

## FINAL MEETING SUMMARY

### HANFORD ADVISORY BOARD

November 4-5, 2010

Richland, WA

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

#### Executive Summary

##### **Board action**

The Board adopted three pieces of advice concerning:

1. Engineering Evaluation/Cost Analysis for 105-KE Reactor Decommissioning (EE/CA)
2. Incorporating Public Involvement Strategic Planning into the Tri-Party Agreement (TPA) Community Relations Plan
3. System Planning Process

##### **Board business**

The Board will have committee calls and meetings in November and December. The Board discussed:

- Board process updates and reminders
- Calendar review
- February Board topics

##### **Presentations and updates**

The Board heard and discussed presentations on the following topics:

- Energy Park Initiative
- Lifecycle Cost and Schedule Report
- Chronic Beryllium Disease Corrective Action Plan

##### **Public comment**

No public comment was provided.

**HANFORD ADVISORY BOARD**  
*November 4-5, 2010 Richland, WA*

Susan Leckband, League of Women Voters 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 ongoing opportunities for public comment.

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

Three seats were not represented: Franklin and Grant Counties (Local Government), Physicians for Social Responsibility (Local/Regional Public Health), and the Confederated Tribes of the Umatilla Indian Reservation (Ex-Officio).

The Board meeting was audio-recorded.

**Welcome, introductions and announcements**

Susan Leckband welcomed the Board to the meeting.

Susan Leckband said she hand-delivered Advice #235, Openness of the U.S Department of Energy's Environmental Management Advisory Board Subcommittee Meetings, to Dr. Inés Triay, U.S. Department of Energy – Environmental Management (DOE-EM) Assistant Secretary, and she and Dr. Triay spoke about it openly. Dr. Triay said the advice seems in concert with DOE's efforts for openness and transparency; however, Dr. Triay did not provide additional reasoning for why the subcommittee meeting was closed. She only stated that they are not required to open them to the public. Susan asked other Site-Specific Advisory Boards (SSABs) if their meetings were open and it was a unanimous yes. The other SSABs agreed with the advice put forward by the HAB. Susan said she would continue to discuss this issue with DOE Headquarters (HQ).

Susan L. thanked the agencies and HAB members for attending the Hanford site-tour. She said she was happy to see all the evidence of progress on site. Susan was struck by the number of building signs hung on fences around the site representing all of the buildings that have been decommissioned and demolished (D&D). Susan thanked all those involved in the cleanup and encouraged Board members to take advantage of future site tours because they are very informative.

Susan L. announced that she attended a memorial service for Gordon Rogers, a former member of the Board. Susan also announced that Norma Jean Germond, Public-at-Large, was very ill and would be having heart surgery in the near future. She encouraged members to sign a card for her.

Susan L. introduced and welcomed new Board member Jean Vanni, Yakama Nation (Tribal Government).

The agenda and ground rules were reviewed.

Susan Hayman, EnviroIssues, announced that a debriefing poster was posted at the back of the room for Board members and agency representatives to document what they felt worked well and did not work well at the radioactive solid waste burial ground committee of the whole (COTW) workshops held October 5 (see Attachment 1 for results).

Susan L. provided those who were interested a Hanford solid waste burial ground fact sheet, DOE-EM's Leadership Pyramid, an updated Tri-Party Agreement (TPA) agency calendar listing upcoming activities and comment periods and the Long Range Deep Vadose Zone Plan.

## **Confirm September meeting summary adoption**

Board members did not submit any major changes to the September meeting summary. The September meeting summary was finalized and adopted over email within the operating ground rules requirement of 45-days following the meeting.

The adopted September summary was confirmed. It is available on the HAB website.

## **Program Update – Tri-Party Agreement Agencies**

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

Nick Ceto, Record of Decision (ROD) Program Manager, thanked the HAB for this opportunity to provide an update on behalf of DOE-RL. Nick asked Board members to call or email him if they had any suggestions or feedback on the way he presents DOE-RL's updates. Nick wants to ensure that Board members are getting the information they need.

Nick said DOE-RL is currently focused on site footprint reduction; working first on the outer area of the site and working their way in. Shrinking the site's footprint is a task DOE-HQ and the Obama Administration expects from DOE-RL.

The following are excerpts from Nick's presentation.

### **Hanford Reach National Monument**

- Footprint of 290 square miles
  - 24 excess facilities
  - Hundreds of debris sites
  - Still under DOE-EM management; working with Department of Fish and Wildlife
- Progress to date
  - Aggressively working on this area
  - 107 square miles completed (18 percent cleanup footprint reduction)
  - 21 facilities demolished on Lower and Upper Arid Lands Ecology Reserve (more than 30,000 square feet)
  - 312 debris sites cleaned up
  - Timeline and footprint reduction
  - Completion date: September 30, 2011
  - 49 percent reduction of Hanford Site cleanup footprint (290 sq. mi.)

### **River Corridor**

- Footprint of 220 square miles
  - 522 excess structures
  - Approximately 800 waste sites
  - Plumes of chromium, strontium-90 and uranium groundwater contamination
- Progress to date
  - 214 structures demolished
    - Demolition of K West Reactor water basin completed
    - Demolition of 337, 337B, reactor stack using explosives
  - Demolition on west side of K East Reactor continues
  - 482 waste sites remediated
  - 10 million tons of waste removed
  - Interim Safe Storage, roof installation, N Reactor
  - DX facility (chromium removal along river) –installing final equipment, plan to start operating in December
  - HX facility (chromium removal along river) –started construction in July, exterior complete
  - New Super Cells under construction at the Environmental Restoration Disposal Facility (ERDF)
  - Installation of leachate collection system piping

- Timeline and footprint reduction
  - Planned footprint reduction of large areas through 2015
  - Final completion date of September 30, 2015
  - 38 percent reduction of Hanford Site cleanup footprint (220 sq. mi.)
  - Groundwater treatment systems continue to operate
- River Corridor Completion
  - By 2015 (or earlier), the River Corridor will be the largest single EM project completion to date
  - Project is ahead of schedule and under budget
  - American Recovery and Reinvestment Act (ARRA) money is helping complete this work
  - 10-year project is at the half-way mark and 60 percent complete
  - Maintains an excellent safety record

Nick described the leachate collection system that was installed inside the ERDF trench liner. The system collects and removes liquid, or leachate, as it drains through the waste materials. The leachate system is located between liner layers. The leachate collection system will be used over the next 30 years and serves an important function at ERDF. Liquid samples are taken frequently and data is collected and recorded.

Nick showed a video of the liner and leachate collection system piping being laid for construction of a super cell at ERDF.

Nick reviewed a chart comparing progress at DOE's various project sites including Hanford (River Corridor), Fernald, Mound and Rocky Flats. The comparison included number of structures demolished, number of waste sites remediated, total cost (billions) and waste removed in tons. Nick also reviewed the various challenges DOE is facing at each of these four sites.

#### **River Corridor –Project Focus**

- Demolition of reactor support structures on Columbia River in 100-N and 100-K Areas
  - 4 water structures in 100-N Area
  - 3 water structures at 100-K Area
  - Hope to start work this winter following consultation with Federal and State agencies
  - Work would take place during low-river period (Dec. 15 –March 15) to limit disturbance
  - Access points and demolition schedule will be established in accordance with ecological and archaeological/cultural reviews
- 105K East Reactor Decommissioning Engineering Evaluation/Cost-Assessment (EE/CA)
  - In 1993, DOE decided to “cocoon” the production reactors
  - Since then, new approaches to core sampling and advanced robotics have been developed
  - In July, DOE amended National Environmental Policy Act (NEPA) ROD to allow accelerated dismantlement
  - Preferred alternative in EE/CA issued Oct. 18 is accelerated dismantlement
  - 30-day public comment period runs through Nov. 17
  - Action Memorandum will be issued following resolution of public comments and further evaluation of technical project and budget information

#### **Central Plateau Outer Area**

- Footprint of 65 square miles
  - 3 excess facilities
  - 16 (13) rail cars (EE/CA)
  - Approximately 100 waste sites
- Progress to date
  - 3 facilities demolished
  - 22 waste sites undergoing remediation
  - 21 waste sites remediated
- Timeline and footprint reduction
  - Completion date: by September 30, 2020 (or earlier)
  - 11 percent reduction of Hanford Site cleanup footprint (65 sq. mi.)

### **Central Plateau Inner Area**

- Progress to date
  - Stabilized 20 tons of plutonium-bearing material, shipped plutonium off-site
  - All spent nuclear fuel consolidated in safe, dry, secure storage
  - 106 of 238 large pieces of equipment (glove boxes) removed from Plutonium Finishing Plant (PFP)
  - U Canyon ancillary facilities demolished, equipment removed from canyon deck
  - 271 structures demolished
  - 10,760 cubic meters suspect-transuranic waste retrieved
  - 200 West Area groundwater treatment system under construction
  - Development of treatment technologies for contamination deep in soil underway (deep vadose zone)

### **Groundwater Progress Update**

- Six pump-and-treat systems operational
  - Treated a record 630 million gallons in Fiscal Year (FY) 10 (approx. 53 million gallons/month)
  - Drilled a record 270 wells in FY10 – Monitoring, extraction, injection
- Update on construction of new 200 West pump & treat system
  - System will remove a variety of chemical and radiological contaminants on the Central Plateau; concrete placement, structural steel going up

### **Central Plateau –TPA Changes**

- Two Tri-Party Agreement Milestones Change Packages Approved for Retrieval, Storage, and Shipment of Mixed Low-Level Waste and Transuranic Mixed Waste (TRUM) (milestone series M-091) and for Central Plateau Cleanup work (M-15)
  - The M-091 changes realigned existing milestones and established new milestones for processing and shipping waste off site, including enforceable milestones for off-site shipment of TRUM waste
  - The M-15 changes reflect a comprehensive, geographic approach for Central Plateau cleanup with milestones aligned to integrate cleanup of Central Plateau soils, facilities and groundwater
  - New milestones were added to address cleanup of contamination deep in the soil (deep vadose zone)
  - Comment Response documents available at <http://www.hanford.gov/?page=86>

### **Central Plateau –Project Focus**

- Deep Vadose Zone Project
  - Soil from approximately 50 ft. below ground surface to groundwater (about 250 feet below surface)
  - DOE will address deep vadose zone (DVZ) contamination through an integrated project team and an Applied Field Research Center
  - Project will leverage DOE investments in science, applied research and site remediation to find solutions for characterization, remediation and monitoring the DVZ
  - Interim actions (surface barriers) and technology field tests underway

### **Recovery Act Update**

- Overall, DOE-RL Recovery Act Projects are 12 percent under budget (costing less than projected)
- 11 of 13 projects are on schedule
- 2 projects behind schedule but expected to finish on schedule
  - 618-10 Burial Ground Remediation
  - Soil & Groundwater Remediation
- All work originally planned will be completed before the end of fiscal year 2011, as scheduled
- Work efficiencies (getting work done faster and/or at a lower cost than projected) are allowing DOE to fund \$150 million of additional projects through the end of fiscal year 2012

Nick said future budgets will change when ARRA funding is gone. Funding will also depend on the current election. DOE is focused on transitioning the workforce to the Central Plateau to keep momentum going and be as efficient as possible with remaining funds. Nick said the agencies need Board support to keep priorities on track.

## Challenges Ahead

- Future budgets
- Stopping Chromium contamination from reaching the Columbia River by 2012
- Deep vadose zone
- Broadening public outreach

Nick added that the agencies need help from the Board in terms of broadening their public outreach. There are a lot of people the agencies have not been able to involve or engage and Nick feels they could do a better job involving other stakeholders. Nick feels it is necessary to have a Community Relations Plan (CRP) that thoroughly explains public involvement because the agencies have a responsibility to get the message out about Hanford and get input from informed communities.

