FINAL MEETING SUMMARY

HANFORD ADVISORY BOARD

November 2-3, 2011 Kennewick, 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 two pieces of advice concerning:

- Draft Hanford Public Involvement Plan
- Hanford's 2011 Lifecycle Scope, Schedule, and Cost Report

Board business

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

- 2012 Membership Reappointment Process
- 2012 HAB Budget and operational efficiencies
- Preliminary February Board Meeting Topics
- Board Member Responsibilities
 - o Governing documents
 - o HAB Process Manual

Presentations and updates

The Board heard and discussed presentations on the following topics:

- Tri-Party Agreement Agencies Program Update
- TPA Milestone Changes

- Tank Removal Study
- Conflict of Interest Guidelines

Public comment

Public comment was provided.

HANFORD ADVISORY BOARD November 2-3, 2011 Kennewick, 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 periodic 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.

Two seats were not represented: City of Kennewick (Local Government), and Franklin and Grant Counties (Local Government). Liaisons not represented include 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 and reviewed the meeting objectives and agenda. She invited everyone to stay for the HAB member orientation on Friday afternoon, noting that new and old members alike will benefit from the orientation.

Susan Hayman, EnviroIssues, provided instructions for accessing GoToMeeting for those on the phone and reviewed Board ground rules.

Susan Hayman reported that the September meeting summary was certified within 45 days and posted to the Hanford website.

Dieter Bohrmann, Washington State Department of Ecology (Ecology), announced that he will be distributing a sheet for Board members to sign up for the Hanford listserv. He noted that anyone can sign up for the listserv on Ecology's website, and the listserv is only one of many communication methods the Tri-Party Agreement (TPA) agencies use.

Susan Leckband announced that this will be her last year as HAB chair, and the Executive Issues Committee (EIC) has suggested that anyone interested in filling the seat should come forward as soon as possible in order to spend time shadowing Susan in her responsibilities. Vice-chair Bob Suyama, Public-at-Large, has offered to step down if the new chair would like to fill his seat for the time remaining. Susan noted that the time commitment for the chair position varies and depends somewhat on how much time the chair has to commit, and the personal style of the chair. Susan said commitment could be anywhere from 10 to 40 hours a week.

Susan Hayman introduced Jessica Ruehrwein, EnviroIssues, who will be filling behind Cathy McCague while she is on maternity leave.

Liz Mattson, Hanford Challenge (Regional Environmental/Citizen), announced that there will be a social hour for Board members and agency representatives immediately following the Thursday meeting. She encouraged participation and noted that there will be Hanford related games.

Tri-Party Agreement Agencies – Program Updates

Department of Energy Richland Operations Office (DOE-RL)

J.D. Dowell, US Department of Energy-Richland Operations Office (DOE-RL), introduced Jon Peschong, newly appointed Deputy Director for the Central Plateau. J.D. said DOE-RL is striving for stability after American Recovery and Reinvestment Act (ARRA) funding ceased and there were layoffs on site. DOE is working on execution of Fiscal Year (FY) 2012 projects and hopes to carry momentum from the past two and a half years forward.

J.D provided a review of recent accomplishments for the RL side of the Hanford Site; his presentation is provided as Attachment 1. In addition to the presentation, J.D. noted the following items:

- Under the 2015 Vision, DOE-RL hopes to treat one billion gallons of waste in FY2012.
- The Hanford Reach National Monument area may be transferred to the National Park Service this year; only one facility remains to be demolished.
- There was a 40 percent reduction in 300 Area staff in the past few months.
- The F Area of the River Corridor has been a challenging waste site for remediation. DOE has removed 75,000 tons of waste in an area projected at 9,400 tons.
- The Sludge Treatment Project is currently under budget and ahead of schedule and is a high priority for FY2012 and FY2013.
- Funding has not been provided in FY2012 for the demolition of U Canyon; it will be demolished within the next three to five years.
- The 200 West Groundwater Treatment Facility was completed with ARRA funding and is one of the largest in the world. Biomass operations will begin in December 2011, and startup is expected in July 2012.
- Funding for the Pacific Northwest National Laboratory and remediation strategy research for the Deep Vadose Zone will continue in FY2012.
- The ARRA chapter of The Hanford Story video was shared with employees to show them what they accomplished with this funding.

Department of Energy Office of River Protection (DOE-ORP)

Stacy Charbonneau, DOE-Office of River Protection (DOE-ORP), announced that Tom Fletcher has been confirmed as the new Assistant Manager for Tank Farms. Eric Olds has been appointed Chief of Staff and will continue to oversee the Office of Communications. Stacy provided a presentation on recent ORP accomplishments (Attachment 2), and specifically noted the following in addition to her presentation:

- System Plan 6 has been released and will be included in the next Hanford Lifecycle
- Scope, Schedule, and Cost Report (Lifecycle Report).
- 100 percent of ARRA tank farm work for FY2011 was completed (71 projects and \$326 million in funding).
- The Effluent Treatment Facility (ETF) will be modified and expanded in order to process secondary waste.
- An open rack system for the Interim High Level Waste Facility is currently in conceptual design.

- Currently, bulk retrieval of waste at C Farm has to be removed one tank at a time. As DOE-ORP moves into preparation mode for waste removal of the A and AX Farms, they will prepare the infrastructure to be able to perform retrievals simultaneously.
- DOE leadership has visited the site to emphasize the importance of worker safety.
- Bechtel National and DOE Headquarters (DOE-HQ) are currently conducting assessments on safety culture at the tank farms and Waste Treatment Plant (WTP).
- The Defense Nuclear Facilities Safety Board (DNFSB) recommendation 2010-2 addresses tank mixing and the pulse jet mixers at WTP; DOE-ORP has a plan that includes many activities in actions to address the questions raised by the DNFSB.
- FY2012 priorities for DOE-ORP include continuation of projects to meet Consent Decree milestones, including tank retrievals, WTP and tank farm mission integration, and construction of the WTP.
- The Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS) will be issued in spring 2012.
- DOE-ORP has assumed a FY2012 budget level of \$445 million, which is midway between Senate and Congressional markups, even though the official budget under the continuing resolution is \$396 million.
- 270 workers were recently laid off from Washington River Protection Solutions; the workforce will have to be further restructured if the continuing resolution lasts longer than six months.

U.S. Environmental Protection Agency (EPA)

Dennis Faulk, U.S. Environmental Protection Agency (EPA), said he recently reviewed past HAB advice and noticed that a lot of pieces have commonality with what the Board is addressing today. He suggested the Board review past advice as they work on new advice.

