

**FINAL MEETING SUMMARY**

**HANFORD ADVISORY BOARD  
TANK WASTE COMMITTEE MEETING  
February 14, 2007  
Richland, WA**

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*This is only a summary of issues and actions in this meeting. It may not represent the fullness of ideas discussed or opinions given, and should not be used as a substitute for actual public involvement or public comment on any particular topic unless specifically identified as such.*

**Welcome and Introductions**

Rick Jansons, Tank Waste Committee (TWC) Chair, welcomed the committee and introductions were made.

Comments on the October and December meeting summaries were incorporated, and the summaries were adopted.

**Update on Double Shell Tank (DST) Integrity Report**

Rob Davis gave an issue manager update on the recent discussions with the DOE Hanford offices, regulatory agencies, and contractors regarding the DST Integrity Report and TPA milestone (M-32) for the DST Integrity Report. He commented on the improved communication between the committee and involved.

The DST Integrity Report evaluates the interface between tank waste and the tank wall, which is the area where tank integrity would be tested the most. The Integrity Report looked at potential failures of the tank wall caused by general corrosion, pitting or crevice corrosion, stress corrosion, rupturing, buckling of the knuckle on the tank bottom, water line corrosion, or general failure.

Rob described current DST corrosion monitoring and control activities:

- Thorough, representative ultrasonic testing (UT) program of all 28 DSTs, which provides baseline data
- Scheduling UT reexamination of the 28 DSTs every eight to ten years
- Visual examination/testing (VT) of the 28 DSTs every five years
- Developing new monitoring technologies

Rob's concerns about the DST Integrity Report include:

- Data quality (lack of clear, complete, and summarized data)
- Data analysis (no consistent approach to detecting wall thinning and seismic analysis bases)
- Inspection (inadequate area of inspection)
- Corrosion monitoring (no coordinated long-term monitoring and leak test mapping)
- Data correlation (need tank by tank analysis of operation to corrosion)
- Vaults and piping (lack of understanding of ancillary equipment and status)

Overall, Rob said DOE has taken a proactive, transparent approach to addressing DST integrity concerns. He is confident in the managers running the program and he believes DOE, contractors, and the regulatory agencies have a DST integrity monitoring process to handle any detected tank degradation. He commented that the DST integrity budget is only six million dollars a year, which is minimal to avoid tank failure.

Walter Scott, Acting Director of the Tank Farm Engineering Division for DOE-ORP, said he appreciates committee issue managers' questions and concerns about DST integrity issues. Their concerns made DOE-ORP realize they were not adequately informing people about the program. He said DOE-ORP is confident the DST integrity program provides ample time to take remedial action in the case of a tank leak. He expressed an interest in setting up more frequent updates and involvement opportunities to address stakeholder interests and concerns.

Walter said DOE-ORP is currently revising the DST Integrity Report. DOE-ORP met with the Washington State Department of Ecology (Ecology) to address their comments on the draft report, which will appear in the revised report. He expressed a desire to meet with stakeholders to discuss changes to the report before releasing the revised document.

### **Regulator Perspective**

- Jeff Lyon, Ecology, said he also appreciates the efforts of the committee issue managers and is encouraged about the improved communication between DOE-ORP, its contractors, and Ecology. He said Ecology's comments still need to be resolved. Ecology is reviewing DOE-ORP's comment responses which should be completed soon. Ecology still plans on working through the permitting process and the DST Integrity Report is a critical part of the process.

