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HANFORD ADVISORY BOARD
TANK WASTE COMMITTEE
May 13, 2015
Richland, WA

Opening
Bob Suyama, Tank Waste Committee (TWC) chair, welcomed the committee and introductions were made. Committee members adopted the April 2015 TWC meeting summary with minor revisions.

Waste Isolation Pilot Plant Update (joint w/ RAP)

Introduction
Susan Leckband, Hanford Advisory Board (HAB or Board) vice chair, provided committee members with a summary of ongoing recovery efforts at New Mexico’s Waste Isolation Pilot Plant (WIPP) derived from Frank Marcinowski’s Waste Management update delivered at the April 2015 Environmental Attachment 1: Waste Management Update (Frank Marcinowski presentation from the April 23, 2015 EM SSAB Chairs Meeting)
Tank Waste Committee

Management (EM) Site-Specific Advisory Board (SSAB) chairs meeting. TWC and RAP committee members had identified an ongoing interest in the status of recovery efforts at WIPP and the potential impacts that WIPP’s continued inability to accept waste may have on Hanford Site transuranic (TRU) waste disposition. Susan noted the following key ideas in her update:

- The WIPP facility is located in southeastern New Mexico, near the town of Carlsbad. WIPP serves as a disposal facility for TRU waste from across the U.S. Department of Energy’s Office of Environmental Management (DOE-EM) complex. EM Sites across the nation ship TRU waste to WIPP, and waste is disposed of 2,150 feet underground within a large salt formation.

- On February 14, 2014, there was an incident in Panel 7, Room 7 of the WIPP facility. A canister from the Los Alamos Site, and there was a release of heat and some radiological material. The heat also caused several bags of magnesium oxide (an engineered barrier used throughout the facility), placed on top of several waste containers, to fail.

- WIPP is the primary destination of TRU waste disposal in the U.S. Department of Energy’s Office of Environmental Management (DOE-EM) complex, and the facility’s inability to accept waste is affecting many sites across the nation. Several sites are in jeopardy of missing important upcoming milestones.

- One of the key steps involved in the resumption of WIPP operations involves re-installing bolts into the ceiling of the mine to stabilize the salt. As DOE-EM expected, the salt has moved since the February 2014, and several rock bolts have failed. WIPP needs to demonstrate that the underground areas are stable before waste disposition can recommence.

- Following the radiological incident, the WIPP ventilation system switched to high-efficiency particulate air filtration. Ventilation within the mine is an ongoing concern as recovery efforts continue. Workers are using diesel equipment to drive rock bolts into the ceiling, but this equipment produces exhaust that the ventilation system must mitigate. WIPP recovery plans call for ventilation to increase in stages until it is able to filter 420,000 cubic feet of air per minute.

- Investigations have not found any additional compromised containers of TRU waste.

- A Technical Assessment Team (TAT) convened to determine why the radiological breach occurred and to see how the waste within the breached canister relates to similar waste stored at WIPP. The findings of the TAT will result in more rigorous waste acceptance criteria for WIPP.

- The TAT concluded that the accident was preventable, and it identified shortcomings within contractor and federal processes at Los Alamos, WIPP, DOE-EM, and the National Nuclear Security Administration. The TAT noted that there were both root and systemic causes that culminated in the incident. The TAT report also includes a corrective action plan.

- The initial priority for WIPP disposal will be waste generated during the cleanup of WIPP itself and waste currently stored on-site but not emplaced. Prioritization of off-site shipments are still uncertain, and DOE-EM will consider a variety of factors (e.g. waste acceptance criteria, site-
specific technical or safety issues, storage capacity) in determining the rate of shipments among sites.

