

FINAL MEETING SUMMARY

HANFORD ADVISORY BOARD

April 1-2, 2004

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.

Executive Summary

Board Actions

The Hanford Advisory Board (Board) adopted five pieces of advice: one addressing the Final Hanford Site Solid Waste Environmental Impact Statement (HSW-EIS); one addressing the 300 Area Explanation of Significant Difference (ESD); one addressing the need for a Site Technology Coordination Group; one addressing the Fiscal Year 2005 budget; and one addressing Pension and Benefit Plans in New Hanford Contracts. The Board also approved a document as a Board product: the Summary of Select Advice.

Board Business

The Site Specific Advisory Board (SSAB) Chairs meeting will be held on April 20 and 21. The self-evaluations from February's Board meeting are being used to construct the agenda for the leadership retreat.

Status of C-106 Retrieval and Closure Progress

The Board received an update on the progress made in the retrieval of tank C-106, after seeing a video showing the bottom of the tank at February's Board meeting. The regulators are currently working with the Department of Energy (DOE) to determine if the M-45 milestone requirements have been met.

Update on Risk-Based End States (RBES)

The Board received an update on the RBES initiative. The timeline on this initiative has been extended so that DOE can gather public and Board comments and advice. DOE has asked for the Board's help in organizing and structuring upcoming workshops.

Groundwater Decision Logic

The Board received an information presentation on the process by which decisions are made regarding groundwater and groundwater contamination at the Hanford site. The Board was given the opportunity to comment on the presentation and materials and ask questions.

K-Basins Sludge

The U. S. Environmental Protection Agency (EPA) is increasing the pressure on DOE-Richland Operations Office (DOE-RL) to begin sludge removal from the K-Basins. A removal plan is due to the EPA by May 1, 2004. The Board received presentations from both EPA and DOE-RL outlining the challenges associated with this aspect of cleanup.

Washington State Department of Ecology (Ecology)

Ecology is currently taking a closer look at groundwater in the 100D area. The M-45 negotiations have been concluded. Roger Stanley is officially retired and Laura Cusack has taken his place.

Environmental Protection Agency

There have been a number of changes in responsibility at EPA. Hanford project staff have taken on a lot of responsibility at the Idaho National Engineering and Environmental Laboratory (INEEL).

U.S. Department of Energy

There is on-going work to align DOE-RL and DOE-Office of River Protection (DOE-ORP) baselines. The initial draft of the Tank Closure EIS has been sent to DOE Headquarters. The new Waste Treatment Plant (WTP) Resource Conservation and Recovery Act (RCRA) permit Record of Decision (ROD) is due out March 31st.

HANFORD ADVISORY BOARD
Draft Meeting Summary
April 1-2, 2004
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Todd Martin, Citizens for a Clean Eastern Washington (Regional Citizen, Environmental & Public Interest Organizations), Chair, called the meeting of the Hanford Advisory Board (HAB or Board) to order. The meeting was open to the public and offered four public comment periods, two on Thursday and two on Friday.

Board members in attendance are listed at the end of this summary, as are members of the public. Five Board seats were not represented: City of Pasco (Local Government), Franklin and Grant Counties (Local Government), Central Washington Building Trades (Hanford Work Force), Washington State University (University), and the Columbia Basin Audubon Society and Columbia River Conservation League (Local Environmental).

Welcome and Introductions

Todd Martin opened the meeting and welcomed all the participants. There were no new Board members to introduce.

February Meeting Summary

The Board approved the February meeting summary with changes from Madeleine Brown, WA League of Women Voters (Regional Environmental/Citizen).

Advice on Final Hanford Site Solid Waste Environmental Impact Statement (HSW-EIS)

The draft advice from the River and Plateau Committee (RAP) had been circulated to Board members, via e-mail, prior to the Board meeting. The final version of the HSW-EIS was released on February 13, 2004. There were changes and data that had not been included in previous drafts. The premise of this advice is to ask that an independent panel review the modeling of impacts to groundwater and to assist the Board and public in understanding the potential consequences of Record of Decision (RODs) based on these analyses. The advice also expresses the Board's concern over the lack of public comment period between the publication of the HSW-EIS and the issuance of RODs.

Agency Perspectives

Mike Wilson, Washington Department of Ecology (Ecology), stated that Ecology feels they have the time and expertise needed to evaluate the HSW-EIS. If the Board chooses to seek additional expertise, however, Ecology will be supportive.

Nick Ceto, US Environmental Protection Agency (EPA), stated that EPA does not normally comment on the final version of an EIS, as they submit many comments on the draft versions. He noted that EPA will be looking closely at the RODs.

Discussion / Questions

Leon Swenson, Public-at-Large, asked what the purpose and expected outcome of the independent panel review would be, in light of the reviews already conducted by Ecology and EPA. He also asked if the committee expected to see new information in the EIS based on the finding of an independent review panel. Nick responded that EPA does not intend to do any further correspondence on the EIS. Mike noted that Ecology is looking at it and will comment on the RODs when they come out. They are also using State

Environmental Policy Act (SEPA) regulations when making permit decisions, in order to determine if the HSW-EIS includes enough environmental review. He also pointed out that SEPA regulations require a more in-depth public process. Pam Larsen, City of Richland (Local Government), pointed out that, with the non-existent public process, the committee has not had time to read and understand the HSW-EIS. The committee would like some help to ensure that the document provides for adequate environmental protection, particularly with concerns to groundwater.

Betty Tabbutt, Washington League of Women Voters (Regional Environmental/Citizens), said she felt more secure knowing the regulators feel they have had sufficient time to review the HSW-EIS. Her main problem with the HSW-EIS is the Department of Energy's (DOE) process surrounding it. She thinks the Board and the public should have had time to review the changes to the document before it became final, especially in light of the far-reaching impacts that this document will have.

Norm Dyer, Oregon Hanford Cleanup Board (State of Oregon), stated he does not feel the Board needs to conduct its own, independent review, since Ecology and EPA are both secure in their reviews.

Ken Bracken, Benton County (Local Government), expressed two concerns over how the advice was written. The first concern was that he does not think the Board should presume to speak for the regulators or the public, and he thinks that this advice does that. Second, if the Board wants an independent, technically qualified individual to analyze what the HSW-EIS represents, then they should ask for it directly, rather than going through the regulators. He also noted that, by requesting an independent review, the Board is essentially saying they do not trust the regulator's reviews.

Keith Smith, Public-at-Large, pointed out that the regulators have repeatedly made it clear there are comments they are constrained from making. One of his main concerns not addressed by the HSW-EIS is the groundwater: he would like to know if the concept of the groundwater as a waste disposal system has been abandoned and how the groundwater contamination is being mitigated. Rick Jansons, Non-Union, Non-Management Employees (Hanford Work Force), one of the advice's authors, pointed out that the groundwater is not a dropped issue; instead, the committee decided it would be best to include the concerns over Irretrievable and Irreversible (I&I) impacts to groundwater in separate advice.

Paige Knight, Hanford Watch of Oregon (Regional Environmental/Citizen) pointed out the regulators had not been ready to present their review findings prior to the Board meeting. She would like to see a more thorough presentation and explanation of the regulators' reviews of the HSW-EIS. Mike Wilson stated Ecology is ready and willing to give the committee a presentation on the HSW-EIS whenever the committee is ready. Nick stated that, from EPA's perspective, I&I is the key issue. EPA does not think DOE can make that determination and EPA is not expecting the RODs to include that determination.

Matt McCormick, DOE-Richland Operations Office (DOE-RL), stated that the National Environmental Policy Act (NEPA) defines the analysis that must be done for irrecoverable resources. The intention is not to focus on the state of the groundwater right now, but the process that needs to be in place to treat it and stop further degradation. Matt stated this will be further clarified in the RODs.

Gerry Pollet, Heart of America Northwest (Regional Environmental/Citizen), asked Matt to clarify if the I&I assessments were based solely on two performance assessments performed on two facilities rather than on cumulative impacts. Gerry then asked for clarification of what the I&I determination applied to. Matt stated it applies to the actions that were specified in the HSW-EIS, including the cumulative impacts of currently buried waste. Gerry asked for a clarifying letter from DOE stating what the basis of the I&I determination was and how the I&I is specifically linked to facilities on the Hanford site.

