorporation of agreed upon revisions and minor wording changes, the Board approved the advice. Members agreed to send the final advice to the Ecology and EPA managers.

***Board Member Questions (Q), Responses (R), and Comments (C):***

*Note: This section reflects individual questions, comments, and agency responses.*

*Q: “Have EPA, Ecology, or DOE incorporated tribal scenarios for use of food, health, etc.?”*

R (EPA): “At the Hanford Site, we have used an unrestricted use based off of a rural residential scenario that would grow and consume produce from the waste site. We have had discussions with the tribes and were provided scenarios but have not supported those scenarios for cleanup decisions.”

*Q: “Can you give an example?”*

R (EPA): “One scenario consisted of groundwater use in sweat lodges. The scenario listed the number of hours a person is expected to use in a sweat lodge, which is physiologically impossible according to our risk assessors.”

C: “I was heavily involved in the Umatilla Tribe scenarios. I actually wrote the sweat lodge model, which is currently being revised based on comments received. The issue with the scenario was not the number of hours exposed but the water content for inhalation. The real water pathway is really with seeps and springs. Some of the tribal scenarios have never been taken seriously, but they are technically valid. The biggest difference between a residential farmer scenario and a tribal scenario, just isn’t with the sweat lodge but there is more soil contact that has higher risk levels.”

C: “Since the B Reactor is considered a national monument, there is a concern with what the water source will be for visitors of the park. It is my understanding that groundwater may be a required source of water for the park.”

Q: “Were the human health and ecological risk evaluations done in consideration with the groundwater and soil contaminations?”

R: “Yes and no. Yes, when we look at risk to human health, were looking at the waste sites, water, etc. When we developed cleanup numbers, they became separate from soil and groundwater.”

**Public Comment**

There was one public comment.

**EM SSAB Activities / FACA Overview**

Dave Borak, Designated Federal Officer (DFO) with DOE EM provided an EM SSAB and FACA overview. Dave noted the following key points from his presentation<sup>6</sup>:

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<sup>6</sup> [FACA and the EM SSAB Overview](#)

Dave stated he has been working with the SSAB's for the last four years, but his experience with DOE has been for the last ten years. He also noted that he has been involved with stakeholders from various groups in the EM complex for 20 years.

### ***The Formation of the EM SSAB***

- The EM SSAB was formed in 1994 as a result of the Federal Facilities Environmental Restoration Dialogue Committee (FFERDC). The FFERDC advised DOE, EPA and the Department of Defense on stakeholder involvement. One of the recommendations that came out of the FFERDC report, is that DOE should have SSABs around each of the Sites in the DOE complex.
- The HAB was formed nine months before the SSAB was formed. The HAB was grandfathered into the SSAB process. The SSAB is the tool that DOE uses in order to receive advice from the communities that are directly impacted by the Sites in the DOE complex. DOE has eight Boards within the SSAB that fall under one umbrella charter.

### ***FACA and the Guiding Principles for the EM SSAB***

- The FACA was formed in 1992 and approved by President Richard Nixon. The FACA formalizes the advice received from advisory committees. The first advisory committee was formed during President George Washington's term, called "The Whiskey Rebellion."
- The purpose of the advisory Boards is to ensure that advice is objective and accessible to the public. The FACA provides transparency and participation to improve trust in the government and credibility to the advice received.
- There are 1,000 federal advisory committees currently in the federal government, which have about 65,000 members. There are 60 executive departments and agencies that sponsor the committees annually and between all of the committees, there are 1,000 reports issued each year.
- The General Services Administration (GSA) Committee Management Secretariat was tasked under the law to administer all of the advisory committees. They monitor the advisory committee activities, conduct annual reviews and manage the FACA database. Each agency under the FACA is required to have a Committee Management Officer (CMO). Wayne Smith is the CMO for DOE Headquarters. Mr. Smith oversees all of the DOE advisory Boards. Each individual Board has a DFO and each Field Site has a DDFO.

### ***Legal Requirements Under FACA***

- The FACA legal requirements are simplistic. The FACA requires every Board to have a charter that outlines the mission and duties. This charter is required to be renewed every two years with GSA.
- All FACA Board meetings require open access to the public. Documents presented at meetings are to be maintained and available for public inspection. Each meeting requires an opportunity for public comments.

- If a Board violates the FACA requirements, the GSA has the authority to throw out any advice received from the Board.