- Frank Marcinowski’s presentation noted support for additional on-site storage at WIPP, and DOE-EM is considering off-site storage options to ensure that WIPP is ready to begin accepting waste as soon as the facility recovers.
- Recovery of WIPP is a financial priority for DOE-EM.
- DOE-EM is working to develop conceptual, high-level map models of the EM Sites that demonstrate waste disposition pathways. DOE-EM is seeking feedback on the graphics, and Susan encouraged HAB members to submit thoughts or comments to HAB leadership.

Steve Hudson, HAB chair, also provided a re-introduction of a draft EM SSAB chairs’ letter initially presented to the HAB at the November 2014 Board meeting and regarding surface storage at WIPP. Steve reminded Board members that the HAB initially chose to not endorse the letter. Following the November Board meeting, Steve stated that he and Susan reworked the letter to address the concerns raised by the HAB and to incorporate additional information provided by the State of New Mexico. Steve noted that EM SSAB chairs discussed the updated draft of the letter at their April 2015 meeting in Augusta, Georgia. Steve recognized that the new draft of the letter represents consensus on behalf of the EM SSAB chairs. Steve confirmed that the letter will again go before the HAB in June 2015, and he stated that the Board members would have the opportunity to provide an up or down vote as to whether or not the HAB should support recommendations included within the letter. Steve closed by noting that, in June, the HAB would have the opportunity to review and approve the chair’s letter before EM SSAB chairs review the letter for approval. Steve recognized that this process represented a shift in EM SSAB procedure.

Susan added that the updated draft of the chair’s letter on WIPP surface storage represents a compromise, just like HAB advice. Susan stated that the primary message of the updated letter is that the safe restoration of the WIPP facility needs to be DOE-EM’s TRU program priority.

Committee Questions and Responses

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

Q. Does the TAT recommend that WIPP implement additional characterization of incoming waste? What factors contributed to the problem waste involved in the radiological incident?

R. The TAT report covers this topic extensively, recognizing major safety culture failings. It is believed that a human transcription error led to some Los Alamos waste being improperly combined with organic cat litter as opposed to inorganic (mistakenly recorded an “an organic”, rather than “inorganic”).

Attachment 2: Transcribed flipcharts
C. The plastic used to contain the magnesium oxide within WIPP disposition facilities is highly combustible. The heat caused by this burning plastic was the largest factor contributing to plutonium propagation throughout the mine. There are other plastics that could contain the magnesium oxide that are not combustible. This change could be important to safe future operations at WIPP.

Q. How did leadership from other EM SSABs feel about the change in procedure for adopting letters?

   R. Other chairs who were present at the April 2015 meeting noted that they approved of the process. The HAB has expressed concerns in the past that the letters coming out of the EM SSAB chairs meetings sometimes overlooked salient information. The new process adds value in that the letters may be adjusted based on feedback from the individual SSABs before they are finalized.

Cesium Treatment and Disposition Issue Manager Update

David Bernhard provided TWC members with an update on the topic of Cesium Treatment and Disposition, noting that issue manager work identified four potential options for future management of cesium extracted from Low-Activity Waste (LAW) as it is sent to the Low-Activity Waste Pre-Treatment (LAWPS) Facility. The options highlighted by David include:

- **Option 1**: The use of an elutable resin media to capture cesium as LAW is sent from tanks to LAWPS. Captured cesium would then be sent back to a double-shell tank. This option is currently DOE-ORP’s planned strategy; however, it does not remove cesium from tanks, it does not reduce tank’s heat factor, and it does not reduce risk to the environment and to workers. Aside from cesium itself being returned to double-shell tanks (DST), the chemical solution used to elute the resin will result in a 30% reduction in the amount of tank space gained by LAWPS operations. The process would also result in the creation of additional LAW in tanks that DOE-ORP will need to vitrify.

- **Option 2**: The use of a non-elutable media to capture cesium in a very concentrated form as LAW is sent from tanks to LAWPS. Non-elutable media has the ability to capture more cesium than an elutable media. This option would place cesium into a very hot form, and DOE-ORP could dispose the cesium in a 17-inch borehole. Borehole disposition assumes a cost of five to ten times more than aboveground storage. As discussed at previous committee meetings, use of boreholes remains an ongoing policy discussion and is not a currently approved disposition pathway.