Greg deBruler, Columbia RiverKeeper (Regional Environmental/Citizen), said he has never seen a ROD address the question asked by this piece of advice. Greg asked Matt what the 25 millirem acceptable limit for groundwater is based on, as Hanford's standard has always been 15. He asked for clarification on whether this is a limit for combined use or some other limit.

Pam, noting that consensus on this advice would not be reached in its current form, announced that RAP would schedule time at its April 7th meeting for regulators to help identify their concerns and help the committee understand the process by which RODs and permits will be written. There was general agreement from the Board about the need for this discussion.

Gerry pointed out that waiting for the RODs and permits to be released is the opposite of the NEPA process, which entitles the public to a holistic view of what was analyzed and considered, with adequate time to review and a comment period. Gerry believes the Board needs to review and evaluate the HSW-EIS and, in light of this, he thinks that a reconvening of the groundwater independent review panel is in order.

Betty questioned whether the I&I designation of the groundwater is legal. Mike stated that Ecology's attorneys have told them this is primarily a resource damage aspect of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); however, before you can make this determination, a regulatory body must have permitted you to make these discharges and Ecology does not believe that has taken place.

Harold Heacock, TRIDEC (Local Business), noted this will be the third time the Board has commented on the HSW-EIS. The difference this time is that DOE has stated it will issue RODs based on the HSW-EIS. It now appears that the most influence the Board can have on what happens with groundwater will be to comment during the public comment periods when DOE has to secure permits to proceed with work on the site. Harold suggested the Board look more closely at how they can provide input and influence through the public comment process, rather than convening an independent panel.

Greg deBruler is concerned that this is the most controversial EIS written in the history of the Hanford site, so he is very supportive of the idea to convene an independent review panel. The Board is not a technical review board, but does have the authority to hire technical experts to review items as needed. The HSW-EIS has a lot of new information that has not been presented previously and a thorough review of this material makes the most sense.

Todd stated it seems the heart of the matter is that DOE did not follow a sound public process. The Final HSW-EIS should be another draft version because of the new information that was presented in this version. As for the advice, Todd suggested that it either be sent back to RAP for revision or be simplified to comment on DOE's poor process.

Ken admitted struggling with the process question, as it appears DOE has followed the NEPA process. He thinks the heart of the advice should be that, as written, the process was not adequate for such a far-reaching EIS and the Board would like additional process steps. Gerry responded that while DOE did follow the general process, they should have released the new information as part of a revised draft. This was Board advice on a previous draft version of the HSW-EIS.

Susan Leckband, Non-Union, Non-Management Employees (Hanford Work Force), expressed the belief that an expert panel is a good idea. She also thinks the panel could benefit from the committee hearing what the regulators have to say first. This would help RAP better formulate questions and concerns for the panel, as well as give the committee a frame of reference for discussions with the panel.

Nick suggested the Board think seriously about whether an expert review panel is the most efficient use of time and money. The regulators are experts and they have reviewed the HSW-EIS. An independent panel will come to the same conclusion, which is that the I&I issues are the biggest disconnect in the document. He recommended the Board find the timeliest way to weigh in on this subject.

Al Boldt, Government Accountability Project (Hanford Work Force), suggested the Board release a statement that it concurs with the comments made by EPA and the State of Oregon concerning groundwater. He would like to see the scope of the independent panel include an analysis of the content of the sitewide analysis, using the HSW-EIS as a starting point.

Rick stated that the final version of the advice includes the two points: that RODs based on this EIS should be delayed or clarify the I&I declaration for groundwater; and that the Board concurs with EPA's letter to Michael Collins, dated 03-16-04.

The revised advice was adopted.

Advice on 300 Area Explanation of Significant Difference (ESD)

Nick introduced the 300 Area ESD. The cleanup was initially set up based on two RODs: one pertaining to the liquid discharge sites and the second for associated sites in the outlying areas and the complex itself. The cleanup process that has been used so far has relied upon the idea of removing the contamination, treating it as necessary, and disposing of it at the Environmental Restoration Disposal Facility (ERDF). Eventually, the site will be backfilled so that it will be available for future industrial uses. The cleanup process has also included the monitored natural attenuation (MNA) for groundwater and institutional controls. To meet cleanup goals, soils are coming out down to 15 feet, except for the sites where there was liquid disposal. For those sites, they are chasing it down to the point where they have no further contribution to groundwater contamination, based on the soil cleanup level. The cleanup goals are also set to protect ecological resources other than the groundwater, as well as to protect the Columbia River.

So far, the cleanup has focused on the liquid disposal sites. There has been a decided improvement in the area, since the contaminated soils are now in safe storage at ERDF. In the original ROD, there was a statement that tests would be done to ensure that, prior to implementation of remedial activities, the soil cleanup levels are protective of the groundwater. Based on site-specific studies, the acceptable levels have been reduced by about one-third. That new cleanup goal will be used for all future sites. For the sites that were already backfilled, work has been done, site-by-site, to determine that they all meet the new goal.

Another alteration is changing the land use for eight outlying sites from industrial to unrestricted surface use. Outside the core zone of the 300 Area, where most of the industrial activity occurs, there were eight sites outlined for investigation into the cost to do additional excavation to move these sites to unrestricted surface use. Based on these additional analyses, it was determined that it is not significantly more expensive to do the additional cleanup. It was also EPA's determination that these sites are so far outside the core industrial complex that industrial use was not the right designation for these sites. DOE agreed with this determination.

From here, EPA will issue the ESD in April 2004 and also publish a notice of availability. (There will not be a comment period for the ESD.) EPA will then get on with the feasibility study that is required to look at the groundwater. There are concerns with the new uranium cleanup goal. Nick thinks these concerns will be addressed by the focused feasibility study. If the study is initiated in May 2004, the findings should be available around 2005-2006.

Agency Perspectives

John Price, Ecology, stated that Ecology supports the ESD. They are particularly glad to see the eight outlying sites that will be moving to unrestricted surface use. Also, in light of the fact that MNA is not working, they are encouraged to move ahead with the feasibility study of the groundwater.

Kevin Bazzell, DOE-RL, stated DOE also supports the ESD. He did point out that the eight sites were selected partially due to previous comments that had been received. DOE is glad to go ahead with the additional cleanup at these sites.

Discussion / Questions

Introduction of advice

Greg deBruler introduced the advice. It was originally developed under the assumption that the ESD would be out for public comment. Nick explained that, for EPA, it is too important that DOE sign the ESD sooner rather than later, because of the issues associated with changing the land use and end states, as well as the problems with MNA not working as expected. Greg pointed out the advice was written to clarify that the Board wants unrestricted land use outside the fence and is encouraged by the new designation for these eight sites. The advice is not meant to state that the Board concurs with the entire ESD.

Leon asked if the advice should be sent as a letter, rather than advice. He asked Nick how the 267 goal was reached for the new acceptable level for uranium cleanup, as that seems an odd number. Nick explained that, basically, the number will be used to compare an aggregate concentration across the sites. As for the sites that have already been backfilled, most of them were well below 267 already.

Susan Leckband asked Nick to clarify how the cleanup at the liquid discharge sites is done. She asked if it is based on what they find as they are digging. Nick responded that they dig until they reach the cleanup goal or the practical limit. If they hit something that they weren't anticipating, they stop digging and reevaluate.

Paige Knight asked if the advice is still valid, in light of the fact that there is not going to be a public comment period. Greg added that, traditionally, when a document or issue is this controversial, there would be a public process surrounding it. In order to make sure that the 300 Area is cleaned up to be protective of the groundwater and protective of the Ecology, the cleanup needs to be looked at holistically. Greg does not believe the 267 is protective of the groundwater. Paige asked if a public comment period would delay or hinder the ESD. Nick responded that every day that goes by without DOE signing it puts it at risk. He committed to the Board that the conversations about the soil cleanup level will continue, even after the ESD has been released.