Dennis said the 200-PW-1/3/6 and 200-CW-5 Record of Decision (ROD) was issued on September 30; it was a decision heavily impacted by public input. Changes to the ROD due to public input included using the observational approach to remove more plutonium, revision of the plutonium cleanup levels, and application of tank closure Applicable or Relevant and Appropriate Requirements (ARARs) for settling tanks. EPA received significant comments on the 200-PW-1/3/6 and 200-CW-5 ROD, and the message was consistent through all public meetings.

Dennis apologized to the Board for the misuse of Board Advice 132 in the PW 1/3/6 and CW-5 ROD; paragraphs chosen to be included were taken out of context.

Dennis highlighted additional EPA activities:

- EPA is spending a significant amount of time reviewing the K Area Proposed Plan and Remedial investigation/feasibility study (RI/FS), which will set the template for River Corridor cleanup. Dennis noted that the Board will have plenty of time to provide advice, as the document still needs revision. A final will be released sometime in the March and April 2012 timeframe.
- EPA will begin its formal review of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Five Year Review on November 4.
- Reprint Six of the TPA is now available.

• The Hanford Public Involvement Plan (HPIP) is out for public comment. Public meetings for HPIP will be conducted over the next month. Dennis said he appreciates the Board's efforts on behalf of public involvement.

Washington State Department of Ecology (Ecology)

Jane Hedges, Ecology, provided an update on Ecology's Nuclear Waste Program; her presentation is provided as Attachment 3. In addition, Jane noted:

- The public involvement grant that is operated through Ecology's Nuclear Waste Program is included in a proposal for significant funding reductions for the state. The public involvement grant funds some of the programs that have are implemented by those with seats on the Board. Nothing is final until the Governor reviews all proposed reductions and renders a decision.
- Position vacancies at Ecology are beginning to be filled, but are not supported by state funds. Ecology is operating at a flat spending level.
- The Director of Ecology signed a temporary construction authorization for the WTP to allow activities before permits can be modified. Temporary authorizations are not used very often, the last one occurring in 2004. The comment period on the permit modification is open through December 12.
- Ecology has been working with the Public Involvement and Communications Committee (PIC) to help make the upcoming Resource Conservation and Recovery Act of 1976 (RCRA) Hanford Site-Wide Permit (Site-wide Permit) more understandable for the public.
- Ecology has been focusing outreach efforts on younger audiences and has spoken with a number of high school and college classes in the past few months.
- The comment period for the 200 Area Treated ETF is open through November 30.

Board Questions and Response

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

- Q. An end state use for the Hanford Site includes other land uses and deep wells for irrigation and drinking water. Is there any intent to irrigate in the near future?
 - R. Irrigation in the near term is not something that has been explored yet, but more information can be provided as cleanup progresses and the ability of remedies to affect future land use becomes more apparent. Any information will be provided in future comprehensive land use plans.
- Q. Has DOE considered mixing technology to keep solid wastes suspended in double-shell tanks to prevent settling and a repeat use of the mobile arm retrieval system (MARS)?
 - R. There is currently no technology available to keep waste solids suspended from the bottom of the double-shell tanks. DOE is analyzing how much of the waste can be mixed. Utilizing a technology now to prevent duplicating work by MARS for solid wastes would reduce future costs and liabilities.

- C. It concerns me that health and safety of employees is stated as the number one concern for the agencies, but that production is still equal.
 - R. Health and safety of employees is the number one concern for DOE, with performance and quality remediation following as a close second. The stop work program at DOE demonstrates a strong commitment to worker safety.
- C. Given the tight budgets and recent layoffs, it is disconcerting to see that DOE is still spending money on wasted efforts, like a recent trip of five employees to analyze technology in Texas that ended up being useless. That money could have been better spent towards cleanup.
- Q. What is the diameter of the proposed natural gas pipeline and where will it cross the Columbia River?
 - R. The diameter of the proposed natural gas pipeline across the Site is believed to be 15 inches (DOE will confirm). The gas pipeline capacity will replace six tankers of diesel gas per day. It will lay a baseline for five to 15 years of progress in energy savings.
- Q. Is there any indication that chromium may have reached below groundwater in the F Area? In which season did the contaminant reach groundwater?
 - R. Remediation will mitigate what is currently in the area. Other areas with trace elements of chromium in the soil have also been detected, which will be remediated now before the waste becomes a plume. Seasonal anomalies in the level of the groundwater causes a difference in how quickly contamination reaches the groundwater; DOE can run modeling scenarios for both high and low levels of groundwater.
- Q. Is there any remaining opportunity for the Board to provide input on the TC&WM EIS before it is made final?
 - R. There is no further opportunity for public input on the final TC&WM EIS, but the agencies may still be able to provide briefings for the committees and Board before its release in the spring.
- C. I appreciate EPA taking responsibility for the Board's advice being misused for purposes of the PW-1/3/6 and CW-5 ROD, but there are other significant issues with the ROD, and the agencies should withdraw the ROD and revise it. The Board and agencies should discuss reopening the ROD based on information on contaminants and associated risk that is much higher than what was represented at the public meetings on the ROD.
- C. A number of citizen groups whose outreach efforts contributed significantly to the participation in the PW 1/3/6 and CW-5 meetings will have their funding cut if the Washington State public involvement grant is defunded. DOE should consider contributing financially to public participation efforts taken on by citizen groups.
 - R. DOE does fund some public involvement by citizen groups through the New Mexico Community Fund, but it is unclear if that funding will continue past 2012. The agencies and representatives with these groups will work on arranging a meeting to discuss funding.
- C. The decisions documented in the ROD for PW-1/3/6 and CW-5 do not reflect public input received regarding the cleanup of these plutonium waste sites. Some of the technical information provided at the public meetings appears to be inconsistent with that presented in the ROD. There is also concern with

how Board advice was characterized and/or influenced the decisions, and that EPA should share its mistakes with its use of Board advice in the ROD beyond its acknowledgement to the Board at this meeting (Facilitator note: The Board asked the River and Plateau Committee (RAP) and PIC to discuss potential Board response to the PW 1/3/6 and CW-5 ROD at the next RAP Committee meeting).

- C. The public meetings on PW 1/3/6 and CW-5 provided information on meeting success and participation efforts that will inform future public meetings. The public meetings on the Site-wide Permit will be more successful because the agencies and PIC have had more time to prepare for them.
- Q. What will be the project costs for the construction projects currently in conceptual design at DOE-ORP, and when will they become available?

