

Hanford Advisory Board
FINAL MEETING SUMMARY v3
November 1-2, 2001
Red Lion Hanford House, Richland, Washington

TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
Setting the Stage for Board Work regarding Completion of Cleanup at Hanford.....	2
Understanding Current Processes and Cleanup Frameworks	2
Identifying Future Board Work on the Central Plateau and River Corridor.....	2
Site Technology Coordination Group.....	2
U.S. Department of Energy-Office of River Protection Balance of Mission Concept.....	3
Letter of Congratulations to Keith Klein	3
Announcements.....	4
Chair's Overview and Meeting Goals	5
Cleanup Context and Historical Perspectives.....	5
Past Stakeholder Group Efforts	5
Review of Past HAB Advice.....	6
Legal and Regulatory Frameworks: A Primer	7
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).....	7
Resource Conservation and Recovery Act (RCRA).....	7
Model Toxics Control Act (MTCA).....	9
Exposure Scenarios and Public Values.....	9
Treaties	10
Atomic Energy Act.....	11
Overview of Current Processes and Cleanup Frameworks.....	12
Cleanup Constraints and Challenges Team (C3T)	12
River Corridor Agreement in Principle	12
Plutonium Finishing Plant and 200 Area.....	13
Groundwater/Vadose Zone Integration Project and Central Plateau Risk Framework	15
DOE-Office of River Protection Balance of Mission Concept.....	16
Identifying Future Board Work	19
Site Technology Coordination Group.....	24
DOE-Office of River Protection Balance of Mission.....	27
Letter of Congratulations to Keith Klein	29
Board Business.....	30
Committee Reports and Issue Manager Updates.....	30

EXECUTIVE SUMMARY

Setting the Stage for Board Work regarding Completion of Cleanup at Hanford

The Board spent a dedicated amount of time reviewing past stakeholder work focused on identifying values and concerns regarding Hanford cleanup, including the Future Site Uses Working Group, the Tank Waste Task Force, and the Hanford Advisory Board (HAB) Strategic Planning Workshop. In addition, they reviewed key themes from past HAB advice on cleanup.

Another important set of Board presentations and discussions revolved around understanding a number of federal and state cleanup statutes that apply to Hanford cleanup, including Superfund, the Resource Conservation and Recovery Act, the Model Toxics Control Act, and the Atomic Energy Act. Russell Jim, Yakama Nation, provided a perspective of the Treaty on 1855 and how it relates to the completion of cleanup at Hanford..

Understanding Current Processes and Cleanup Frameworks

The Board received a number of briefings and updates on ongoing efforts to address important cleanup issues at Hanford, including the Cleanup Constraints and Challenges Team (C3T), the recently-signed River Corridor Agreement in Principle (AIP) to guide Tri-Party Agreement negotiations, developing AIPs concerning the Plutonium Finishing Plant and the 200 Area, and the Groundwater/Vadose Zone Integration Project Central Plateau Risk Framework.

Identifying Future Board Work on the Central Plateau and River Corridor

The Board decided to create ad hoc task force to address stakeholder values regarding exposure scenarios related to cleanup in the 100, 200, and 300 Areas of Hanford. Key components of this agreement included a desire to include participation from agencies and organizations not currently represented on the Board and to strongly encourage the existing committees to prioritize their work and defer non-time critical items to enable Board members to participate on the ad hoc task force. Gariann Gelston and Gerry Pollet agreed to shepherd the first meeting of the ad hoc task force on November 8.

Site Technology Coordination Group

The Board received an update on the activities of the Site Technology Coordination Group from both the U.S. Department of Energy-Richland Operations Office and the U.S. Department of Energy-Office of River Protection. In fiscal year 2001, there were over 31 first-time deployments by cleanup contractors. DOE is interested in working more closely with the Board on science and technology issues. Board members Pam Brown and Gordon Rogers are both active with the Site Technology Coordination Group.

