FINAL MEETING SUMMARY

HANFORD ADVISORY BOARD
November 6-7, 2003
Portland, OR

Topics in this Meeting Summary

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 three pieces of advice; one requesting the addition of a Tri-Party Agreement (TPA) milestone for a site-wide cumulative impact analysis, one addressing the M-24 groundwater well-drilling change package, and one addressing the risk-based end states variance document. The Board also adopted a letter requesting that the TPA Board Priorities list be updated with a new schedule and refined scope.

Board Business

At the Site Specific Advisory Board (SSAB) chairs meeting, DOE moved away from the requirement for the SSABs to incorporate under 501-3(c). Instead DOE issued guidance on how the SSABs are to be administered. The guidance requires DOE-RL to respond by April 2004, indicating which long-term option the Hanford Advisory Board plans to pursue and institue by October 2004.

Supplemental Treatment of Tank Wastes

A large portion of this meeting was devoted to better informing the Board about the Department of Energy – Office of River Protection's (DOE-ORP) plans for treating tank waste. DOE-ORP and the Washington State Department of Ecology (Ecology) presented the Board with information on M-62 milestones and schedule. The Board then participated in a poster session, where members received more in-depth information on the supplemental tank waste treatment technologies under consideration. After the poster session, the Board viewed several presentations on the decision process for supplemental technologies downselect.

Risk-Based End States

The Board reviewed a presentation from the Department of Energy – Richland (DOE-RL) regarding DOE-RL's response to DOE-Headquarters' (DOE-HQ) Risk-Based End States (RBES) guidance. The Board also received a draft of the RBES variance document produced by DOE-RL and heard regulator and alternative perspectives on the RBES process and products. After the presentations, Board members participated in a sounding board to express their perspectives on the RBES process and products.

Washington State Department of Ecology (Ecology)

The public comment period for the M-91 Change Package has been extended through the February Board meeting. The closure plan for tank C106 will be out for public comment on December 16th.

Ecology and DOE are currently in litigation regarding the state's authority to govern DOE's administration of TRU waste. Ecology expects a decision to be made in the summer or fall of 2004.

Environmental Protection Agency (EPA)

The contract for the river corridor has not been let yet, but the expansion of the Environmental Restoration Disposal Facility is well underway and shipments of containers continue to be sent over. The Interagency Management Integration Team workgroup charters are now available on the website. These workgroups are divided based on end states and each team is important in the decision making process for it's applicable area. Workgroup meetings are open to the public.

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

Retrieval of waste from tanks C106 and S112 have begun. DOE-ORP said they are very close to being done with interim stabilization. Construction of the waste treatment plant (WTP) is going well.

Department of Energy – Richland Office (DOE-RL)

The plutonium stabilization is going well, with two of the three waste forms currently stabilized and good progress on the third.

While the river corridor contract has not been awarded yet, DOE-RL is confident they are still on target for the 2012 milestone.

Work on a condensate crib in the K area has been accelerated in reaction to a spike in tritium and technetium in one of the groundwater wells. And DOE-RL is working diligently to ensure everything possible is being done to tend to the chromium plume in D area.

Draft Meeting Summary
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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. Ten Board seats were not represented: City of West Richland (Local Government), Benton County (Local Government), Franklin and Grant Counties (Local Government), Hanford Atomic Metal Trades Council (Hanford Work Force), Central Washington Building Trades (Hanford Work Force), Washington State University (University), CTUIR (ex-Officio), the Columbia Basin Audubon Society and Columbia River Conservation League (Local Environmental), Washington's League of Women Voters (Regional Environmental/Citizen), and Benton-Franklin Public Health (Local/Regional Public Health).

Welcome and Introductions

Todd Martin, Citizens for a Clean Eastern Washington, opened the meeting and welcomed all the participants. He introduced one new Hanford Advisory Board (Board) member: Nancy Murray, alternate for Norma Jean Germond, Public-at-Large.

Announcements

There will be a 10th Anniversary party for the HAB Thursday night at February's Board meeting. Susan Leckband is collecting photos or other memorabilia from past Board meetings for inclusion in a collage.

Joy Turner, Washington State Department of Ecology (Ecology), has taken a position with CH2M-Hill. This will be her last HAB meeting as a representative of Ecology.

Tim Takaro, University of Washington, announced that the United States Department of Energy (DOE) announced last week that it will be closing the Hanford former worker medical monitoring programs. Tim suggested that workers who have not had an exam yet do so quickly, before the programs' funds are expended.

Dick Belsey passed away on Thursday. He had been instrumental in setting up the Board and was a great energy and inspiration for many Board members.

September Meeting Summary

The Board approved the September meeting summary with the addition of comments from Leon Swenson, Public-at-Large.

Focus on Supplemental Tank Waste Treatment

Todd summarized why supplemental technologies for tank waste treatment are being considered. The driving Tri-Party Agreement (TPA) milestone is to complete pretreatment processing and vitrification of High Level Waste (HLW) and Low Activity Waste (LAW) tank wastes by 2028. In 1994-1995, the plan was to build three facilities to process tank waste. The then-planned LAW vitrification plant could process five times more waste than the currently planned facility. In 1996 privatization came about and the plan evolved into a two-phase plan. In each phase a pre-treatment plant, a LAW vitrification plant and a HLW vitrification plant would be built. Now, due to budgetary constraints, DOE is looking for another way to

reach the 2028 milestone without building the phase 2 buildings. The answer to this may be supplemental technologies.

Suzanne Dahl, Ecology, and Billie Mauss, U. S. Department of Energy Office of River Protection (DOE-ORP), presented a comparison of the TPA milestones and how supplemental technologies will work within the milestones. Waste sitting in the tanks is HLW. The wastes cannot be distinguished as LAW until after pre-treatment. Under the current plan, the Waste Treatment Plant (WTP) would treat three tons/day of HLW and 15 tons/day of LAW when running at full capacity. If the WTP is not operating at full capacity until the current milestone of 2018, then the 2028 milestone will not be met. The new plan sets the milestone for operating at full capacity to 2011 and includes milestones for possible selection and implementation of new technologies for LAW treatment, to supplement the WTP vitrification. One of the benefits of accelerating the full capacity milestone to 2011 is that, depending on which option is selected, the capacity of only four more WTP melters would be needed to meet the 2028 milestone. If the milestone is left at 2018, then the capacity of 12 – 15 melters will be needed.

The criteria for acceptable supplemental treatment technology are:
- A waste form that performs as well as WTP glass
- Be protective of human health and the environment
- Be doable (cost, construction, etc.)

It is essential for a supplemental treatment technology to be "as good as glass" for several reasons: Ecology agreed to a 5-year delay (which became a 10-year delay) in tank waste treatment in exchange for a better LAW waste form, based on the promise of LAW glass. This delay resulted in all three TPA agencies committing to vitrification for HLW and LAW in the TPA. Also, glass is a very protective and stable waste form, which is especially important for the LAW, as it comprises 90% of the volume of waste that will be disposed of in the near surface.

Questions

Paige Knight, Hanford Watch of Oregon, asked if it is true that DOE is planning to have the supplemental technology operational before the LAW vitrification plant and how will the the LAW vitrification plant and the supplemental technologies work together? Billie replied that the current plan is to have both up and running in the same time frame, 2011. The supplemental technology will be supporting the second HLW melter.

Jim Trombold, Physicians for Social Responsibility, commented that if the supplemental technologies don't turn out to be "as good as glass", it seems the public would prefer to forsake the 2028 milestone in favor of glass or something that is as good. Suzanne pointed out that, if the supplemental technologies are not as good as glass, there is still have the option to build a second LAW vitrification plant and still meet the 2028 milestone.

Poster Session on Virtification and Supplemental Technologies

Four stations, representing each of the tank waste treatment technologies, were set up around the room. Participants were given 10 minutes at each station to speak with the presenter and ask questions. The stations and their presenters are listed below.