R. The start time for the DOE-ORP construction projects currently in conceptual design, like the Interim Storage Facility, will be within the next two to three years, but exact construction start dates are not known. The rough cost estimate for the construction of the Interim Storage Facility is \$100 to \$300 million. Open Rack Storage will cost around \$190 million. Both facilities will need to be online before the startup of WTP.

TPA Milestone Changes

J.D. provided an overview of the TPA milestone changes and FY2012 TPA impacts. His presentation is provided as Attachment 4. He stressed that the changes are only for interim documents and actions and will not affect major milestones. The purpose for delaying the milestones is to gain efficiencies to complete other important projects on Site under tight budget constraints.

Regulator perspective

Dennis said Milestone 1500 will be delivered in December of either 2015 or 2016, and is predicated on the amount of characterization work needed for final decisions. He said it is possible to still meet a few of the interim milestones given that characterization data is adequate for RI/FSs and work plans.

Jane said the regulators had very successful discussions with DOE over the milestone changes, and a number of Ecology's concerns about groundwater were addressed. Ecology has taken on writing closure plans to make sure those milestones are not missed.

Board Questions and Response

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

C. There seems to be an overabundance of managers on Site now that there have been worker layoffs. DOE should consider the manager to worker ratio when trying to reduce the cost of operation.

R. DOE strives to find efficiencies wherever possible. Of the 2,000 people recently laid off by the Hanford Atomic Metals Trade Council (HAMTC), 1,200 were non-exempt, higher –level employees. HAMTC is trying to keep as many workers as possible.

C. I am concerned about reaching the 2015 milestones for the delayed documents that feed decisions when it seems the contractor staff that were working on the documents have been laid off.

- R. The agencies are working to get the 200 West Area plan finalized and approved; the work has already been defined regardless of contractor turnover.
- Q. Has the 200 West Pump and Treat System been delayed because of budget impacts?
 - R. The 200 West Pump and Treat System delay was undertaken to be more consistent with when it will actually need to go online. It has not been affected by budget. The bottom line for the milestone delays is to delay Transuranic (TRU) waste retrieval and the RI/FS for the 200 Area, which is consistent with out-year priorities. DOE is assured that the Waste Isolation Pilot Plant (WIPP) will be ready for the TRU waste when the agencies retrieve and ship it in 2015.
- C. DOE is committed to safety culture not being affected by budget restraints or milestone shifts.
- C. The Board requested access to the delayed decision documents before they are released to the public, even though a public comment period is not required. The Board also requested access to the feasibility studies, as they are the basis for proposed plans.

Draft Advice: Hanford Public Involvement Plan

Introduction of advice

Steve Hudson, PIC chair and Hanford Watch (Regional Environmental/Citizen), provided an overview of the advice, what it addresses, and why it was developed. The Board provided Advice 225 in 2009 that advised the agencies to issue an updated version of the Hanford Community Relations Plan (CRP), correcting the outdated information and poor organization of the last version. Board Advice 239 and 240 address incorporating a strategic plan and DOE's Open Government Plan into the CRP (proposed for retitling as the Hanford Public Involvement Plan (HPIP)). The PIC considered these two pieces and how they have been addressed while developing the new draft advice.

Steve said the draft advice is the result of many PIC discussions and iterations. He reviewed the points of the draft advice, stressing the importance of public use of and accessibility to the document.

Agency perspective

Emy Laija, EPA, said the upcoming version of the HPIP will be the document's fifth revision, and the Board's advice will serve as another part of the dialogue on public involvement. EPA is the lead agency on the HPIP and had a goal to release it for public comment before the end of the year. Emy said the advice has been well developed and vetted and will be easy for the agencies to respond to. Emy noted that the title change from CRP to HPIP is only proposed at this point and will not be official until this revision is finalized.

Dieter said the agencies have spent a lot of time working on the revision and have worked with PIC extensively. He said Ecology is committed to public involvement and welcomes input from the Board in order to make the HPIP as productive as possible.

Paula Call, DOE-RL, said the advice is very clear and will be helpful for response development. She noted that there will always be a tension with the document's purpose as it is a multi-purpose document, and DOE would like it to be well balanced. She said they will support making the HPIP as clear to the public as possible, but will not commit to adding requirements that are above the law or TPA.

Pamela McCann, DOE-ORP, said she appreciates PIC's efforts in producing the advice. She said she looks forward to the advice and public comments that result from the public meetings on the HPIP.

Board discussion

The following are the key points noted during Board discussion:

- The Board discussed bullet 11 of the advice, and some noted concern over how the bullet seems to request more physical public meetings when the agencies' funding for public involvement may be better spent on other outreach methods. The intent of the advice point was to demonstrate that public meetings are needed in more diverse locations than what is currently provided. The HPIP already addresses that there are more ways to conduct public involvement than just in-person public meetings. The Board and agencies agreed that the agencies need to find more cost effective ways to communicate, and the Board agreed to edit the wording of bullet 11 to be clearer before the advice moves forward. One Board member stated that the use of telephone conferences and webinars are not as successful or as meaningful as face to face public meetings.
- The Board discussed including more specific criteria for how a city could request a public meeting, and how the agencies would determine whether to hold one in that location. The Board determined that the inclusion of specific criteria would limit the flexibility of the document.
- The advice goes beyond policy level issues because it is in response to a specific document.
- Bullets 6 and 9 of the advice were edited to note that the agencies should attempt to increase the Hanford listserv as much as possible, but that the physical mailing list should be kept to only interested parties so as to keep costs down.
- The Board discussed public confidence that the agencies will incorporate public comments in decision documents. DOE said public comments are considered but not necessarily incorporated. The Board agreed to language edits to make the advice clearer about how public comment should be used and how the public should receive feedback on how their comments were used.

The Board made additional minor language changes to the advice. The advice was adopted.