Paige asked if the possibility of the 200 Area uranium contamination flowing down to the 300 Area has been considered. Mike Thompson, DOE-RL, responded that uranium has a very complex geochemistry. Much of the contamination in the 200 Area is due to metallic uranium pieces and discharges from liquid spills. The uranium in the groundwater in the 300 Area is due to liquid waste disposal practices. The water is driving the uranium very deep out of the cribs, through the vadose zone, into a mound and then into the groundwater and out into the Columbia River. The cleanup standard is intended to set the highest level that can exist under a crib and not contribute additional contaminants to the groundwater underneath. It will not clean up the groundwater, but is intended to prevent further contribution from what is left behind after the digging; but there is a tremendous amount of uranium left in the aquifer, and in the vadose zone directly above the aquifer, from the liquid waste disposal practices. The RODs do not cover any of that contamination. However, the uranium concentrations correspond directly to the rise and fall of the Columbia River and are unaffected by rainfall, run-off, or moving waste from the surface. In reality, whether the number is 267 or something lower, it will not make any difference in cleaning up the aquifer. What they are trying to ask is, "What is the highest level you can leave behind at that one particular location and still not impact the groundwater underneath?" Through sampling, laboratory studies, and modeling they came up with a level that, based on a certain amount of infiltration, can still go down through that column of the vadose zone and not exceed the drinking water standard.

Nick reassured the Board that EPA has heard the Board's concerns over the 267 cleanup goal. EPA also recognizes that cleaning up the soils isn't going to restore the groundwater. If they go through the focused feasibility study and determine that the actions they might take to restore groundwater require them to look at the number again, then they would certainly look at it again. Nick added that this explanation, along with the ESD work, should give the committee a lot of time to look at what he considers to be the real issue of restoring groundwater in the 300 Area.

Gerry stated he thinks that it is important for the Board to go on record saying that it supports making these eight sites unrestricted, at a time when DOE Headquarters (DOE-HQ) is saying that most sites should be restricted use. Ultimately, Gerry would like a discussion to take place regarding why it was only these sites that were designated for unrestricted use, when he has seen proof that other parts of the 300 Area are being used for unrestricted use already.

Pam also encouraged the Board to go forward with this advice and to deal with the other, outstanding issues later as the ESD is essentially counter to the Risk Based End States initiative. DOE was also willing to fill in some of the pit and trench areas, which were dug out, to make the area more attractive for future use. However, Pam added she is troubled by a letter from technical staff at Ecology expressing their personal concerns over the content of the ESD. RAP will be looking into this separately.

Susan Leckband suggested the advice be worded in a more philosophical way, so that it doesn't delay the ESD, but still conveys the Board's concern over that lack of public process.

The advice was adopted.

Advice on Site Technology Coordination Group

Pam introduced the advice. For many years Hanford had a Site Technology Coordination Group (STCG) composed of senior managers, contractors, regulators, tribes, and Board members. It was a forum to explore some of the challenges and technical needs on the Hanford site. In the early days, the Board actually had the opportunity to prioritize the needs in terms of what funding would be requested from DOE-HQ. The STCG also provided a forum for program managers to talk to each other and learn what technology was being developed and used at other cleanup sites. Now, there is no set way for the Board to find out what the science and technology needs of the site are, how decisions are being made to prioritize funding requests, and what is happening in the private science and technology sector. This advice is requesting that the STCG be recreated for the purpose that it originally served.

Agency Perspective

Howard Gnann, DOE-Office of River Protection (DOE-ORP), pointed out that DOE has come a long way since the STCG was disbanded. He thinks the STCG spent a lot more time and money doing the sales pitch than doing the actual technology development and research. He thinks the research dollars are still there, but now they are in the actual programs that are doing the work. If Board members want to know what is being done to develop technologies and solve problems, Howard suggested they go to the technical committee meetings and ask the question. Ultimately, he thinks DOE is going farther away from what is proposed in the advice.

Discussion / Questions

Ken noted the situation is broader than just Hanford and includes what DOE is doing to address technical challenges, some of which are similar at all sites, and the communication of that challenge.

Tim Takaro, University of Washington (University), commented that it is possible the STCG could have helped with the K-Basins sludge problem, since the group had the ability to bring in an outside perspective, which is frequently needed.

Dick Smith, City of Kennewick (Local Government), asked how the information gathered at the STCG meetings was disseminated to the Board. There were three seats on the STCG for Board members. Those members who were representing the HAB brought that back to the committees. They also provided information on HAB advice to the STCG.

Pam clarified they are not asking for a formal structure and processes; they are asking for a forum. It could even be something informal, such as over lunch hours. The committee believes that bringing all the players together would be of value. Howard said he would like to take a look at why RAP does not feel they are getting the information they need about technology development.

Maynard Plahuta, City of Richland (Local Government), reiterated the point is integration. There are opportunities to share information by integrating the groups who may have information to help solve each

other's problems. Howard stated that there is quite a bit of interaction and sharing of information going on between all the sites. He would like to leave the Board with the thought that the work is going on, even if they cannot see it and it is not being explained.

The advice was adopted.

Status of C-106 Retrieval and Closure Progress

Ken reminded everyone that, at the February Board meeting, the Board wrote a letter congratulating DOE on seeing the bottom of tank C-106. Now the retrieval is at an important juncture, as Ecology is looking at whether or not DOE has met the M-45 milestone.

Delmar Noyes, DOE-ORP, updated the committee on the status of waste retrieval from C-106, located in C-farm in the 200 East Area. The tank was built in 1944 to store mixed wastes resulting from reactor fuel reprocessing and waste separations conducted in PUREX and B Plant. The majority of the high-heat waste was removed in a previous large-scale sluicing campaign conducted in 1998-99. This current retrieval effort began in August 2003; after six acid batch additions and four sluicing campaigns, retrieval activities were completed in December 2003. DOE-ORP believes that the limits of technologies used in this demonstration have been reached. There was no evidence of further waste dissolution in the sixth acid batch and less than 0.3% waste solids were removed during the fourth sluicing campaign. Currently, displacement measurements and video mapping are being used to verify the final volume of tank waste residuals. DOE-ORP believes there is between 259 and 470 cubic feet of solid phase waste left in the tank. The sampling and analysis of tank waste residuals is ongoing to support risk assessments. The Risk Assessment will be completed later in April.

Delmar also gave a quick update on other retrieval activities. 83% of the volume has been retrieved from tank S-112. The S-112 retrieval has taken up about 1.3 million gallons of double shell tank storage space. Also, the equipment has been installed at the U-200 series tanks and the operator training process has begun.

Regulator Perspective

Jeff Lyons, Ecology, stated that M-45 requires a certain volume to be retrieved and the limits of technology to be reached. If DOE can't reach the volume limit then they must submit a waiver. In the waiver there are a number of items that Ecology will be expecting and DOE will deliver. These include: a risk assessment of the waste that is left in the tank; alternate measurements so that different volume assessments can be compared, in hopes of reaching a more accurate estimate; an evaluation of other technologies that could be used to retrieve the tanks, in addition to what they have already done; and working with the Nuclear Regulatory Commission (NRC) to determine what kind of waste they have and how they are going to address the issue of residuals in the tank. DOE-ORP has already submitted the closure plan, which is considered an application for a Hanford sitewide permit modification. Ecology is expecting to have the final form of the completed application in June 2004, although that will not be processed as an application until the Tank Closure EIS is complete, which is expected sometime in 2005. Once Ecology gets the EIS, they can meet SEPA requirements and put the draft closure plan out for public comment. DOE-ORP was considering putting grout into the tank, but Ecology will not allow anything to be added to the tank until the Closure Plan is approved and incorporated into the sitewide closure plan. Ecology and DOE-ORP have worked out a change package for M-45 that defines how the tanks will be retrieved and closed.

Jeff also tried to give the Board an idea of what it takes to get a tank closed. Initially the waste is retrieved, based on the tank retrieval work plan. Also, for C Farm, DOE-ORP will be doing a soil study to determine what contaminants might be present in the soil and how it might be remediated. There are also integration plans that encompass how and why the tanks that are retrieved are chosen. DOE-ORP and Ecology have tried to focus the M-45 change package on C Farm as the first farm to exercise this closure process.