#### ***DFO/DDFO Roles & Responsibilities***

- The DFO/DDFO ensure the Boards maintain compliance with the FACA, regulations, guidance, and agency policies.
- The DFO/DDFO are required to prepare Federal Register notices, approve agendas, maintain records, prepare annual reports for the CMO, nominate members for appointment, and ensure all ethical standards are met by Board members.

#### ***Board Roles & Responsibilities***

- Members of a Board are to attend regular meetings and learn about the site’s EM cleanup mission. Members are to provide recommendations at the request of the site management and EM leadership. Members should be respectful and work collaboratively with other Board members and Agency staff.

#### ***Legal Considerations under FACA***

- EM SSAB members are not subject to the same federal ethics regulations as federal employees and Special Government Employees.
- DOE asks a Board member to refrain from any use of membership that would give the appearance of being or motivated by the desire for private, professional, or financial gain. This would be considered a conflict of interest, in which case the Board member would be asked to recuse themselves from decisions and/or discussions.

#### ***Board Member Questions (Q), Responses (R), and Comments (C):***

*Note: This section reflects individual questions, comments, and agency responses.*

*Q: “Can the Board meet without the DDFO?”*

R: “No. The DDFO must be present at the meeting. If the DDFO cannot make the meeting, an acting DDFO or DOE Official be present for the meeting to take place.”

*Q: “What would be an example of private or professional gain?”*

R: “For example, if a Board member was running for office and used their time on the Board to conduct speeches as part of their campaign.”

*Q: “The Board members don’t understand how the EM SSAB subjects come to the EM SSAB meeting. How do the EM SSAB create an agenda for a bi-annual meeting?”*

R: “The EM SSAB discusses cross-cutting issues across all DOE sites. Members will issue a recommendation to take to each of their respective Boards for a thumbs up/down vote to determine if the recommendation can be sent to DOE Headquarters.”

*Q: “Does DOE look at the HAB’s advice differently than advice from the other Boards, as we are a consensus Board?”*

R: “Each Board has to function the way they need to function. I don’t see this Board any different than others.”

*Q: “Does the responses to our advice go to Headquarters?”*

R: “The advice that comes out of each Board should be addressed to the site-specific agencies. Generally, the advice can be shared with Headquarters.”

### **Draft Advice: FY2020 Budget Priorities**

Tom Galioto, Public at Large and Budgets & Contracts Committee (BCC) Vice Chair introduced the FY2020 Budget Priorities draft advice<sup>7</sup>. Tom stated that this advice is a collaboration with all of the sub-committees. He thanked the issue manager team for all of their hard work in producing the draft advice within a short period of time.

Tom provided a brief synopsis of the draft advice and opened the discussion for members to provide input. Members had an engaged discussion about the advice bullet points.

Following the incorporation of agreed upon revisions and minor wording changes, the Board approved the advice. Members agreed to send the final advice to the TPA Agency managers.

#### *Agency and Regulator Responses*

Jim Lynch, ORP and Co-DDFO thanked the BCC leadership and issue manager team for all of the hard work that was put into this advice.

John Price, Ecology expressed his concerns for the budget, more so now than in the past. He stated that Ecology is working on engaging differently with DOE and is trying to change some of the public involvement aspects of the budget meetings.

#### ***Board Member Questions (Q), Responses (R), and Comments (C):***

*Note: This section reflects individual questions, comments, and agency responses.*

C: “Realistically the double shell tanks are getting old. I suggest that we take out the word funding. This would be a line item in the budget and would be long lead item. It should say planning, as FY2020 would be when they would probably start planning for that.”

R: “The issue with double shell tanks and planning is part of the John Price Challenge that was tasked to the TWC committee.”

C: “I think that TSCR should be referenced in the advice point for the construction of DFLAW.”

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<sup>7</sup> [HAB Advice #297: FY2020 Hanford Budget Priorities](#)

R: “The construction of the DFLAW is not a facility. It is a set of facilities and a process. It includes the tank farms, TSCR, LAW Facility, the EMF, and a variety of other facilities.”

C: “This advice is to address the high points of FY2020, so getting into the weeds or details of the bullet points is not necessary.”

C: “We need contingency when it comes to single shell tank retrievals. We haven’t isolated anything to the point that we can’t retrieve it. We should point out in this advice that we need contingency.”

C: “Some of the tanks discussions fall under the John Price Challenge for our preferred scenario.”