Draft Advice: Hanford's 2011 Lifecycle Scope, Schedule, and Cost Report

Introduction of advice

Gerry Pollet, Heart of America Northwest (Regional Environmental/Citizen), provided an overview of the advice, what it addresses, and why it was developed. One of the goals for the Lifecycle Scope, Schedule, and Cost Report (Lifecycle Report) is to help determine how projects can be accelerated and to demonstrate cumulative impacts if they are delayed or if work is added. Gerry spoke to issues with the cost estimates provided in the Lifecycle Report, including the \$115 billion for total site cleanup figure and the lack of inclusion of the scope and cost of work not currently included in the TPA. The Budgets and Contracts Committee (BCC) is concerned that the media, public, and Congress will believe the \$115 billion figure is the actual cost, when there are many other contributing factors that will cause the figure to go up or down. Many Board members and agency representatives at the Board meeting believe the cost will actually be much more than \$115 billion. Gerry said the Lifecycle Report fails to include the full range of costs for many cleanup activities, and the "deep dives" into specific projects are not as detailed as expected.

Gerry said he hopes the advice will inform future revisions of the Lifecycle Report, which will be updated in January each year. The Lifecycle Report should be used as a key tool for planning and integrating decisions.

Agency perspective

Dennis said he appreciates the advice because he challenged the Board to prove how the Lifecycle Report will be useful. He said the agencies will not go into more detail for the deep dives because more detailed information will be provided in feasibility analyses. Dennis said that for DOE-RL operations, the two biggest unknowns are when the reactors will be taken care of and what to do with the 43 miles of burial grounds. It is hard to speculate until the decision is pending. He said the decision for the burial grounds will be both capping and excavation, not just one or the other. Dennis acknowledged that work along the River Corridor, specifically the K Area, will extend beyond 2020, and those costs need to be included in the Lifecycle Report. He said the Lifecycle Report still needs work, and he hopes that the 2013 edition will show improvements.

J.D. suggested language changes to the advice points and set expectations for bullets 5 and 6 by noting that a full range of estimates for trench landfill is not covered by the TPA. Funding for a Natural Resource Damage Assessment (NRDA) could potentially be a lot of money, but other cleanup sites have not received significant sums.

Stacy said that baseline costs are set at a 50 percent confidence level, not the best case scenario. Stacy noted many cost estimates that are included in the baseline costs and schedules, including characterization and retrieval of tanks, landfill closure, and upgrades or replacement of infrastructure. She said many cost analyses have been completed for other issues and the Board may request that they be included in future versions of the Lifecycle Report. She noted that scenarios from System Plan 6 will be included in the 2012 Lifecycle Report.

Board discussion

The following are the key points noted during Board discussion:

- The projected total cost for cleanup is just an estimate and should be represented as such. The Lifecycle Report should communicate that \$115 billion is not a fixed price and does not account for all considerations that could increase the cost significantly. DOE said the total cost could change next year if the baseline costs change based on any number of factors.
- The Board discussed the issue of DOE's potential liability for a commercial waste site on the Hanford Site that is leased and operated by a private company. Some Board members feel that it is outside of the Board's scope to provide advice on this. The RCRA Site-wide Permit says DOE may potentially be liable for closure and cleanup of commercial sites on the Hanford Site should the leasees fail to cleanup on their own; DOE will also be responsible for long-term stewardship of the facilities. The purpose of the advice is to ask DOE to recognize and report in the Lifecycle Report that they may have additional cleanup responsibilities, in addition to other potential cleanup costs not covered by the TPA. The Board agreed to reword the advice to ask that the Lifecycle Report identify all potential costs or liabilities that are not currently included in the Lifecycle Report, given that cost estimates will not be available until DOE assumes responsibility for an additional cleanup project. Dru Butler, Mission Support Alliance, pointed out that a list of facilities or potential liabilities not included in this Lifecycle Report is already provided on page 8-1 of the Lifecycle Report; the list includes the facilities the Board is concerned about. The Board changed the advice point to ask only for the addition of NRDA potential costs to the list.

- The 2011 Lifecycle Report did not do a good job of articulating the defined end states for cleanup on site. The agencies will work to better articulate end states in the 2012 Lifecycle Report.
- The Board discussed whether advising the agencies on how to organize their document is appropriate policy-level advice, and determined that since the agencies are asking for feedback, it is appropriate to comment on how to make the document more useful and readable.
- The Board discussed the inclusion of reference dates in the advice, as even though the cost of cleanup will continue until 2090, the bulk of the cost and cleanup will occur in the next 50 years. One Board member suggested the dates should reflect what is provided in the Lifecycle Report. The Board agreed that the advice should address the bulk of the cost and cleanup that will occur in the next 50, but note that long term stewardship will occur through 2090.
- The Board incorporated a reference to the two most recent pieces of Board advice.
- The Board discussed alternative waste storage, its timeframe, and the request for DOE to provide a cost estimate for temporary waste storage at Hanford. The Board agreed not to define a timeframe for temporary storage as it could be taken out of context.

The Board made additional minor language changes to the advice. The advice was adopted.

Committee Reports

Health, Safety, and Environmental Protection Committee (HSEP)

Keith Smith, Health, Safety and Environmental Protection Committee (HSEP) chair and Public-at-Large, acknowledged HSEP members and thanked them for their hard work. He said HSEP has held two meetings since the September Board meeting. In September, the committee discussed the DNFSB Report, Plutonium Finishing Plant (PFP) safety, site-wide biological controls, the Beryllium Corrective Action Plan (CAP), and integrated safety management (ISM) as a follow up to the ISM conference held in September. In October, they discussed ISM systems (ISMS), site-wide safety programs, and the chemical vapors program. He said that the ISMS presentation included information on the DOE-HQ audit that reviewed ISMS at Hanford; issues with ISMS related to middle-management and employees not understanding their individual roles in ISMS. DOE will conduct trainings to help all levels of employees understand their role in ISMS. Keith noted that the committee will continue to track ISM, the Beryllium CAP, biological controls, and the chemicals vapor program. He said they are interested in safety culture for both union and non-union workers.

Keith reported that Margery Swint, Benton-Franklin Public Health (Local/Regional Public Health), has been successful identifying a new member for the Benton-Franklin Public Health seat. Margery said Antone (Tony) Brooks, retired Battelle physician, has an impressive background in biology, chemical exposures, and pollutants and will be joining the Board as soon as he is approved. Tony has a Ph.D in physical biology from Cornell University and has published numerous papers about occupational health, beryllium particles, and other chemical exposures.

Site-Specific Advisory Board (SSAB)

Susan Leckband reported that the Site-Specific Advisory Board (SSAB) held a webinar in the fall about DOE budget constraints. The information provided in the webinar was provided to the Board through the TPA updates.