Laura Cusack, Ecology, stated that when Ecology was negotiating the M-45 Change Package they realized they could not talk about closure, since the Tank Closure EIS is not complete yet. So the change package describes how to get closure incorporated into the permit, but does not talk about the specifics of what closure may entail.

Discussion / Questions

Paige admitted she was somewhat confused by the way the sitewide permit, the Tank Closure EIS and the M-45 Change Package fit together. Howard replied there was some confusion, as DOE intended to demonstrate grout in C-106 and Ecology will not issue a permit for that until the Tank Closure EIS is completed. DOE is still working with Ecology on what the closure plan should look like. As for closure of C-106, any further work is tied to the Tank Closure EIS.

Gerry stated that it seems DOE is following a somewhat convoluted path to complete the closure of C-106 by trying to complete the closure plan and filing for permits before the EIS. He asked if there was agreement as to the uncertainty of the quantity of material left in the bottom of the tanks and if DOE-ORP has already spent money to grout the tank. Jeff stated that there is a difference of opinion as to the uncertainty of the material left in C-106. Howard responded that yes, DOE-ORP has spent money to do what they considered important to getting C-106 closed. Gerry stated that it would be important to have a better understanding of the amount of material left in the bottom of the tanks, as the cumulative volume across all tanks could exceed the TPA limits. Jeff agreed and noted that Ecology and DOE-ORP are working to find a more accurate estimate.

Ken asked Jeff to clarify if Ecology agrees that DOE-ORP has reached the limits of technology for C-106. Jeff stated that they still have not received the information from DOE to make that determination. DOE-ORP reviewed the initial drafts this week and expect the data to be in Ecology's hands by the M-45 April timeframe.

Keith asked how Ecology and DOE-ORP will determine what is under the leaking tanks and how that will affect retrieval and closure activities for those tanks. Delmar explained there are several ways DOE-ORP plans to deal with that. What is under the tank will be included in the soils analyses. DOE-ORP is also looking at the retrieval activities and the potential for those to cause additional releases into the soils. They are trying to bound those with estimates and look at the risk profiles as they decide technology limitation. There is also a vadose zone study in progress and the characterization activity is on going. The report on residuals is currently going through the quality assurance steps and will probably be ready for a committee briefing in May.

Howard gave an update on the expected timeline for the Tank Closure EIS: his last projection was June, but a more realistic date is probably September. They are expecting to offer an extended public comment period to give people time for review.

Update on Risk-Based End States (RBES)

Keith Klein, DOE-RL, stated that DOE has heard many concerns regarding the Risk Based End States (RBES) Vision and the way it was rolled out and presented the first time around. At this time, things have been slowed down to get more input. With several major contracts expiring over the next couple of years, DOE is in the unique position to establish a final round of contracts that will carry the site through to the end of cleanup. With that, DOE wants to have as clear and accurate a picture as possible of what the scope of work is for those contracts. Also, there is a point of diminishing returns with the cleanup, where the added work of cleaning up just a little more is not worth the added benefits. DOE is trying to sharpen their focus on where is an appropriate place to shift responsibility to long-term stewardship. Everyone wants to clean up to levels that are supportive of the end states and end uses that were developed over a period of several years and are described in the Comprehensive Land Use Plan (CLUP). DOE-ORP took Shirley Olinger away from her regular duties and assigned her to RBES because it is so important.

Shirley stated that DOE-HQ is realizing this is tough work. Hanford has been trying to make these decisions and answer these questions for at least 12 years. The Future Site Uses Working Group, the CLUP initiative, the Tank Waste Task Force and the Exposure Scenarios Task Force have all tried to figure out “how clean is clean.” What DOE would like to do now is refocus the initiative. DOE has come to realize they need more time to make these decisions. Through the Interagency Management Integration Teams (IAMIT), they are working to see how to enter into meaningful dialogue with the community about end states. DOE would like a dialogue with the Board and the regulators in order to frame the question for the next step in the “how clean is clean” discussion. Once the question is framed, DOE would like to work with the Public Involvement Committee (PIC) and RAP to ensure they are on the right track.

Shirley stated that, right now, end states and future uses are somewhat vague. DOE would like to narrow down some of the options and really have the tougher discussion. DOE would like to do the “just right” amount of cleanup, no more and no less. They would also like to accelerate risk reduction while balancing remediation risks to workers, the public, and the environment with long-term risks. They must do all this while making sure that they are consistent with DOE policy 455.1.

Some of the things DOE has learned in this process include the fact that it will take a lot longer to have the necessary dialogue and get meaningful input from the community. DOE has also learned it is critical to know the destination in order to better define baselines, acquisition strategies, and human capital needs.

The Board received sections 3.5, 4.0 and 5.0 of the Predecisional Discussion Draft of the Hanford Site Risk-Based End States Vision document (April 2004). These sections represent DOE’s draft vision, based on land uses described in the CLUP. It is worded so as to make it clear that it is a discussion piece.

- ❑ Section 3.5 describes the current cleanup plans reflected in the Integrated Hanford Baseline (IHB) and the RBES Vision cleanup proposals, based on the anticipated land uses.
- ❑ Section 4.0 describes the specific hazards at the Hanford site by major areas and describes the potential exposure pathways (conceptual site models) for both the current baseline end state and the RBES Vision.
- ❑ Section 5.0 describes the difference (variances) between the current baseline cleanup decisions and the proposed RBES Vision.

Keith clarified that what is meant by “variance” is that, when considering an end state, there are many ways to get there. This strictly addresses what you need to do to get to your expected land use. DOE is trying to tie this together with logic and commonality between sites.

Shirley went on to clarify how the Board can assist with the End States Vision. DOE would like the Board to agree to help with forums, workshops, committee meetings and any other venue the Board can think of to promote meaningful dialogue on defining the site’s end states. They would like to be flexible, but they will also need to prove to DOE-HQ that meaningful dialog is occurring. DOE would also like the Board to assist in developing appropriate risk assessment methods and reasonably bounding exposure scenarios consistent with anticipated land uses. The Board can also support the need to focus cleanup on meaningful risk reduction, and can help determine how to balance the remediation risks against the long-term human health and environmental risks.

Shirley outlined the next steps. IAMIT has established an “End States” team and she will be developing the charter. They would like to have a workshop around the Committee of the Whole meeting in May. Shirley will put together the scoping of the workshop and get that information to PIC and RAP for review.

Regulator Perspectives

John Price made it clear that Ecology has not been involved in the development of this Vision document, but a key element of the document is the variances. The baseline and the Vision are unbalanced. Upon review, the document seems to be very detailed on sections that support the variances and mysteriously

lacking in details for the sections that are against the vision. John stated that, while he is encouraged that DOE is proposing and supporting workshops, he does not think the public's values are expressed in this document.

Nick stated that he is approaching the Vision document with some trepidation. The theme that runs through DOE-HQ's perception of RBES is that, "If you can define future land use, then you can control risk through that definition and therefore you can control cleanup costs." What they are missing is that there is a whole set of regulations that guide cleanup and not just risk. Focusing purely on risk misses a lot of what the regulatory agencies expect to have done. DOE has clearly said that they are going to do the work and address risk in a reasonable way, all the while meeting regulations, but in their implementation strategy they also say, "define the variances, go to the parties you have agreements with, change the agreements and, if necessary, change the regulations." Nick stated if that language were removed by DOE-HQ, that would go a long way to relieving EPA's concerns. Nick also believes that existing regulations are flexible and can be modified to meet whatever may come up. He asked Keith if the ESD is sent over to DOE in the next month, would the Risk Based Variance in the 300 Area hold DOE up from signing the ESD. Keith said no, there is no reason why it would. Nothing in the Vision document trumps the regulatory processes. The ESD and CERCLA RODs are what count in the end.

Discussion / Questions

Greg de Bruler said it seems that, suddenly, someone at DOE-HQ has made the decision to base all cleanup on land use, instead of honoring all the prior research and agreements. Greg stated that he is not opposed to RBES, but to him it means that a process must be developed and there will be one cleanup agreement.