- Bulk Vitrification presented by Bryan Kidder, CHG
- Steam Reforming presented by Duane Schmoker, WGI, Thor
- Cast Stone presented by Rick Raymond, CHG
- LAW Vitrification presented by Billie Mauss, DOE-ORP

Decision Process for Supplemental Technologies Downselect

The Decision Process
Rick Raymond, CH2M-Hill Hanford Group (CHG), reviewed the process that is being undertaken to determine which, if any, of the supplemental technologies qualifies as "as good as glass". The goal of supplemental technology testing is to provide information which, with information from other sources, will support a decision in calendar year 2005 on the best technology to be deployed to support the 2028 milestone. Three technologies, Bulk Vitrification (BV), Steam Reforming (SR), and Cast Stone (CS), were selected for initial evaluation and compared for performance on a number of measures. The review panel's consensus is as follows:

- Safety, schedule, cost, operability and system impacts are not discriminators for a selection for further testing at this time.

- Secondary waste is an issue that must be resolved for all thermal waste forms, including WTP glass.

- BV and SR are potentially comparable in performance to WTP glass.

    - SR must resolve issues with intruder performance and questions resulting from limited test data
    - BV must resolve issues with Technetium salt

- The current formulation of grout (CS) does not meet environmental standards if used to treat more than 30% of the LAW. As a result, the grout waste form performance is not comparable to WTP glass.

- Iodine in the secondary waste from BV, SR and WTP glass exceeds Maximum Contaminant Levels (MCL).

The next step will be further evaluation including a pilot scale demonstration on actual tank waste to be carried out on one of the two thermal technologies (BV or SR), depending on the evaluation of the proposals resulting from the RFPs issue in October. Information from this testing and demonstration will be submitted to DOE and Ecology by January 31, 2005 to be used as specified in the TPA to support a decision on the Balance of Mission for treatment of tank waste.

Alternate Perspective
Al Boldt, Government Accountability Project, reviewed the document on performance assessment. This document was originally prepared using 25% of the LAW for each of the waste forms. Al recast the data using 75% of the waste being treated with each of the supplemental waste forms and the other 25% being treated with WTP glass. He used the same MCL standards as used in the original document for contaminants technetium-99 (Tc-99) and iodine-129 (I-129). His conclusions are as follows:

- CS has the highest peak groundwater impacts, which are driven by the inventory and the use of an upper limit for the effective diffusion coefficient.

- Groundwater impacts from the disposal of secondary waste created from thermal processes (BV, SR, and WTP glass) will be higher than from the products themselves.

- The results of the initial risk assessment indicate that the thermal processes result in groundwater concentrations of I-129 approximately 20 times the MCL.

- The BV and SR waste forms may result in groundwater concentrations of Tc-99 several times the MCL.

Al went on to suggest that the Board consider deferring any advice on the secondary waste issue until they can review the proposed DOE resolution. Al also suggested that the Board consider advising DOE to initiate an engineering evaluation of a backup technology to the BV and SR technologies, for inclusion in

the January 2005 evaluation report. The backup technology would include installing the third LAW melter in the existing WTP and utilizing alternative glass formulations, as proposed by Dr. Delbert Day of the University of Missouri.

Introduction of Advice
Doug Houston, Oregon Department of Energy / Water Resources, stated that the Tank Waste Committee (TWC) had been preparing advice on the supplemental technologies. The advice is not ready yet, but a draft copy was distributed as a reference for Gerry Pollet's presentation.

Gerry Pollet, Heart of America Northwest, briefly reviewed the reasons why the TWC is considering issuing this advice. The first question concerns the basis of DOE's claim that alternatives to vitrification will save $20 billion. The alternatives to vitrification include renaming trans-uranic waste (TRU) and low level waste (LLW) for shipment to the Waste Isolation Pilot Plant (WIPP) in New Mexico, as well as the supplemental technologies: Steam Reforming, Bulk Vitrification and Grout. Gerry pointed out that DOE should not rely on shipping waste to New Mexico without treatment, as they are sure to push back. The state of Washington should be communicating with the state of New Mexico regarding what and how much they plan to ship. Another question is the basis of the cost comparison, which appears to contrast what they will save versus the cost of the 1995 plan to build Phase I then tear it down and build Phase II. This does not seem like an appropriate comparison.

The committee's biggest concern is that DOE is abandoning the most reliable and cost effective way to treat the waste, which is to include the capacity for a third melter in the WTP currently under construction, as proposed in the initial plans. The third melter would greatly increase capacity through 2018 and then also reduce the ultimate cost for the Phase II plant. Gerry suggested that the third melter should be dropped only if:

- The alternative will perform as well or better than glass, including for byproduct and secondary waste streams

- The alternative has demonstrated a reliability to give as high a degree of assurance that it can be utilized, permitted and treat a similar amount of waste as a third melter

- The marginal cost to construct and treat waste utilizing the alternative approach can reliably be projected to be lower for 15 metric tons/day capacity than having the third melter

Discussion / Questions

Leon Swenson, Public-at-Large, commented that it seems that the impacts of the secondary waste streams have been underestimated when looking at costs. He asked if a realistic estimate of the cost of dealing with the secondary wastes has been included in the overall estimate. Rick Raymond responded that the overall cost includes all items except the treatment of iodide waste, but that is not expected to have much of an impact on overall cost, as iodide waste comprises a relatively small percentage of overall waste.

Greg DeBruler, suggested building the plant to test BV and ship some raw tank waste to the existing SR plant in Tennessee, in order to test both technologies at once. He also likes the idea of further testing of the iron phosphate glass. Rick replied that they are considering utilizing the Tennessee facility, but some modifications may need to be made in order to process Hanford tank waste. The other objection would be the unsettling idea of shipping liquid high-level waste across United States highways.

Keith Smith, Public-at-Large, asked DOE representatives if it is fair to say that the cost comparisons are being made against a process that has been discontinued. Greg Jones, DOE-ORP, responded that, yes, DOE is using the 1995 costs as part of their comparison, but DOE is aware that it is not a direct comparison and that they are working with a different baseline. Keith observed that there will probably not be as much time to evaluate the performance of the supplemental technologies as there was to evaluate the performance of glass; how can DOE be sure that the supplemental technology is really "as good as glass"? Rick replied

that, while DOE may be somewhat less confident in a supplemental technology, if testing is successful, then lack of confidence will probably not stop DOE from going forward.

Al Conklin, WA State Department of Health (Health), commented that DOE-ORP is building a plant that is permitted for 3 melters and 850 tons a year, but when he asked why DOE is not putting in the third melter he was told it was because the equipment wouldn't support it. He is concerned that Health has permitted a plant that in its current state of design is not equipped to operate as permitted. Suzanne responded that the next modification from Ecology would be for a plant with two melters, with space reserved for the third melter bay and the support equipment. The permits from both Ecology and Health are currently the same and both will change next year to reflect two melters.

Gerry wanted to point out that DOE is planning on proceeding with a supplemental analysis rather than an Environmental Impact Statement (EIS). He advised them not to do that. Not having an EIS means that decisions will be made without full public review and consideration of impacts. It is vital for DOE-ORP to commit to waiting for the full EIS and full public review. He asked DOE if it would commit to postponing the supplemental analysis until the EIS is complete. Greg Jones replied that DOE-ORP wants to prove to National Environmental Policy Act (NEPA) compliance officers, the attorneys, and Ecology that the process works. He does not feel it is a hidden process, as there has been one public meeting and there will be two more. If it can be proven that the waste in question is TRU (as lineage suggests), then it should go to WIPP. DOE-ORP is working to prove this to meet a shipping schedule and a window at WIPP. Todd stated that the Board did recommend to DOE-ORP that it analyze what level of NEPA review is needed and DOE-ORP's response was that they were good to go. Todd suggested that Gerry is recommending that the Board send a piece of advice stating the Board's disagreement with DOE-ORP's analysis and suggestions that this should be fully vetted through an EIS process. Gerry agreed and pointed out that, while the impacts have been bounded, the full proposal with public comment has never been considered, as is done in an EIS. Suzanne Dahl responded that DOE-ORP has shared a supplemental analysis draft with Ecology and Ecology is currently analyzing how it meets the State Environmental Policy Act (SEPA) requirements. Ecology is concerned that the supplemental analysis may be a segmented action, as the tank closure EIS is currently ongoing. Ecology is also concerned how an accident scenario with this material, now to be managed as TRU waste, might be bounded by the EIS. The supplemental analysis will not go out to public comment unless DOE-ORP issues it, but DOE-ORP and Ecology did issue the Notice of Intent of a part A for public comment. Other public comments will be possible when DOE issues the draft permit application and when Ecology issues a draft permit. Ecology has made a commitment to not issue a permit to public comment until the issue of HLW versus TRU waste is resolved.