C: “The larger picture is the budget. If we want it to reach headquarters, then we put it in the budget advice.”

*Q: “Does slab on grade include the characterization for the soil underneath?”*

R: “DOE has to conduct some samples of the slab before it can transfer to the OU.”

*Q: “Is the infrastructure line item only for RL’s budget?”*

R: “We will recognize it from both RL and ORP offices.”

*Q: “The term compliant budget it references in this advice many times. Can the complaint budget amount be listed here as well?”*

R: “The TPA is required to submit a compliant budget ever year. Any comments and advice on the budget get attached to the budget request that is sent to Headquarters. The compliant budget identifies the milestones due that year, so that is the minimum requirement for the compliant budget.”

R: “It was mentioned earlier that the budget is submitted on a year to year basis.”

### **FY2019 HAB Proposed Work Plan and Calendar**

Susan Leckband, Board Chair provided an introduction for the discussion of the proposed FY2019 HAB calendar<sup>8</sup> and work plan<sup>9</sup>. Susan stated that the proposed FY2019 HAB calendar and work plan will be approved at the September HAB meeting.

Jim Lynch stated that he suggested a change to the FY2018 HAB calendar<sup>10</sup>. Jim noted that Brian Vance, ORP Manager would like to attend the September Board meeting, but due to a scheduling conflict the first week of September, he would not be able to attend. Jim proposed moving the September Board meeting and Public Involvement & Communications (PIC) committee meeting dates to the third week of

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<sup>8</sup> [FY2019 HAB Draft Calendar](#)

<sup>9</sup> [FY2019 HAB Draft Work Plan](#)

<sup>10</sup> [FY2018 HAB Calendar Revision 2](#)

September. This change would ensure that ORP management would be in attendance. Jim also noted that the HAB leadership requested an out of town meeting in Seattle, WA for the September HAB meeting.

Susan stated that the work plan was reformatted during the HAB leadership workshop in May 2018. In collaboration with the TPA Agencies, the work plan lists all items that should be ripe for discussion in FY2019.

Jim noted that general overarching questions were added to the work plan for TPA Agencies to review for upcoming presentations.

Members had an opportunity to review the work plan and provide any comments and/or suggestions.

***Board Member Questions (Q), Responses (R), and Comments (C):***

*Note: This section reflects individual questions, comments, and agency responses.*

*Q: “At one point, it was stated that the HAB could possibly participate or comment on the development of System Plan 9, so can that be added to the work plan?”*

*R: “Yes, that has been included under the WTP topic.”*

*C: “I would like to see added to the work plan something about the diversity of perspectives. We need to talk about diversity in hiring people or how to get people engaged with Hanford. It would be nice to start talking about concepts and diversity.*

*R: “Yes, we can add diversity into the work plan.”*

**HAB Committee Reports**

Board and Committee Leadership provided reports on ongoing efforts and anticipated work and products.

***Tank Waste***

Bob Suyama, Benton County and Tank Waste Committee (TWC) Chair provided an update regarding the TWC committee. Bob stated there was a Committee of the Whole (COTW) meeting on April 10, 2018. Bob noted that the focus of the COTW meeting was on the Direct Feed Low-Activity Waste (DFLAW) System and provided a brief overview of the agenda. Bob also noted that a TWC meeting is scheduled for Tuesday, June 19, 2018 from 9:00 a.m. to 5:00 p.m. at the Richland Public Library.

The TWC committee will not have a committee call in June.

***River & Plateau***

Jan Catrell, Public At Large and River & Plateau Committee (RAP) Chair provided an update regarding the RAP committee. Jan stated that at the last RAP meeting in February, she was elected Chair of the RAP committee and Dale Engstrom was selected as Vice Chair until the end of his term with the HAB.

Jan expressed her thanks to the Board for providing consensus on the 100-B/C advice. Jan requested a committee meeting for August 7, 2018.

The RAP committee will have a committee call on Tuesday, June 26, 2018 at 1:30 p.m. to plan an August meeting agenda.

### ***Budget and Contracts***

Tom Galioto, BCC Vice Chair provided an update regarding the BCC Committee. Tom encouraged members to join the BCC committee. He stated that on March 29, 2018, the BCC committee received a webinar from Mark Coronado, Director for the RL Budget Division on the budget process. Tom noted that the BCC committee met on April 11, 2018 and received a presentation on current contracts & procurements. He also noted that he appreciated the discussion to move the HAB budget advice forward today.