Susan Leckband urged other Board members to get involved and understand the seriousness of RBES while being mindful of the regulators and what they have said. She thinks the Board can help develop a workshop based on regulations and compliance as well as understanding the risk. She volunteered to help develop the workshop.

Ken asked for clarification whether or not both DOE-ORP and DOE-RL were involved in preparing the Vision document. According to Shirley, yes, they were both involved. In preparation for the workshops, Ken would like to see a list of any assumptions and/or guidelines that were used in preparing the document. Also, he asked if there is a template by which all sites are preparing similar documents from a risk standpoint. Shirley responded that the guidance provides definitions for key communication tools that DOE-HQ would like to see in all the documents across the sites, including maps, as well as the conceptual site models.

Gariann Gelston, Non-Union, Non-Management Employees (Hanford Work Force), asked the Board to keep in mind that the Exposure Scenarios Task Force struggled a lot with exposure scenarios and land use and she is certain that the public is going to want to see more scenarios evaluated than what is necessarily provisioned for the land use. Technology is something else the Board would like to see come up as part of this discussion. Gariann also volunteered to be part of this effort.

Paige stated that she is concerned she would work to get people to come to the workshops and then their input would not be used. She would be happy to participate if it is a genuine dialogue, but she does not want to be used just to get the answer DOE-HQ is looking for.

Tim asked for clarification on the pedigree of the document. Shirley stated that it is version 2.5. DOE-HQ has agreed on the three sections mentioned in the Board meeting. The document is DOE-ORP's and DOE-RL's vision, which is supported by DOE-HQ as meeting the intent of the policy, and is not DOE-HQ's vision.

Pam stated that the reason the Cleanup Constraints and Challenges Team (C3T) process worked was because of the collaboration. She recognizes that the RBES process has been driven by DOE-HQ, but there is still frustration surrounding it. The Board has read the guidelines and does not like the fact that the guidelines state that there might be changes to regulations. She does think having IAMIT working on this

is a good start. Pam stated that the Board will need the regulators to help them understand the Vision document. She and Susan Hughs have proposed a Committee of the Whole meeting in May and they would like to discuss this at that time. After that meeting, she thinks that the Board will be ready to make suggestions.

Leon said he is encouraged by the opportunity to move this from a DOE document to a broader field, where some feedback and process can take place. However, he was disappointed by the Exposure Scenarios Task Force, as he did not feel they ever got to actual exposure scenarios. There are a variety of exposure scenarios; if DOE is looking for a definitive answer, they are not going to find it. He hopes that the Committee of the Whole meeting is set up in a way that will avoid the frustrations he experienced with the Task Force.

Maynard commended DOE-ORP and DOE-RL for their efforts in conveying the need for more time to DOE-HQ. He also agreed with Leon, as he hopes that the Board will view the Exposure Scenarios Task Force as a lesson learned and he hopes that more will be gained from this opportunity. He thinks that, in order to really gain a benefit from this opportunity, it will be important to define how to measure risk. That is a large part of the basis of the Board's concern. He asked Shirley when the rest of the Vision document would be available. Shirley responded that DOE did not want to spend a lot of time on the rest of the document until they have received some comments on sections 4 and 5. She estimated that it would probably be around September when the document is ready to send back to DOE-HQ.

Gerry thought the Exposure Scenarios Task Force did provide what it was supposed to. He asked Shirley about section 5.0, page 19, stating that he cannot think of a technical reason for saying that leaving mercury contaminated pipelines in the river is acceptable. Shirley responded that it is clear that all the analyses are not available yet. This is a vision document, not a final decision. For the pipeline example, they looked at balancing the risk by looking at the uses and where the pipeline is. It is possible to grout the pipe that runs under the river as compared to digging it all up and dredging and diverting the river. Gerry suggested the Board create its own variance document, not based on technical aspects, but pointing out the irony of determining risk. He suggested to Shirley that, if she wanted to engage the Board and public, she should have responded to the comments received on the first draft of the RBES document.

Harold stated that he thinks the material in section 5 is a good starting point for a workshop. He asked that the proposed actions and current regulations be laid out, so that the audience can make a qualitative assessment. He also commented that taking the pipe out of the river would not be a wise investment of resources.

Rick Jansons stated that he appreciates this opportunity to participate and to affect the outcome of this document. He noted that, if the input is ignored, it won't be for lack of trying and if the Board doesn't try, then it will be ignoring its own advice.

Greg commented that the Board never heard anything back on the Exposure Scenarios Task Force report. He would rather not participate if this is going to turn out the same way.

Todd explained the Board will be responding to this document during the Committee of the Whole meeting. He also expects to address at that time the confusion about what RBES is and is not. Keith Klein stated there is nothing for DOE to gain by deceiving the Board; they have to do the cleanup, no matter what. DOE has done its best when they have had a broad base of support. He stated that he is encouraged and optimistic that the Board will help in making some tough decisions.

Advice on Fiscal Year 2005 Budget

Gerry introduced the advice. In looking at the Integrated Life Cycle Costs, there is a drop of around \$700 million between 2004 and 2010. One of the basic principles is that things are easy now and they are going to get harder in the future as there is less money. The Budgets and Contracts Committee (BCC) is

concerned that the baseline does not include significant milestones that will occur in later years and that the cleanup called for in the TPA will not be met between the federal and state cleanup dollars. The TPA is supposed to be the basis for the planning documents. The baseline should not be built on changes to the TPA until those changes are finalized. Another issue is the \$64 million that is being withheld complex-wide, delaying cleanup. The TPA has a well-established process for dispute resolution; withholding cleanup funds is not the way to do it. The next part of the advice addresses the committee's concern regarding changes to the baseline that are made without public input. Without placeholders for big projects like decontamination and decommissioning, there will be a huge dispute over who will have to give in to the budget. The committee is also concerned with worker health and safety issues, as they are not seeing DOE planning for this. They are relying on institutional controls rather than buying safety equipment.

Discussion / Questions

Jeff Luke, Non-Union, Non-Management (Hanford Work Force), stated that the advice has his complete support in asking DOE to request full funding for all aspects of cleanup.

General consensus was that the first draft of the advice was good but needed to make a stronger and more focused point.

The advice was adopted after revisions.

Advice on Pension and Benefit Plans in New Hanford Contracts

Members of the Board with a conflict of interest on this matter recused themselves from the discussion regarding Pensions and Benefits for Hanford workers.

Keith Smith stated that BCC is concerned that many of the new workers are too young to understand the worker welfare trust system at Hanford. The current trust plan is the result of many years of negotiation between the bargaining units and DOE. The new plan is a step backwards.

Jeanie Schwier, DOE-RL, stated that this change is probably the beginning of a change to the entire pension plan structure.

Gerry stated that a good pension and benefit plan is part of why workers stay at Hanford. There is an immeasurable benefit to having a workforce that is qualified and experienced. This change will jeopardize the quality of the workforce. It will also create a more transient workforce and, in areas like the 300 Area, transient and insufficiently trained workers are a hazard both to themselves and other workers.

Discussion / Questions

Tim stated that he thinks the advice is definitely timely. He also pointed out that another problem with a transient workforce is that it is impossible to track them; workers in areas like the 300 Area should be checked frequently, as something like beryllium disease can lay latent for up to 40 years. DOE is doing transient workers a huge disservice by not getting them plugged into a program that can monitor them.

Debra McBaugh, Washington State Department of Health (Ex-Officio), stressed that it is very important to have the experienced workforce to get the job done safely.

Margery Swint Benton-Franklin Public Health (Local/Regional Public Health), stated that, in her experience, transient workers are less healthy, are more likely to be drug abusers and are most likely to get accidentally exposed. The workers who are familiar with the site and procedures are safer and more efficient workers. This plan may appear to save DOE some money in the short term, but they will ultimately pay more in worker safety claims and worker training programs.

Maynard stated that this discussion brings to mind the discussion of balancing the risk to workers. This seems to be counter to looking at that balance and he wanted to point out to DOE that, while they say they are trying to balance the risk for workers, they are taking actions that do not demonstrate that.