Gerry also commented that there is no excuse for modifying the permits for the WTP until DOE can prove that something is more reliable and has a lower marginal cost than WTP glass. It seems to be most logical to have the leeway that a third melter would afford. He asked that Ecology and Health discuss with the Board how they will dialogue on this issue. Suzanne responded that the third bay is being left empty because if both LAW melters produce 15 metric tons/day as expected, then the rest of the supporting equipment in the plant is at or beyond peak performance for mechanical handling and heat load issues. This means that the rest of the machine could not handle the output of the third melter. Leaving the third bay empty provides an option for increasing throughput in case the first two melters aren't producing the 15 tons/day.

Tim Takaro, expressed his concern about the fate of the secondary waste stream, particularly Iodine-129, and will we know by January 2005? Rick responded that testing will be conducted to answer that and if no answers are found, then DOE-ORP will tell the Board that. Tim also asked how close the simulated waste used in the SA is to actual Hanford tank waste. Rick replied that was one of the concerns with SR, as it was the only technology that was not tested with real tank waste. The vendors do plan to retest SR with real tank waste before the January 2005 deadline.

Jim pointed out that the standard of the TPA is that the product be as good as vitrification and not be based on cost. He feels that the supplemental technology is a long-term investment and wants to be sure that decisions are being based on the stability of the product and not just the 2028 milestone. Suzanne responded that vitrification, or an equivalent, is the priority. The milestone is secondary and cost is the way

to get to both of those. A cost comparison has been included in the draft tank closure EIS at Ecology's request. It isn't the supplemental technology that saves the most money, but rather the ability to run both Phase I and Phase II concurrently.

Susan Leckband commented that the Board has issued advice on the third melter in the past. She would like to know if the construction of the third melter will work if the supplemental technologies don't pan out. What is the back up plan? Will supplemental technology be used even if the products aren't quite "as good as glass"? Greg Jones replied that if the supplemental technologies don't work out, the third melter still won't make the 2028 milestone. Another WTP, with 3-5 melters, will have to be built.

Maynard Plahuta, City of Richland, asked for confirmation that there is going to be another downselect of the supplemental technologies by the end of the year to select the one to be used in the pilot plant. Rick confirmed this is expected to happen before the end of the year. There was agreement from several Board members that at least two of the supplemental technologies should undergo further testing to avoid limiting possible options in the future and to be sure the secondary waste stream is fully understood.

Suzanne reassured the Board that the January 2005 date was selected based on when DOE thinks it will have enough information to determine if one or more supplemental technologies is as good as glass. If the data are insufficient, then Ecology will not accept the technology and DOE will have to collect sufficient data. Ecology also reserves the right to say that DOE is not meeting its baseline and suggest building the second WTP.

The advice on both the supplemental analysis and TRU waste will be taken up by the committee.

Draft Advice: Site-wide Cumulative Impact Analysis

Gerry introduced advice requesting that a site-wide cumulative impact analysis relative to the Hanford Solid Waste EIS and decisions to add waste from offsite be added as a TPA milestone.

Beth Bilson, DOE-RL, stated that it seems the point of this advice is that the Board feels that if there isn't a TPA milestone for advice, it will not occur. She assured the Board that a cumulative impact analysis will occur on the way to the final Record of Decision. Gerry pointed out that this advice is asking for an acceleration of the cumulative impact analysis, so that it will occur in 2008, rather than after it is too late to do anything about it.

The advice was adopted.

Draft Advice: M-24 Groundwater Well-Drilling Change Package

Mike Thompson, DOE-RL, presented an overview of the M-24 Change Package. Mike stated that the purpose of the change package is to be sure Hanford is not only meeting Resource Conservation and Recovery Act (RCRA) standards, but also Comprehensive Environmental Restoration Compensation and Liability Act (CERCLA) standards. There is agreement that the clean up and monitoring needs to be compliant across all applicable requirements, not just RCRA. Lately there have been very few wells put in to monitor existing plumes, yet these wells are how compliance is measured. DOE has identified 70 wells that will need to be installed, in order to maintain compliance and safety on site. DOE does recognize that there are more wells that will need to be installed, but based on the current analysis about 15 wells per year need to be installed. Jane Hedges, Ecology, stated that Ecology did feel that this is a good starting place for bringing CERCLA compliance into the site cleanup process. Jane pointed out that the agencies are aware that this will continue to be an iterative process. The current process looks 3 years into the future to anticipate wells that will be needed as well as reviewing the current drilling plan, to be sure it is still viable and applicable. This is intended to be an ongoing process, not just limited to the next 4 years.

Gerry introduced the advice from the River and Plateau Committee. The advice states that the Board has repeatedly advised DOE that it needs more wells. And while the proposed new milestone increases the maximum wells per year to 50, a major concern is that if there weren't enough wells being drilled

previously, how will this new maximum help change that? The committee is also concerned that the LAW burial grounds do not have an adequate and compliant network. The burial grounds should not be further utilized until the monitoring network has been upgraded and the closure of the tanks should hinge on an adequate groundwater monitoring system. More than half of the current groundwater wells around the LAW burial grounds are dry because of shifts in the groundwater. The committee has identified over 100 new wells that need to be drilled in the Low Level Burial Ground, as well as many more near tanks and the 100 N reactor area.

Dirk Dunning, State of Oregon (Oregon Department of Energy / Oregon Department of Water Resources), added that the reason for the 50 wells per year limit was cost. The possible total number of wells that might be needed was not considered at that time. The agency did hear from elsewhere that many more wells would be needed for compliance, but M-91 milestones don't show the plan or roadmap for getting these wells installed and then maintaining them.

Discussion / Questions

Leon Swenson asked for clarification on the 60 wells mentioned in the change package versus the hundreds of wells that Gerry mentioned. Jane responded that Ecology looked at the application and informed DOE-RL that the information was insufficient, and that, in the worst-case scenario, 120 new wells will be needed. The 60 wells indicated in the change package represent the absolute minimum number of wells needed. Ecology does recognize that there are wells that are dry and that the groundwater flow pattern is unclear, but vadose zone characterization may be a more practical way to determine the nature of the problem, once the TRU waste is removed. Gerry replied, Ecology's explanation was oversimplified, as the regulations are fairly specific regarding where wells are needed. If the wells are dry, then there are no data to support the reduction of the number of needed wells. Gerry suggested that ultimately both vadose zone characterization and wells are needed to correctly determine where and how groundwater and possible leachate are moving. Mike commented that groundwater monitoring wells are not good measures of leak detection, because by the time you see a leak the groundwater has already been affected.

Dennis Faulk, EPA, stated that it is ultimately a funding issue, as he would build as many wells as he has funding for.

Wade Riggsbee, Tribal Government (Yakama Nation), stated that knowing the need for groundwater monitoring is continuous. The vadose zone should be the focus of investigations, since it is not fully understood. Dirk replied that addressing the vadose zone is difficult. An issue of concern is DOE's focus on Risk-Based End States (RBES), as not enough is understood about the vadose zone to accurately estimate the risk in the vadose zone. Dirk suggested that more wells are needed in order to identify what a complete monitoring network should look like and where it would be located. Observing that characterization of the vadose zone is not part of the M-24 Change Package, he also urged the Board to consider adding it to the advice.

Greg DeBruler, requested that the advice include the soil column as a new piece to the change package. He would also like the advice to focus the regulators on the fact that this needs to include both short and long term stewardship.