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

JD Dowell, Deputy Manager for DOE -ORP, said it was a pleasure being in front of the Board to present for the second time. JD reiterated Nick's request for Board member feedback on whether or not the agencies are presenting the right material and providing updates on topics that are of interest to the HAB.

The following are excerpts from JD's presentation.

### **Consent Decree and Tri-Party Agreement Modifications**

- Consent Decree was forwarded and signed in October 2010
- 11 milestone modifications
- Key dates:
  - Retrieve tank waste from the ten remaining single shell tanks (SSTs) in Waste Management Area C – 9/30/14
  - Hot start of Waste Treatment Plant (WTP) – 12/31/19
  - Complete retrieval of tank waste from nine additional SSTs (selected by DOE via consultation with Ecology) – 12/31/22
  - Initial WTP operations – 12/31/22
- Monthly and semi-annual reports on WTP
- Joint three year reviews
- Safety

### **Recent Accomplishments**

#### Tank Farms

- 242-A Evaporator completes second operating campaign – this is a very capable system
- Preparing to install the Mobile Arm Retrieval System (MARS) in C-107
- Successful independent review of Integrated Safety Management System (ISMS)
- C Farm stack extensions installed to help control vapor exposure to workers
- First two Hanford samples sent to Savannah River Site for steam reforming system analysis

#### Waste Treatment Plant

- Defense Nuclear Facilities Safety Board (DNFSB) hearings held
- Hydrogen in Piping and Ancillary Vessels (HPAV) – a closure path has been defined
- WTP receives star recognition
  - Achieved 2 million hours of work without a loss-day incident
  - Major construction project and is being watched closely

### **Tank Farms Progress: Retrievals**

- C-104 Retrieved 75% of tank waste. An obstruction was reached; removal of obstruction planned for December
- C-111 Retrieval technology under consideration; working to break through salt layer
- C-112 Design and construct system
- C-108 Construct hard heel retrieval system
- C-110 Select hard heel technology within the next few months

- C-107 Install new sluicing system (first MARS deployment); likely in July 2011

#### **Waste Treatment Plant Progress: As of October 2010**

- Overall design = 82% complete
- Overall construction = 56% complete
- 2,100 Professional Staff
- 825 craft workers
- 250 subcontractors
- 3,175 total staff
- Low activity waste (LAW) facility currently under construction – able to see piping in the walls that will soon be behind black cells
- LAW melter lid currently being trucked from Utah to Hanford; scheduled to arrive Thursday, November 4

#### **Looking Forward**

- ORP Manager
  - Dave Brockman will retire January 3, 2010; an event is planned for December 15
- Tank Farms
  - Continue to improve retrievals
  - Tank waste strategy – sent samples to Savannah River Site; will update the HAB on results
  - WMA-C Performance Assessment – rigorous process; nearly complete
  - Committee of the Whole – Closure Planning Sessions
  - Finish strong on ARRA – working to achieve milestones in the Consent Decree to get tanks closed
- Draft Tank Closure and Waste Management Environmental Impact Statement
  - Received up to 5000 comments. A lot of eyes are on this document. DOE is going back to the assumptions and working closely with DOE-RL. DOE would like the EIS to be complete before it comes back to the HAB
- WTP
  - Shift focus on construct/commission
    - First - Switchgear Building (2012)
  - Accelerated funding profile
    - Minimize risk and maximize schedule success
    - DOE-HQ is on board with this
  - Complete design
    - Performance focused to complete all remaining engineering
  - Integrate Tank Farms and WTP to prepare for operations
    - New position identified – looking at them as one system instead of separate systems
    - Working to make these two pivot at the same time in order to maximize resources

#### **American Recovery and Reinvestment Act**

- Current Numbers
  - Total: \$326 million
  - Spent to Date: \$175 million
  - Total full-time equivalents (FTEs): 580
- ORP ARRA Accomplishments in September
  - Valve funnels and indicator plates from all jumpers were removed
  - Installation of new valve funnels and indicator plates in the AW-A valve pit were completed
  - Removed AP Farm valve pit cover blocks and initiated jumper removal
  - Received decontamination trailers # 1 and # 2
  - Radial filter field work at BX, BY, and U farm completed
  - Construction of the TY barrier and associated basin complete
  - Received the 9 cross-over utility vehicles

JD said DOE has been utilizing social media such as Twitter, Facebook and YouTube to broadcast demolition, construction and cleanup progress on the river corridor and WTP. These tools allow the public to receive up-to-date and interactive news from DOE.

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

Dennis Faulk said EPA was very focused in September on responding to comments concerning the TPA Change Package for the Central Plateau.

Dennis said he was happy Board members were able to go on site and see the work that is happening. Dennis recently toured the 200 West pump and treat system. He said the buzz and excitement of activity is really felt on site. Some work is even being done at night, such as roofing work, to increase efficiencies and speed up cleanup.

Dennis announced that the railcar at B Reactor will likely be preserved. He congratulated advocates on this accomplishment. Dennis asked Board members to let the agencies know if there is anything else on site that should be preserved for the future. Dennis said this is a question he will continue to ask himself and his staff. Dennis said he thinks Hanford will eventually have a robust museum of the Manhattan Project and Hanford itself.

Dennis said cleanup at the 300 Area is one of the agencies' biggest accomplishments. Hot cells are being removed and sent to ERDF. This work has been going very well. There is also a lot of decommissioning and demolition underway and the videos DOE has been posting are a great way to broadcast progress happening at Hanford.

Dennis said EPA is cooperating with the other agencies on the Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS). EPA had their first meeting with DOE recently to work through comments and issues that were identified in the draft EIS. This work will be ongoing.

EPA hosted a federal facilities dialog meeting in October in Washington D.C. with other agency stakeholders. Representatives from Hanford, Idaho National Laboratory and other major federal facilities and institutions were invited to participate. There were two workshops; one with DOE and the Department of Defense (DOD), and the other with the Department of Agriculture and other agencies. Pam Larsen, City of Richland (Local Government) said she was honored to be asked to participate on the steering committee at the national dialog meetings representing local government and the SSAB. She thanked Dennis for providing her with this opportunity.

Pam said there were 50 people invited to the one-day dialog meeting. Representatives from DOE, Puerto Rican and Alaskan tribal nations and the D&D community were some of the groups in attendance. The purpose of the meeting was to dialog about federal facilities and assess how EPA manages waste at federal facilities under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Pam said the meeting was very interesting. She discussed the HAB's unique relationship with the agencies in the sense that, because there are no term limits for Board members, relationships between Board members and agency representatives are able to continue for many years. In addition, the EPA field office provides Board members the opportunity to personally interact with program managers and build strong relationships built on trust and confidence. Pam said many of her colleagues do not trust EPA, noting that other federal facilities can learn a lot from the EPA project office.

Pam said she explained the challenges the agencies and Board are currently dealing with at Hanford, including deep Vadose zone (DVZ) contamination and waste on the Central Plateau, the need for advancing technology in order to deal with these types of contamination and the strong effort to ensure that the Waste Treatment Plant (WTP) is successfully constructed, and functions as planned. Pam also explained to the group how the interim RODs assisted in cleanup along the Columbia River.

Pam said she came away from the meeting with the revelation that some people from various agencies have been working on cleanup projects for 16 years and there is an incredibly strong sense of family. People feel like they are in this together and are confident that they will be successful.

Pam said she made it a point at the meeting to speak with some of the top people at EPA-Headquarters (EPA-HQ) and let them know how much the HAB appreciates Dennis and his team.

Hanford Communities recently completed a TV program about the first year accomplishments that were made possible by ARRA funds. Pam said she shared this video program with EPA-HQ and DOE-Headquarters (DOE-HQ) at the meeting to show them what is happening at Hanford and all the progress taking place.

*Washington State Department of Ecology (Ecology)*

Jane Hedges, Ecology, echoed Dennis' comment stating that DOE's presentations were very good and underscores all of the work being accomplished. It is easy to get caught in the weeds but visiting the site and seeing the massive amount of progress being made safely and successfully is a positive sight. Jane said DOE and their contractors deserve a lot of credit for this.

Jane also reiterated Nick's comment that the agencies need the HAB's help prioritizing activities, particularly once ARRA funding runs out. Tougher decisions concerning what work must be done and in what sequence will need to be made.

Jane said Ecology has been very busy lately ensuring decision documents go out and that the Consent Decree is signed and implemented. The signing of the Consent Decree, imposing a new, enforceable, and achievable schedule for cleaning up waste from Hanford's underground tanks, is a major milestone for the State of Washington and the agencies are pleased to be able to move forward with cleanup and accomplishing the TPA milestones.

Jane thanked the Board for their involvement in the Hanford Radioactive Solid Waste Burial Grounds (SW-2) committee of the whole and public workshops. The agencies received a lot of feedback from those and good conversations were had that will assist in moving forward with the burial grounds.

Ecology continues to work hard to get the Hanford dangerous waste permit (also known as the site-wide permit, or Resource Conservation and Recovery Act [RCRA] permit) reissued. RAP is still receiving regular updates about this topic from Ron Skinnarland, Ecology. There are over 40 facilities that the permit would regulate; 15 of which are active treatment and disposal facilities. Ecology hopes to have this permit out by the first of the year. Ecology will work with the Public Involvement Committee (PIC) on how to accomplish successful public involvement concerning this permit.

Jane thanked the Board for their input on the M-91 change package. She stated that changes were made to the proposed change package because of HAB and public input.

Jane announced that a comment period is currently open on modifications to WTP and the Low Activity Waste (LAW) facility. The comment period ends on November 12, 2010.

Ecology recently conducted outreach in university classrooms. John Price, Ecology, lectured at the University of Washington (UW) and Portland State University (PSU) in concert with the solid waste burial ground workshops. John received a lot of positive feedback on his presentation. Many Seattle students came to the evening workshops and it was refreshing to have young people in attendance that offered a fresh perspective. Ecology is hoping to build on this success and welcomes other suggestions for similar types of public outreach.

Jane added that Ecology is also using social media to connect with younger people. Following the workshops, Ecology created a blog post to talk about what had occurred.

Susan L. noted that the students in Seattle produced two white papers about Hanford's solid waste burial grounds that are in-depth and provide a different perspective. Susan said they are worth reading because they offer a comprehensive view of the burial grounds and suggestions as to how they should be addressed. The papers were made available at November 3 PIC meeting and the HAB meeting.

*Discussion*

Dirk Dunning, Oregon Department of Energy (State of Oregon), asked Dennis if the Board would receive the Memorandum of Understanding (MOU) that the group came to at the October federal facilities dialogue. Dennis said yes, EPA is close to finishing and would provide it to the Board once it is signed.

Dirk commented that the agencies need to remember that there much more known now about DVZ than there was in the recent past and this knowledge should be better represented by the agencies.

Maynard Plahuta, Benton County (Local Government), asked if there is any data available concerning cost savings attributed to maintenance due to all the decommissioning and demolition work. Nick said this is a good question but there is not a number currently available. Nick said he would try to get the Board an estimate of cost savings.

Maynard asked about the remaining funds committed to additional projects. JD said DOE was required to obligate funds by September and now they are looking into buy-backs. The funds will be used under current contracts and will stay with projects that are already moving efficiently.

Maynard asked about the origin of the samples that were sent to Savannah River National Laboratory for steam reforming system analysis. Stacy Charboneau, DOE-ORP, said the three samples represented three different types of waste DOE intends to treat. Stacy did not have the official names or sources of the samples.