Leon asked Jeanie how much of this is being driven by local staff versus how much is being driven by DOE-HQ to cut costs around the complex. Jeanie stated that there is only one position and that is the Department of Energy's position.

Gerry received a copy of a letter from Senator Cantwell to the Secretary of Energy about this very issue. The letter asserted this is not the best way for DOE to cut costs.

Paige stated that she is certain that both the local DOE offices and DOE-HQ are driving this change. The same type of thing is happening across the country. In the end, she believes Hanford will end up with a migrant/transient workforce and the contractors will be able to jeopardize the health and safety of the workforce and the residents, while making huge profits.

Martin Yanez, Public-at-Large, stated that this change reminds him a lot of the migrant farm workers who were hired by illegal contractors who made their profits on the backs of the workers. In his experience, if it weren't for certain requirements on the worksite, the contractors would get away with a lot of illegal and dangerous omissions.

Gerry pointed out that the current sitewide agreement has brought labor peace for 30 years. If DOE wants to stop cleanup progress, this is the way to do it. He admits that the Hanford workforce is the highest paid in central Washington, but he cannot think of a reason why it shouldn't be.

Tim suggested that the advice be explicit about the fact that it is designed to reduce the risk of strikes. A strike would have a devastating effect on cleanup and that is why the Board is engaged in this issue. The Board is supporting the cleanup by supporting the workers.

Margery proposed that part of DOE's problem is the fact that they re-compete the contracts so frequently. Other sites offer 25-50 year contracts. Hanford has had so many contractors because no one seems to want to come back once they've been here.

The advice was adopted.

Hanford Advisory Board Summary of Select Advice

Susan Hughs, Oregon Department of Energy (State of Oregon), introduced a new version of a document that has been around for years in some form. It consists of segments of advice along with explanations of the advice. It was used when new Board members wanted to know more or when congressional members asked questions. Oregon staff have gone through and updated the document.

Todd reminded the Board they are only being asked if there is consensus on this as a Board product. It is not advice.

Discussion / Questions

Maynard noted that the advice summarized seems to be mostly negative, while he knows that the Board does produce positive products those are usually in the form of letters. He would like to see those included in future versions.

Harold stated that he finds the document fairly lengthy for quick review. He is also concerned about putting this under the Board's name. He is particularly concerned with why any piece of advice was selected and another one left out. He would like more time to research and review this document and

compare it to the advice that was not included. Susan Hughs stated that the document has been around for many years, but she cannot comment on the original selection process.

Ken asked, How does it serve the Board better in interacting with the public? He suggested having a separate, but similar, document, to cover letters. There are a number of Board products that are not included in this document simply because of their nature and he would like to see a venue for those.

Tim noted that he likes the document. He would like to use this type of document to show people what the Board does. He would also like to see responses to the advice tracked in this document to show what progress has been made and how the agencies responded.

Dick Smith stated that as a newcomer he found this document very helpful in getting him up to speed.

Several Board members expressed their general support for the document and a desire to keep refining it.

The document was approved as a Board product.

Ground Water Decision Logic

John Morse, DOE-RL, explained the Ground Water Strategy Decision Logic was developed by the C3T and IAMIT groundwater team. It looks at how DOE will proceed with the existing groundwater plumes on the site and what the basic regulatory processes and actions are. The groundwater team consists of representatives from Ecology, EPA, DOE-ORP and DOE-RL, as well as some participation from the tribes and stakeholders. Over that last year, DOE and the contractors put together the Groundwater Management plan, which was finalized in March 2003. The Groundwater Strategy document was finalized in February 2004. The M-24 Integrated Monitoring Well Installation Change Package, Groundwater Monitoring Report Improvements, and Groundwater Decision Logic were all completed in March 2004.

John noted that the groundwater at Hanford can be fairly confusing, since DOE uses a system of numbers and letters to identify different areas and operable units. With all the different operable units, John thought it best to give a high level overview on what the process is to get to the final action on the plumes.

They start off by eliminating active sources of contaminants to the groundwater. Next, they move on to containment of plumes and/or attempt a mass reduction of contaminants in the groundwater and vadose zone. Phase III has several parts. It starts by identifying risk-based cleanup goals to protect the Columbia River, its riparian environment and its users. Then they work to assemble all the available data to determine the priority of the work and incorporate it into the baseline. The data is then analyzed to see if it is sufficient to complete a risk assessment. If it is not, then more data is gathered until there is enough for a risk assessment. If it is sufficient, then the risk assessment is done and the highest beneficial use of the groundwater is determined. At this point, depending on the expected end state of the water, the data will undergo a Focused Feasibility Study. The groundwater is then analyzed to see if active remedial measures can be applied to meet risk reduction and aquifer restoration goals, which will determine what action DOE will proceed with. This is the point where they look at Alternate Concentration Limits (ACLs) or a technical impracticability waiver. There may also be a mixture, in which case they would come up with RODs based on the ACLs. John handed out copies of the schedule and a table showing where they are with remediation for each of the plumes. The schedule is a working document, so it changes frequently.

Regulator Perspective

Dennis Faulk, U.S. Environmental Protection Agency, explained the Board is tackling groundwater strategy at this time because it became clear that there was a lack of transparency early on. The agencies have been working very hard to get this strategy out and make it useable to the Board. The focus right now is on 300-FF-5 and 100-BC-5. Also, EPA listened when the Board made it clear that the groundwater strategy and soils cleanup should be done together. The inter-matching for the soil cleanup is expected to

be done by December 2006. They will go out together, so that there is a comprehensive plan for the area. This is not finalized yet, but he hopes this gives the Board an idea of where they are going.

Jane Hedges, Ecology, noted that Ecology has been saying, for some time, that Hanford did not have a clear story to tell. This helps to lay out the story and the timeline. They don't have all the answers yet, but they are still searching for technologies that can help.

Debra McBaugh stated that one of the things the Department of Health has information on is the sampling numbers over the years. She thinks a summary of this information might be useful. Another analysis they do to the river is transects, which is where they take samples all the way across the river, starting at the shoreline where they know they have leaks. Once you get away from the shore, where the contaminant is leaching directly into the river, the numbers go way down. Jane mentioned that Ecology did some sediment sampling last year and would be willing to share that with the Board, as well.

Discussion / Questions

Leon asked John to clarify what could come out of the Risk Assessment that would change where the overall process goes. John stated that there are two different criteria. The groundwater may be above drinking standards but it will still need to go through the Feasibility Study. Dennis added that this is confusing to him as well and encouraged the Board to point out any other such items, as this is a draft and they appreciate the input.

Bob Parks, City of Kennewick (Local Government), asked if any downstream testing is done. John said yes, it is checked quarterly or more often. Bob commented that he thinks the drinking water standards for potable water and irrigation should be the same.

Susan Leckband commended DOE on recognizing how important groundwater is. She noted she does not see a representation of the risk of what is beneath the tank farms and asked if John and others are involved with and following the Tank Closure EIS and activities. John stated they are looking at and continue to look at potential plumes and areas with potential impacts. They are also monitoring areas where they know there are plumes that have not yet affected the groundwater.

Paige asked how often testing is done at the Richland uptake. It is done daily. Paige stated she finds the entire Path Forward for Groundwater Operable Units confusing and convoluted. She thinks the cleanup standard should always be to highest beneficial use of the groundwater. She then asked how far ahead they look for groundwater remediation. Dennis stated that EPA looks ahead for 1,000 years, while DOE sometimes looks as far ahead as 10,000 years.

Maynard stated he thinks more money should be put into investigating new technologies to deal with these plumes. It is very clear that the movement of these things cannot be predicted with much accuracy. John stated they are currently in the process of looking for new technology for the 100N area to help with strontium and carbon tetrachloride. He encouraged Board members to write Congress to encourage more funding for technical research.

Norm asked what types of monitoring are being done along the riverbank. John stated that there is a network of monitors anywhere from 3' to 20' along the shore and there are some monitors in the middle of the river, too. They are able to monitor multiple levels of samples and can see quite a difference. It is great to get an idea of what is going into the river. John stated they are currently sampling only where there is a problem and these samplings are restricted to once or twice a year, since they only sample in low waters.