Todd summarized the discussion by stating that the main impact of the advice should be to ask the agencies to define what a fully compliant network is and then get Hanford to that point in a very short period of time.

Dennis stated that he hopes the advice will show how important groundwater is to both the regulators and the public. He anticipates the advice resulting in a clearer definition of a compliant network. He also said that between 67 and 100 wells is the number of maximum new wells needed for RCRA compliance. Dennis noted that the regulators (EPA and Ecology) did put the language in to the change package indicating that the milestone is not complete with the 67 wells and that the regulators are the ones who will determine when the milestone is completed.

The advice was adopted.

Risk-Based End States Focus

Mike Thompson, DOE-RL, reviewed the history of Risk- Based End States (RBES). DOE looked at the life cycle cost of clean up and decided that it was taking too long and cost too much, so it initiated a top to bottom review and asked DOE-RL and DOE-ORP to consider RBES for the site in order to better manage clean up across sites and across the country. The final RBES variance document should be available in January 2004. The draft document has been finalized and shipped to DOE-HQ. Copies are available and DOE will be taking comments on the draft through the end of December. Comments can be sent to rbes@rl.gov or via mail.

The policy directs the sites to review clean up agreements and strategies and verify that the decisions were made based on the land use plan and the acceptable level of risk associated with it. The acceptable levels of risk are based on three things:

- The Comprehensive Land Use Plan (CLUP)
- Presidential Order that started the National Monument of the Hanford Reach
- NEPA Regulations

The document ultimately recommends to not change any of the cleanup agreements from the TPA. DOE-ORP stated that it didn't find any variances and DOE-RL recommended that, while it did find variances, it did not recommend any changes to the TPA. DOE-RL broke the site up into the 100, 200, and 300 areas. The overall cleanup strategy will be to consolidate waste from around the river and manage it at the 200 Area plateau, thereby enabling easier stewardship and monitoring. In the 100 and 300 areas, cleanup was a question of how much soil needs to be excavated to reach the vision of the CLUP. DOE-RL was able to justify continuing excavation activities and to continue with the final risk assessment. It is important to note that DOE does not have the final risk assessments yet. The final 25% of the work on the baseline will be completed by the time the changes to the final Record of Decision (ROD) are complete. Mike stated that he believes the cost of the characterization that would be needed to leave these burial grounds in place, along with the increased cost of long-term stewardship, would exceed the cost of moving the waste to the 200 Area. Tribal use scenarios are addressed in the document. DOE will be including copies of relevant advice in the documents appendix, so it would be useful to include tribal advice as well. Mike has also committed to working with the regulatory agencies to outline a path to the final ROD and how that will be reached, including the public involvement steps.

Regulator Perspectives

John Price, Ecology, feels Hanford has been using the Risk-Based End States model for the last decade. He pointed out that there are not currently any set points of compliance with regard to ground-water.

Dennis Faulk, EPA, stated that he does not feel that the RBES variance document was aimed at Hanford. The site should wait and see how DOE-HQ responds to the document.

Alternative Perspective

Greg DeBruler, presented the Board with an alternative perspective on the RBES variance document. The document inspired the following questions:

- The document states that the 300 Area groundwater is not useable for the foreseeable future; how long are they predicting future use to be, and how will they prevent future generations from using the groundwater for consumptive purposes?
- How will DOE ensure future uses of the land?
- How will DOE determine what an acceptable level of risk is?

- How can the water be labeled unclean and yet the Native Americans are able to continue using the resources along the river?

Greg would like to see the actual End State vision and a timeline of what it will take to get there, including each step of public involvement.

Questions

Paige Knight, Hanford Watch of Oregon Regional (Environmental/Citizen), asked if unlimited surface use is the same as unrestricted. Mike replied that unlimited surface use means that people can walk around on the surface for unrestricted periods of time, but not use the water.

Dirk commented that it looks like there has been a lot of improvement to the document since it was presented to the River and Plateau Committee. Dirk feels that deviations from the model, such as contaminants from the tanks being driven to the water unexpectedly, should be considered a variance and included in the variance document. The actual risk must be known before RBES is useful.

Risk-Based End States Sounding Board

Each seat was given three minutes to discuss their viewpoint on the RBES guidance from DOE-HQ, the RBES variance document, and what they think the end states should look like.

Maynard Plahuta, City of Richland (Local Government), stated that his main priority is to have the opportunity to review the variance document, prior to making a judgment on what is acceptable.

Leon Swenson, Public-at-Large, wants to see a quantitative assessment of the end states. He has heard that the current TPA is risk-based, but feels that, if this is true, it must be based on qualitative assessments of risk. He would like to see some assessments of risks where the probability of occurrence and the environmental impact are presented in a way that clearly shows what the end state will look like. He would like this to be done in a way that is open for peer review and input.

Greg DeBruler, Columbia River Keeper (Regional Environmental/Citizen), stated that his first concern is that there hasn't been a lot of opportunity for public involvement up to this point. Now that the document is ready, he would like to see a schedule for what the document will mean when applied to Hanford. The schedule should address what the possible risks are and give a quantitative assessment as part of the answer. He is also concerned that what is acceptable as low dose radiation today may not be acceptable in the future. The risk assessment should take into account that the land may not always look the way it does now; the river may flood or the dams may not always be there.

Keith Smith, Public-at-Large, thinks we need to understand the risks better and a quantitative assessment of the risks would further increase the level of understanding. It is not possible to reach zero risk, as the environment was never at zero risk, even before there were facilities like Hanford.

Paige Knight, Hanford Watch of Oregon (Regional Environmental/Citizen), said that she feels that it is probable that this is an instance where people may be hurt due to lax standards or accidents, due to poor planning. It is not possible to know what will happen with the things that are left in the environment. It is of extreme importance to protect our future generations and be good stewards to the earth.

Martin Yanez, Public-at-Large, commented that over a year ago he participated in a demonstration at Yucca Mountain. He feels that the Board must maintain its awareness of how what is left in the earth will affect the future generations. Rather than advising, the Board should have the power to set policy. He has also heard that the government is thinking of going back to nuclear testing in the United States. Martin commented that the Board should make an effort to contact the Latino farm workers who have been affected.

Norma Jean Germond, Public-at-Large, stated that she can appreciate the idea of risk-based, but the end states term worries her. She feels that the end states have been the concern all along and that the end state must be safe and free from harm for people, animals, etc. The end state must be safe enough that people can thrive in the area and the groundwater needs to be clean for future generations.

Bob Parks, City of Kennewick (Local Government), said that the cleanup must be done in an effective manner. While faster, cheaper and better are all good things, the cleanup must also be safer. He finds it hard to imagine the 100 N or F areas ever being safe enough for people to inhabit.

Susan Leckband, Non-Union, Non-Management Employees (Hanford Work Force), stated that to define an end state based on risk would be almost utopian. If the risk were zero, then the end state would be perfect. It is clear from the document that the real answer will not be quite that tidy. She would like to request that the TPA, and the rigor that it stands for, not be discarded for what may be a fad. For Susan, Risk-Based End States is the right amount of rigor for the long haul.

David Watrous, TRIDEC (Local Business), noted that it is not possible to reach zero risk and what level of risk is acceptable depends on the individual. For each individual, what is acceptable can also be based on whether it is a risk the individual willingly undertook, or if it was a risk imposed on the individual from outside. He would also like to see the 300 Area cleaned up for unlimited use, as cost is not too high. Ultimately, RBES must be fused with stewardship of the land and Dave hopes that the final document does this.

Dirk Dunning, Oregon Department of Energy/Oregon Dept. of Water Resources (State of Oregon), pointed out that everyone has not had very much time to review the document and that risk is not the only way to think about clean up. It seems that everyone involved in nuclear clean up is constantly asking, "How clean is clean?" In the end, it requires a certain level of understanding about contaminants and how they move. Uncertainty dominates the conceptual models and things are always moving in ways they don't in the conceptual models. Nature always puts things where we don't expect it. The RBES guidance seems to be inverting things from the national environmental laws. The laws focus on cleanup, while the guidance focuses on how little can be done and still leave the land usable.