### **Committee Discussion**

- *If degradation were found in the tank wall at the knuckle, could that be repaired, or would a new tank have to be built?* Walter said defects in the tank wall can be repaired, but the ability to repair degradation at the knuckle depends on the damage.
- *Are there any tanks that need more frequent inspection?* Walter said when a change is made to a tank, that tank is put on a more frequent inspection cycle.
- Rob commented that he believes the Hanford Advisory Board (Board) should receive an update on the DST tank integrity. He expressed concern about Board members maintaining continuity of knowledge about complex long-term programs like tank integrity. Jeff said the tank integrity assessments that form the DST Integrity Report are not a living process, but instead the permitting process will ensure tank cleanup efforts remain intact over time and enable stakeholders and the public to express their concerns. For this reason, Jeff said Board input into the permitting process is key for maintaining continuity. Dirk Dunning added that keeping documents and presentations as a committee and Board record will help maintain continuity of knowledge. Dick Smith suggested issue managers should keep good notes and records of the work they do as a way of maintaining continuity of Board and committee knowledge. Rob and Dirk agreed to develop a summary of their issue manager work on the DST Integrity Report.
- Harold Heacock noted there is an Ecology report that comprehensively reviews the DST integrity report.

### **Tank Farm Vadose Zone Characterization**

John Kristofzski, CH2M Hill Hanford Group (CHG), updated the committee on Hanford Tank Farm Vadose Zone Characterization. There are seven waste management areas, and John focused his presentation on the B-BX-BY facilities. He said CHG understands the historic infrastructure of the waste management areas, and what waste flowed out of the tanks. John discussed the use of subsurface cross-sections through the waste management areas as a means of conceptualizing and predicting the conditions and environment of the area where waste material was deposited.

In addition to characterizing the subsurface composition, CHG is also working to understand the contaminant releases that occurred, and has documented the process history of releases. CHG characterizes waste releases using dry wells, and performs gross gamma and spectral gamma logging for vadose zone boreholes, which indicates movement or decay of a particular release. Since contamination ultimately ends up in the groundwater, CHG also uses groundwater monitoring wells to help understand the activity of a contamination stream.

John also updated the committee on T-Farm Interim Surface Barrier Demonstration, which is attempting to adequately address directing run-off water away from adjacent waste sites.

### **Regulator Perspective**

- Jeff Lyon, Ecology, commented that characterization milestones are in place for the first phase of tank farm closure. Tank farm vadose zone characterization is an ongoing process, and Ecology would like to have additional milestones in place to continue moving forward with tank farm closure. He said there is inadequate data to close the tank farms, so characterization work is essential. DOE-ORP and its contractors have made a good effort to characterize soils and subsurface, but data need to be validated and additional data need to be gathered.
- Jeff said Ecology is also involved in the T-Farm barrier design process. A single-shell tank (SST) permit engineer from Ecology is participating in the process, so Ecology feels they have appropriate input. He said DOE-ORP needs to complete milestones, and there is no phase two yet.

### Committee Discussion

- Wade Riggsbee commented that knowing the geology of the waste sites provides key information into developing a complete understanding of the waste sites. John said geology is a crucial component of understanding the environmental condition where process history occurs.
- *Have the outliers in the vadose zone monitoring system been validated?* John said the vadose zone monitoring system only includes validated data.
- *Does the T-Farm barrier only cover the center of the tank farm?* John said the barrier was designed to address the leak with the largest impact. CHG analyzed the extent of this potential leak and extended the barrier beyond those specifications. The barrier is sloped so water will passively runoff the barrier area.
- *What is the elevation of the barrier?* Bob Parks expressed concern about the barrier covering the tank farm breather filters. John said the barrier elevation is currently being developed. Creating a 1% slope requires adding some fill, so CHG is working out how to do this without impeding necessary access points.
- *Are there clay elements in the boreholes? If so, do they serve as trapping mechanisms for contaminants?* John was unsure. CHG is continuing to determine what to do with the clay mineralogy. Sophisticated soil characterization was done, which involved driving boreholes into areas of high contaminant concentration to take samples at many different levels. John noted that much of the uranium precipitated in the fractured subsurface layers, and it appears uranium is more associated with minerals other than clays, which indicates clays might not play a significant role in trapping contaminants.
- *Do CHG and DOE-ORP understand the layout and construction of the subsurface piping that runs across the area covered by the barrier?* John said CHG will consider this issue and get back to the committee. He noted that the barrier is designed so runoff water does not run off the edges of the barrier.
- *How long will the barrier demonstration test run?* John said the demonstration barrier will be constructed this year, and data will be collected for a couple years. He

said the demonstration barrier design and model indicate barrier effectiveness can be determined a year or 2 after construction.