The BCC committee will not have a committee call in June.

### ***Health, Safety & Environmental Protection***

Rebecca Holland, HAMTEC and Health, Safety & Environmental Protection (HSEP) Chair provided an update regarding the HSEP committee. Rebecca stated that the HSEP committee toured the Hazardous Materials Management and Emergency Response (HAMMER) Federal Training Center on May 9, 2018. Rebecca noted that the HSEP committee observed different demonstrations around the HAMMER Facility, including a video presentation. Rebecca requested a committee call in June to determine if an August meeting is appropriate. Rebecca also noted that she is transitioning from her work at Tank Farms to the 324 Building Project.

The HSEP committee will have a committee call on Tuesday, June 26, 2018 at 9:00 a.m.

### ***Public Involvement & Communications***

Liz Mattson, Hanford Challenge and Public Involvement & Communications Chair provided an update regarding the PIC committee. Liz stated that members can join up to two committees, as well as the PIC as a freebie. She noted that members interested in joining the PIC will need send a request to the HAB Facilitation Team. Liz also mentioned the PIC committee met on June 5, 2018 and discussed the response to HAB advice #293 regarding the State of the Site (SOS) meetings. The committee formed an issue manager team to rebrand the SOS meetings, as the TPA Agencies agreed to hold one non-HAB regional meeting. The PIC also received a tutorial on the WIR evaluation and provided input on the fact sheet.

The PIC committee will not have a committee call for June, but an issue manager call is scheduled for Friday, June 29, 2018 at 9:00 a.m.

### ***Executive Issues***

Susan Leckband, League of Women Voters and Board Chair gave an overview of the Executive Issues Committee (EIC). Susan stated that the committee leadership and TPA Agency representatives met for the annual EIC workshop on May 15 & 16, 2018 at the Ben Franklin Transit (BFT) Center. She noted that

the committee leadership and TPA Agency representatives were able to reach agreement on the FY2019 HAB workplan and calendar with the addition of a fifth Board meeting.

The EIC committee will not have a committee call in June.

### ***EM SSAB***

Shelley Cimon, Columbia Riverkeeper and Board Vice Chair provided an update regarding the recent EM SSAB activities. Shelley stated the bi-annual chairs meeting was held on May 3 & 4, 2018 in Roswell, New Mexico. She stated that Ann White, EM-1 was visiting Hanford during the EM SSAB meeting in Roswell. She noted that Ms. White expressed the need for technology and innovations in the EM cleanup. Shelley also noted that Ms. White mentioned pensions and debt that could impact the EM complex. Shelley mentioned the possible collaboration between the Idaho National Laboratory Citizen's Advisory Board and the HAB to discuss the future disposition of transuranic waste.

### ***National Liaison***

Pam Larsen, City of Richland and National Liaison provided Board members an update to include the following:

#### *Environmental Management (EM) Program – Headquarters (HQ)*

Ann Marie White was confirmed by the Senate in early April to serve as Assistant Secretary for Environmental Management (EM-1). She has a strong background in the commercial nuclear industry. Pam stated that people she knows who have worked with Ms. White say she is well liked and respected in the industry. Pam had a brief chance to meet her on April 11, 2018. Pam did not have a chance to talk to her when she visited Hanford.

On May 25, 2018 Ms. White announced that Ken Picha will be replacing Dae Chung as EM Associate Principal Deputy Secretary for Field Operations (EM-3). Dae Chung has returned to the EM Special Projects Office. The Field Operations post helps oversee nuclear operations, construction, environmental restoration and other tasks at EM cleanup sites. Previously, Ken Picha served as Senior Advisor and Site Liaison Coordinator for Field Operations. Mr. Picha worked in the EM program for over 25 years, including assignments at Hanford, Savannah River Site, and West Valley.

#### *Budget*

In May, the U.S. Senate Committee on Appropriations approved a budget to include \$7.2 billion for the DOE EM program, exceeding the \$6.9 billion passed by the House Committee. The bill now goes to the full Senate for a vote. It is \$56 million above the 2018 enacted level and \$581 million over the Trump administration's request. The Senate provided \$2.4 Billion for Hanford, rejecting Trump Administration proposed cuts.

#### *Los Alamos National Laboratory*

Under Secretary for Science and EM, Paul Dabbar visited Los Alamos in May and was briefed on progress to remediate a chromium plume and the successful treatment of the nitrate salt drums, one of which was the cause of the Waste Isolation Pilot Plant (WIPP) incident several years ago.