Pam said she was glad to hear the agencies are thinking about preserving items from the Plutonium Finishing Plant (PFP vaults). Pam requested DOE reserve plutonium canning canisters for the B Reactor Museum. Shelley Cimon, Public-at-Large, reiterated the importance of saving artifacts for the museum.

Pam asked if the recent signing of the Consent Decree will help motivate elected officials to advocate for additional funding at Hanford. Nick said none of the agency representatives could answer that question. Nick said he would like to think the progress made with ARRA funds over the last few years and the recent signing of the Consent Decree will help leverage additional funding but he could not confirm this. Nick added that, more than anything, the physical and tangible signs of success and progress on site will be their greatest asset.

Shelley asked what DOE Environmental Management Advisory Board's (EMAB) response was to the WTP and the questions they were charged with. Shelley said these issues are large and compelling. JD said he did not have an update of where EMAB is headed but he offered to check and get back to Shelley.

Dick Smith, City of Kennewick (Local Government), asked which railcar the agencies intend to preserve. Dick said a cask car needs to be preserved because it served the important purpose of carrying irradiated fuel from reactors. Nick said DOE is looking to preserve a locomotive and two cask cars.

Dick asked if entombment of eight production reactors is included in the River Corridor completion plan. Nick said DOE will continue to entomb or cocoon the reactors until they decide what to do with them.

Dick said there is currently an integrated priority list across the site for cleanup money spending and there is a major concentration on the DVZ. Dick asked if anyone completed an in-depth look at the risk likely to arise with DVZ. There is some information about risk in the TC&WM EIS; have the agencies decided what the cost benefit is in terms of attacking deep vadose zone as opposed to doing other things? Nick said DVZ is a difficult problem to solve. Nick said the EIS does touch upon this issue and there were changes made with the EIS to reflect superfund cleanup aspects. The current work plan, under CERCLA, aims to characterize and understand DVZ. Once this is accomplished, DOE can look at technologies to help manage foreseen risks and balance the costs.

Dick asked JD if a cooling tower for the evaporator was going to be built. The evaporator uses a lot of water to function and the possibility of a cooling tower would eliminate a lot of water use. JD said he was not aware these plans or water capacity issues. Nick said Missions Support Alliance (MSA) is in charge of infrastructure at the site and they are always looking at ways to improve infrastructure maintenance and resource management. Nick thought Dick might have received early information and noted that it is encouraging to hear MSA is thinking about these things.

Dick asked if the agencies still planned to use garnet to cut holes at the top of tanks to use MARS. Dick raised concerns about garnet getting into waste streams and affecting WTP operations. Dick said he has asked for documents prepared on this topic but has not received anything. JD said he will work to get those documents for Dick. DOE just received concurrence from Ecology to use garnet as a cutting technology for the C Farms only. Bechtel did a study that found that garnet does get smaller as it moves through the WTP process but it does still hold some of its abrasiveness. However, the study concluded that garnet is still a suitable mechanism to make these cuts. JD said DOE and Ecology are committed to exploring other ways to cut tanks without material going into WTP. Unfortunately laser technologies are not quite at the level they need to be for DOE to utilize.

Keith Smith, Public-at-Large, commended DOE for advocating for a stable temperature facility at the Environmental Restoration Disposal Facility (ERDF) where old containers can be repaired. Many of the waste containers were not meant to withstand severe cold or heat and are leaking because of this. Keith was pleased to learn that ARRA funds were being used to improve processes at Hanford.

Keith asked if DOE was worried about gas or vapor emissions at ERDF once the cap is placed on top to prevent water intrusion. Nick said the waste inside ERDF is similar to a municipal landfill and vapors will likely not be an issue. However, the cap is still under design and if this does become an issue, a solution will be incorporated into the final design.

Keith said he is happy the work at WTP is going well but noted that if the contractor would sequence the work better, DOE would save a lot of money. Keith also added that although safety on site is unparalleled, it still could be better. Concerns have been raised about worker attitudes in terms their unwillingness to tie off and comply with safety barriers. JD said he will take those comments back to on-site staff and appreciates any other suggestions or comments about worker safety. JD said the current degree of safety has taken a few years to create and has improved the whole spectrum of safety issues.

Rob Davis, City of Pasco (Local Government), reiterated that the safety improvements on site are great. However, Rob has concerns that the complexities of WTP will be too difficult to operate and maintain and does not think this issue is being addressed. Susan L. said the TWC has shared similar thoughts to the agencies on this topic.

Maynard commended Dennis for his willingness to preserve pieces of Hanford. Maynard is very concerned that there is resistance to the idea of preservation. It has been three months since the Board requested a cost benefit analysis of preserving the rail cars and they still have not received one. The Hanford Site has a unique history and there are a lot of different pieces, some one of a kind, that make up this history.

Nick said DOE made an effort to talk to people about what should be saved. He agreed with Maynard that items from PFP should be kept. Nick said that Colleen French, DOE-RL Director of the Office of External Affairs and Communications, is in charge of item preservation and is as enthusiastic about it as the Board. He said it is important to recognize that the contractors' main goal is to get buildings torn down and hauled off, so there are competing interests that need to be balanced. Nick said they prefer to save more than might be necessary because once it is gone, it is gone forever.

Paula Call, DOE-RL, said that she and Colleen operate under the National Historic Preservation Act (NHPA). Paula said they tag items that they believe will meet the NHPA criteria. DOE is tagging a lot of items and building a substantial catalog of Hanford artifacts.

Susan L. asked who is involved in the initial tagging process and if there is any involvement from the public. Paula said qualified contractors and certified archeologists at DOE are involved. No members of the public assist in this process. Susan L. said this is a possible opportunity DOE and members of the Board might want to consider and take advantage of.

Dirk said history is more than just artifacts. Video and photographs are also a way to preserve the history of Hanford.

### **Advice on Engineering Evaluation/Cost Analysis for 105-KE Reactor Decommissioning (EE/CA)**

Dick Smith introduced the advice. He said the Board is in support of completing cleanup and dismantling reactors in a timely manner, especially because if DOE waits another 75 years to decommission the reactors on-site, it will be very difficult to find funding and workers might not know how to do it. However, Dick said the EE/CA recently released for the 105-KE Reactor is neither an evaluation nor a cost analysis and is deficient in several ways, particularly due to the fact that the document released is based upon an EIS and ROD released in the 1990s without any additional studies done since.

Dick said the EE/CA does not address any specifics concerning necessary actions that will have to be performed to dismantle the reactor block. In addition, the EE/CA does not provide evidentiary support for the need to immediately

remediate the soils underneath 105-KE because the evaluation does not show how contaminants underneath the reactor pose a danger to human health or the environment.

Dick said he has been reviewing EE/CAs for about seven years and over time they have become less useful.

Harold Heacock, TRIDEC (Local Business), said the advice received a lot of input from different people and includes a number of strong and valid recommendations. What the advice essentially states is that there is not enough information included in the EE/CA to enable useful public comment. In addition, the technical nature of the document makes it very difficult to submit comments on time. The EE/CA has a lot of shortcomings that the Board recommends the agencies address.

#### *Agency perspective*

Nick said he appreciates the chance to discuss this issue. He said he went back and looked at decisions made in the past. Some of the EE/CAs contained much less information than the 105-KE EE/CA and were only completed to get the ball rolling on cleanup. Nick said he is not defending the level of detail include in the 105-KE EE/CA but noted that part of the purpose for an EE/CA is to get out into the field to try and make a decision and streamline the cleanup process. The EE/CA compares surveillance and maintenance costs for each of the alternatives and helps provide DOE with a path forward. However, an EE/CAs is not a prescribed path. Nick said it is not necessarily helpful to the cleanup to complete an EE/CA that gets into the details of designing the cleanup. Nick feels that there is a tough balancing act in terms of how much detail to put up front.

Nick said DOE has more engineering work to do before they move forward with a decision. They plan to remove the discharge chute in order to conduct sampling and will work with the other agencies during this process.

Nick committed to providing a briefing of the details and will solicit input from the HAB before DOE writes the Action Memorandum. DOE will also continue to brief the HAB as DOE moves along the Critical Decision process. Nick said there are a lot of variables to consider, including time, risk and finances.

Tom Teynor, DOE-RL, said DOE is working to integrate CERCLA into the project management process. DOE would like to remove the reactor core, but they cannot make this decision without input from the public. The agencies have also been considering interim safe storage but more studies still need to be done. Tom said DOE will not sign an Action Memorandum until all the facts have been nailed down.

JD said this project does tie into the TC&WM EIS and noted that it might have an impact on that. JD said they will make sure that this is addressed appropriately.

Dennis said he has been working with Nick and Tom and overall they support removing the reactors off the river sooner rather than later. They would like to take care of the reactors prior to completing cleanup instead of waiting to deal with them.

In regards to the EE/CA, Dennis said it is difficult to know what level of detail to include. DOE felt they needed to put this one out early to feed their critical decision process, which is why the details are limited. Dennis said the agencies are dealing with two competing processes; the DOE critical decision process and CERCLA. From EPA's perspective, they need to know DOE is committed to this project before they will commit to an Action Memorandum.

Dennis said he sees where the Board is coming from with this piece of advice. He encouraged the Board to consider adding a bullet reminding the agencies that the more sophisticated a project is, the more sophisticated the EE/CA should be.

John Price said this is a good piece of advice that will help stimulate other reactor dismantlement projects and assist in the bigger picture.

John said Ecology is following this project with a lot of interest. John said it is important in terms of footprint reduction to either clearly state that the reactors are not part of this effort or commit to taking out 8 of the 9 reactors, which John hopes can be done.

## *Discussion*

Dirk asked the group to consider what activities are time-critical and which are not. When there is imminent threat to human health and the environment, processes can be bypassed. Dirk feels the 105-KE Reactor is an obvious choice; there is a large threat of contaminants, mobile contaminants and radioactivity. Dirk fears that if the agencies wait too long to address this issue the contaminants will eventually reach the river. Dirk said he supports going after the reactors as soon as possible, as long as all of the appropriate cautions and risk are taken into account.

Harold raised concerns about the amount of information the agencies actually have concerning the reactors and their ability to make informed decisions. He said the agencies are likely not prepared to handle the amount of gaseous isotopes that will be released when the top is taken off the reactor. Harold also feels the cost estimate has no basis. Harold said this situation is similar to that of the K East Reactor where a lot of money has been spent redoing work.

Harold said he supports the advice but noted that he feels uncomfortable about the inadequacy of the study and engineering. Without drilling and studying underneath the core, the agencies are basing their decisions on assumptions. Harold encouraged the agencies not rely too heavily on the example of the Brookhaven National Laboratory core for deciding how to handle Hanford's reactors because they are very different.

Rob said he supports Harold's comments about the need for more engineering study because it will set a precedent for all the other reactors. Rob said the Board was told years ago that it would be more cost efficient to use new technologies to dispose of all of the cores in the same way at the same time. Rob suggested mothballing the reactors as a way to protect workers on-site and wait until the right technology is ready.

Nick said those involved in Hanford have a unique opportunity because there are people on site to do this work. He added that the 105-KE reactor is different than the other reactors at Hanford and even if it is removed, he did not feel that this would pull the trigger on all the other reactors.

The group agreed to take out the background bullet stating that there has been no supplemental EIS analyzing the potential alternatives, impacts and measure to mitigate impacts. There were concerns that this was an inaccurate statement. Dick said a supplemental analysis was issued this year concluding that no further analysis was needed. Although the Board did not like the results of the EIS, one was still released.