- *How much water is participating in driving contamination further into the subsurface?* Since there is no vegetation at the waste site to consume water, an estimated 100 mm/year is involved in transporting contaminants. Delmar Noyes, DOE-ORP, said sensors will be placed before the area is capped to determine the barrier's impact on infiltration.
- *How deep is the vadose zone?* John said the vadose zone is ~200 feet deep. The drywells do not go all the way through the vadose zone.
- Dirk said Gross Gamma Logging is useful for understanding movement of material through the subsurface, which indicate whether contaminants are moving laterally as well as vertically. Rick said the gamma logs indicate uranium concentration is much higher than the uranium perched in the vadose zone. The assumption is that uranium is perched at depth, but seeing higher radiation levels are being observed in the groundwater. He wondered how uranium contamination can be perched at 100 feet, yet be detected at 200 feet with nothing in between. John said there are significant challenges when trying to portray the entire contaminant picture, and all sources need to be considered. He said the contamination noted in the groundwater could be from a different source.
- Dirk commented that when a large amount of liquid passes through contaminated areas, contaminants can get into certain areas of the subsurface and hang out until the next flood or flush event. Therefore, Hanford's soil structure could be the reason contamination is found in unexpected areas.
- Harold suggested there is a need to make time to have a speculative discussion regarding what to do about vadose zone contamination. He suggested a potential joint discussion between TWC and the River and Plateau Committee (RAP).
- *Since there is no physical separation of the vadose zone and the groundwater, are the DOE contractors responsible for cleanup of these areas coordinating their efforts?* Steve said the Government Accountability Office (GAO) review asked the same question. The DOE contractors created a memorandum of understanding that outlines vadose zone and groundwater integration. Integrated project teams exist for every waste management area. John said vadose zone and groundwater work is truly integrated, including data collection and review.
- Several committee members expressed concern about making decisions before additional data is obtained and verified. Steve encouraged the committee to consider a DOE-RL report on data quality objectives (DQOs) and how it relates to tank farm characterization efforts. The report outlines DOE-RL's plans for groundwater cleanup. Committee members generally agreed a presentation from DOE-RL on the relationship between their DQO report and tank farm efforts.
- Committee members generally agreed a presentation of the integrated project groundwater and vadose zone teams should be made to the full Board after a joint committee meeting.

### **Tank Waste System Advice (#192)**

Dick Smith provided an issue manager review of the rationale for developing advice on the tank waste system. He said there is a need for an adequate systematic review of the tank waste system. Issue managers Harold, Ken Gasper, and Dick discussed possible changes to the logic flow diagrams describing the system and suggested developing lower-level logic diagrams for some areas with more complicated, detailed components. Dick suggested there is a need to overlay the functional logic diagram on timelines to determine the process to achieve milestones. In a review of the Defense Nuclear Facilities Safety Board's (DNFSB) bicentennial tank retrieval report, there are several significant disconnects between the report's timelines and schedules and the status of tank closure work activities.

Steve Wiegman said the logic diagrams reflect DOE-ORP's attempt to develop a way to depict the steps necessary to achieve closure decisions and ultimately overlay on timelines. To develop the logic diagrams, DOE-ORP reevaluated its systems engineering. Although tank cleanup is experiencing delays, the fundamental steps to complete the project have not changed and the Tri Party Agreement (TPA) agencies need to agree on the major components of the program.