National Liaison

Shelley Cimon, Public-at-Large, said that she attended the Radiological Waste Summit in Las Vegas. Shelley compiled a list of presentations provided during the summit and provided it to the Board (Attachment 5). Board members may contact Tammie Gilley, EnviroIssues, for PDF copies of the presentations they are interested in. The purpose of the summit was to see what is going on nationally and internationally with nuclear material. Shelley spoke to a presentation provided on the Chernobyl Nuclear Site in the Ukraine and how it is a cautionary tale for nuclear disasters, especially as the world is dealing with the recent earthquake impacts to nuclear safety in Fukishima, Japan. She noted a presentation by William Magwood of the U.S. Nuclear Regulatory Commission (NRC) that focused on technology and licensing to build nuclear generation plants that are being blocked by political interests that are making locating the plants difficult. These interests do not want to build any more plants until a national deep geologic repository is operational. Magwood said the NRC is looking at what is necessary to protect future generations, and he acknowledged that the nuclear system is not perfect. Magwood said a Blue Ribbon Commission on Low Activity Waste (LAW) would be worthwhile and Shelley hopes RAP will consider the topic. Shelley said all of the presentations at the summit were fascinating, and it is important to get a national policy in place that makes sense for the states and the whole country, as the states are currently working independently of each other.

River and Plateau Committee (RAP)

Pam Larsen, RAP chair and City of Richland (Local Government), reported that RAP had a meeting in October to look at the 100 K Area Proposed Plan, the River Corridor Baseline Risk Assessment (RCBRA) Ecological Risk Assessment, and the RCBRA Health and Human Risk Assessment. Rap will hold a day and a half meeting on December 6 and 7. In conjunction with the December meeting, the issue manager group for the RCRA Site-wide Permit will meet to further work for presenting the permit to the public in an interesting way. Pam said RAP will be tracking the CERCLA Cumulative Risk Assessment, the 100 K Area Proposed Plan, the 618-10 Burial Ground, and the 324 Building D cell leak in FY2012, beginning at the December meeting. Pam said RAP will review the PW 1/3/6 and CW-5 ROD and determine whether or not to provide advice. She thanked committee members for their work and encouraged others to participate.

Budgets and Contracts Committee (BCC)

Gerry said the BCC will be reviewing and tracking the 2012 through 2014 Lifecycle Reports in early 2012 to see how it improves. He said further advice may come before the Board. He said the committee will also be tracking out year budgets and may need to provide advice on the President's 2013 Budget. He said he is interested in looking at how budget pressure to reduce profit levels of subcontractors to minus two percent of the main contractors, as it may have an impact on attracting small businesses and commitments to contracts.

Tank Waste Committee (TWC)

Liz Mattson provided an update for the Tank Waste Committee (TWC) as Dirk Dunning, TWC chair and Oregon DOE (State of Oregon), and Larry Lockrem, TWC vice chair and Benton County (Local Government), were unable to attend the Board meeting. She said there are a lot of issues to be aware of as DOE removes tank waste, especially what to do about leaks, residual waste, and closure. Liz said the Waste Management Area C Performance Assessment (WMA-C PA) has been suspended due to budget constraints; it will impact milestones for tank closure. Liz said that in October, TWC had a joint topic with HSEP to discuss the DNFSB recommendations connecting to technical concerns and safety concerns. She said the committees worked on draft advice, but could that not reach consensus in time for

the Board meeting; they will continue to work on it and hope to bring it forward for the February Board meeting. TWC will next meet in January to work on the DNFSB advice, Appendix I of the TPA, recommendations for the tank closure schedule, big picture integration and milestone changes, and tank components of the RCRA Site-wide Permit. TWC will receive an update on the TC&WM EIS and focus on any issues that may become apparent with System Plan 6.

Public Involvement and Communications Committee (PIC)

Steve said the PIC has members in each committee so as to bring the topic of public involvement to all other aspects of the Board. He said PIC has devoted a lot of time recently to the HPIP and subsequent advice. The HPIP advice was developed with past advice in mind, which raised for the committee the question of of how to track advice and responses in a more efficient and reliable way. He said PIC tries to take time to review the responses to their advice during PIC meetings. Steve also reported that at the previous day's PIC Committee meeting, PIC received a presentation from Ecology and the RCRA Sitewide Permit issue managers about outreach efforts for the permit; the end products have been improved due to the productive working relationship between the agencies and the PIC. Steve said the PIC also examined topics timely for public involvement in the next six months, as identified in the recent Board survey; the topics are cross cutting for all committees. Steve said PIC will have a call in December to debrief from the HPIP public meetings; they will also have a call in January to debrief from the next RCRA Site-wide Permit issue manager group meeting and to plan for the February pre-Board meeting. In February, PIC will review Board Advice 239 and 240 and their agency responses.

Executive Issues Committee (EIC)

Susan Leckband said the EIC had a meeting at the request of DOE to discuss the Board budget, which will be reduced in FY2012. DOE wanted to hear the EIC's suggestions for efficiencies, which will be presented later in the Board meeting. The EIC also discussed Board member responsibilities, and the Board will receive a presentation on this later in the Board meeting.

Tank Removal Study

Vince Panesko, City of Richland (Local Government), said the DOE Tank Removal Study (Study) is available on the Hanford website, along with other removal documents. The Study was released a year ago, and Ecology's comments are also available online. Vince provided an overview of the Study, including proposed technologies, concerns, and questions for the Board to address. Vince's presentation is provided as Attachment 6. The purpose of the Study overview is to help Board members be more prepared as DOE begins to make tank retrieval and closure decisions in the next two years. Vince specifically noted of the proposed technology:

- The proposed dome that would cover 6 tanks would provide ventilation control for masked workers working within the dome. The dome would be built with concrete and rebar; the concrete will eventually be turned into rubble.
- Diversion boxes and pipes would have to be removed before the dome can be put in place.
- Tanks will be filled with 3 feet of grout to provide radiation protection.
- Contaminated material will be sent to ERDF; non-contaminated material will be put back in the ground.

• 80 to 85 foot walls will have to be placed around the excavation site within the dome to prevent excavated material from falling back into the excavated area.

Vince said the Study did not address whether the machinery in the dome has to be operated remotely, but that it noted the appropriate remote machinery is not available commercially. Vince noted that the proposed methods outlined in the Study do not achieve clean closure.