Nick had an issue with the bullet stating that no cost analysis has been presented that is based upon actions that have to be performed. He suggested rewording this statement to more accurately reflect that a cost analysis, though limited, was presented. Tom said DOE did get a cost report for core removal versus storage and right now the agencies are in the conceptual design phase. Approximately \$20 million has been spent thus far on this project.

The group agreed to reword the background bullets so they are less absolute.

Tom said in terms of the advice points; DOE is either planning to do them or is already in the process of doing them.

Pam raised concerns about the speed at which this project is moving and the implications it will have on available funding for other projects. Nick agreed that this project will be very expensive and will take time and funding away from other tasks. It makes sense to complete an engineering analysis now because the reactor needs to be addressed; however, decisions will not be made and an Action Memo will not be signed until costs are determined and the agencies have time to begin the work. Nick said it will be a tough choice on whether to allocate money but DOE plans to deal with this issue when they get to it. DOE is committed to keeping this process open and transparent.

Nick said that what he has taken away from the conversation is that there should be different levels of EE/CAs determined by the sophistication of the project and environmental implications.

Wade Riggsbee, Yakama Nation (Tribal Government) said he was part of the engineering team for the dismantlement and reactor removal on another project. He said there were engineering studies done on risk of dismantlement. The exposure of the core poses a serious risk, as contaminants will go airborne as a dust. Wade said he would like to see this available engineering data incorporated into the path DOE decides to move forward with. Wade reiterated the need to get the 105-KE Reactor core out and away from the river.

Jerry Peltier, City of West Richland (Local Government) raised concerns about the amount of money being used for decontamination and decommissioning (D&D) work instead of tackling the really difficult projects, such as high-level waste remediation, that need to be done now.

The group agreed to remove the recommendation that the EE/CA be withdrawn because DOE plans to do additional studies and analysis outside the EE/CA.

The Board did decide to keep and/or include the recommendations that DOE conduct additional engineering studies and present information to the Board about the reactors in a timely manner in order for them to fully understand it and provide input.

Nick said DOE is in the midst of developing the remedial investigation/feasibility studies (RI/FS) for the reactor areas. DOE is committed and on track to investigate the area around the reactors for contaminated soils.

Dick asked if the RI/FS is where the rubber meets the road. If so, that is where the Board should be able to provide comments. Dennis said the Action Memorandum makes the decisions but does not have more information than what is included in the EE/CA. Where the rubber meets the road is in the work plans.

The group agreed to add a final advice bullet concerning their desire to provide advice to DOE and the regulators once additional analysis is complete. The Board would also like the agencies to provide the public an opportunity to comment before a decision is made to proceed with reactor demolition. Lastly, the Board would like to work with the agencies to develop appropriate public involvement for the post-decision documents (e.g. removal action work plan, sampling analysis plan).

Dennis said the PIC will be helping EPA develop post decision public involvement.

The Board approved this advice.

### **Committee reports**

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

Keith said there are several topics HSEP is working on. One of these topics is issues HSEP has identified with the AdvanceMed Hanford (AMH) medical contract. This issue crosscuts with the BCC. There will be another RFP for this contract in the future that Mike Korenko, Public-at-Large, and Tom Carpenter, Hanford Challenge (Hanford Work Force), will be involved with. HSEP is also considering advice on this topic.

Keith said HSEP is still working on the beryllium corrective action plan (CAP) for Hanford. HSEP continues to meet monthly with DOE-RL to get a status update on the CAP. Keith promised to inform the Board of any further developments with the beryllium issue. The Hanford CAP is a living document and can be changed if it is not doing what it is intended to do.

Tank vapors continue to be an issue HSEP follows. There have been reports of workers visiting AdvanceMed clinics to get treatment for exposure to tank vapors or beryllium and not being treated well by AdvanceMed personnel. This problem affects the health and safety of all workers. Keith said the contractors are committed to implementing the beryllium program; it has shown to be effective and the problem is being tracked well.

The Integrated Safety Management System (ISMS) continues to be a topic of discussion. Keith said he worked on site when ISMS began. A mandate was rewritten that stated ISMS must be implemented at Hanford. In 2000 there were still problems with ISMS, which has been manifested by the beryllium issue. Keith said it is frustrating to not have a well implemented ISMS program on site. Keith believes that if ISMS had been properly implemented the beryllium issue would have never emerged. HSEP will be discussing this issue at their committee meeting on November 16. The infrastructure contractor is still working to get their ISMS reviewed and implemented and will likely be ready for discussion in December.

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

Gerry Pollet, Heart of America Northwest (Regional Environmental/Citizen), introduced Harold as vice chair of BCC. BCC is currently focused on:

- Working with HSEP on the medical contract provisions related to incentives for health and safety
- Reviewing the long awaited Lifecycle Cost and Schedule Report
- Possible advice for the draft Lifecycle Cost and Schedule Report

Gerry said BCC will be having a briefing on the scope and performance incentives for contracts and will be conducting a site-wide review of contracts.

Gerry said FY 2012 is particularly important because it is the last year of ARRA funds. Due to the 5% budget cuts for FY 2012 and given recent election results, BCC will be focused on how to prioritize cleanup activities. Gerry noted that the PIC decided a FY 2013 workshop might be necessary because Hanford's financial future looks uncertain and the public needs to be aware of possible financial shortfalls.

BCC will also focus on the scope and budget for the WTP and tank farms. Harold said the funding to support waste feed to WTP will be critical over the next few years. BCC is interested in the amount of funding that will be provided to support WTP activities.

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

Pam said RAP has been busy and encouraged other HAB members to help out because there is a lot on RAP's plate for next year.

In October RAP received a presentation on the eight reverse wells at Hanford. RAP also learned about water infrastructure systems on site and had an interesting discussion with Mission Support Alliance representatives about how water will be delivered to the site in the future.

Pam said RAP had a discussion concerning the 618-10 Non-Intrusive Characterization/Trench Remediation Project. Soil sampling and nonintrusive characterization activities were completed last spring; DOE is looking to undertake remediation in spring 2011. The Board will receive a presentation about this in February. Pam feels this will be a very interesting topic to follow.

After further discussions with the agencies in October, the RAP Committee decided that advice concerning unrestricted use vs. unrestricted surface use terminology was unnecessary at this time.

Pam said RAP will address the following topics at their November 17 meeting:

- ERDF Performance Assessment
- RCRA Permit
- Outfalls along the Columbia River
- DVZ program plan/work plan
- TPA Change Package Comment Response Document

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

Dirk said the TWC is currently focused on three main topics:

- Tank farm closure planning – this long term discussion will begin at the December 2 Committee of the Whole (COTW) meeting. TWC hopes to hear a number of different perspectives on this topic
- Systems Plan and advice on the Plan – how to retrieve waste from tanks, how to schedule activities so they coordinate appropriately, how does WTP work, what the Board should advise on
- Technical issues of WTP - pulse jet mixer, piping, secondary waste, etc

TWC will have a meeting on November 18 with a joint discussion with BCC in the morning. The COTW meeting will be held December 2 at the public library. Dirk encouraged members to attend the COTW meeting.

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

Steve Hudson, Hanford Watch Oregon (Regional Environmental/Citizen), said the PIC has been busy dealing with issues and documents that have come to the PIC for review.

Liz Mattson, Hanford Challenge (Hanford Work Force), reminded Board members that anyone is able to serve on the PIC because it does not count as one of the two allowed committees.

Liz said the PIC would be bringing advice forward later on during the Board meeting concerning the Strategic Planning Process.

Liz said the PIC is currently focusing on:

- Drafting a piece of advice or white paper on DOE's Open Government Plan and the potential for DOE-EM to develop its own specific Open Government Plan
- RCRA Site-wide permit (joint with RAP); discussing potential location and format of workshops to understand this complex document. Looking at a March timeline
- State of the Site meetings – planned for April to coincide with the budget workshops
- Reviewing updated CRP in January and likely writing advice in response

Liz said the PIC will not meet in December but will hold a committee call to discuss version two of the Open Government Plan Advice. The PIC is involved with a lot of different committees because many activities at Hanford have a public involvement component.

The PIC will be weighing in on the format of the December 2 COTW tank closure discussion.

Liz thanked the agencies for the great work they have been doing and for their willingness to try different public involvement approaches that have been put to the test recently. Liz felt that the poster session at the October COTW meeting was particularly successful because it was interactive. Attendees greatly appreciated the effort the agencies put forward in trying something new and trying to teach material in an alternative way.

Liz said she appreciates the renewed enthusiasm for public involvement expressed during the agency updates. It is particularly encouraging to see the effort being made to university students inside the classroom.

Liz reminded attendees to report any outreach efforts to Steve so that the PIC can continue to track those.

The PIC is continuing to look at evening seminars as a way to get more people involved. The PIC appreciates any suggestions about how to execute these successfully.

#### *National Liaison*

Susan L. provided the National Liaison update on behalf of Shelley.

Susan said Dr. Triay developed a new road map for DOE-EM as a way to continue seamless cleanup efforts, regardless of who is in office. The road map is not politically motivated and is available on the DOE-EM SSAB website.

Shelley plans to attend the Intergovernmental Meeting with DOE in San Diego on November 8-10. The following groups will be participating in the meeting; Energy Communities Alliance (ECA), Environmental Council of the States (ECOS), National Association of Attorneys General (NAAG), National Conference of State Legislatures (NCSL), National Governors Association (NGA) Center for Best Practices and State and Tribal Government Working Group (STGWG). Some of the highest officials from DOE-EM will be in attendance. Pam Larsen, Ken Niles, Matt McCormick and Dave Brockman also plan to attend and serve on panels to discuss waste management strategies and policies at Hanford.

Susan L. said Shelley works very hard for the Board and attends a lot of national meetings to put Hanford on the minds of national leaders.

#### *Executive Issues Committee/ Site-Specific Advisory Board (EIC/SSAB)*

Susan L. said the EIC met last night to discuss new ways to encourage committee participation because it is very evident that the workload of the committees is very large and many of the same people continue to do most of the work. Susan clarified that becoming involved in a committee does not require advice writing. She encouraged Board

members to consider becoming issue managers because that is where the work really gets started. Susan noted that those who devote their time find the work to be very worthwhile.

Susan L. said the EIC also discussed ways to make the HAB more efficient in terms of operation and the service they provide to the agencies.

Susan L. said she attended a DOE-EM Site Specific Advisory Board (DOE-EMSSAB) Chairs' meetings in September. The meeting was held in Santa Fe, New Mexico. The chairs and vice chairs of the other DOE-EM Superfund sites spent two days in meetings and touring the Los Alamos Site. Susan noted that the group is provided with a tour of the various sites where meetings are held.

Dr. Triay was present at the September meeting. Susan and Dr. Triay spoke about future waste disposition and the need for low-level waste storage. Texas will now allow low-level waste storage for up to three years. DOE expects a large amount of low-level waste to be generated from 2010 to 2015 and because of this are developing strategies to deal with this amount of waste. The topic of waste disposition is a major topic and priority for all SSABs. Susan said DOE's brainstorming on this topic dovetails with the Nuclear Regulatory Commission (NRC) changes.

NRC is holding a meeting in Phoenix, AZ in November to discuss waste classification. Shelley will attend and will brief the Board on what was said.

In terms of orphan waste disposition, the Waste Isolation Pilot Plant (WIPP) currently has 50 percent capacity left. Susan L. asked Frank Marcinowski, DOE-EM, if Pre-1970 Transuranic waste (Pre-70 TRU) is dug up at Hanford will there be room for it at WIPP. Frank said yes. DOE will maintain WIPP activities at an accelerated pace; 95 percent of appropriate waste is planned to go to WIPP by 2015 prior to its closure in 2030.