Al Boldt, Government Accountability Project (Hanford Work Force), stated that overall he is uneasy with the RBES concept. If the risk is acceptable as long as no one uses the ground water, then how safe is it really? What is the risk of someone using the groundwater? What are the risks of not following the administrative directives? Al pointed out that the land along the river was prime farmland and the farmers were evicted. In a hundred years, there will certainly be people who want that land for agricultural or residential use. An example of a previous failure of national administrative controls is Love Canal, where the administrative controls failed in just 30 years.

Wanda Munn, Benton-Franklin Regional Council (Local Government), cautioned the Board not to get caught up in their own personal views on right and risk losing site of what is safe. Each individual needs to be responsible for their own actions and aware of their own personal acceptable level of risk. If the acceptable amount of risk can be determined, then each individual could decide whether it is acceptable to them.

Norm Dyer, Oregon Hanford Cleanup Board (State of Oregon), said that in order for cleanup to be successful, the end state must be defined, so that it is clear when the mission has been accomplished. He feels that RBES is the way to get there. One thing that Oregon is concerned with is what gets into the river and where it goes from there. He feels that the RBES guidance does not necessarily address this issue.

Tim Takaro, University of Washington (University), stated that, while the U.S. government has passed the funding of new nuclear weapons development, it has become apparent the RBES is probably the best that can be done, in terms of clean up. If RBES is the best that can be done, Tim would like to see the process transparent and understandable to the general public. Tim does not feel that the current administration has any interest in keeping the process transparent, as that would discover how great the problems are and how difficult it will be to reach an end state that is acceptable to everyone.

Tim addressed the notion of individuals accepting risk. There were many people living in that area before Hanford came along. It is the government who messes it up and therefore it is the government's responsibility to give them a better choice than to take it or not.

Jim Trombold, Physicians for Social Responsibility (Local/Regional Public Health), said that the risk, as it is now and as it will be in the future, was imposed on the citizens by the government. It is as of little concern to future generations as is the decision to smoke or how fast to drive. Jim agrees with previous statements and wants to point out that RBES may be the new "flavor of the day" but the TPA has lasted this long and is still a solid anchor. He suggested that good reasons must be presented in order to justify deviation from the TPA. Jim stated that he heard that the government spent about $5.5 trillion in the 1960's to produce this legacy. It only seems right that the government would clean up the legacy. It is difficult to demonstrate what type of health problems came about from these things, but the government is obligated to give that amount from the amount used to create the mess.

Amber Waldref, Heart of America NW (Regional Environmental/Citizen), stated that it is more reasonable to assume that prime riverside property will be used than to expect that people will not want to use it in the future. She cautioned the Board to be aware and to articulate their thoughts and values on this issue, as the public involvement aspect should not be just an addendum to the process. The Board has stated that the groundwater needs to be cleaned up and that issue should continue as a Board priority. Decisions have not been finalized regarding the 200 Area and the possible future uses of the monument. It seems premature to discuss RBES when the end state is unknown.

Harold Heacock, TRIDEC (Local Business), responded to Amber regarding the Hanford Reach National Monument status. The Fish and Wildlife Service are administering the lands in areas north and west of 240 and a ¼ mile of the south bank of the river as a national wildlife refuge. This is significant, as the Fish and Wildlife Service policy does not allow management of radioactive land and does not allow residential development on refuge properties. The Hanford Reach advisory board is working to develop the Environmental Impact Statement (EIS), which will provide the management plan for the monument. This will help determine what the land will be used for.

Todd Martin, Citizens for a Clean Eastern Washington (Regional Environmental/Citizen), stated that, in preparation for this advice, he researched all past Board advice pertaining to any type of risk-based discussion. In his research he found that the both DOE and the Board have been making every effort to apply risk to the Hanford cleanup. In looking at the advice and responses to the advice, it looks like DOE and the Board are saying the same thing, however, both are vehemently opposed to each other and this is based on differing views on acceptable risk. Todd believes this RBES effort is a DOE-HQ exercise and the way to make this exercise successful is to appease DOE-HQ, so that the Board can get back to the work that must be done at Hanford. At best, this exercise is an effort at developing land use planning capability, risk assessment capability, and disciplined decision making processes at sites that don't have them. At the chairs meeting there were presentations where there were disclaimers for Hanford and several other sites that already have these capabilities. At worst, it is an effort by DOE-HQ to subvert environmental laws and ultimately do less clean up. Either way, DOE RL and ORP are supporting the TPA in this effort and that is a good thing.

Agency Perspective

Beth Bilson, DOE-RL, stated that her goal is to get done with the cleanup and the way to get it done cheaper is to just go ahead and do it. But the first step is figuring out what you are doing or you won't know how to start or when you are finished. Defining cleanup is the essence of the RBES Policy. The 100 and 300 Area variances are a result of moving ahead with the risk assessment and final RODs. DOE will have schedules and will get into a Data Quality Objective (DQO) in the risk assessment this year. Beth said she feels good about where this policy is going but that it is incumbent on the Board to be sure that the policies are utilized to get to the correct end point.

Greg Jones, DOE-ORP, stated that he sees the variance document as a commitment between DOE-RL and DOE-ORP to the TPA. DOE-ORP believes that the TPA is the driver, that it is risk based and that it is the way to best complete the cleanup.

Greg commented that administrative controls will require further discussion. Risk and acceptable levels of risk are different for each person. The future sites uses working group's document should also be considered, as it would be fundamental to defining the end states. Greg also pointed out that while DOE is a government agency, it is composed of people who live and work in the community and, with that, he hopes that the Board will have faith that DOE will do the right thing.

Dennis Faulk, EPA, summarized the three main points of importance expressed during the sounding board. First was safety. He wants to leave the site safe for animals and humans. Second, uncertainty is difficult, partly because people have different views of uncertainty. And third, the agencies are employed by the people and the people have established the working values for 15 years. Dennis thinks the cleanup, as it is currently being executed, is on a path consistent with what the people of the northwest want, and that should be part of the lead-in of this document.

John Price, Ecology, said this document identifies likely outcomes for the groundwater. A lot of the groundwater will remain contaminated for a very long time. However, it is the job of the regulators to ensure DOE uses a rigorous process to prove that it can't cleanup the water. There seems to be a progressive relaxation of the requirements, but the regulators are not going to jump to the most relaxed requirements.

Mike Thompson, DOE-RL, stated that the policy instructs DOE-RL to submit a final document to DOE-HQ by the end of January. Obviously, many of the issues raised during the sounding board cannot be addressed before that deadline. Many of these issues will be addressed by the CERCLA process, on the way to the final RODs. There has not been a blueprint for Hanford's end state since 1989. It would be good to develop the blueprint for the end state as fast as possible. Hopefully, this document will help accomplish that.

Mike would like to keep the progress of this document visible. He intends to share the comments he receives from DOE-HQ and he will work with Todd to determine the best way to do this. Comments will be welcome via the web site, email or mailing address.

Draft Advice: Risk-Based End States

Todd introduced the Risk-Based End States advice. Although the Board has not had much time to review the variance document, it is important to go on the record defending the cleanup at Hanford. Todd clarified that one point of the advice is to acknowledge that while the compilers of the variance document have done their best, the process did not provide adequate time or opportunity for stakeholder involvement.

Susan Leckband described the three primary issues that the advice addresses: process, decisions based on land use and groundwater. Process wise, the Board was invited to participate in the Interagency Management Team (IAMIT) team building sessions, but when it came to really developing the draft document, the public and the Board were not included. It is important to have the opportunity to help in the development of the draft. The advice makes it clear that there should be more Board and public involvement in the completion of the final document.

In regards to land use, the River and Plateau (RAP) committee wanted to reiterate that Hanford has a risk-based document (the TPA), supported by the Board and the regulators. The RBES guidance requires sites to identify the divergence between Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) RODs and Comprehensive Land Use Plans (CLUP). The interim RODs in Hanford's 100 Area currently assume a resident farmer scenario (will not use groundwater) where the Hanford CLUP assumes no residents in the 100 Areas. The Board remains supportive of the existing CERCLA RODs for the 100 Area instead of the CLUP

There is a general consensus that groundwater will not be addressed as part of RBES and that DOE thinks it is OK to leave groundwater unmitigated. RAP wanted the advice to make it clear that not mitigating the groundwater is not acceptable. The overall message of the advice should be that Hanford has a risk-based document already, with a few exceptions, and the stakeholders are happy with it.