Don Wodrich, YAH, described the draft logic diagrams. He noted that the logic diagrams do not consider tank waste cleanup funding. The three draft logic diagrams depict the TPA baseline, current DOE-ORP planning baseline, and combined baseline. The combined baseline logic diagram illustrates the major differences between the TPA and DOE-ORP planning baselines. Don also described a draft supplemental treatment decision logic flowchart.

### **Regulator Perspective**

- Jeff said Ecology looked at the DNFSB report to see how they understand the tank waste cleanup program at that point in time. The flow diagram highlights the major decision points and provides a good foundation from which to discuss tank waste cleanup issues. Jeff indicated the logic diagram should identify the relative uncertainties of particular actions. Also, assessments should indicate how long tanks can be used. He said there will be surprises when tank retrieval begins. He noted that the record of decision (ROD) is important to DOE, but not as important to Ecology, which is more concerned about the TC&WM EIS. He said the Board is a good source of input, and he encouraged committee members to continue to review the tank waste cleanup program and determine their priorities if milestones are missed.
- Jeff said Ecology would like more information on the programmatic risk management tool.

### **Committee Discussion**

- *Are the committee issue managers still engaged in the tank waste system decisions?* Dick said the issue manager discussions with DOE-ORP were frank, open and issue managers shared their concerns. Dick said the intent is to have a monthly meeting

between issue managers and DOE-ORP. Steve said DOE upper management wants to see some next steps developed.

- Several committee members said the logic flow diagrams are useful in their depiction of the approach to treating all the waste.
- Maynard expressed concern about the potential implications of the schedule differences between the DNFSB review report and current program plans. *Is there any way to work with DNFSB to correct the milestones they report?* Steve said DOE-ORP needs to develop a consistent message on cleanup activities and schedule. Jim Honeyman, CHG, said DNFSB is reporting on a cleanup schedule that has not been accepted by the regulatory agencies. He said CHG and DOE-ORP are briefing DNFSB members that there are discussions going on to set tank waste cleanup milestones.
- Steve said DOE-ORP is preparing to update its system plan, which describes the assumption for the waste treatment process. DOE-ORP wants to connect the cleanup process outlined by the logic flow diagram in the next system plan and to evaluate programmatic risk assessments. Don is considering developing more detailed flow diagrams for each decision point.
- Harold commented that there is a whole other layer of funding issues and additional facilities that need to be included in the baseline to achieve cleanup objectives. Steve said DOE-ORP has not adequately discussed management risks, which is one reason to connect the logic flow diagram back to risk management tools.
- Dirk said the next step for DOE-ORP is to look at the scheduling of decision elements. All the decisions compete with each other and have different impacts. He requested committee members provide any questions or issues to the issue managers to discuss with DOE-ORP. Steve cautioned that tying the program baseline to a specific schedule is not a good idea. Jeff added that one reason not to tie the baseline to a specific schedule is that the funding level is not consistent, and while cost increases the funding often does not.
- Committee members agreed a presentation of the logic flow diagrams should be made to the full Board in the April or June timeframe.

### **Demonstration Bulk Vitrification System**

Dick Smith provided an issue manager update on the demonstration bulk vitrification system (DBVS). The Board issued advice during the latter part of 2005 recommending developing decision criteria to determine whether to continue with DBVS. Board advice also advised Ecology to develop criteria to determine whether to support the DBVS program.

Issue managers Ken Gasper, Rob Davis, and Dick met with the TPA agencies in January to discuss the DBVS cost and system choices, and had a second meeting with the TPA agencies on January 29, to get an early briefing on the comparison study of bulk vitrification and a second low-activity waste (LAW) facility. He said the issue managers generated several questions for consideration and resolution before the document

comparing the cost and schedules of bulk vitrification and a second LAW plant is issued (the M-62-08 milestone deliverable).

Ben Harp, DOE-ORP, said a cost comparison is part of the milestone deliverable due to Ecology. He said a draft of the document is going through final DOE concurrence, then will be delivered to Ecology and will be made publicly available during the week of February 19.