Agency perspective

Chris Kemp, DOE-ORP, said the Study is one of four documents that make up the M45-80 milestone series. The four documents are a study on residual tank waste, a RCRA/CERCLA white paper, a C-101 retrieval document, and lastly the Tank Removal Study. Chris said these documents will help make decisions about retrieval and closure in the C Farm, and he encouraged Board members to review the documents online. Chris said the technologies addressed in the Study are conceptual studies that have been updated from an original tank removal study done in the 1990s. DOE updated the study as well as the cost for the activities for this edition of the Study. Chris noted that removing the tanks and the soil around the tanks is still not clean closure, as there will still be landfill closure. He said the cost of this project is reasonable given the size, and the equipment that would be used is similar to other equipment on the Hanford Site. Chris reiterated that the Study is only conceptual and is not final design.

Jeff Lyon, Ecology, said there are regulations the regulators enforce for DOE, one of which is an analysis for clean closure. He said the Study provides a perspective for what kind of effort would be required for clean closure; the TC&WM EIS will also help put clean closure in perspective, as it considers that removing all of the tanks will be a 150-year project. He said C Farm isn't the optimum scenario, but it provides an easy decision making process. Jeff said he looks forward to providing a closure document for the Board to comment on, as it will be important for him to understand the Board's perspective on closure and landfills.

Board discussion

The following are the key points noted during Board discussion:

- The Board discussed physical barriers to complete removal of tanks from the ground, including caps, tripling the soil amount, and engineering loads. Most of the tanks have been pumped clean for liquids, so leaks should not be continuing; Left over contamination is not able to be pumpedout. By the time DOE would be ready to completely remove the tanks, there may not be any contamination left and the process would be pointless. The conversation will continue in the TWC.
- DOE should not make any decisions now that cannot be reversed if a better technology becomes available down the line.
- Conceptual drawings provided in the Study should be done to scale.
- The WMA-C PA should be funded in FY2012.
- Contaminants other than cesium need to be addressed, as there are contaminants in place that have much longer half lives than cesium and will become mobile and reach the groundwater. Decisions for how to prevent contaminants from reaching groundwater and the Columbia River should be based on long life or intermediate half live contaminants as short life contaminants disappear. Ecology reported that they have monitoring in place for contaminants in the soil, and high-level contaminants have not been found.

- Barrier walls can be built in many different ways, and there are other technologies that are more useful for keeping soil from re-entering the excavation area, such as hot wax. DOE should consider other technologies for physical barriers.
- Approaches for tank waste retrieval and closure at Hanford are similar to those at other sites, like the Savannah River Site.
- RCRA regulations say that residual waste is not supposed to be left in the tanks. In order to leave residual materials in the tanks, the waste will have to be reclassified as something other than high-level waste, which is what is there currently. The TWC will discuss residuals and how the waste incidental to reprocessing process will fit into the whole process.

Conflict of Interest Guidelines

DOE presentation

Marla Marvin, DOE-RL Office of Chief Counsel, provided an overview of Board member conflict of interest rules (Attachment 7). Marla said DOE is currently updating the Recusal Plan and will be working with Board members to ensure its accuracy. She asked that Board members provide their opinion on whether the Recusal Plan should be shared with all Board members, or if Board members should be allowed to view only their own sections.

Stacy said there have recently been some changes at DOE-HQ in regards to ensuring advisory boards are helping to guide the DOE mission. DOE is striving to ensure advisory boards are Federal Advisory Committee Act (FACA) compliant, and recusal is another tool to help ensure Board work is transparent. Stacy said she doesn't want anyone to question the operation of the HAB, and the Recusal Plan is a tool to help Board members police themselves for potential conflicts of interest.

Board Question and Response

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

- C. Board members that are also spouses of Hanford employees could be perceived as having a large conflict of interest, whether or not they are privy to the details of their spouse's work.
 - R. Board members should use their best judgment when outlining their potential conflicts. Obvious conflicts would be if a discussion relates to employee benefits, which the Board normally does not address.
- C. There are conflicting opinions on whether the Recusal Plan should be released Board-wide, with some members feeling that seeing other people's conflicts would help Board members to police each other. Other Board members feel their information is private and should not be released. (Note: The Board ultimately requested that DOE not release the Recusal Plan Board-wide).
- Q. Everything HAB related has an impact on local government; how should local government seats manage conflicts of interest?
 - R. Conflicts must be direct and predictable. DOE acknowledges that it may be a challenge to make these determinations. If a Board member's organization or affiliation would like to present information to the Board to gain support, the affiliation is welcome to do so, but the Board

member would have to recues themselves from the subsequent discussion that might result in a recommendation for action from the Board.

- C. The conflict of interest process is frustrating. Board advice is the Board's product. It is very transparent and should not be subject to misinterpretation.
- C. Normal guidelines for conflict of interest are for when a member has a unique and direct financial interest in a topic. I feel confident that when there is a sensitive topic, the appropriate people will recuse themselves without issue or further guidance.
- Q. Is the Recusal Plan a required DOE document?
 - R. It is not a DOE requirement, but it demonstrates good faith and compliance.
- C. An issue manager was recently removed from a committee topic because of their affiliation, even though the member has a strong background in the topic. This is frustrating for committee members.
 - R. Conflicts for the issue managers are more delicate, but they should not be restricted from discussing their area of expertise.
- Q. Who will have access to the personal information provided in the Recusal Plan?
 - R. DOE will research who will have access to the Recusal Plan and return an answer to the Board. The Recusal Plan may be subject to the Freedom of Information Act (FOIA), but personal identifiable information would be redacted before the plan is released.
- C. As it is for other groups I am involved in, Board members should be able to take part in discussions about all topics, but should leave the room when a decision is made that may affect them personally.
 - R. DOE will consider the suggestion.

DOE will work with Board members whether through email or face to face to ensure the Recusal Plan provides accurate information. DOE will distribute an email asking Board members how they would like to receive the first draft of their information. Board members will have multiple opportunities to confirm that their information is correct.

Board Business

Membership reappointment process

Paula Call, DOE-RL, provided an overview of the 2012 HAB Membership Appointment and Reappointment Process (Attachment 8). Paula thanked Barb Wise and Sharon Braswell, MSA, for their support of this effort. Membership information will also be addressed during the HAB member orientation after the Board meeting on Friday. In addition to the presentation, Paula specifically noted:

- DOE-RL has requested the HAB continue tobe exempted from term limits, like those imposed on other advisory boards.
- The two year appointment schedule is a DOE-Environmental Management SSAB policy.