Discussion / Questions

Dirk suggested the advice refer to the future site uses working group's work on the end states in the central plateau and elsewhere. It might be useful to review past site efforts that were working towards this goal, and finish them if applicable. It was agreed that this should be included in the advice.

Jeff suggested that the heart of the advice is the public process portion. Removing the sections on tank retrieval and closure might make the advice stronger. It was agreed that this should be removed for the next revision.

Susan Leckband suggested that, rather than quoting previous advice, it would be advisable to cite the advice numbers and include the citations as an attachment. The Board agreed this is a good idea.

Leon stated that he wants the document to clearly state that RBES is only one part of the strategic cleanup process. There was general Board and regulator agreement on this point.

Martin Yanez suggested that, if there are public meetings scheduled in the Latino community, there should be materials printed in Spanish. Todd agreed and commented that including communities previously not targeted may be a stand-alone piece of advice.

The advice was adopted.

Response Letter Regarding Issues to be Addressed by the Board

Todd informed the Board that in the Public Involvement Committee (PIC) meeting Wednesday, there was a discussion with the TPA agencies about the list of issues that the Board received from the agencies about issues they would like the Board to address. The agencies acknowledged that the list may not be as specific as it could be and that the list does not outline how DOE will go about stakeholder and public involvement. The letter Todd has drafted will request that the agencies update the list with a new schedule and refined scope, where available, and a plan for engagement of both stakeholders and the public for each item on the list.

Susan Hughs, Oregon Department of Energy / Oregon Department of Water Resources (State of Oregon), elaborated that the idea is to build on the letter that was already sent, using the same items and asking for clarification on the public process that will be used on each of these items, as well as reminding DOE that the Board would like to hear back on those. PIC hopes that Todd can draft and send this letter without a lot of Board review, since the Board has already addressed this issue with the letter that was sent earlier.

Discussion / Questions

Leon clarified that the letter is not advice, but more a response to DOE's response. Therefore it wouldn't necessarily need to go through the rigorous, full Board process.

Jim Trombold stated that the discussion in the PIC meeting revolved around the fact that the wording of the letter should emphasize the public involvement process as part of decision-making and request that DOE utilize the public involvement process earlier in the game.

There is general agreement from the Board that Todd can write and send the letter without Board review.

Committee Reports

Tank Waste Committee (TWC): Doug Houston said that the TWC discussed responses to some of their previous advice. One was the advice on the supplemental technologies downselect decision, in which the committee had asked DOE to move the decision points out. DOE responded that the real decision wouldn't be made until December when DOE-ORP decides to whom it will give the RFP, so TWC did have an opportunity to have some input. DOE presented the data and its decision process to the committee. TWC is concerned about the lack of data and the speed with which the decision is being made. The response did not touch on the request for a public involvement program around this effort.

The tank waste EIS has been delayed further, so the advice regarding extending the public comment period may be moot.

River and Plateau Committee (RAP): Pam stated that RAP will review a number of the items on the letter from the DOE about what issues DOE would like the Board to examine this year so that the issues can be presented at the February Board meeting. The deadlines have been slipping on a number of the documents that need to be reviewed, so RAP had a meeting with Matt McCormick and Dick Wilde to get more realistic dates. The November committee meeting will consist of: a presentation on Monitored Natural Attenuation (MNA), the central plateau cleanup strategy, the M-91 agreement and the issues that remain in litigation, groundwater remediation update in areas of N, K, D, and H reactors, and preliminary planning for the February Board meeting. There is also going to be a presentation Thursday morning, after the committee meeting, on caps.

Public Involvement Committee (PIC): Amber stated that the committee discussed RBES and the public process and gave feedback to the agencies on those items. PIC also conducted a round table discussion of the dialogue that the committee had with the agency heads in September. That discussion resulted in Todd's letter regarding the Board's goals, what the agencies want the Board to work on and the schedules and opportunities for public involvement for the upcoming year. The committee will also be following up on the forum that occurred on Thursday and on Martin's suggestion to better include new communities in the Hanford cleanup.

Health, Safety, and Environmental Protection (HSEP): HSEP had joint meetings with TWC and RAP last year. DOE-ORP and CHG have admitted that they have some issues with employees not trusting in the process any more. They have set up a system and worked to improve that. They did have a situation where material fell out of a jumper and people had respiratory uptake. They have improved training programs as a result of that incident. The committee will be discussing DOE's plans to drop former worker health screening and identification of health concerns. Thanks to RAP and TWC for allowing HSEP to participate in their meetings to help keep the workers safe. Bob Parks noted that since there have been some vapor concerns DOE has put together a vapor solutions team to address the concerns and help keep the workers safe.

Budgets and Contracts Committee (BCC): Harold stated that in the last year there has been a change in the activities of the committee due to a change in the way DOE is budgeting. At Thursday's meeting BCC will go over the DOE-RL baseline details and focus on the scope and budget schedule for major programs, including the Plutonium Finishing Plant (PFP), spent nuclear fuels, groundwater and the U Plant crib area. The committee will also look at the crosswalk issued by DOE's Office of Environmental Management regarding the 2003 budget accounts and the 2004 budgeting. BCC will study how the new crosswalk and budget control points parallel the old ones. The committee has chosen Gerry Pollet as chair and Harold as vice-chair.

Board Business

Responses to Advice / Board Correspondence & SSAB Chairs Meeting Report

Todd Martin informed the Board that the Executive Issues Committee received a response from DOE to the Board's response to DOE's efficiency letter. It was clear that the Board and DOE still disagree about the importance of term limits and level of participation of alternates. At its last meeting, the Board had discussed DOE's proposal that the Board be incorporated as a 501-3(c) non-profit corporation. Todd

reported that at the Site Specific Advisory Board (SSAB) Chairs meeting, DOE backed away from a requirement to incorporate as a 501-3(c) and instead issued guidance offering a suite of options on how to administer the SSABs. The goal of this guidance is to allow DOE to more clearly understand what and where it is spending money on the SSABs, to ensure that contractor money is being directed to cleanup, and to eliminate conflicts of interest. The HAB just received this list of options earlier in the week and, based on the cover letter, the Board is already in compliance with the short-term options. In reviewing the long-term options, the EIC determined that the Board looks most like the last option (#5), which, in summary, states that DOE fully manages the funds for the Board; develops the annual budget in partnership with the SSAB; provides DOE federal employees to support the SSAB's administration, travel management, and other services; and may use a non-DOE facilitator and external technical advisor.

The guidance requires DOE-RL to respond by April 2004, indicating which option the Hanford Advisory Board plans to pursue and institute by October 2004. Overall, Todd said he believes the Board is in a good place to satisfy this requirement. The SSAB chairs are continuing a related conversation with DOE regarding the adequacy of funding and DOE support for the SSABs.

Todd said DOE has also proposed that the list of issues that the TPA agencies give to the Board be used as a "bounding scope" list of issues. Traditionally, this list has functioned as a disciplined, cooperative approach to Board work planning that could be used as a measurement tool at the end of the year to gauge Board effectiveness. Due to the good faith cooperation of the agencies, this has worked well so far. DOE has now asked the question, "If it isn't on the list should it be talked about?" Todd said his thought is that any items arising from the committee work planning process should be addressed. The list should not become a punitive mechanism for determining items available for Board discussion, as the Board charter determines these topics.

Discussion / Questions

Leon Swenson stated that he feels that the Board's effectiveness would be seriously affected if items for discussion were limited to a list determined months in advance. The very nature of the work at Hanford is so changeable that the Board needs to be able to address issues as they arise.