Keith Smith asked what the effect is where the plumes run under the WTP site, since the WTP has a sewage disposal system that is basically a big drainfield. John stated they are currently investigating this and will get back to the Board with an answer.

Betty asked for information on the products of the Groundwater Expert Panel. Much of their focus was on groundwater and contaminant movement and they are doing modeling of contaminant characterization and

how that affects contaminant movement right now. Betty asked if they were a value for the money spent and John said yes.

Martin stated that he also represents the National Network of Community-Based Organizations. A large part of their constituency is indigenous peoples. Many of the chiefs have been very concerned about the river for a long time and he expressed the desire for this information to be available to everyone. He is pleased to hear that the samples are being taken and recorded.

Tim asked if there was additional information on the biota that might be concentrating the contaminants specifically near dams and other places where they might concentrate. Debra stated yes, protecting people generally protects the biota, too. Norm mentioned there have been two master's theses written about the material behind McNary Dam.

Shelley Cimon, Public-at-Large, expressed the belief that they really need more money to fund technology. She is in a quandary over the five-year review process and the difference between what can be done preventatively versus what can be done on an emergency basis. Dennis responded that this is partly because, when developing the technology, the research must be specific to each plume or contaminant problem. When things have to be that specific, it gets difficult to get the funding.

Dick stated he is most concerned with the monitoring programs and what is done when a leak or change is detected. John stated there is an aggressive program to find out where these contaminants are in the vadose zone. They are drilling and testing to find out what and how much is where. Most of the problems are from the tanks and the cribs and they are looking at how far these have moved and what can be done to mitigate. Dick asked why they would be monitoring something if they can't react to it. Nick explained that much of the monitoring is to see where the leaks are and to confirm what the models show. If the monitoring does not confirm the models, then they may change mitigation plans. Monitoring helps to create a feedback loop.

Leon noted that it would be good to be able to show the public the contaminant concentrations and where they are coming from.

Pam asked if the Office of Legacy Management has a commitment to ongoing science and technology development. She suggested the SSAB chairs might work together on this.

Greg de Bruler urged the regulators to view the river as a living resource and consider the existing contaminant load when performing the risk assessments. Greg suggested that EPA's toxicologists should be commenting on how much contaminants are contributed to the river, too. This holistic view is the main reason why he wants RBES to look at the river and the environment in total, not just Hanford.

K-Basins Sludge

EPA sent a letter to DOE regarding K-Basins sludge on March 22, 2004. In April 2003, EPA assessed DOE-RL with penalties for failure to start moving the sludge out of the basins. These cribs are very old and were not meant to hold transuranic (TRU) waste for as long as they have. The groundwater under and next to the cribs is contaminated. The original deadline for initiation of sludge removal was December 2002, but no waste has been removed to date. There have been problems with gas generation and there has been much discussion about where and how the sludge might be disposed of, but there has been no action. EPA is frustrated by the delays and so they have given DOE until May 2004 to address the sludge, the water and the basins themselves. This is important so that work can begin on the contaminants below the crib and the groundwater.

Matt McCormick stated that DOE-RL is working to come up with a better, final disposal path for the sludge, rather than just leaving it at T-Plant for 10-20 years. Ideally, they would like to move the sludge to the west basin before moving it to its final resting place. The sludge is composed mostly of TRU waste and possibly some low-level waste which could be disposed of at ERDF. The TRU can go to the Waste

Isolation Pilot Plant (WIPP). Ultimately they are trying to minimize the number of times they handle the waste. Matt added they are working to accelerate the removal of the basin itself. They plan to grout the basins and move them up to the Central Plateau. DOE-RL currently owes EPA a document with a good technical basis and plan for getting the sludge moved away from the river sooner than later. This document will be completed this month.

Discussion / Questions

Pam asked if DOE-RL will have anything new by next week for the RAP meeting. Matt would be able to update the committee after April 13th.

Norm asked how much of the delay in sludge removal was due to the transferring of fuel from the east basin to the west basin. Matt stated that it may have affected the removal of sludge in the west basin, but did not have any affect on the removal of sludge from the east basin.

Tim stated that one of the concerns was uranium oxide and spontaneous combustion when the rods are out of water. He asked if this was a concern with the sludge. Matt explained there are bits of metal in the sludge, but there is a filter on the vacuum that screens out material bigger than ¼ inch. It is safe for material that is smaller than ¼ inch to go the same disposal pathway as the sludge. Larger material is put into canisters and disposed of with other TRU waste.

Keith Smith stated that workers have been expressing concerns about maintenance practices for quite a long time and this can cause low worker morale. Matt stated that DOE considers this a management problem, not a worker problem.

Committee Reports

Tank Waste Committee (TWC): Leon reported TWC is looking for an update on vapor issues and on concerns with permitting on the bulk vitrification demonstration test. The committee also identified the need for a site-wide comprehensive flow sheet for all contaminants of concern, also known as a mass balance flow sheet.

River and Plateau Committee (RAP): Pam noted that the April committee agenda has been evolving over the course of the Board meeting. RAP will talk about the structure for May's Committee of the Whole meeting. They will also address the idea of an independent review panel and will have a presentation on the 2004 composite analysis.

Public Involvement Committee (PIC): Susan Hughs stated that PIC has worked on how RBES should be addressed from a public comment standpoint. They will also review the summary advice and the suggestions that have been made at the Board meeting. Several committee members have also started reaching out to additional communities in the affected area and have chosen the Hispanic community as an outreach target.

Health, Safety, and Environmental Protection (HSEP): Keith wanted to advise the Board that HSEP has felt under assault. Committee members met at lunch and have been coming up with new ways to plan committee activities.

Budgets and Contracts Committee (BCC): Gerry stated that BCC will not be meeting in April. He did want to note that Keith Smith was the primary author of the pension advice, which had a huge health and safety aspect. Gerry pointed out that this is how the committees should work together on these products. In terms of BCC's workplan, they will be taking a hard look at the River Corridor Contract and how it will relate to the baseline.

TPA Agency Updates

Ecology

John Price noted that the Board had a strategic look at the Groundwater Decision Logic. Ecology is currently taking a closer look at groundwater in the 100D area; because of spills there is historical groundwater contamination. They are currently treating the groundwater with both a redox barrier and the pump and treat method because there are salmon habitats nearby that could be affected. The problem is that the groundwater is flowing through a gap in the barrier. They have cut and capped water lines in the area to prevent leaks and further spread of contaminants and are pleased with the results. They are looking at removing the barrier and at other possible solutions and are also developing a sampling plan to find possible sources of the chromium. DOE has agreed to install additional pumping wells to address the gap in the barrier.

Max Power, Ecology, announced that the M-45 Change Package negotiations have been concluded. Roger Stanley is officially retired and Laura Cusack has taken his place.

Questions

Tim asked if this was considered a failure of the barrier. John responded that it was not considered a failure, but the barrier did not function at the level and for the length of time that DOE had originally anticipated.

Paige asked about actions to reclassify tank waste. Max stated that there are two parts to this. The first is that the Idaho courts have made a decision, which has since been appealed and is currently under review. However, no hearing has been set. Then, in the last session of Congress, DOE made an attempt to add language about this on to the energy bill. It wasn't passed, so that language has disappeared, but DOE is continuing to work on the issue through Congress.

EPA

Nick explained the EPA office is operating a little differently for now. They have taken on a lot of the responsibility for Idaho National Engineering and Environmental Laboratory (INEEL). With this added responsibility, the committees may see less EPA representation at meetings. Nick also let the Board know that, if they know anyone coming out of school, they are hiring. Currently less than 3% of their staff is under the age of 30.

EPA has noticed a big issue with transportation safety versus leaving waste on site. Nick would like to hear the Board's opinion on this, as this is a major public policy issue.