- Alternates have been included in the reappointment process in order for Board membership to be more transparent to the public.
- In 2010, HAB members and alternates were asked to provide sufficient reason for an additional alternate (more than one per seat). Some additional alternates were dropped as a result.
- Many groups identified to participate on the Board in the Convening Report on the Establishment
 of an Advisory Board to Address Hanford Cleanup Issues (October 1993) have since dropped off,
 due to the change of the Site mission from production to cleanup. The current interests
 represented on the Board are focused on the Hanford cleanup mission.
- FACA boards are supposed to represent the diversity in their community; DOE will conduct additional outreach to help attract a more diverse membership reflective of the represented population. Outreach will target college students, women, and the Hispanic community.
- The new appointment package will be submitted in February, with confirmation anticipated by the June Board meeting.. DOE will keep the Board aware of the appointment cycle.

Board Questions and Response

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

- C. New Members and alternates identified by their organization should be able to serve the Board immediately without having to wait six months or more for DOE-HQ approval.
 - R. DOE is now allowed an interim appointment process that takes significantly less time to approve new appointees between appointment cycles. Interim seat appointment is for seats that become vacant between appointment cycles.
- Q. Will we have to redo the appointment paperwork we provided to DOE earlier in the year?
 - R. The appointment form required of all new appointees and returning appointees has changed; all Board members and alternates will have to redo the paperwork.
- C. PIC conducted outreach for a more diverse Board a few years ago and were not successful. I hope the process is smoother this time around.
- C. There may be institutional barriers to electing university or graduate students to the Board; experienced frustration in trying for university support in the past.
 - R. Individual Board seats should think of creative ways to include younger audiences in the Board through their affiliation, whether through a mentorship program or something else. The affiliation could help support the student's travel.

2012 Board budget

Paula and Susan Leckband provided a presentation on the Board's budget for FY2012 and necessary cost savings. Their presentation is provided as Attachment 9. In addition to the presentation, they noted:

• The Board budget for FY2012 is \$533,000, with no expectation of additional funds. The Board spent \$605,000 in FY2011, thus has about \$70,000 less to spend in FY 2012 than was spent in FY 2011.

- The Board budget is divided into two categories: 20 percent travel and 80 percent facilitation and administrative support.
- The EIC has met twice recently to discuss cost savings for the Board, but has still not been able to reduce costs by the \$70,000 needed. Board member suggestions for savings will be appreciated, and efficiencies will be reviewed continually throughout the year. Identified cost savings include shorter meeting summaries (trial period), elimination of the HAB Annual Report, and a one-day instead of two day leadership retreat to be held in the Tri-Cities, among others.

Board Questions and Response

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

- Q. I am concerned about the upcoming budget given the number of large documents and important issues the agencies would like the Board's input on.
 - R. DOE may cover the costs for workshops and additional meetings for documents that require Board input.
- Q. Better working relationships amongst Board members and with the agencies can be built through more social interaction time. Board members should make an extra effort to build relationships outside of the meeting room so conversations are easier and more efficient inside the meeting room.
 - R. Susan Leckband will encourage a get together at every Board meeting.
- C. The Board should utilize free meeting locations for Board meetings, not just committee meetings.
 - R. Free meeting locations often to not have the adequate facility support needed for Board meetings, but free locations are frequently used for committee meetings, like the Richland Library.
- C. I would like the committees to be able to report on what they are not able to accomplish due to budget constraints.
 - R. Committees will be asked to track what they are not able to accomplish due to budget restraints, as appropriate.
- C. The Board should consider combining committees to save time and money.
 - R. The EIC will develop framework for discussing the committee structure and potential efficiencies for combing topics or combining committees.

February Board meeting topics

Susan Hayman reviewed potential meeting topics for the February Board meeting:

- TC&WM EIS briefing.
- WTP advice (tentative).
- PW 1/3/6 and CW-5 letter or advice (tentative).
- DOE update on the reappointment process.
- 100 K Area Proposed Plan briefing (tentative).

- Tank closure related advice (tentative).
- WMA-C PA advice.
- TPA Appendix I advice (tentative).

Board Member Responsibilities

Governing documents

Susan Leckband said the purpose of reviewing the HAB Process Manual is to review the responsibilities of all Board members prior to Friday afternoon's HAB member orientation. She reviewed the Board governing documents, including the FACA document, Site Specific Charter, Memorandum of Understanding between the TPA agencies and the Board, and the HAB Operating Groundrules, all of which are available on the Hanford website. The HAB Process Manual is a much more fluid document and will be made available on the new Board SharePoint website.

Susan reviewed excerpts from the HAB Process Manual that are provided as Attachment 10. Highlights of Board member responsibilities include: stay educated, read Board packet and committee information materials, strive for consensus in good faith, participate as much as you can, keep your constituencies informed and represent their interests, participate in Board and committee processes, review summaries, and follow the ground rules.

HAB Process Manual Review

Susan Hayman noted that the HAB Process Manual is updated periodically, and the newest edition will soon be available on the SharePoint site. She encouraged Board members, new and long-standing, to review the document to help them understand the process. Susan said the MOU frames what the HAB is about, while the ground rules are more specific about how Board members work together.

Board discussion

• One Board member suggested the HAB Process Manual include a reference to the agencies' need to respond to HAB advice. Susan Hayman will incorporate the appropriate language.

Issue manager roles and responsibilities

Mike Korenko, Public-at-Large, reviewed a handout entitled "Advice Development and Issue Manager Roles and Responsibilities" (Attachment 11) that was developed as a result of conversations at the 2011 leadership retreat and the lack of identified best practices for advice development. The EIC hopes to improve the efficiency and effectiveness of the advice development process. Mike asked Board members to review the handout and provide any feedback to him through email. He reviewed the main points of the advice development best practices, including:

- Adequate time for advice development in committee before the Board meeting makes for better advice and a smoother approval process.
- Issue managers should track the advice through agency response and implementation.
- Issue managers should take time during the Board meeting to review the purpose and genesis of the advice.

- All Board members should review the advice prior to Board meetings and contact the issue manager should they have any questions.
- Issue managers should ask others to read their advice for clarity prior to final edits to eliminate time during the Board meeting.

Mike noted that the beryllium advice has been especially successful for the Board in follow through and implementation because the issue managers have continued to track it and provide additional advice when it is needed. Mike encouraged all Board members to become active as issue managers to help spread out the work load. He suggested an issue manager mentor for people who are thinking about taking on the responsibility. Susan Leckband said that new issue managers should not be intimidated by writing advice, because the Board develops advice through a consensus process; the advice will go through many drafts before it is the best representation for the full Board.