Beth Bilson, DOE-RL, stated that part of the problem is getting the right people to the committee meetings to address the right issues and to do it well. She understands not wanting to use the list to solely define topics available for Board discussion, but topics should be well thought out. If Board members, committees and DOE are going to put time and effort into answering the questions and crafting advice on the basis of a defined topic list, then DOE wants assurance that the Board efforts will result in useful and applicable products. A good example is the discussion that the Budgets and Contracts Committee (BCC) will be having regarding the scope of the baseline. It seems a lot of time may be spent on this, but DOE is unclear what advice the Board can give regarding the scope of the baseline. Todd agreed that discussions should not be a free for all, and that, while the list isn't intended to be a bounding scope, it is intended to affect discipline on the Board.

Greg Jones, DOE-ORP, explained that the bounded list of issues is also designed to be bounding for DOE so that the requests sent to DOE are vetted through a process, rather than just coming directly from individual committee members. DOE is implementing a change control process, whereby if DOE wants the Board to work on a different topic, the request will come from the manager of an office, rather than the staff. This would eliminate situations like when Jim Daly asked the River and Plateau (RAP) committee to look at long-term stewardship issues. Beth removed Jim from the agenda because he was not ready and because Keith Klein has not agreed that long-term stewardship is something that DOE needs advice on.

Pam Brown, City of Richland, conceded that if Jim wasn't ready then there was no other alternative than to remove him from the agenda. However, the RAP committee meeting agenda had been carefully planned, in order to get to all issues directed to the committee ready for the February Board meeting. The planning was adversely affected with that unplanned change to the agenda, especially since the change was not discussed with Pam, the committee chair. Pam feels confident that 90% of the issues the committee is looking at came from DOE rather than from the committee. The discussion about caps is an example. The

committee didn't ask to hear about caps, but it is interested and doing its best to accommodate this new request along with the other issues currently on the agenda. Pam also stated that, in the case of the BCC baseline discussion, it seems DOE-HQ has put the budget in a black box. Each time the committee asks for clarification of a budget item it is told that the details are "all in the contracts." If the baseline is what determines how budget is spent, then the committee should look at the baseline. Pam feels that having DOE involved in the meetings before the committee agendas have already been set might be the most efficient solution. Beth responded that she did not mean that she thinks the list should be punitive, but that topic requests between DOE and the committees should be more controlled. Putting a system in place will ensure that reasonable requests are made so that the committees can plan their meetings and workload.

Nick Ceto, EPA, stated that he has reviewed the Board's charter and there is a specific reference to establishing priorities early on and that the Board has the ability to choose what topics to provide advice on. That is critical because there may be times when the agencies do not want to hear what the Board has to say. He agrees that it shouldn't be a free for all, but as long as the Board goes through a process and agrees on the topics to offer advice on, then anything is fair game.

Observing that the list covers all the major issues that the Board would look at anyway, Susan Leckband stated that it should not be a bounding list. Emerging issues must be addressed, too. When the Board comes across issues, such as how budget information pertains to the baseline, it is an opportunity to have a joint meeting between RAP and BCC. The committee leaders would do their best to accommodate a joint meeting, but must know about it beforehand since meeting schedules have been reduced.

Shelley Cimon, State of Oregon, feels that the Board is at the beginning of a process problem: who will set the agendas for the committees and who will talk to the necessary people on site to get the information to the committees. Shelley would like for the Board to respond that it will continue to do its best to address the issues on the list, but should retain the freedom to address other issues as they arise.

Greg DeBruler, Columbia River Keeper, suggested that one way to get around making the list a bounding list would be for the agencies to develop a schedule identifying what their ideal outcome is for each issue and areas of concern within each issue. This would provide issue managers and committee chairs with a list of what is coming up and what the agencies see as most important, and would help prioritize a schedule to use when addressing topics. Beth commented that Greg's idea sounds very similar to what came out of the Public Involvement and Communications (PIC) meeting and that it is still a good idea.

Harold Heacock noted that the issue of competing requests for DOE's time and resources is not new. The committees have been making a concerted effort to reduce demands on DOE staff in terms of time and requests for information. There have also been a number of joint committee meetings in an effort to be more efficient. Harold said he believes the Board has been successful. It now sounds like there should be more dialogue between the committee chairs and responsible contact points within DOE, in terms of understanding what the committees are looking for and what DOE is able to provide. Harold thinks the frustration over the budget is that the Board does not know what is in the budget and what is in the baseline. At a recent BCC meeting, the representative from DOE-ORP used a large-scale chart in his presentation, but when asked for details and copies of it, the committee was told that they could not have that information.

Todd concluded by using the tank farm vapor issue as an example of where addressing issues that are not on the list has worked. DOE-ORP bent over backwards to give the committee the information and assistance it needed to address the issue in a timely and satisfactory way.

February Board Meeting Topics

Tim Takaro would like to discuss the apparent loss of transparency in the communication with DOE. Greg DeBruler suggested reviewing the commitments made during the Openness Workshops and the value of those commitments to start a dialogue.

Gerry Pollet would like to discuss what the public involvement process will be before the new baselines are made public and how these will be interacting with the annual budget meeting. He would like this to happen in February as opposed to April because there should be public meetings held in the early spring.

Al Boldt suggested a placeholder be inserted into the agenda in case the Solid Waste EIS is issued before the meeting.

TPA Agency Updates

Ecology

Laura Cusak, Ecology, announced that the public comment period on the M-91 Change Package has been extended through the February Board meeting. There were three issues in three different courts. There was a lawsuit with an injunction on importing transuranic (TRU) waste. There was an administrative order that required DOE to retrieve some of the retrievably stored waste and treat some of the mixed low-level waste. And there was a directive of termination that set dates for having facilities to deal with Remote Handled TRU waste streams. These issues all revolve around whether the State has the authority to require DOE to either treat the TRU waste, certify it for WIPP, or to ship it to WIPP. The case should be heard and decided in summer or fall 2004. Both Ecology and DOE agree this is important, so it is being expedited and supported as much as possible in order to get this resolved as quickly as possible. The change package sets schedules for DOE to retrieve the retrievably stored waste that is in the Low Level Burial Ground (LLBG), as well as prioritizing burial grounds where carbon tetrachloride has been found and older burial grounds. The schedule will involve DOE pulling the waste out then deciding if it is Low Level Waste (LLW) or TRU Waste, and if it is mixed waste or not. If it is mixed LLW, then DOE will be required to treat and dispose of it. If it is mixed TRU waste, DOE will be required to designate it properly and know the characteristics of it in order to put it into compliant storage. There are milestones in the change package that are contingent on the decision of the courts. If the courts decide in Ecology's favor, then there is already an agreed upon schedule. Beth added that DOE initiated retrieval of the TRU about a week ago and is moving ahead quickly.

Laura added that the closure plan for tank C106 will be out for public comment on December 16th and the public comment on the draft closure plan has been extended through the February Board meeting. Also, in the 100D area there are some issues with chromium in groundwater extending beyond the current barrier. Ecology is working closely with EPA and DOE to drill more wells and extend the barrier along the river.

Questions

Gerry asked if the language in the change package agreement means that if DOE designates waste to go to WIPP, then it will remain untreated at Hanford for 20-30 years. Laura explained that the court is deciding whether, if the waste is designated to go to WIPP, that designation will exempt DOE from Land Disposal Restriction (LDR) treatment. If the court says it does, then Ecology will have no authority to require LDR treatment. The language in the change package is such that if the court decides in Ecology's favor, DOE will be required to treat the waste if it stays at Hanford.

Bob Parks asked who is making the decision on Ecology's stance on the LDR treatment. Laura stated that it is a combination of the program management and the attorney general's office. The attorney general outlines the arguments and legal issues. Washington State, all the way to the Governor's office, has a strong interest in getting the waste shipped off or treated with LDR. Bob thinks that push for LDR treatment is coming from the west side of the state and that the east side doesn't feel as strongly about it. He would like this to be taken into consideration. Laura stated that there is a large environmental risk that does need to be addressed, and hopefully the public comment period will allow the east side residents to voice their concerns.