Bob Suyama, Vice-Chair (Public-at-Large), said he was not able to attend the meeting and tour Los Alamos but what is most striking to him about Hanford versus Los Alamos is the fact that land is such a premium in New Mexico. Active cleanup of Los Alamos is taking place right next to streets and businesses. People are anxiously awaiting completion of the cleanup so that the land can be used for economic growth in the area.

Bob said he will be attending the 2010 Long-Term Surveillance and Maintenance (LTS&M) Conference on November 15-18 in Colorado. The conference is sponsored by DOE Office of Legacy Management (LM) and is being held to discuss LTS&M issues and tour the Grand Junction Disposal Site and the Rifle Sites. Bob was asked to present at the conference on the topic of stakeholder perspective of LTS and explain where the SSABs are and what they are currently focusing on, with a particular emphasis on the HAB. Bob said the HAB is different from other SSABs because Board members play a major role in how decisions being made are going to create long term impacts at the site.

Susan L. said DOE is finalizing the Greater Than Class C Disposal EIS, which is expected to go to Congress in January 2011 with a public hearing and comment period in February or March.

#### *Discussion*

Jerry asked if a discussion was had with Dr. Triay or the other SSABs about a high-level waste disposal area and when DOE plans to make a decision on this issue. Jerry is concerned about how Hanford will deal with high-level waste if Yucca Mountain is no longer an option. Susan L. said the SSABs always ask this question of DOE and they do not receive an answer. Susan said she suspects an answer might result from the outcome of the current election. Susan noted that Hanford will also serve as an interim storage location for glass, likely up to 100 years. JD agreed that the answer to this question is still not concrete but feels a contingency plan is needed. The Blue Ribbon Commission has been chartered for two years to find an alternative to Yucca Mountain. Their results will likely drive DOE's direction concerning long-term storage of high-level waste. DOE currently does not have anything formal to look at dealing with high-level waste storage at Hanford.

## **Advice on Incorporating Public Involvement Strategic Planning into the Tri-Party Agreement (TPA) Community Relations Plan**

Liz introduced the advice. She said the PIC Committee began tackling the issue of having a strategic approach to public involvement about one year ago. The agencies' and Board members' opinions were solicited on what successful public involvement looks like, how it can be accomplished, how it is unique at Hanford, etc. From this the PIC developed goals and principles to effectively implement public involvement. This work resulted in this collaborative piece of advice.

Liz said the PIC asked early on that this advice be incorporated into the CRP. This advice is not a response to the CRP but offers the fruits of the PICs' collaboration to enhance the CRP and improve the quality of public involvement.

Liz said this will not be the last word on strategic planning produced by the PIC.

### *Agency Perspective*

Nick said the topic of public involvement has always been near and dear to his heart. He has been around a long time and has realized the importance of public involvement. Nick said he would like to include all of the advice into the CRP but cautioned that by doing so it might slow down the agencies. However, he noted that the agencies do need to do a better job of defining public involvement goals and informing the public so that good advice will continue to be given. Nick said if knowledgeable University of Washington students feel Hanford material is too complicated than the agencies really need to challenge themselves.

JD said as a newcomer he finds the advice interesting because he feels like DOE-ORP is already fairly successfully doing a number of activities outlined in the advice. JD added that the issue of transparency is something the agencies need to pay better attention to, especially with the recent President's Open Government Directive.

JD said that because funding and resources will be tight in future years, it is important to be as effective and efficient as possible on all aspects of cleanup, including public involvement.

JD also said that if input is solicited from the public, people need to know what decisions they are influencing and if their comments do not influence decisions, they also need to understand the reasoning behind it.

Emy Laija, EPA, thanked the PIC for developing this good piece of advice. Emy said there is not anything included in the advice that EPA does not agree with. Once the advice is finalized it will be easier for EPA to incorporate into their CRP update.

Dieter Bohrmann, Ecology, thanked the Committee for the advice. He said he agrees with the other agencies. The word "strategy" is important to consider because it is imperative to not only do public involvement but to also develop a way to measure the success of public involvement to determine whether it was effective or not. If it was not effective then the direction needs to change in order to reach the intended audience. Dieter said this issue has been discussed a lot lately and the timing works well to incorporate it into the CRP changes.

### *Discussion*

Doug Mercer, University of Washington (University) thanked Liz for all of her hard work on the advice. Doug asked the regulators why more money cannot be put towards public involvement. JD said it is important to use finite resources appropriately and DOE is currently looking at ways to get information out that is potentially more cost effective and which reach a broader spectrum of generations, such as social media.

Doug asked if there is one person responsible for assimilating and implementing the new projects JD was referring to. JD said they have a communications team at DOE and the two organizations work together on these new communications strategies. Colleen French, DOE-RL and Erik Olds, DOE-ORP have been working with the PIC on developing new ways to reach out to communities.

Sam Dechter, Public-at-Large, said there is a unique agency opportunity here. Instead of responding to this advice with a letter the Board might be able to see it incorporated into the CRP in a few months. Sam is interested to see if the concepts are actually incorporated or not.

Sam said strategic planning will be very important in the future because now is the time to get younger generations involved to carry this initiative forward.

Lyle Smith, Oregon Hanford Cleanup Board (State of Oregon) noted that the President's Directive suggested more meetings and activities be scheduled in the evenings or on weekends to allow for more participation.

Paige Knight, Hanford Watch Oregon (Regional Environmental/Citizen) asked if this advice was responsible for holding up the updates to the CRP. Emy said no.

Paige asked if EPA can actually incorporate the advice into the CRP. Emy said they will not be copying and pasting the advice into the CRP but the agencies will work together to determine what should be taken from the advice and how prescriptive it should be. Paige said she hopes that all aspects of the advice are incorporated to avoid having to reinvent the wheel on public involvement. Emy said they appreciate the efforts put forward by the PIC to put their recommendations into a single piece of advice. EPA understands the value of the advice and they will do their best to tailor the CRP to the themes included within that document.

Gerry said he was disappointed to hear that the agencies would not be using this piece of advice as a driver for the CRP. Gerry feels the CRP should be prescriptive and the President's Directive validates this notion.

Nick said collectively DOE wants to do a better job of public involvement. He has seen a number of unsuccessful public meetings and spending money and not getting a good turnout is not something DOE enjoys. DOE appreciates the advice and is well aware of the need to improve public involvement strategies.

The Board adopted the advice.

### **Advice on System Planning Process**

Harold introduced the System Planning Process advice that came out of the TWC. Since 2000, DOE-ORP has invited the TWC to participate in discussions and planning by DOE-ORP and its contractors on systems planning, secondary wastes and waste retrieval, processing and disposal.

DOE-ORP most recently updated their previous system plan, System Plan Revision 4. This revision looks at WTP and how to get waste to other plants.

Harold said the revision process takes approximately a year to complete. DOE has not yet released System Plan Revision 5 but has already begun System Plan Revision 6. Harold said the Board feels that they need to have access to preceding plans and assumptions in order to provide meaningful involvement and advice.

Harold said the advice asks DOE-ORP and Ecology to identify where Board members can provide input and support in order to conduct successful planning and development of retrieval, processing and disposal of the single-shell tanks (SST) wastes. The Board would like this process to be open and transparent in effort to ensure cleanup of Hanford is successful.

### *Agency Perspective*

Stacy said DOE has had a number of discussions, briefings and interactions with the HAB and TWC on the System Plans and system planning process. Stacy said DOE welcomes advice on the scenarios and assumptions used to model the System Plan.

Stacy said System Plan Revision 5 is expected to be finished and finalized in mid-November and will be made available to the public.

As DOE moves on to System Plan Revision 6, Stacy noted that there are some differences in the new annual system planning process with the new TPA modifications in regards to Ecology's participation. Stacy added that DOE now requires contractors to submit a plan annually and System Plan Revision 4 was the first time that DOE aligned the system plan modeling baseline (scope and schedule) with the actual cost and schedule baseline.

On an annual basis DOE provides assumptions to TWC in a number of forums. In addition, every three years DOE engages Ecology in this process and Ecology provides at least three scenarios to DOE to include in the System Plan, which was done for System Plan Revision 6.

Stacy said DOE invites involvement into the system planning process and pointed out that the Lifecycle Report process also speaks to the system plan scenarios and contributes to the lifecycle of the Hanford Site. Stacy added that there is process put in place that allows the public, tribes, HAB and others to contribute and provide input on scenarios they would like to see included in the Lifecycle Report.

Dan McDonald, Project Manager for Tank Waste Treatment Section at Ecology, said Ecology was very involved with DOE in putting together the scenarios for the System Plan Revision 6. They were based in part on assumptions from System Plan Revision 5. Dan said the assumptions, chosen by DOE and/or Ecology, were released to the HAB and are available for review. Dan said that Ecology believes that they have done what they can to involve the HAB but noted they could do better.

#### *Discussion*

Pam said the last TWC meeting was very frustrating because DOE had not read the draft advice and were not prepared to talk to it. Pam said this is a very complicated and time consuming topic, and is made even more difficult by the fact that the TWC is working a year out to provide advice on System Plan Revision 7.

Dirk said he believes there are frustrations on all sides of this issue and it is not anyone's fault but the actual process' because it is so complicated. The TWC did not fully understand the process and were confused when the agencies solicited their feedback on what to include in System Plan Revision 6 prior to System Plan Revision 5 being released. Dirk believes the timing of the system planning process is where the issue lies.

Jeff Luke, Non-Union, Non-Management Employees (Hanford Work Force), said this is an excellent piece of advice and agreed with Pam and Dirk that the process has proven to be very frustrating.

The group decided to make it more clear what the Board is advising on in order to ensure that the agencies will respond directly to the advice pieces.

Dick commented that the system plan is a very complicated model that requires many inputs, which makes it difficult to make and confirm changes. Dick said it would help if DOE could have a simpler system plan model to look at the "what ifs" in the short term and reject bad ideas early on.

Stacy said the agility of the system planning process is very slow and there is a simpler model used to create the System Plans and some of the scenarios include "what ifs".

Dan said in previous System Plans there were only one to three scenarios but the agencies decided that more scenarios need to be taken into account.

Mike said the HAB strives to be very collaborative with the agencies and operate at an A+ performance level at all times. However, Board members feel that they are operating at a B performance level on this topic and are not satisfied with that. Mike reminded the Board that they have a good relationship with the agencies and that providing input on the ten scenarios is a good place for the Board to be.

Doug asked if the agencies disagreed with the advice. The agencies answered no.

Doug asked if the Board was out of sync in the timing of the System Plan Revision 6. Stacy said yes and DOE will work to iron out the timing issues and do some process improvements. DOE will also look at ways to create opportunities to share information about the system planning process with the public.

Al Boldt, Hanford Challenge (Hanford Workforce), suggested including in the advice that the Board would like to provide input on System Plan Revision 7 because System Plan Revision 6 is already closed for input. Stacy said it is not too late to provide feedback on the System Plan Revision 6 scenarios.

The group decided to make it clear that they would like the agencies to commit to dialoguing early on with the TWC during the system planning process. Liz suggested including a piece of advice requesting that the Board would like the agencies to engage with them in early dialogue regarding the system plan development to enable meaningful and timely participation and potential advice development.

Dick raised concerns that the involvement the Board is asking for goes much deeper than the Board's charter. The group agreed that the requests included in the advice are appropriate and simply addresses general planning for the future.

Cathy reminded the Board that DOE and Ecology have responded to previous advice, Advice #233 (tank Waste System Plan Revision 4 and Planning Assumptions for Revision 5) and is available on the HAB website.