DOE-RL

There is on-going work to align DOE-RL and DOE-ORP's baselines. DOE-ORP has taken the initial draft of the Tank Closure EIS to DOE-HQ. They have come back with quite a few changes and they are running many different scenarios. They expect to take a new draft to DOE-HQ in July or August and have it out for public comment in September. Howard will keep the Board up to date on this, as the discussions with DOE-HQ are taking longer than originally planned. The new WTP RCRA permit ROD is due out March 31st. It will eliminate the technetium ion exchanger and reduce the melters to the 2x2 configuration.

Questions

Gerry asked why both DOE offices have rejected the Board's advice that there needs to be a public comment period before the adoption of baseline changes. Howard stated that he has reread the response and, the way he reads it, DOE agreed that the TPA should be included. The response was not a rejection in his view. He encouraged the Board to be patient and review the TPA language changes when they are released. The draft he reviewed does not eliminate public review or comment. Gerry stated that what the

Board is asking for is a set process for public review of the baselines. He would like to see this process incorporated into the TPA. Howard stated he does not think that this process needs to be part of the TPA, but DOE is working with the regulators to get that added to the new language. He also noted that they would appreciate more public focus on the baselines, rather than the budget, since the budget is determined by the baselines.

Board Business

The Board has received correspondence from the Office of Legacy Management.

Todd submitted the letter to the editor at the Tri-City Herald. They responded with a request for more information, and he has provided that. Hopefully something will be printed soon.

There is an SSAB chairs meeting on April 20 and 21. The next meeting will be in Richland in the fall. Shelley, Todd and Erik Olds, DOE-ORP, will be going. They will be meeting with Jessie Roberson and giving presentations about the top three topics the Board is dealing with and the Board's top three issues with RBES. The presentations will focus heavily on process.

Tim stated that the last public comment period of the day on Friday should be revised. If the Board is expecting people to show up for the public comment period then it is inconsiderate to leave the meeting before that time.

Self-evaluations from the February Board meeting

There is a page in the Board meeting packets that shows information from the self-evaluations from February's Board meeting. The facilitators got the highest number of returns on these forms.

Ken asked what the self-evaluations would be used for. Todd confirmed they are currently being used to draft the agenda for the leadership retreat.

June Board Meeting Topics

- Risk Assessment
- Leadership Retreat Results
- HSW-EIS Independent Review Panel
- Mass Balance Spreadsheet from TWC
- M-45 Change Package

Public Comment

Susan Leckband recused herself during the agenda item on Advice on Pension and Benefit Plans in New Hanford Contracts. She reminded the Board that, in 1995, there was a new contracting plan. At that time, thousands were dumped out of the employee trust funds of the future. That was the beginning of the slippery slope of legacy cost reduction. The work that is being performed at Hanford is high-risk work. It is not like working in the outside world. The workers accept the risks, but they should be compensated for accepting that risk.

Rick Jansons recused himself during the agenda item on Advice on Pension and Benefit Plans in New Hanford Contracts. He stated that as part of the integrated safety management team he knows that the site needs people who know what they are doing and what they are talking about. They are not making cookies; they are dealing with plutonium. He knows of two engineers who were laid off and then rehired into the same positions without pensions. They are no longer working at the site. A good example of how work can be delayed by a transient workforce is the sludge. It was done with interim workers and is

currently 23 months behind. If this proposal goes through, DOE will certainly start seeing more slipping of schedules.

Bob Parks recused himself during the agenda item on Advice on Pension and Benefit Plans in New Hanford Contracts. He wanted to know if it was President Bush pushing to take the benefits away or if it was someone else. Jeanie Schwier answered it cannot be attributed to any one person. Bob asked what they are cutting out of DOE employees' packages to help support this initiative. Howard replied that if you were comparing Hanford employee benefits to DOE employee benefits, you would see that Hanford employees have much better benefits already. Jeanie added Hanford employee benefits are 20% above the industry standard.

Robert Davis commented on RBES and risk analysis. One of the things that he has been wrestling with for years is the value of risk assessment. This is difficult because a value judgment must be made about risk. There are strengths to risk assessment, but the end outcome must be considered. Also, RBES may sound good today, but the end states may not play out as expected 25 years from now.

Bernice Mitchell stated that rules and ethics seem to absent from most DOE dealings. She asked if DOE was required to include comments from the Board. Todd responded that is part of the Board's charter, but the level of responsiveness may be a matter of opinion. Bernice stated that she has been battling with DOE over 3161 money and asked if the Board has commented on this. Todd said yes and offered to get her a copy of the advice. She asked what kind of power and influence does the Board have. Todd stated that the Board is purely a citizen's advisory board.

Rick Jansons congratulated the Board on the pension advice. He plans to relate this to the people on the site. He thinks the advice captured the importance of an experienced workforce.

Attendees

HAB Members and Alternates

Ken Bracken, Member	Gerry Pollet, Member	Susan Hughs, Alternate
Patrick Conley, Member	Keith Smith, Member	Rick Jansons, Alternate
Greg deBruler, Member	Leon Swenson, Member	Nancy Murray, Alternate
Norma Jean Germond	Margery Swint, Member	Maynard Plahuta, Alternate
Harold Heacock, Member	Betty Tabbutt, Member	Wade Riggsbee, Alternate
Doug Huston, Member	Tim Takaro, Member	Richard Smith, Alternate
Paige Knight, Member	Jim Trombold, Member	John Stanfill, Alternate
Pam Larsen, Member	Allyn Boldt, Alternate	Art Tackett, Alternate
Robert Larson, Member	Madeleine Brown, Alternate	Amber Waldref, Alternate
Susan Leckband, Member	Shelley Cimon, Alternate	Charles Weems, Alternate
Jeff Luke, Member	Norm Dyer, Alternate	Earl Fordham, Ex-officio
Todd Martin, Member	Gariann Gelston, Alternate	Debra McBaugh, Ex-officio
Bob Parks, Member	Rebecca Holland, Alternate	Jeff VanPelt, Ex-Officio

AGENCY, CONTRACTOR, AND SUPPORT STAFF

Jeff Frey, DOE-RL	Michael Gearheard, EPA	John Britton, BNI
Mary Goldie, DOE-RL	Michael Goldstein, EPA	Suzanne Heaston, BNI
Kevin Leary, DOE-RL		Dru Butler, CH2MHill
Matt McCormick, DOE-RL	Rick Bond, Ecology	Chuck Hedel, CH2MHill
John Morse, DOE-RL	Laura Cusack, Ecology	Tammie Holm, EnviroIssues

Larry Romine, DOE-RL	Brittney Drollinger, Ecology	Stacey Howery, EnviroIssues
Jeanie Schwier, DOE-RL	Dib Goswami, Ecology	Lynn Lefkoff, EnviroIssues
Yvonne Sherman, DOE-RL	Jane Hedges, Ecology	Penny Mabie, EnviroIssues
Ted Taylor, DOE-RL	Jeff Lyons, Ecology	Andrea Hopkins, Fluor Hanford
	Max Power, Ecology	Ron Jackson, Fluor Hanford
Howard Gnann, DOE-ORP	John Price, Ecology	Janice Williams, Fluor Hanford
Erik Olds, DOE-ORP	Ron Skinnerland, Ecology	Barb Wise, Fluor Hanford
Kevin Bazzell, DOE-RL	Mary Anne Wuennecke, Ecology	Kelly Brazil, Innovations - ORP
Delmar Noyes, DOE-ORP		Kim Ballinger, Nuvotec - ORP
		Sharon Braswell, Nuvotec - ORP
		Janice Parthree, PNNL
		Terri Traub, PNNL/DOE Reading Room
		Michael Priddy, WDOH

MEMBERS OF THE PUBLIC

Fran Berting, NNM CAB	Mark Freshley, PNNL	Gai Oglesbee, National Nuclear Victims for Justice
Jim Brannon, NNM CAB	Lori Gamache, Nuvotec	Merilyn Reeves
Annette Cary, Tri-City Herald	Katherine Guidy, NNM CAB	Doug Sherwood, Rivers Edge Environmental
Rico Cruz, CTUIR DOSE	Liz Hirsch, MACTEC	Skip Wood, MACTEC
Robert Davis, Public	Jim Knight, RCA/CDA	
Tim DeLong, NNM CAB	Bernice Mitchell, Public	