Ben provided an overview for 2007 activities and the plan for bulk vitrification construction. He noted there is no funding available for DBVS in Fiscal Year 2007, but DOE-ORP applied a portion of contractor savings from Fiscal Year 2006 to DBVS activities. DOE-ORP is attempting to get to critical decision two, which is approved by the Department of Energy – Headquarters (DOE-HQ). To do so, DOE-ORP needs to: 1) Respond to expert review panel comments; 2) Continue to work on safety document with new designs; and, 3) Complete testing. Three engineering tests are scheduled this year to demonstrate molten ionic salt transport to revise glass formulation, complete a test dryer feed, and to complete an integrated dryer melt process.

Ben said committee members could review DBVS equipment during a HAMMER facility tour in June.

### **Regulator Perspective**

- Laura Cusack, Ecology, said Ecology wants an update from DOE regarding its understanding of the bulk vitrification system, so Ecology can make its decision whether to support DBVS. Ecology will review DOE's cost comparison document once it comes through the concurrent review process.

### **Committee Discussion**

- *Will Ecology's review of DOE's cost comparison document result in a DBVS decision for Ecology?* Laura said Ecology will not make a decision whether bulk vitrification is the appropriate supplemental technology, but Ecology wants some assurance that DOE has a plan to make a final decision by 2012.
- *Has Ecology considered information from committee issue managers, especially related to cost?* Laura said Ecology has reviewed issue manager information. She said there is not enough detail to know the differences between the cost of bulk vitrification and a second LAW plant. She said bulk vitrification provides several benefits, such as schedule gains and providing a facility not associated with the WTP.
- *How does DOE-ORP get a representative sample from the test glass?* Jim said waste materials are being formed, heated up and dissolved in glass. Some material is not dissolving in glass as quickly as other material. DOE-ORP is attempting to optimize the balance of dissolution rate of the materials.
- *What is the probability of material forming and crystallizing on the outside of the container?* Jim said that is unlikely. CHG and DOE-ORP have been able to



demonstrate a new formulation to stop migration. Laura said Ecology is not sure bulk vitrification will produce a completely homogeneous product. Jim said CHG will deconstruct, sample, and analyze all 50 glass boxes to make sure glass meets standards.

- Dirk said if the product has multiple phases, then the evaluation of what is “as good as glass” is very difficult. Jim said it is important for CHG and DOE-ORP to adequately compare the product to glass and bulk vitrification product.
- Susan Leckband said DOE-ORP will presumably complete the comparison report. Ben said the comparison report will be done, but DOE-ORP is just sending Ecology what is currently known. He noted that bulk vitrification is not scheduled to produce data until 2012, and several tests and comparisons need to be done. Laura stated that if DOE wants Ecology to accept bulk vitrification, a complete comparison report is required.
- *How confident is DOE-ORP that bulk vitrification is the appropriate supplemental treatment technology?* Ben said he is confident DBVS can be completed, but he could not say bulk vitrification is the appropriate supplemental treatment technology. Laura said there are several issues related to full scale facility and equipment integration, so solving those issues raises Ecology’s confidence level. Ben said DOE-ORP does not have a plan to formally provide Ecology with status updates, but DOE-ORP and Ecology are in regular communication on this issue. Laura said DOE-ORP provides data as they receive it, and the agencies have regular discussions, which often direct the next test melts and determine the need for additional testing.
- Harold expressed concern about the use of air cushion vehicles for transport, because of their potential to spread contamination. He noted that commercial facilities have gotten rid of them. If DOE-ORP plans to use them, they need to be adequately tested. Jim said the air cushion vehicles are being tested. He agreed that the area of operation needs to be contamination free.
- *How long will it take before DOE-ORP and Ecology know whether bulk vitrification is the appropriate supplemental technology?* Maynard suggested developing some indicators to guide the decision whether to move forward with bulk vitrification. Laura said DOE-ORP and Ecology plan to deal with molten ionic salt and equipment tests this year to determine whether to move forward. She said Ecology is starting to take the position that by 2012, DOE-ORP needs to break ground on a second treatment facility regardless of whether it is bulk vitrification or a second LAW plant. She emphasized the need to maintain the ability to do both. Ben said DOE is trying to make the construction decision by the end of 2008.
- Assuming the cost comparison being released is complete and reliable, Dick said it may relieve project funding concerns and make the decision whether to pursue bulk vitrification reasonably clear.
- Committee issue managers (Dick, Ken, and Rob) will review DOE’s cost comparison report and continue to meet with the TPA agencies.