- **Option 3**: The use of an elutable resin media to capture cesium as LAW is sent to LAWPS, then using nitric acid and sodium hydroxide to release cesium from this media. Eluted cesium would then be placed into a disposal container, transported out of Washington State, and grouted for disposal. This option is prohibitive in that it adds volume to LAW and increases cost. It would be an approximate 25% increase in return volume of waste. Due to these identified problems, Option 3 is likely not viable.
- **Option 4**: The use of non-elutable zeolite media to capture cesium. As opposed to being vitrified, cesium canisters would then be placed in high-integrity container (HIC) and shipped to Waste Control Specialists, LLC (WCS) in Texas, where the canisters would be grouted and disposed of as Class C or less waste. The cost of shipping, grouting, and disposing of cesium canisters at WCS is approximately $340 million for a ten-year cycle. To do the same thing at the Integrated Disposal Facility (IDF), it would cost approximately $670 million.

David noted that issue manager research identified that the likely best options for cesium capture and disposition include the use of a non-elutable media and shipment of the cesium off-site for disposal. David stated that the current plan for cesium removal form the LAWPS stream will cost more and extend the overall lifecycle of the mission, as it does not incorporate either of the identified efficiencies.

**Committee Questions and Responses**

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

Q. If Option 2 were chosen, would the concentrated cesium form within capsules need to be transported within water?

   **R. No.** Dry storage could be explored if there were enough metal to effectively mitigate the heat. DOE-ORP has not yet explored transportation options for this disposition strategy; however, an approved disposal route would be needed before any cesium capture could occur. From a regulatory perspective, this would likely take at least eight years to finalize.

Q. Why are issue managers rejecting Option 3? The waste would go to a permitted facility, and it would leave the Hanford Site.

   **R. The cesium does not go back to the tanks, but the solutions used to elute the resin would return to the tanks as LAW.** This extra waste extends the length of the mission, as the additional LAW requires vitrification.

Q. Could cesium be placed into small enough containers that it would no longer be Class C waste? Jane Hedges, Ecology, has noted that cesium is High-Level Waste (HLW) and it will remain HLW.

   **R. Ecology does not want cesium to be buried at the Integrated Disposal Facility.**

   **R. [DOE-ORP] DOE looks at HLW definitions according to DOE Order 435.1, which classifies waste based on where it was generated as opposed to what it is composed of. HLW, according to DOE Order 435.1, is waste generated from the reprocessing of spent nuclear fuel.*

Q. Where is national policy at when it comes to down-blending waste?

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**Attachment 2**: Transcribed flipchart notes
R. [DOE-ORP] Currently, if waste is generated from the separations part of spent nuclear fuel reprocessing, it is considered to be HLW by definition.

R. There is currently ongoing work at the national level relating to updating waste definitions.

Q. Is DOE-ORP required to remove cesium from LAW because of the way that that Low-Activity Waste Treatment Facility is constructed?

R. Yes. To upgrade the Low-Activity Waste Treatment Facility so that it can handle cesium would cost approximately $500 million for a re-design and the incorporation of shielding.

Q. Is there an assumption that waste moving through the LAWPS Facility would not be TRU?

R. Correct. LAW that has contains solubilized TRU waste is not a candidate for the LAWPS process.

Q. Can HLW be downgraded to less than Class C to accommodate Option 3 and Option 4? Is this realistic?

R. The borehole option is HLW, so a Washington Emissions Inventory Reporting System (WEIRS) process would not be needed. Cesium removal and disposition options that do not place recovered cesium into a deep geological repository do require the conduction of a WEIRS process, and they would require waste be categorized as less than Class C.