### *Idaho National Laboratory*

In April, four drums of solidified radioactive waste were found to have been breached. Samples have been sent to outside laboratories for analysis. Most of the cleanup around the breached drums should be completed in June. The material in the containers came from Rocky Flats. A new surveillance system and added monitoring devices have been installed.

### *Paducah Gaseous Diffusion Plant*

The original pump-and-treat facility was installed in the mid-1990s to control migration of contaminated groundwater and reduce concentrations of TCE, an industrial degreaser used to clean parts. It has processed four billion gallons of groundwater. To enhance the system, two new extraction wells and 14 monitoring wells located closer to the contamination source have been installed.

### *Waste Isolation Pilot Plant*

EM-1 recently approved a new \$288 million ventilation system for WIPP which should be online in early 2021. A contract award is anticipated this summer. The State of New Mexico issued a permit modification for the new ventilation system. Construction of a new underground shaft is expected to begin in 2020. WIPP currently is limited to disposing of 175,565 cubic meters of transuranic waste under the Land Withdrawal Act of 1992. DOE asked the New Mexico Environmental Department to only count the actual volume of waste in the containers. A ruling is expected in June. The volume of waste empaneled is currently 90,000 cubic meters, by only counting actual volume in containers that would shrink to 60,000 meters.

The Senate Appropriations Committee wants DOE to start planning to accommodate 34 metric tons of processed plutonium that was supposed to be converted to mixed oxide nuclear fuel. They directed DOE to submit a report to Congress by February for permits, legislative measures and physical changes needed at WIPP.

### *Savannah River Site*

The House Committee on Appropriations is in disagreement with the Senate, providing \$335 million to continue construction of the mixed oxide nuclear fuel plant at SRS.

### *Hanford Site*

An amendment was added to the 2019 The National Defense Authorization Act under development in the House of Representatives by Congressman Newhouse to continue ORP until 2024. There is currently a 2019 sunset date for merging ORP and RL.

### *Two National Academy of Science Committee meetings in Richland, WA*

Congress directed the Department of Energy to ask the National Academies to undertake two studies this year. The first is to examine cost effective alternatives to the treatment of Hanford Tank Waste. They were specifically directed to consider bulk vit and steam reforming. Pam pointed out an analysis proved those two alternatives would be costly and did not work.

A second group is tasked with examining opportunities for the development of new science and technology to advance the DOE-EM mission. A study done at the request of Energy Secretary Moniz in 2014 concluded significant opportunities exist to get cleanup work done faster and cheaper if strategic investments are made in science & technology development.

### **EM SSAB Recommendation Thumbs Up/Thumbs Down**

Susan Leckband, Board Chair introduced the EM SSAB recommendation regarding the Energy Communities Alliance (ECA) on Waste Disposition. Susan stated that the EM SSAB is not recommending that DOE accept the report, as they are already analyzing it. The EM SSAB is asking that DOE consider the suggested questions and recommendations made by the EM SSAB.

Susan noted that she is asking the Board to provide a thumbs up if members agree or a thumbs down if members don't agree with the EM SSAB recommendation. Susan noted that she may or may not sign this recommendation.

### ***Board Member Questions (Q), Responses (R), and Comments (C):***

*Note: This section reflects individual questions, comments, and agency responses.*

C: "The Oregon Department of Energy cannot agree with the recommendation the way it is written. We agree that the agreements in the ECA report need to be validated before they can move forward. There are items in the letter that we cannot consent with."

C: "The purpose of this letter is to highlight the overall concerns of the ECA report. These are recommendations so consider the fact that the report is already out and being reviewed."

### **Board Business**

#### ***Recommendation & Selection of HAB Leadership***

Members had an opportunity to nominate a member for Board Chair, Vice Chair, and National Liaison.

The nominations are as follows:

- Board Chair – Susan Leckband
- Board Vice Chair – Shelley Cimon
- Board National Liaison – Pam Larson

After a brief speech from each nominee, members voted Shelley Cimon for Vice Chair and Pam Larson for National Liaison. Members also voted to recommend Susan Leckband for Chair to the TPA Agencies.

#### ***Scheduling of Upcoming Committee Meetings/Phone Calls***

Committee members provided input on required committee phone calls for June. Two committee meetings were requested for August.