## **CERCLA & RCRA Tutorial**

Ron Skinnarland, Ecology, provided a tutorial on the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and specific issues related to cleanup.

Washington State has its own hazardous waste law, the State Hazardous Waste Management Act, and regulations that include RCRA. The Model Toxics Control Act (MTCA) is the Washington State equivalent of CERCLA. CERCLA/MTCA focuses on contaminated site cleanup, while RCRA focuses on facilities that generate, treat, store and dispose of hazardous waste.

The Environmental Protection Agency (EPA) and Ecology are integrating RCRA and CERCLA as much as possible, and working with DOE to determine how to implement regulatory requirements. RCRA and CERCLA need to be integrated to make sure both processes are achieving the same cleanup level.

Nick Ceto, EPA, described the CERCLA regulatory process. CERCLA was developed as a national response to hazardous waste sites, and provides EPA a broad authority to investigate waste sites and pollutants, and identify parties responsible for funding cleanup. In EPA's Region 10, composed of the Pacific Northwest and Alaska, 70% of hazardous waste cleanups are covered by responsible parties. EPA has a site assessment program to identify waste sites, a removal program to conduct quick cleanup actions, and a remedial program to determine the extent of contamination, costs, and cleanup goals. The remediation program is most often used program at Hanford. During remedial investigations under CERCLA, the feasibility study stage evaluates cleanup options against the CERCLA 9 criteria (RCRA is one as well as overall protection of human health and environment). After the feasibility study is complete, a proposed plan is issued for review and comment, followed by a ROD, remedial design, and a remedial action plan to establish milestones. If a site cannot have unrestricted use upon closure, there is a five-year review provision requirement if contaminants are left behind.

If there is a dispute about a CERCLA ROD, EPA has final decision authority. Nick said EPA considers Hanford to have one cleanup plan and does not believe there are a lot of practical differences between RCRA and CERCLA. EPA and Ecology coordinate to ensure RCRA and CERCLA decisions are similar. The TPA indicates DOE is responsible for performing RAD and chemical cleanup and the regulatory agencies have collective jurisdiction over all RAD and chemical cleanup. Nick said RCRA and CERCLA leave no regulatory gaps and can cover everything at Hanford. EPA and Ecology share resources, have a good working relationship, and try to appear as one regulatory authority as often as possible.

### **Committee Discussion**

- *How do the regulatory agencies account for there being different risk limits under RCRA and CERCLA?* Nick said there is a risk range, not a prescriptive limit. RCRA

is considered an appropriate and applicable requirement (ARAR), and EPA uses the CERCLA process to apply RCRA limits.

- Dirk commented that the superfund law has two parts: first, that EPA administers cleanup, and second that natural resource damage be accounted for. He does not believe the natural resource damage often does not get considered in cleanup. Nick said under CERCLA, EPA is obligated to coordinate with Natural Resource Trustees to address natural resource damages, who bring natural resource considerations into the decision making process. He noted that EPA is not a trustee, but DOE and Ecology are trustees.
- *Considering the difficulty in determining how contaminants move through the subsurface, what happens when a risk range cannot be determined?* Nick said several things could happen. EPA would likely specify a solution for what can be done in a ROD. EPA could indicate it is unable to make a decision and continue testing, or it may develop an interim solution. He acknowledged this is one of the most problematic cleanup issues.