Q. Does the volume of material within an HIC influence whether or not waste is Class C or less? Could a smaller volume in each canister be a strategy for downgrading waste?

R. If you have less curies, you do not reach the curie count that would categorize waste as Class C. However, the WEIR process does not circumvent the law. The federal laws would need to be changed to define HLW based on what it is as opposed to where it came from.

C. [DOE-ORP] The IDF is a permitted disposal facility. However, it is not permitted for the LAW glass itself, yet, as DOE-ORP does not have enough information to submit a permit application at this time.

R. The permit is based on Resource Conservation and Recovery Act (RCRA), which is for toxics as opposed to radioactive waste. If waste is HLW, it cannot be deposited in at the IDF. LAW glass may need to go to a deep geologic repository if it is legally defined as HLW.

R. [DOE-ORP] The baseline has LAW waste going to IDF. WCS has a an area set aside for DOE wastes.

Q. Would Ecology allow for the transportation of cesium to WCS?

R. The State of Washington would have to approve a WEIRS. It is likely that Washington would approve transportation of waste as long as the disposition path to Texas is accepted. DOE-ORP would ship the entire ion-exchange column to Texas, where WCS would remove and grout the columns. From a Washington State permitting perspective, grouting cesium in Texas is easier.
Q. How likely is it that the definition of HLW will change within the coming years?

_R. It is unlikely that it will change quickly. The proposal that the U.S. legislators are currently exploring would potentially change fuel definitions._

C. Some of the options that issue managers have explored use proven technology, which provides an inherent advantage. The technology that other strategies incorporate is promising, but not proven. The committee should keep this in mind as the report is constructed.

The committee thanked issue managers for pulling together information on the various options for cesium removal and disposition. Bob requested that issue managers continue to look at the four identified options and pull together a holistic list of the pros and cons of each one, including costs and regulatory considerations. The TWC agreed to revisit the topic at upcoming committee meetings.

**Waste Treatment Plant Communication Plan Issue Manager Update**

Bob provided TWC members with an update on the progress of the Waste Treatment and Immobilization Plant (WTP) Communication Plan. Bob noted that the Public Involvement and Communications Committee (PIC) had conducted work analyzing intended audiences for incorporation into the plan. Bob was hopeful that TWC members could discuss recommend potential communication strategies for the HLW Safety Design Strategy approval process, the HLW authorization to proceed with full-production engineering, and Direct-Feed Low Activity Waste (DFLAW) pre-conceptual design and engineering.

**Committee Questions and Responses**

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

C. The largest identified problem with the HLW Treatment Facility was ventilation design. The committee may want to request that DOE-ORP provide members with a briefing on the identified issues at the HLW Treatment Facility so that members can better strategize communication strategies.

_R. This topic relates to the intended audiences for the WTP Communication Plan. The topic of ventilation concerns at the HLW Facility is very technical, and it is likely that only chemists, engineers, and other scientists would find the topic to be engaging._

_R. The report was very technical and thorough. It could potentially inform a series of presentations._

_R. [DOE-ORP] DOE-ORP would like the public to know that the agency is back to full construction at the HLW Treatment Facility. There are still technical issues with the ventilation system that the agency is working through, but it is important for the public to know that work at the facility is ongoing._
C. A major concern regarding the HLW Facility centers on ongoing Consent Decree (CD) arbitration. Most of the documents that the Board needs to create a Communication Plan are currently unavailable, and they likely will be for quite a while.

R. [DOE-ORP] Construction at the HLW Facility was on hiatus for two years; however, the facility is back into full construction. The public should know that this work is ongoing, and they should know of the efforts that DOE-ORP put into returning to full construction. This is also true for the safety design strategy and the return to full-production engineering at the HLW Facility.

R. The TWC does not understand how DOE-ORP was able to arrive back at full construction, as committee members do not have access to the needed documents that tell the story.