### ***Potential Products for September Meeting***

The following preliminary topics were discussed:

- Potential DST Failure Advice
- Potential product for the “John Price” Challenge or Round Table Discussion
- Potential WIR Advice

### **Round Robin**

Jim Lynch provided an introduction for the round table discussion. He noted that the purpose of this discussion is for members to provide input on the format and lessons learned from the Committee of the Whole (COTW) meeting this past April. Jim also noted that he would also like input from members on future COTW meetings.

### ***Board Member Questions (Q), Responses (R), and Comments (C):***

*Note: This section reflects individual questions, comments, and agency responses.*

C: “The good thing about the COTW was the opportunity to understand the project scope on DFLAW and how members were able to give feedback to the project managers.”

C: “I appreciated that Brian Vance brought his whole team and how very informative & transparent they were.”

C: “I really appreciated the format. It would be nice to come up with a format to have two COTW meeting in one day.”

C: “It was a great thing that Brian Vance brought his whole team.”

C: “I think that the COTW meeting was a great meeting and very insightful. The format could be used for future meetings to come.”

C: “I think the sticky note question portion of the committee was a failure, as I had to participate on my phone.”

C: “I think there should be follow up questions after the initial questions would be a good idea.”

C: “I was impressed with the level of commitment from Brian Vance and his team. I walked away with a wealth of knowledge but I am concerned this is the next shiny object.”

### ***Closing Remarks:***

Susan Leckband, Chair thanked Board Members for their attendance, thoughts and decisions. The meeting was adjourned.

**Attachments**

**Attachment 1:** Agency Update (RL Presentation)

**Attachment 2:** Agency Update (ORP Presentation)

**Attachment 3:** Agency Update (Ecology Presentation)

**Attachment 4:** Draft 100-B/C Advice

**Attachment 5:** EM SSAB/FACA Overview

**Attachment 6:** Draft FY2020 Budget Priorities Advice

**Attachment 7:** Proposed FY2019 HAB Work Plan

**Attachment 8:** Proposed FY2019 HAB Calendar

**Attendees**

**Board Members and Alternates:**

Rob Davis, Member	Richard Bloom, Alternate	Bob Suyama, Member
Larry Lockrem, Alternate	Gary Garnant, Member	Mike Korenko, Alternate
Phil Lemley, Alternate	Rebecca Holland, Member	Bob Legard, Member
Liz Mattson, Member	Emmitt Jackson, Member	Gene Van Liew, Member
Shelley Cimon, Member	Dan Serres, Alternate	Gerry Pollet, Member
Helen Wheatley, Alternate	Susan Leckband, Member	Amoret Bunn, Alternate
Paige Knight, Member	Todd Martin, Member	Antone Brooks, Member
Margery Swint, Alternate	Kristie Baptiste, Member	Dave Rowland, Alternate
Mike Priddy, Alternate	Dan Solitz, Alternate	Gary Karnofski, Member
Jeff Burreight, Alternate	Jan Catrell, Member	Rudy Mendoza, Alternate
Sam Dechter, Member	Tom Galioto, Member	Gary Busselman, Alternate
Emmett Moore, Member	Richard Jaquish, Alternate	

**Agency, Contractor & Support Staff:**

David Borak, DOE-EM	Doug Shoop, RL	Kyle Rankin, RL
Mark Heeter, RL	Kris Holmes, RL	Ben Harp, ORP
James Lynch, ORP	Dieter Bohrmann, Northwind supporting ORP	Echo Dahl, Northwind supporting ORP
Alex Smith, Ecology	Jeff Lyon, Ecology	Dan McDonald, Ecology
John Price Ecology	Theresa Howell, Ecology	Nina Menard, Ecology
David Einan, EPA	Laura Buelow, EPA	Emy Laija, EPA (Phone)
Jennifer Colborn, MSA	Dana C. Gribble, MSA	Jennifer Copeland, CHPRC
Douglas Brown, DNFSB	George Rangel, BNI	Michaela Trinidad, BNI

**Members of the Public:**

Dana Miller	Marlene George	Mike Luzzo
Dennis Faulk	Annette Cary	Heather Hanson
Kelly Houston	Carmen Vidal	Kelsey Shank
Jeff Dennison	Alex Termouri	Ellwood, Glossbrenner
Lindsay Strasser, ProSidian	Melissa Orona, ProSidian	Sherri Schatz, ProSidian