### **Idaho Record of Decision (ROD) for Grouting**

Nick Ceto, EPA, provided his perspective on Idaho National Laboratory's (INL) ROD for grouting tanks. He said INL has experienced leaks at tank farm transfers, but not from the tanks themselves. All INL tanks are modern, and transfer leaks are being addressed through CERCLA.

The waste form produced through tank waste treatment is a fairly stable form, but is not an approved waste form for Yucca Mountain. INL did not use some neutralization techniques used at Hanford, because they had stainless steel tanks. INL does have some hazardous wastes in the tanks, but less than at Hanford, and their tanks are easily accessible.

INL is using steam reforming to clean additional sodium bearing tank waste, which is also not an acceptable waste form for Yucca Mountain. INL has critical decision two from DOE and plan to break ground on the steam reformer this summer. INL began grouting tanks in 2006, but stopped due to winter weather. They plan to finish grouting the remaining tanks in the spring. Closure of the tank farm is planned to be complete by 2012.

### **Committee Discussion**

- *What is the final disposition for the INL tanks?* Nick said the final disposition of INL tanks is grouted tanks and vaults with a cap on the tank farm.
- *Did INL experience any significant leaks?* Nick said the INL tanks never leaked, but some pipes leaked during transfers. To address pipe leaks, INL dug up leaking pipes, re-routed groundwater, and installed some barriers. INL experienced one significant leak, which is still much smaller than most leaks at Hanford.

- *If INL can get their tanks clean, then why would they decide to grout them?* Nick said EPA was not involved in the decision, so he is unsure.
- Due to significant differences between the INL site and Hanford, committee members agreed a presentation from INL representatives was unnecessary.

### **TC&WM EIS Update**

Dirk Dunning provided an issue manager update on the TC&WM EIS. Dirk focused on concerns about model development and subsurface conceptualization, including the soil structure, flow paths, and chemistry. He emphasized that the key is DOE does not adequately understand how water and contaminants are moving in the subsurface or the accuracy of the chemistry used to develop the models to make transport and flow predictions.

Mary Beth Burandt, DOE-ORP, updated the committee on the status of the TC&WM EIS. She said she shared Dirk's concerns and information with the EIS technical review team. DOE-ORP and committee issue managers have had several good, productive discussions of these issues. She said some of these issues are difficult to address, and DOE-ORP is trying to identify items that are known and the remaining uncertainties. If committee members are aware of documents and reports that discuss these issues, Mary Beth requested that they share them with the TC&WM EIS technical review team.

### **Committee Discussion**

- Several committee members were concerned about the use of inadequate models for the TC&WM EIS. Vince Panesko said one example of a faulty modeling assumption is the concept that there is a solid basalt layer, when in fact the basalt layer is fractured and has gravel connections in its layers.
- Rick commented that in terms of modeling, the issues seem to be about lateral flow and different Kds. Mary Beth said the TC&WM EIS technical review team is not at point yet where they are addressing issues related to transport through the vadose zone. They are currently doing inventory and determining how to set up the vadose zone model.
- Mary Beth announced an upcoming workshop to discuss TC&WM EIS alternatives and cumulative impacts. She encouraged people to check the Web site ([www.hanford.gov/orp/uploadfiles/TRG\\_schedule.pdf](http://www.hanford.gov/orp/uploadfiles/TRG_schedule.pdf)) for updates on opportunities for providing input. DOE-ORP developed a TC&WM EIS Public Information Outreach Plan, which includes various meetings.
- Susan Leckband had previously mentioned in the Public Involvement and Communications Committee (PIC) that committee members need to start thinking about how the Board should evaluate the TC&WM EIS. Mary Beth said that as DOE-ORP gets closer to completing the TC&WM EIS, they can provide information about how to navigate through the document.