Q. Does DOE-ORP envision the Board as the authors of the WTP Communication Plan or as the communicators?

R. [DOE-ORP] This HAB Work Plan item originated as a strategy, and the product of the Board’s efforts will be a communication strategy. However, Board members could potentially leverage their expertise and connections to communicate the ideas encompassed by the plan.

C. TWC members have heard DOE present on the One-System Integrated Project Team, and the committee could talk to constituents about those integration efforts.

C. Direct-Feed Low-Activity Waste (DFLAW) treatment is not tied to ongoing CD discussions. The purpose of DFLAW is to begin early vitrification operations, and it will provide additional tank capacity.

R. There was also a report recently released by the Government Accountability Office (GAO). The TWC committee should further analyze the findings of this report and determine if any information from it should be incorporated into the WTP Communication Plan.

TWC members resolved to discuss the GAO report during their open forum session.

Issue managers agreed to continue working on clarifying the strategy with the Public Involvement and Communication Committee. The TWC agreed to revisit the topic at upcoming committee meetings.

Committee Budget Input

Introduction

Ed Revell, Budgets and Contracts Committee (BCC) vice chair, provided TWC members with his perceptions of DOE’s FY 2017 Hanford Budget Priorities Briefing, noting that presented information was very high-level and focused primarily on agency priorities. Ed recognized that U.S. Department of
Energy—Richland Operations Office (DOE-RL) and DOE-ORP budget presentations did not identify the proposed FY 2017 budget as being TPA-compliant. He also noted that presented information did not discuss potential budget concerns resulting from delays in shipping waste to WIPP, updates to the CD, or waste retrieval from leaking tanks.

Ed noted that DOE-ORP’s proposed 2017 budget priorities presentation lacked the same level of detail that DOE-RL’s presentation provided. Committee members were hopeful that they could receive a copy of DOE-ORP’s budget numbers before the 2017 HAB budget advice was finalized at the June 2015 Board Meeting. Sharon Braswell, North Wind/DOE-ORP, encouraged committee members to focus on the priorities as opposed to the specific budget numbers. Sharon noted that she was unsure when the specific budget numbers were going to be available, and she was hopeful that HAB advice to DOE-ORP on the FY 2017 budget could note whether priorities and planned agency activities were correctly targeted.

Ed requested that TWC members review HAB Advice #277 (2015 Presidential Budget and 2016 Budget Request) and discuss potential updates that would adapt the advice to the proposed DOE-ORP FY 2017 budget request. Ed was hopeful that committee discussion could result in a list of substantive points for inclusion in BCC’s draft 2016 Presidential Budget and 2017 Budget Request advice (tentatively scheduled for discussion and adoption at the HAB’s June Board meeting).

Committee Questions and Responses

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

Q. Can the Board anticipate at least thirty days to review and comment on DOE-ORP’s proposed 2017 budget numbers before they are sent to the U.S. Department of Energy (DOE) headquarters?

R. [DOE-ORP] At the moment, DOE-ORP is unsure when the office’s 2017 budget numbers will be available. DOE-ORP will share the numbers with the Board as soon as these numbers are released. The Board should move forward with an initial draft of the budget advice and focus on DOE-ORP’s planned activities in 2017. If budget numbers become available following the June 2015 Board meeting, the HAB could submit supplemental budget advice. DOE-ORP would share any supplemental advice with DOE headquarters.

C. In the 2017 Hanford Budget Priorities Briefing, DOE-RL provided the public with a prioritized list of budget numbers. The prioritized list will allow DOE-RL to draw a line between projects if the 2017 congressional appropriation is lower than the office’s proposed budget 2017. This is a helpful visualization as the Board crafts budget advice. DOE-ORP should adopt this strategy, as well.

C. Building new tank capacity should be a higher priority than evaporator operations. Both strategies accommodate similar outcomes; however, tanks are a better solution.