The Board asked if the window for review of System Plans is June 1 to November 1. JD said the review period is not set in stone but encouraged the Board to start working on their input now for the System Plan Revision 6 scenarios as this opportunity will cease very soon.

Susan L. said that due to the limited time left available to provide input on System Plan Revision 6, members should come to the next TWC meeting to find out the best way to offer input on the system planning process.

The Board adopted this advice.

### **Energy Park Initiative**

Karen Flynn and Boyd Hathaway, DOE-RL, provided the Board with an update on the status of energy parks and making land available for energy use at Hanford following clean-up.

The following are excerpts from their presentation.

#### **Background**

- September 1999
  - Hanford Comprehensive Land Use Plan (CLUP) Environmental Impact Statement ROD (DOE/EIS-022-F) was issued
    - Land-use for Research and Development (19-sq miles)
    - Land use for Industrial (50 sq. miles)
    - Total square miles included in the CLUP: approximately 70
- Fiscal Year 2009
  - EMAB tasked to assess EM strategic planning and specifically provide recommendations on energy parks
- February 2010
  - Request from Energy Northwest to lease land for a proposed use of energy park land (this request is supported by the Mid-Columbia Energy Initiative)
- July 2010
  - Hanford Site Cleanup Completion Framework (DOE/RL-2009-10, Rev 0), Appendix B, B-1 to B-4 discusses the Hanford Site Energy Park Initiative
- April & August 2010
  - Hanford Site Manager meets with tribes to discuss energy parks

- August 10, 2010
  - Energy Park Initiative Briefing to the RAP
- October 2010
  - Subsequent discussions with Energy Northwest to clarify their proposed use for the land

#### **DOE's Role**

- Establish geographic boundaries consistent with the CLUP that define the energy park
- Establish process to provide land for leasing
- Leases will be compliant with all applicable laws, regulations, and obligations
- Have an open dialogue with parties that are interested in leasing land for energy use

#### **Interfaces/Constraints**

- Land Use Interfaces
  - LIGO Hanford Observatory (vibration concerns)
  - Energy Northwest
  - US Fish and Wildlife Service (Hanford Reach National Monument)
- Constraints
  - Waste Sites (618-10/11)
  - 200 Area Operations (Safety Zone)
  - Location of Infrastructure and utilities

#### **Making Land Available for Energy Use**

- Public lands –Interagency Agreement with US Bureau of Land Management (BLM)
- Patrol Firing Ranges
- Lease requires cultural, biological, and NEPA reviews and documentation required prior to allowing a specific project start-up
- DOE-HQ EM providing funding across the complex to provide support to the Energy Park Initiative activities at Richland and other sites

#### **Next Steps**

- November 8, 2010
  - Energy Community Alliance (ECA) Hosts Energy Parks Discussion
  - DOE-RL Management to attend
- January 2011
  - Conduct Community/Stakeholder Forum to obtain input regarding energy parks on the Hanford Site
  - Consider input received from the Forum to help define the energy park processes and uses
- Now through Spring 2011
  - Continue work to define the boundaries/location of the proposed Energy Northwest lease
  - Consider other incoming requests for use of land

#### *Agency Perspective*

Emy said EPA is not directly involved with the energy parks but thought it would be great if they could incorporate alternative energy into cleanup.

John Price said he did not know much about the energy park but is aware that government agencies are in support of it. John said Dieter would be providing an update on this topic at the November 8<sup>th</sup> workshop on behalf of Ecology. John said he looks forward to learning more.

## *Discussion*

Susan L. asked how the Board can get involved. Paula said Dr. Triay spoke to this recently. Dr. Triay confirmed that the Energy Park Initiative is part of a DOE-EM SSAB charter on future land use and she feels that this initiative is synergistic with DOE's goals for shrinking the footprint of Hanford. Paula said it is up to the local boards about how much they would like to be involved.

Maynard asked how much land Energy Northwest is requesting. The original letter stated they would like to lease 20 square miles; however, 300 acres might be a more realistic number.

Maynard said there are likely competing interests with this available land and might be a place where the HAB can play a role in speaking for the public concerning LTS of Hanford.

Maynard asked if a Request for Proposal (RFP) would be sent out to solicit request applications. He also asked if there are guidelines or standards for what the land can be used for. DOE answered that they are still struggling with the details about how to solicit requests and make the process fair. DOE would appreciate any suggestions the HAB has on this topic, particularly listed in a piece of advice. Maynard said hopefully the Board can address some of these questions early next year.

Gerry asked when the Board will be able to see the environmental impact statement (EIS) or National Environmental Policy Act (NEPA) process done for lease proposals. Boyd said at this the NEPA process is not underway because what are currently being submitted are simply land use lease requests. The NEPA process would only start after a project proposal was submitted. Paula added that there will not be any changes made to the land without a formal review through NEPA. Paula said DOE takes set laws very seriously and will ensure that they are complying with the law before any decisions are made.

Gerry said he has not seen any documentation about what tribal preferences or rights are concerning this piece of land. Karen said Dave Brockman and Matt McCormick have had some discussion with the tribes and it appears they are content with setting aside land for the energy park.

John Stanfill, Nez Perce Tribe (Tribal Government) said the tribes feel much differently about the energy park than what Karen described. When the tribes were originally moved off the land they were told they would get it back following completion of cleanup. Then the CLUP was released stating that DOE will maintain ownership instead of giving it back to the tribes. Now DOE plans to lease the land which absolves tribal ownership rights. Wade added that Dave and Matt came to the Yakama Nation but the tribe has not endorsed the Energy Park Initiative. There is an opportunity for the tribe to get their land back but it will be worked out with the Tribal Council and policy makers of the tribe.

Gerry asked if any of this land will be set aside for preservation, such as for the Hanford Reach National Monument. Paula said the point of the community forum on November 8 is to hear from stakeholders about what their concerns and priorities for the energy park are. The forum will also be a place for DOE to explain what the rules and laws are in terms of future land use.

The group asked how long the lease would last and what the land condition requirements will be once the lease is up and the land is returned. The lease would not expire until 2052 and the condition of the land once returned would be specified in the lease.

Keith asked if there were waste sites included in the 70 square mile area. DOE answered that yes, some sites would need to cleanup before any decisions are made. This is one of the challenges DOE is facing.

Kieth asked if DOE plans to move the Hammer facility. DOE said they would leave the facility where it is. DOE also plans to work with the Department of Defense that has some operations in the area.

Dan Serres, Columbia River Keeper (Regional Environmental Citizen), said by not going through the NEPA process before leases are handed out it will have negative impacts on the land and environment. Boyd said they would not permit activities on the land without completing the NEPA process.

Dick said it might be possible to store spent fuel in concrete casts on this piece of land. The group felt that because the Blue Ribbon Panel testified against storing high-level waste at Hanford this option should be taken off the table.

Laura Hanses, Non-Union, Non-Management Employees (Hanford Work Force) said there is a burden being placed on the workers that they must be compensated for. Laura added that she would like to see issues concerning transportation to the 200 Area solved soon.

Emmet Moore, Washington State University (University) said legal analysis should be done on the treaties in terms of who owns the land. This would provide a better foundation for decisions made in the future regarding an energy park.

Mike said that investors will not be interested in the energy park unless they are able to own the land instead of leasing the land.

Gerry D. said this topic is very complex and there are a lot of pieces to be considered. Gerry D. said he is not sure the Board can provide any more advice on this topic than has already been provided.

Pam said there is a strong desire for clean energy, particularly looking at the future energy needs of WTP. Any opportunity for bio fuels or natural gas is very compelling.

Shelley said many new issues are going to come up as a result of assessing future energy needs. Shelley said consensus on this topic will be nearly impossible, with many decisions being played out in court. As much as Dr. Triay wants the Board to weigh in on this issue, Shelley is not sure this is a topic the Board will ever be able to provide consensus advice on.

Gerry P. asked why land around WTP is not being considered for solar power. Gerry P. said because this issue is separate from the energy park leasing issue it might be a topic that is discussed at RAP in the future.

Susan L. said she invited DOE to provide an update because it is something the entire Board needs to be aware of. Susan L. agreed that Board consensus may never be possible. The committees are already very busy and therefore Susan L. respectfully discouraged committees from spending too much time on this contentious topic. The group agreed that the Board needs to remain focused on cleanup.

Susan H. said the energy park issues have been noted and could be passed on to a committee if there is future interest.

### **Lifecycle Cost and Schedule Report**

Shannon Ortiz, DOE-ORP, provided a presentation on the Hanford 2011 Lifecycle Scope, Schedule and Cost (Lifecycle Report) Report. Shannon is the Project Manager for this report. The report is part of a new TPA milestone (M-36-01). DOE has been working with EPA and Ecology since November 2009 to plan and prepare the 2011 Lifecycle Report, which is a first of its kind document. Shannon said it takes a lot of time to determine which aspects of Hanford need to be included in the report which is why it has taken so long to complete.

The following are excerpts from Shannon's presentation.

#### **Lifecycle Report Status**

- The Lifecycle Report will include the remaining Hanford Site cleanup mission, DOE-RL and DOE-ORP, and will cover Fiscal Years 2011-2090, it is not total project cost
- DOE is required to submit the Lifecycle Report annually to EPA and Ecology
- The goal is a user-friendly, reasonably sized report with detailed appendices

#### **Lifecycle Report Uses**

- Provides a foundation for preparing budget requests that DOE does annually
- Provides a basis for briefing the Tribal Governments, state of Oregon and Hanford stakeholders

- Provides a foundation for continued discussions with EPA and Ecology on how and when both DOE offices will complete cleanup, and how milestone changes and adjustments would affect lifecycle scope, schedule and cost
- Is not a document that makes regulatory cleanup decisions but helps make decisions. RODs determine decisions

### **Lifecycle Report Basics**

- Is a living document, prepared, and issued annually (January 31st)
- Takes into account Tribal Nations, state of Oregon and Hanford stakeholders' values
- Presents information by Project Baseline Summary (PBS)
  - The entire Hanford lifecycle at PBS Level 1 and 2
  - The near-term lifecycle (2 to 5 years) at PBS Level 3
- Reflects cleanup decisions that have been made and determines a reasonable upper bound for plausible alternatives where cleanup actions are not yet in place
- Lists all the existing federal and state decisions that affect Hanford cleanup
- Identifies 42 remaining, non-final cleanup actions along with a range of plausible alternatives
- Includes two alternative analyses and estimates in the report: Disposition of 100 Area Reactors and Remediation of 200-SW-2 Operable Unit Burial Grounds
- Provides a schedule for completion of a detailed alternative analysis for each of the remaining cleanup actions

Shannon said if there are other analyses being done, such as System Plans, DOE will consider summarizing them in the Lifecycle Report.

### **Schedule and Outreach**

- The initial Lifecycle Report is due no sooner than nine months after the milestone is finalized (July 25, 2011)
- However, to better serve the purpose of the report, DOE is working to provide a 2011 Lifecycle Report to EPA and Ecology in March, 2011. By doing this, the agencies will be able to use the report for the FY 2014 budget submission process.
- Input will be sought from Tribes, state of Oregon, Hanford stakeholders, and the public, and it will support 2012 Lifecycle Report development
- Outreach and Involvement
  - HAB Advice #223 was received November 6, 2009
  - Tribal Nations, State of Oregon, and Hanford Advisory Board Budgets and Contracts Committee have been consulted and briefed on progress
  - Outreach and input on the 2011 Report is being planned at this time and will collect comments on the yearly reports (i.e. will hold public workshops)

Shannon said DOE will note where suggested changes have been incorporated and they will do their best to note where suggested changes were not made and why. The Lifecycle Report will be available in hard copy and online. In addition, a web link will be provided to the public to submit and read comments on the report. There will be also be a cutoff date for comments that will be incorporated into a specific report.