### **Committee Business**

The committee discussed its work plan for 2007:

- WTP
- TC&WM EIS
  - Non-issuance of EIS
  - Alternatives and cumulative impacts analysis
- DST Integrity Report
  - SST retrieval
- DBVS
- Systems integration
  - Integration/Logic Diagrams
- SST closure
  - High resolution resistivity
- Tank closure ground rules at other sites
- Tank lean and vadose zone characterization
  - Groundwater regulations
- Determine cleanup activities that can be addressed now, while others will be addressed as appropriate technology is developed.
- Fiscal Year 2009 budget priorities input

Committee members decided a March meeting is unnecessary.

The committee discussed topics for the Board meeting in April:

- DST integrity report (cooperation and resolution of issues)
  - Issue manager presentation by Rob
  - Ecology analysis of tanks and Ecology report's conclusions
- TC&WM EIS update
- Tank Waste System Advice (#192) response and logic diagram

### **Action Items / Commitments**

- Rob and Dirk agreed to develop a summary of their issue manager work on the DST Integrity Report.
- Committee issue managers (Dick, Ken, and Rob) will review DOE's report comparing the cost of DBVS and a second LAW plant and continue to meet with the TPA agencies.
- Committee issue managers Dick, Harold, and Ken will continue to meet with DOE-ORP and contractors on the next level of detail for the logic diagrams.
- TC&WM EIS subgroup to continue their involvement in discussions with DOE-ORP.

## **Handouts**

*NOTE: Copies of meeting handouts can be obtained through the Hanford Advisory Board Administrator at (509) 942-1906, or tholm@enviraissues.com*

- Hanford Tank Farm Vadose Zone Characterization—II, John Kristofzski, CHG, 2/14/2007.
- T Farm Interim Surface Barrier Demonstration, 2/14/2007.
- TPA Baseline, River protection Project Functional Logic Diagram (DRAFT), 2/12/2007.
- Current ORP Baseline, River Protection Project Functional Logic Diagram (DRAFT), 2/12/2007.
- Overlay of TPA by Current ORP Planning Baseline, River Protection Project Functional Logic Diagram (DRAFT), 2/12/2007.
- ORP Baseline (with Additional Detail), River Protection Project Functional Logic Diagram (DRAFT), 2/12/2007.
- Supplemental Treatment Decision Logic (DRAFT), 2/14/2007.
- Demonstration Bulk Vitrification System Monthly Project Status Summary, 2/14/2007.
- RCRA Overview – Permitting and Compliance at Hanford, Ron Skinnarland, Ecology, 2/14/2007.
- TC&WM EIS issues, Dirk Dunning, Oregon Department of Energy and TWC issue manager on TC&WM EIS issues, 2/12/2007.
- Tank Closure and Waste Management (TC&WM) Environmental Impact Statement Alternatives & Cumulative Impact Workshop announcement flier, DOE-ORP, 2/14/2007.
- Tank Closure & Waste Management Environmental Impact Statement Public Information Outreach Plan, DOE-ORP, 2/14/2007.

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## **Attendees**

### **HAB Members and Alternates**

Al Boldt	Susan Leckband	John Stanfill
Rob Davis	Larry Lockrem	
Dirk Dunning	Jerri Main	
Norma Jean Germond	Maynard Plahuta	
Harold Heacock	Wade Riggsbee	
Rick Jansons	Dick Smith	

### **Others**

Sharon Braswell, DOE-ORP	Madeleine Brown, Ecology	Kayle Boomer, CHG
Mary Beth Burandt, DOE-ORP	Laura Cusack, Ecology	P.K. Brockman, CHG
Ben Harp, DOE-ORP	Dib Goswami, Ecology	Karen Caddey, CHG
Bob Lober, DOE-ORP	Jeff Lyon, Ecology	M.P. Connelly, CHG
Cathy Louie, DOE-ORP	Nina Menard, Ecology	Jim Honeyman, CHG
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