C. Budget advice should note that the DOE-ORP needs to finalize WTP design as soon as possible and that all ongoing technical problems need to be resolved. The Board and the public need assurance that the design is complete before the agency dedicates significant funding and work to constructing the facility.
C. The upcoming budget advice should incorporate a point noting that the stabilization of funding is vital to maintaining expertise and successfully completing projects in an efficient and timely manner.

R. Stabilized funding is important; however, it is important to recognize that it is also vital to have strong, technically feasible design strategies for the overall system in-place as early as possible. If designs for a project are not robust and finalized early, it contributes to ongoing inefficiency and waste.

C. Budget advice should specifically call out leaking tanks AY-102 and T-111.

Q. Should this advice only recommend that DOE-ORP obtain additional tank capacity through the construction of new tanks? Should the Board also recommend that other technical solutions for the continued management of tank waste be explored (e.g. enhanced evaporation and Direct-Feed Low-Activity Waste treatment)?

R. Single-shell tanks (SST) are not fit for the long-term storage of Hanford Site waste; in 30 years, it will no longer be legal to return waste to SSTs. It is not possible to refit existing SST infrastructure at the Hanford Site to be compliant with RCRA requirements.

R. [DOE-ORP] A difficulty associated with evaporation is that Hanford Site tank waste can only be evaporated to a certain point before it becomes chemically unsafe. Also, waste storage at tank farms needs to be compliant to RCRA. The current CD arbitration is considering this.

R. DOE-ORP does not have plans to construct additional tank space. HAB Advice #277 recommended that DOE-ORP “obtain” additional tank space; it did not recommend that the agency build new tanks. The Board adopted this language as a compromise; however, if the Board decides that new tank construction is a HAB value, then upcoming budget advice should recommend the strategy to DOE-ORP explicitly.

C. This year’s budget advice does not need to advise DOE-ORP to remove and treat waste containers stored at the Central Waste Complex. This is no longer timely due to the ongoing recovery effort at WIPP.

C. In addition to advising DOE to release more detailed budget information, it is also important that the Board advise the agency to release this information in a timely manner.

C. The HAB is unique among EM SSABs. Other sites are smaller, they do not have two DOE offices that they advise, and they do not have the same level of complexity that the Hanford Site has. Therefore, DOE offices provide budget proposals to other EM SSABs earlier. Other boards often have the opportunity to take budget proposals to the public for comment.

C. The River and Plateau Committee (RAP) also reviewed and updated HAB Advice #277. Additional advice points that RAP identified for inclusion in this year’s budget advice include an increase in the budget request for for Project Baseline Summary (PBS) RL-0100 (public involvement and outreach), enhanced funding stability, greater focus on treatment of perched water, and continued focus on the resolution of technical issues.
R. An increase in PBS RL-0100 would contribute to a greater degree of diversity in ideas and participation. For example, with an enhanced budget, the HAB could again meet at locations throughout Washington and Oregon. Travel and meeting costs for the HAB continue to increase; however, the HAB’s budget continues to decrease.

R. Not only does funding for Hanford Site cleanup need to be stable, it also needs to be sufficient to cover costs. The Lifecycle Scope, Schedule, and Cost Report shows that allocated funding ebbs and flows over the years, and it demonstrates that enhanced funding stability is necessary for the site.

R. The addition of perched water treatment is a good addition to the budget advice. This topic is a crossover between DOE-RL and DOE-ORP.

R. The advice should recognize that ongoing technical issues are occurring at both the WTP and the tank farms. The advice should call out specific difficulties and advise DOE-ORP to remedy them as soon as possible.

C. The Board is reluctant to provide any advice that prioritizes remediation activities. The fear is that a list of priorities could potentially be used as justification to delay or cancel certain cleanup activities.

C. Despite a trend of falling budget appropriations, the Hanford Site still receives almost $2 billion per year. Many EM Sites have had to cope with even more extreme cuts in funding. There is a lot of great work that is happening at the Hanford Site.