### **Outline for 2011 Lifecycle Report**

- Executive Summary
- Chapter 1 –Introduction
  - Lifecycle Report purpose
  - TPA Milestone requirements
  - Approach to cleanup decisions and alternatives
- Chapter 2 –EPA, Ecology, Tribes, state of Oregon and Stakeholder Views and Values
- Chapter 3 –Hanford Site Cleanup Planning and Integration
  - DOE and Hanford budget formulation process
- Chapter 4 –Hanford Site Integrated Lifecycle Summary
  - Scope, schedule and cost for DOE-RL and DOE-ORP

- Summarized at PBS Level 1 for entire lifecycle
- Chapters 5, 6, 7, and 8
  - Scope, schedule and cost for River Corridor cleanup, Central Plateau cleanup, River Protection cleanup, and Mission Support, respectively
  - Presented at PBS Level 2 for entire lifecycle
  - Latest cleanup decisions, milestones and assumptions (at time of report) are presented
  - In-depth alternative analyses (with schedule and cost estimates) provided for two non-final cleanup actions
    - 100 Area reactor disposition (Chapter 5)
    - Remediation of the 200-SW-2 Operable Unit (Chapter 6)
- Chapter 9 –Report Limitations
- Chapter 10 –Opportunities for Improvement (with a list or summary of changes made from the previous report)
- Appendices
  - A Hanford Site Cleanup Decisions
  - B Hanford Site Cleanup Actions and Plausible Alternatives
  - C Application of Key Tri-Party Agreement Requirements
  - D Hanford Cleanup Mission Cost and Schedule Details
    - Near-term (2 –5 years) cost and schedule at PBS Level 3
  - E Hanford Advisory Board Lifecycle Advice #223

### Summary

- This is a new kind of report, intended to inform and support budget preparation
- DOE continues to work in cooperation with Ecology and EPA to develop the first report, they are two of the main users of the report
- HAB’s input will be an ongoing part of the report preparation process

### *Agency Perspective*

Dennis this report has been a long time coming and has proven to be more difficult than originally thought. Dave Einan is the EPA representative on this project and has been doing the majority of the work. Dennis said the two alternatives chosen for in-depth analysis, 100 Area reactor disposition and remediation of the 200-SW-2 Operable Unit, were picked because they have the greatest ability to shift in terms of timeline and estimated cost. Dennis said a lot of resources have gone into the report already and he sees it being very helpful in driving the cleanup process at Hanford.

John said the agencies discussed Systems Plan scenarios, both of which came out of the tank waste settlement. Ecology is happy to have DOE working on this report. John said he pleased to see it being release earlier than originally planned and thanked DOE for agreeing to this.

John said this report is not like other reports. There will be a comment period but Ecology and EPA are not asking DOE to revise the report. Comments submitted will be saved and incorporated into the following years’ report. This will eliminate the need for DOE from to work on two reports at the same time.

### *Discussion*

Pam thanked Shannon for the update. Pam asked if the all DOE-EM complexes are putting out a Lifecycle Report. Shannon said the report is being done under the TPA regulations and compliance laws. Other sites are not currently writing Lifecycle Reports. Hanford will be the first and will serve as a pilot for other DOE sites.

Pam asked if DOE is using data only as of June 2010. Shannon said yes, data is frozen after a certain date. The M-91 negotiations and Central Plateau Cleanup Strategy were not included in the 2011 report but will be incorporated into the 2012 report. Pam encouraged DOE to do what they can to avoid including large numbers that might not be completely accurate if year old data is being used.

Liz asked Shannon to explain PBS Levels. Shannon said PBS Levels are how DOE’s funding requests go through Congress. It is a way to show different costs for portions of a project. One PBS Level serves as the total or high level

cost for a project. A subsequent PBS Level shows low level details and/or costs (i.e. maintenance or surveillance) for that project. There are approximately 11 or 12 PBS Levels. Not all projects have that many different levels but there will always be a PBS Level 1 and 2 for any given project.

Liz asked if when determining overall costs do the agencies choose the cheapest totals. Shannon said alternatives are chosen and then rolled together to provide an estimated cost with a plus and minus estimate. Since this is the first time a report of this nature has been written, Shannon encouraged Board members to read the document and provide comments on what did or did not work well in the report.

Dick does not understand how DOE can come up with reliable cost estimates for a project without doing a full analysis of the project. Dick asked if templates or cost models exist for D&D of a generic building. Shannon said yes, DOE has models for buildings of certain type, size, contaminants present and crew that is needed and in the near term. DOE also uses modeling techniques to determine cost.

Gerry P. said BCC will be discussing the Lifecycle Report in two weeks and encouraged Board members to come with their questions.

The group asked if stakeholder values and risk are included in the report. Shannon said risk analyses are done and incorporated into the report. In addition, DOE is trying to pull mission statements to include in the report. Shannon said DOE wants to hear what they have missed so they can make corrections for the 2012 Lifecycle Report.

Doug asked if the report provides “if – then” examples for how changes in prioritization could lead to reducing long-term costs. Shannon said the report provided different levels of what projects are being done and possible differences in timeframes and cost. However, the report does not include “if – then” scenarios because the report would be too long and complicated.

Doug asked if the document provides enough information necessary to determine if schedule could be accelerated. Shannon said she could not answer that now but would like to hear the answer via public comment once the 2011 report is released.

Nick said this is not a decision document but is among the many tools to analyze how priorities should be established.

Rob said it is a great advancement having cost and alternatives spelled out. Rob asked how many people are working on this project. Shannon said MSA is assisting in pulling information together to be included in the report. Shannon did not have an exact number of employees but noted that all Hanford groups are assisting in report development.

Rob asked which end-users DOE had in mind for the Lifecycle Report. Shannon said EPA and Ecology are DOE’s first end users and other will be considered in the future.

Harold asked how this report can be credible when some major decisions have not been made. John said that even if a decision has not been made, such as in the case of the burial grounds, there are multiple scenarios that help determine a broad range of costs. John said in moving forward, the agencies will include a top, middle and bottom scenario to make more accurate cost estimates. John added that this document is not binding. Shannon reiterated that DOE is not developing any new data or estimates for this report but is taking all information currently available to date and creating cost ranges as defined by different scenarios and alternatives.

Sam reminded the group that the terms “public” and “stakeholders” are not synonymous. Sam asked how DOE plans to solicit public input acknowledging that the HAB cannot serve as public input. Shannon said the report will be on the web with a link where people can provide comments. DOE, EPA and Ecology are all required to review comments. As for notifying the public about when and where they can comment, Paula said the agencies are continuing to dialogue about this. An email will be sent to listservs and the usual methods for all other comment periods will be utilized. Paula said the agencies will also work with the PIC to determine what type of notification is appropriate.

Shelley asked if the agencies see potential for more agility in lining up project work. Shannon said that was a possibility.

Dick asked if the report will indicate confidence levels on numbers included. Shannon said yes, it is a detailed rough order of magnitude (ROM) but not a detailed estimate.

Dick asked if all the models documented in the report are observable. Shannon said some might be labeled “for official use only” but she was not sure.

Doug asked if there are concerns about the target audience being the regulators when the agencies know congressional staff might also use the document. Doug also asked if the agencies were concerned that the costs would be misinterpreted or seen as too simplistic. Shannon said both of those are always a concern but she has hope that as the report moves forward from year to year and the writers know more it will improve.

Doug asked if the report would be simplistic enough for the public to read. Dennis said yes but noted that they would appreciate any assistance from the Board to lower the technical level if needed.

Mike said this document might also assist in securing future funding in the sense that it could show quantum reductions of time and cost if investments into new technologies are made.

### **Chronic Beryllium Disease Corrective Action Plan**

Mike Korenko praised Pete Garcia, Director of Safety and Engineering for DOE-RL, for taking the very complex topic of beryllium and completing the Hanford Corrective Action Plan (CAP) that was not only received well by affected workers and Hanford contractor, but was also approved by DOE-HQ. Mike added that because of the work Pete did on the report, both DOE locally and nationally are paying attention to the beryllium issue and he has been a force behind this positive momentum since the beginning.

HSEP has submitted two pieces of advice on the topic of beryllium; Advice #217 (Workers compensation regarding Beryllium Disease) and Advice #218 (Beryllium Disease Prevention at Hanford). The Board is interested in why workers are reluctant to get tested and, when they are, ensuring that this data is being tracked and catalogued. The Board also wants to know how to better inform the medical community about beryllium disease and how to treat it. Mike said HSEP will continue to follow this topic and provide feedback and advice where necessary.

Pete said a lot of effort has gone into the Hanford Site Chronic Beryllium Disease Prevention Program (CBDPP) and CAPs already. Although there is still a lot of work, Pete is confident they will get there.

Pete provided the Board with an update on the Hanford Site CBDPP and CAP. The following are excerpts from his presentation.

#### **Background**

- Hanford Site CBDPP was approved by RL/ORP in June 2009, before then there was inconsistent requirements and DOE wanted to develop a site wide program for all of the contractors
- DOE Office of Health, Safety, and Security (HSS) inspection of the Hanford beryllium (Be) program was conducted February 2010 through June 2010 in response to concerns raised by current and former workers
- The inspection identified 4 findings and 11 opportunities for improvement

#### **Corrective Action Plan (CAP)**

- Contractors developed CAPs to address all findings and opportunities for improvement in the June 2, 2010, HSS inspection report of the Hanford Site CBDPPP
- A team consisting of representatives of the Beryllium Awareness Group (BAG), Hanford Atomic Metal Trades Council (HAMTC), DOE-ORP, DOE-RL and contractors integrated those plans into one Hanford CAP
- Hanford CAP signed by leadership of BAG, HAMTC, ORP, RL, and transmitted to DOE-EM on August 30, 2010

- Hanford CAP approved by Assistant Secretary of EM, with HSS concurrence, on September 17, 2010 – it was approved quickly because the local offices met regularly with DOE-HQ so there were no surprises when the CAP was submitted
- The approved CAP has been transmitted to contractors, via contract modification, for implementation ; it was very clear and now working through this process

### **Corrective Actions Summary**

- Revise and implement facility characterization program. HSS concluded DOE was not conservative enough and there was too much subjectivity. All of the facilities will be reassessed again with the new criteria
- Improve communications with workers, former workers and external stakeholders
- Enhance oversight of CBDPP implementation. In the beginning there was not enough oversight. There were 10 other programs and Be was not getting the attention it needed
- Require stronger work planning for beryllium jobs
- Provide broader counseling and assistance to affected workers. This is an area DOE had not been succeeding in; counseling was not effective. DOE has taken steps to improve this

### **Interim Actions**

- Verify building postings are correct
- Require supervisors and planners involved with Be work to attend beryllium worker training
- Require collection of wipe samples where bulk samples are collected to make sure bulk samples are accurate
- Establish criteria for beryllium concentrations triggering additional investigations and control

### **Independent Beryllium Oversight Team**

- Established with two major functions:
  - Provide support to affected workers and enhance communications with workers and the BAG
  - Perform independent oversight of contractor implementation of the CAP corrective actions and the CBDPP
  - Take samples, provide counseling, assist workers in the paperwork process
- BAG and HAMTC are happy with the way things are going

### **Progress to Date**

- 239 discreet actions in the CAP
- 69 (28%) completed as of 10/20/2010
- 67 of 69 actions (97%) closed on schedule
- 2 actions returned to contractor for revision

### **Path Forward**

- Manage CAP implementation as a project with MSA assistance
  - Primary metric will be schedule performance
  - Other metrics to be determined
- Local DOE offices report to HQ weekly, they are very involved
- Oversee implementation of the CAP

Pete said a lot of people are looking at the CAP and watching its progress. It is a lot of work and there are still major deliverables to complete but Pete is committed to briefing HSEP monthly so that they are able to closely follow the path to implementing the CAP.