Susan Hayman said it is obvious when committees spend a lot of time discussing and editing their advice before Board meetings; the discussion and approval process is much smoother. She noted the importance of in-person advice development. She said the committees work well together and often anticipate how other members will feel about the advice and can incorporate their concerns before the advice reaches the full committee; she said it's a good strategy.

Board discussion

The following are the key points noted during Board discussion:

- Issue managers will now be responsible for tracking agency responses to advice and reporting back on it first to the originating committee and then to the Board. The Board will help the committee decide whether to move forward with additional advice.
- The HAB Events-at-a-Glance emails will now alert Board members when agency responses are available, and provide a website link to these responses.

Public Comment

This section reflects public comments from both Thursday and Friday of the Board meeting.

Wade Riggsbee, Yakama Nation, said the Yakama Nation will be meeting with various agency and contractor representatives to draft their own public involvement plan. He wanted the Board to be aware and suggested future interfaces between the entities.

Becky Rubenstrunk, Oregon State University, applauded the efforts of Ecology in reaching out to younger audiences, and encouraged the Board to engage the future Hanford generations as much as possible. She suggested reaching out to university locations, as younger generations would like to be involved with Hanford but do not know how. Becky said many college students are willing to volunteer their time and suggested Hanford set up information booths in university buildings and ask for students in communications or other relevant subjects to staff the booths. She suggested the agencies consider developing a youth advisory board made up of college students and/or perhaps younger students who can reach out to people their own age and deliver the Hanford message.

Becky said everyone on the Board has been very friendly to her and supportive of her participation this week; it has been a great experience for her to attend the Board meeting. She said attending has been an expense for her, but not so much as to discourage participation. Funds or grants for student participation would help immensely. Becky said she appreciates the diversity that is already included in the Board and

what is required, but reminded members that there is not "one woman" voice or "one Hispanic" voice. She said it would be more significant for the Board members to provide information for how they are reaching out and representing their constituencies. Diversity for diversity's sake does not always provide the results it is expected to.

Shannon Cram, University of California at Berkeley, said she supports holding more meetings and more meetings in diverse locations, but the meetings need to be more effective. She said it hard to get the sense that her feedback at public meetings is being used. Shannon said the format of the public meetings makes participants feel alienated from agency representatives, as the representatives are usually sitting behind a large table instead of sitting with participants. Shannon said she would like to see more meaningful dialogue between the representatives and participants in a less formal setting. Dennis suggested that Shannon provide her thoughts as an official comment on the HPIP.

Closing Remarks

Susan Hayman distributed a copy of the October RAP draft summary and reviewed its new format. The purpose of the format change is to reduce the amount of time needed to draft the summary, resulting in a cost savings. She noted that meeting notes will still be extensive and can be relied on if information is missed, but EnviroIssues does not provide raw notes to anyone. She asked for Board feedback on the new format and any other suggestions for summary savings.

Susan Leckband thanked everyone for attending and wished them a safe holiday season.

The meeting was adjourned.

Attachments

Attachment 1: HAB DOE-RL Update

Attachment 2: DOE-ORP Agency Update to HAB

Attachment 3: Ecology Agency Update Attachment 4: FY2012 TPA Impacts

Attachment 5: Fifth Annual Rad Waste Summit – September 6-9, 2011 handout

Attachment 6: DOE Tank Removal Study presentation

Attachment 7: HAB Conflict of Interest Rules

Attachment 8: 2012 HAB Membership Appointment/Reappointment Process

Attachment 9: HAB 2012 Budget Discussion

Attachment 10: HAB Process Manual Excerpts handout

Attachment 11: Advice Development and Issue Manager Roles and Responsibilities handout

Attendees

HAB MEMBERS AND ALTERNATES

Tom Carpenter, Member	Dan Serres, Member	John Howieson, Alternate
Robert Davis, Member	Keith Smith, Member	Steve Hudson, Alternate
Norma Jean Germond, Member	Lyle Smith, Member	Mike Korenko, Alternate
Harold Heacock, Member	John Stanfill, Member	Liz Mattson, Alternate
Floyd Hodges, Member	Margery Swint, Member	Emmett Moore, Alternate

Rebecca Holland, Member	Eugene Van Liew, Member	Shelley Cimon, Alternate
Pam Larsen, Member		Vince Panesko, Alternate
Susan Leckband, Member	Al Boldt, Alternate	Gary Petersen, Alternate
Doug Mercer, Member	Lynn Davison, Alternate	Mike Priddy, Alternate
Jerry Peltier, Member	Sam Dechter, Alternate	Wade Riggsbee, Alternate
Maynard Plahuta, Member	Dale Engstrom, Alternate	Art Tackett, Alternate
Gerald Pollet, Member	Earl Fordham, Alternate	Jean Vanni, Alternate
	Laura Hanses, Alternate	

AGENCY, CONTRACTOR, AND SUPPORT STAFF

Paula Call, DOE-RL	Alex Teimouri, DOE-EM	Peter Bengston, WCH
Jill Conrad, DOE-RL	Scott Samuelson, DOE-ORP	Mark McKenna, WCH
JD Dowell, DOE-RL	Dennis Faulk, EPA	Tom Rogers, Washington
		Department of Health
Marla Marvin, DOE-RL	Emy Laija, EPA	Sonja Johnson, CHPRC
Matt McCormick, DOE-RL	Dieter Bohrmann, Ecology	Dale McKenney, CHPRC
Shannon Ortiz, DOE-RL	Madeleine Brown, Ecology	Joy Shoemake, CHPRC
Jon Peschong, DOE-RL	Jane Hedges, Ecology	Susan Eberlein, WRPS
Cameron Salony, DOE-RL	Jeff Lyon, Ecology	Keith Quigley, CEES
Stacy Charboneau, DOE-ORP	John Price, Ecology	Susan Hayman, EnviroIssues
Chris Kemp, DOE-ORP	Dru Butler, MSA	Tammie Gilley, EnviroIssues
Karen Lutz, DOE-ORP	Sharon Braswell, MSA	Jessica Ruehrwein,
		EnviroIssues
Pamela McCann, DOE-ORP	Barb Wise, MSA	Melissa Thom, EnviroIssues
Steve Pfaff, DOE-ORP		

MEMBERS OF THE PUBLIC

Annette Cary, Tri-City Herald	Shyanne Pinkham, History of	Loren Selam, History of Hanford
	Hanford Class	Class
Shannon Cram, UC Berkley	Becky Rubenstrunk	
(phone)		