Greg DeBruler asked what TRU waste, that was buried pre-1970, is not included in the change package as well as the estimated volume. Laura replied that the change package does not include requirements to retrieve the pre-1970 waste in the LLBG in the 200 Area. The decisions on these requirements will be

made by the CERCLA operable unit by 2008. The change package does require DOE to prepare project management plans to incorporate and implement the CERCLA decisions with the RCRA and other M91 TRU waste and identify the facilities and capabilities that are required to treat that waste. It does address the requirements for DOE to have the capabilities to retrieve and treat the waste in the 618-10 and -11 burial grounds.

EPA

Nick Ceto, EPA, commented that the contract for the river corridor hasn't been let yet. EPA met with Bechtel and DOE-RL to figure out how to keep work moving, based on the budget and contracts situation, especially how to handle environmental priorities that come up unexpectedly. The shipments of 183 waste containers to ERDF are continuing and the treatment plans for those that could not be direct shipped have now been approved. The ERDF expansion is well underway. Two new cells have been designed and construction has begun in preparation for the next large shipment. In the Waste Management IAMIT workgroup, there are continued efforts to get the unlined trenches to not be used in the future for waste disposal at the site. The group agreed to establish a schedule that the managers at the site can sign up to, with a date. In the short term the workgroup should have a date established as to when the unlined trenches will no longer be used with a few exceptions, like the sub-chambers.

The charters for the IAMIT workgroups are now available on the website. The workgroups are based on end states: groundwater, central plateau, waste management and risk assessment. The risk assessment workgroup will get the scope for the river corridor risk assessment in place. The workgroup meetings are open to the public. The waste management workgroup is addressing the unlined trench issue and how some of the EIS decisions will be implemented at the site. EPA and Ecology have presented their ideas on principles for central plateau closure to the central plateau workgroup, which is now trying to reconcile the regulator ideas with the workgroup's plans. Building on the now established groundwater strategy, the groundwater workgroup is looking at next steps for developing a process for how to make groundwater decisions. And the end states workgroup has been working with Mike Thompson on the end states document.

Questions

Gerry stated that the issue of ending the use of unlined trenches is of high public interest and urged the regulators to not have any closed-door discussions without full public involvement and review. Gerry asked about Jessie Roberson's commitment to not having any further dumping in the unlined trenches as of the end of the calendar year. He would like to know if the dates Nick Ceto mentioned take those dates into account. Nick stated that he has not had a conversation with the congressional office about this topic. The plan is to have the technical people go through dates and propose a schedule and have everyone agree to it. That may not occur by January 1, 2004.

Bill Kinsella, Hanford Watch Oregon, asked if, as EPA and Ecology work on closure of the central plateau, how is that conversation informed by stakeholder and public input. Nick stated that the agencies hope that the outline of the principles will help open up the dialogue with the public. The workgroup meetings are also open to the public. The workgroup's discussions about the high level principles for central plateau closure included a review of applicable advice from the Board, in order to reflect the values and principles of the Board and the public. He would like to work with DOE as it reevaluates its baseline and see how the principles can be put into practice. It is important to note that, even with the principles outlined, the closure must still go through a decision process and, depending on the principle chosen, it would have to be articulated in an appropriate decision document. The goal of the principles is to help DOE and EPA reach agreement.

DOE-ORP

Greg Jones, DOE-ORP, stated DOE has started retrieval of tanks C106 and S112. S112 was part of the Consent Decree for Interim Stabilization. Along with Ecology, DOE moved this from the consent decree and put it into the retrieval sequence. DOE is very close to being done with the interim stabilization, which

is pumping the liquid out of the tanks. Greg commented that the construction on the Waste Treatment Plant is going well, too. Greg Jones added that Bill Taylor, DOE-ORP, accepted a promotion to go help close Fernald.

Question

Leon Swenson asked how much of the 53 million gallons of liquid in the tanks has been moved out of the at-risk tanks? Greg replied that, from the single shell tanks, there is only about 40,000 gallons of pumpable liquid left in the tanks. There are some salt cakes and sludges that are not pumpable.

DOE-RL

Beth Bilson, DOE-RL, stated that DOE-RL will be welcoming Mike Weiss as the new deputy. Also, Lloyd Piper will be taking the role as deputy at WIPP. Inez Triay will be resigning from her position at WIPP.

Beth said that the plutonium stabilization is going very well: two of the three waste forms are currently stabilized and good progress is being made on the third waste form. Also, a lot of spent fuel has been moved, but DOE is still off of its sludge target. DOE-RL is working very hard to correct that. DOE-RL is also working very hard on the river corridor, even though it was not able to award the contract. Beth believes that progress is still on track to be completed by 2012. DOE is also reacting to a number of issues, including initiating work in the K area to move the work ahead of schedule in reaction to a spike in the tritium and technetium in one of the groundwater wells. DOE will be moving forward one of the condensate cribs to catch the issue before it becomes a contributing plume. DOE is also moving forward the K1 burial ground in that area, which should begin fourth quarter 2003 or first quarter 2004. DOE-RL is also working with the contractors and regulators to be sure they are doing everything they can to take care of the chromium plume in the D area. DOE has awarded the contract in the 300 Area and they will be back filling the FF1 holes.

Questions

Tim asked if the chromium plume in the D area is a result of a barrier failure. Beth stated that there are two barriers in the D area: one is the in situ redox barrier and the other is the pump and treat barrier. The barriers are separated by a piece of land. The chromium is moving through the land between the barriers. DOE is investigating the life of the barrier.

Public Comment

There were no public comments.

Attendees

HAB Members and Alternates

Pam Brown, Member	Gerry Pollet, Member	Bill Kinsella, Alternate
Shelley Cimon, Member	Keith Smith, Member	Wanda Munn, Alternate
Greg deBruler, Member	Leon Swenson, Member	Maynard Plahuta, Alternate
Norma Jean Germond	Tim Takaro, Member	Wade Riggsbee, Alternate
Stuart Harris, Member	Jim Trombold, Member	Richard Smith, Alternate
Harold Heacock, Member	Martin Yanez, Member	John Stanfill, Alternate
Doug Huston, Member	Kristy Baptiste-Eke, Alternate	Amber Waldref, Alternate
Paige Knight, Member	Allyn Boldt, Alternate	David Watrous, Alternate
Susan Leckband, Member	Dirk Dunning, Alternate	Charles Weems, Alternate
Jeff Luke, Member	Norm Dyer, Alternate	Al Conklin, Ex-officio

Todd Martin, Member	Susan Hughs, Alternate	Earl Fordham, Ex-officio
Bob Parks, Member	Joe Jackson, Alternate	Debra McBaugh, Ex-officio

AGENCY, CONTRACTOR, AND SUPPORT STAFF

Beth Bilson, DOE-RL	John Britton, BNI	Michael Cowen, Thor Treatment Tech
Marla Marvin, DOE-RL	Nancy B. Myers, BHI	Duane Schmoker, Thor Treatment Tech
Yvonne Sherman, DOE-RL	Dru Butler, CH2MHill	
Mike Thompson, DOE-RL	Bryan Kidder, CH2MHill	
Greg Jones, DOE-ORP	Billie Mauss, CH2MHill	
Billie Mauss, DOE-ORP	Rick Raymond, CH2MHill	
Erik Olds, DOE-ORP	Don Moak, Duratec	
Nick Ceto, EPA	Tammie Holm, EnviroIssues	
Dennis Faulk, EPA	Stacey Howery, EnviroIssues	
Laura Cusack, Ecology	Lynn Lefkoff, EnviroIssues	
Suzanne Dahl, Ecology	Penny Mabie, EnviroIssues	
Jane Hedges, Ecology	Jeff Hertzel, Fluor	
John Price, Ecology	Dick Wilde, Fluor	
Mary Anne Wuennecke, Ecology	Barb Wise, Fluor	
	Doug Riggs, Hanford Information Network	
	Sharon Braswell, Nuvotec	

MEMBERS OF THE PUBLIC

Les Davenport		
Malaya Marvin		
John Stang, Tri-City Herald		
Lauril Vigue, WDFW		