Completion of the CAP is included as part of DOE-HQ's performance assessment so it is important that the CAP is successful. Pate said they will continue to engage BAG and HAMTC to ensure their continued satisfaction.

Keith said he is impressed with the efforts put forth by DOE.

Keith asked how DOE-RL is verifying that the level at DOE-ORP is consistent. Pete said ORP is part of the team and attends all meetings. Both offices are in tune with one another on this issue.

Keith asked if metrics will be taken and used to confirm whether or not the CAP is effective. Pete said currently there is a limited amount of trust between workers and contractors so DOE is working to build this trust back up to ensure the workers feel protected.

Gerry P. asked if BAG members were invited to join the meeting and noted that it is important to hear from BAG members during beryllium updates. By inviting BAG members they will be able to hear what is being said about the CBDPP and will assist in building back up trust. Pete said a few of them were invited to come.

Laura said it needs to be conveyed more clearly to workers that the CBDPP is not being updated just because it is time to do so, but is being updated because DOE missed the mark and is working to better protect workers. Liz added that she spoke to Dr. Triay about this issue and Dr. Triay is very open about how DOE missed the mark. Liz reiterated the need to be open and transparent with the workforce because this will help with trust building.

Laura suggested Mary Sams, registered nurse and beryllium affected worker advocate, to serve as a point of contact for people to call and get information about testing because there is too much conflict of interest with workers going through AdvanceMed or the contractors to try and get tested.

Pete said an all-staff meeting is tentatively planned for January to let workers, supervisors and company presidents know what is happening with the CAP and introduce the Independent Beryllium Oversight Team (IBOT). Pete said Mary's name was brought up in consideration for a point of contact. Pete said he takes Laura's comment to heart and DOE-RL will continue to try and reach out to workers.

Jeff L. asked if the dollar amount dedicated to counseling and assistance for affected workers could be provided to the Board to help quantify or measure DOE's efforts. Pete said they are working to develop new counseling packets and improving counselor, supervisor and manager training. Pete said some of these activities will be difficult to place a dollar amount on but he agreed to identify a general cost estimate.

Jeff L. asked Pete to define what type of assistance workers are getting. Pete said BAG is developing the assistance program and helping to write the counseling packets because they have been in the same position as the affected workers and they are well aware of the kinds of information and support affected workers need. Pete said as dollar amounts and details of beryllium counseling programs become flushed out he will funnel them through Keith.

Dick asked when and how the beryllium issue arose. Dick said his son worked at Hanford and he was never notified of the dangers of beryllium or had formal training on how to handle it. Pete said beryllium was used at Hanford since the 1950s for cladding fuel elements for reactors, mostly in the 300 Area. At the time the risks were unknown. National Jewish Health (Denver, CO) has done a lot of work on beryllium because of similar issues at the Rocky Flats Site. These studies conducted led to an issuance of rules in 1999. Since then, there has been varying degrees of success in protecting workers from beryllium exposure. However, DOE knows they need to do a better job of understanding the issue and find out where exposure is coming from.

Dick asked if there is any historical data. Pete said there is limited data available because the science was not available then to differentiate beryllium disease from any other lung ailment. In the past it was likely misdiagnosed as lung disease.

Liz said it will be interesting to see the numbers of workers affected and tested positive for CBD prior to the CAP implementation and compare them with the numbers taken after CAP implementation. Liz encouraged DOE to think about useful indicators they would like to see. Pete suggested measuring worker perception.

Sam raised concerns about health and safety requirements trickling down to the contractors because this is where a lot of weakness with program implementation comes from. Sam asked how DOE plans to verify that the message is getting down to workers, even those who are temporary workers. Pete said he did not have a great answer to this question but noted that DOE oversight is crucial.

Jean Vanni, Yakama Nation (Tribal Government) asked what the integration of the CAP with other agencies, like Ecology and the Department of Health, will look like since they also send employees out to the site. Peter said that people who access the site should have an Employees Job Task Analysis (EJTA) prepared for all on-site workers

that indicates risk of exposure. Pete added that because most Ecology staff are not qualified as workers, they likely do not have access into work zones. Pete said they are also working with an industrial hygienist to make sure the CAP is implemented appropriately on all fronts.

Jean said when she worked for Ecology she was never told about risks associated with exposure to beryllium and most employees are never tested. Dieter said employees working on site are required to take radiological worker training but he could not speak to beryllium specifically.

Jean asked if DOE was utilizing the Department of Health to monitor air quality. Pete did not think the Department of Health was assisting DOE with any aspect of the CAP because their mandate only allows them to focus on radiological emissions on site.

Pam asked if the Department of Energy Acquisition Regulation (DEAR) clause, a contract mechanism requiring all prime contracts to pass worker safety rules onto their subcontractors, was applicable to the CAP. Pete answered yes.

Keith asked if facility representatives are being trained on their appropriate role and their ability to stop work. Pete said yes. Facility representative are becoming more knowledgeable through improved training. Although they are generalists, they should be able to identify and resolve issues or at least know who to turn to get the issue resolved.

Dirk asked the agencies to also pay attention to other potentially harmful materials such as cadmium in order to avoid another delayed response to a serious health issue.

## **Board Business**

### *Process Updates and Reminders*

Susan H. said the EIC had a discussion about flight schedules and impacts to committee meetings. The EIC agreed to try to schedule committee meetings to end by 4:00 p.m. to accommodate those scheduled for the 5:30 p.m. flight to Seattle. While there is currently a 7:50 p.m. flight to Seattle, this flight has been added and removed from the flight schedule recently, and its viability is uncertain. Committees will continue to determine their meeting starting times depending on committee member availability and the fullness of the agenda; however, there will be sensitivity to those traveling to meetings.

In addition, when Board meetings finish late, it is difficult to keep a quorum and the Board is not able to develop an informed set of topics for the following HAB meeting. The EIC will continue to monitor these issues.

Susan L. also discussed the negative impact it has on meetings when members come in late or leave early. Susan asked Board members to keep in mind the disruption it makes and the effect it has on those attending the meeting.

Susan L. encouraged members to submit their reimbursement forms as soon as possible. When they are not submitted in a timely manner, it ties up DOE and makes it difficult to track the Board's budget accurately. Susan said all expenses need to be turned in within five business days. After 30 days it is possible that reimbursements will not be given. Keith said it would be helpful if DOE responds with an email or phone call to confirm they received faxed reimbursement forms. The group agreed that Sue Avery would be the primary person for this.

Paula Call informed the Board that if Sue is out of the office, she will serve as the backup for travel authorization requests.

Maynard asked if the process for approving Board member alternates could be sped up. Paula said she has heard the Board's request on this issue and is working on this.

Mike suggested that the alternates for Public-at-Large no longer be tied to a particular seat as a way to ensure Board consensus and quorum.

### *Calendar Review*

Committee week was moved back one week due to the Veteran's Day holiday. The following are meeting dates and committee calls schedule for the month of November.

HSEP: No committee call  
RAP: Committee meeting on 11/17, no committee call  
BCC: Committee meeting 11/18, committee call 11/23  
TWC: Committee meeting 11/18, no committee call  
PIC: Committee call on 11/23  
EIC: Committee call on 11/23

*Potential February Board Meeting Topics*

- Advice on AdvanceMed Hanford
- Contract incentives for health and safety discussion
- Advice on solid waste burial grounds
- Advice on DOE's Open Government Plan
- 618-10 trench remediation
- Update on Tank Closure Plan
- HAB briefing on risk assessment for the river corridor that will be released in January/early February

Susan Leckband thanked Board members for their participation and adjourned the meeting.

**Attendees**

**HAB MEMBERS AND ALTERNATES**

Robert Davis, Member	Gerald Pollet, Member	Sam Dechter, Alternate
Earl Fordham, Member	Dan Serres, Member	Dirk Dunning, Alternate
Harold Heacock, Member	Keith Smith, Member	Laura Hanses, Alternate
Rebecca Holland, Member	Lyle Smith, Member	Floyd Hodges, Alternate
Steve Hudson, Member	Bob Suyama, Member	Mike Korenko, Alternate
Paige Knight, Member	Margery Swint, Member	Liz Mattson, Alternate
Pam Larsen, Member	Eugene Van Liew, Member	Emmett Moore, Alternate
Susan Leckband, Member		Wade Riggsbee, Alternate
Jeff Luke, Member		BC Smith, Alternate
Doug Mercer, Member	Al Boldt, Alternate	Dick Smith, Alternate
Ken Niles, Member (phone)	Shelley Cimon, Alternate	John Stanfill, Alternate
Jerry Peltier, Member	Gerry Dagle, Alternate	Jean Vanni, Alternate
Maynard Plahuta, Member		

**AGENCY, CONTRACTOR, AND SUPPORT STAFF**

Paula Call, DOE-RL (phone)	Dieter Bohrmann, Ecology	Sonya Johnson, CHPRC
Nick Ceto, DOE-RL	Rick Bond, Ecology	Janice Williams, CHPRC
Karen Flynn, DOE-RL	Madeleine Brown, Ecology	
Boyd Hathaway, DOE-RL	Jane Hedges, Ecology	Sharon Braswell, MSA
Alex Teimouri, DOE-RL	Jeff Lyon, Ecology	Barb Wise, MSA
	Dan McDonald, Ecology	
Mary Burandt, DOE-ORP	John Price, Ecology	Sandy Rock, AMH
Stacy Charboneau, DOE-ORP	Ron Skinnerland, Ecology	
J.D. Dowell, DOE-ORP		Peter Bengston, WCH
Pamela Mccann, DOE-ORP	Dennis Faulk, EPA	Paul Bredt, PNNL
Tom Teynor, DOE-ORP	Emy Laija, EPA	
Woody Russell, DOE-ORP		Michele Gerber, URS Corp.
		Chelsey Funis, EnviroIssues
		Susan Hayman, EnviroIssues
		Tammie Gilley, EnviroIssues
		Cathy McCague, EnviroIssues

**MEMBERS OF THE PUBLIC**

Annette Cary, Tri-City Herald (phone)	Shannon Smith, HoANW	Dick Wilde
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## *ATTACHMENT 1*

### *Feedback on the Solid Waste Burial Ground COTW Poster Session*

#### **ATTACHMENT 1 – Feedback on the Solid Waste Burial Ground COTW Poster Session**

**Event:** Solid Waste Burial Grounds COTW

**Purpose of the event:** Provide information, obtain informal feedback and discuss Hanford's radioactive burial grounds

**Location:** Richland, WA (WSU CIC)

**Format:** Presentations/Poster Sessions

#### **What Worked Well? Why?**

- Excellent graphics
- Informative – great opportunity to learn!
- Great poster session – great opportunity to ask questions
- Good overall summary of what and where

#### **What Didn't Work Well? Why?**

- Too detailed – tried to make each unit (burial ground) fit a format, even when information was not known
- Some information was incorrect (historical dates especially)
- There are lots of unknowns and this should be said instead of trying to “fill in the blanks”
- Posters too jargon-y
- Too little time for the information in one day – half would have been better

#### **Future Application?**

- All high profile, big picture activities
- Need better understanding of what contaminants are present and the risk level if they remain
- New format efforts = A+