Ed thanked committee members for their input and perspectives, and he noted that a draft of the FY 2017 budget request advice will likely move forward at the June 2015 Board meeting. Members of the Board would have the opportunity to comment on the draft advice during the first day of the Board meeting, and issue managers would incorporate noted changes into the advice for Board review and confirmation.

**Open Forum**

*GAO Reports* ²

Bob Suyama stated that the GAO recently released two reports concerning the Hanford Site, and he requested that TWC members consider whether their findings necessitated any HAB action.

Bob provided the committee with additional details of the GAO reports. GAO-15-40 was requested Senator Ron Wyden of Oregon and released in November 2014. GAO-15-40 provided information about scheduled tank retrieval and tank design life. The second report, GAO-15-354, was request by the Senate Committee of the Armed Services. GAO-15-354 analyzes the process that DOE-ORP used to develop the alternatives to address technical and management challenges at the Hanford Site.

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**Attachment 2:** Transcribed flipcharts
Bob summarized the findings of GAO-15-354, noting that the report stated that DOE-ORP may have constructed the process for analyzing alternatives to building Hanford Site facilities (e.g. the Low-Activity Waste Pretreatment Facility and the Tank Waste Characterization Facility) in such a narrow way that DOE-ORP’s preferred solution is the only acceptable one. Dirk Dunning noted that this is an ongoing issue in recent DOE work across the nation, and he stated that the trend is discouraging and leads to process inefficiencies.

The committee decided that issue managers should convene to further review the two GAO reports and digest the information. Issue managers will put together white papers on both reports, and the committee will discuss issue manager observations and impressions at the next TWC meeting to decide if any additional Board follow up will be required.

**Committee Business**

*TWC 3-Month Work Plan*

The TWC committee will not plan to hold a meeting in June 2015; however, the committee will plan to join the Health, Safety, and Environmental Protection committee as they discuss Hanford Site safety culture. TWC will plan to hold calls in both June 2015 and July 2015 in preparation for a committee meeting in August 2015 that will tentatively include the following topics:

- Update and discussion on the DOE-ORP and Washington River Protection Solutions Tank Vapor Implementation Plan
- Receive issue manager updates on risk-based retrieval, LAWPS/cesium storage, and the WTP Communication Plan

In September 2015, TWC tentatively plans to meet and further discuss ongoing issue manager work on risk-based retrieval, LAWPS/cesium storage, and the WTP Communication Plan.

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**Attachment 2:** Transcribed flipcharts
**Attachment 6:** TWC 3-Month Work Plan
Attachments

Attachment 1: Waste Management Update (Frank Marcinowski presentation from the April 23, 2015 EM SSAB Chairs Meeting)

Attachment 2: Transcribed flipcharts

Attachment 3: HAB Advice #277: 2015 Presidential Budget and Request

Attachment 4: Handouts from the 2015 Hanford Budget Priorities Briefing

Attachment 5: Observations and proposed guidance from the 2015 Hanford Budget Priorities Briefing (Ed Revell)

Attachment 6: TWC 3-Month Work Plan
## Attendees

Board members and alternates:

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<tr>
<td>David Bernhard</td>
<td>Steve Hudson (phone)</td>
<td>Ed Revell</td>
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<td>Don Bouchey</td>
<td>Pam Larsen</td>
<td>Richard Smith</td>
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<td>Shelley Cimon</td>
<td>Susan Leckband</td>
<td>Bob Suyama</td>
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<td>Dirk Dunning</td>
<td>Liz Mattson (phone)</td>
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<td>Becky Holland</td>
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Others:

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<td>Kris Skopeck, DOR-RL</td>
<td>Rabindra Biyani, Ecology</td>
<td>Ryan Orth, EnviroIssues</td>
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<td>Joni Grindstaff, DOE-ORP</td>
<td>Heather John, Ecology</td>
<td>Brett Watson, EnviroIssues</td>
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