U.S. Department of Energy-Office of River Protection Balance of Mission Concept

Harry Boston, site manager for the U.S. Department of Energy-Office of River Protection, discussed an emerging concept for completion of treatment and cleanup of tank wastes at Hanford. He emphasized that he is committed to getting the vitrification plant constructed and operational, but that the existing baseline for treating the tank waste after Phase I is complete is not realistic, affordable, or credible. He is beginning to discuss options for addressing the remaining tank waste in different ways, including treating more waste in the initial vitrification plant and the use of grout or other in-tank stabilization methods.

The Washington State Department of Ecology emphasized that it is willing to discuss concepts, such as operational closure, but that it remains concerned about DOE's desire to discuss the possibility of leaving waste in the tanks before it has demonstrated how much waste can actually be retrieved and the capabilities for treatment of the first vitrification plant.

HAB members expressed a variety of reactions to these concepts including dismay at the possibility of jeopardizing the construction of the vitrification plant to curiosity about exploring treatment strategies that could maintain funding and cleanup progress in the tank farms.

The Board adopted a letter to Secretary of Energy emphasizing the need for Hanford to obtain the ability to vitrify wastes as soon as possible.

Letter of Congratulations to Keith Klein

The Board adopted a letter of congratulations to Keith Klein, DOE-RL site manager, regarding his receipt of the 2001 Presidential Rank Award for Distinguished Executive Service.

DRAFT MEETING SUMMARY

Hanford Advisory Board

November 1-2, 2001

Red Lion Hanford House, Richland, Washington

Todd Martin, Chair (Public at Large), called the meeting of the Hanford Advisory Board (HAB) 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 in Attachment 1, as are members of the public. Six Board seats were not represented:

- Central Washington Building Trades (Hanford Work Force), Richard Berglund, primary member;
- Citizens for a Clean Eastern Washington (Regional Citizen, Environmental, and Public Interest Organizations), Mark Beck, primary member;
- Government Accountability Project (Hanford Work Force), Tom Carpenter, primary member;
- Lower Columbia Basin Audubon Society and Columbia River Conservation League (Local Environmental Interests), Victor Moore, primary member;
- Physicians for Social Responsibility (Local and Regional Public Health), Jim Trombold, primary member; and
- University of Washington (University), Tim Takaro, primary member.

This is the fourth consecutive board meeting that the Central Washington Building Trades seat has been unrepresented.

ANNOUNCEMENTS

Todd Martin, Public-at-Large, announced that Doug Huston, Oregon Office of Energy, (State of Oregon), would be replacing Ken Niles as the primary Hanford Advisory Board (HAB) representative from the State of Oregon Office of Energy.

The annual Tank Waste Closure Workshop will take place on November 14-15, 2001. Ken Bracken, Benton County (Local Government), Doug Huston, and Todd Martin will attend.

Wanda Munn, Benton-Franklin Council of Governments (Local Government), has been appointed to the National Advisory Board on Radiation and Worker Health by President Bush.

Secretary of Energy Abraham announced that he is unable to visit Hanford this week as planned. He planned to reschedule the visit in the next two weeks.

Keith Klein, U.S. Department of Energy-Richland Operations Office (DOE-RL) received the 2001 Presidential Rank Award for Distinguished Executive Service for bringing about fundamental change and improvement to the Hanford site; for developing an action

plan to accelerate cleanup; for gaining public, stakeholder, and regulator credibility; and for opening the Waste Isolation Pilot Plant (WIPP) in 1999.

The DOE Public Involvement Manager who provides the principal agency support for the HAB, Gail McClure, DOE-RL, announced that she would retire at the end of December 2001.

Gail McClure announced a volunteer effort sponsored by the Tri-Cities' communities called A Day's Pay for the USA. The goal is to raise money to replace a fire truck for New York City.

Judy Connell, the new Director of Communications and Community Programs for Fluor Hanford was introduced. She comes from private industry with a 30-year background with the nuclear industry.

CHAIR'S OVERVIEW AND MEETING GOALS

Todd Martin noted that cleanup decisions based on milestones established ten years ago are now coming due, and there are important decisions to be made now on activities in 2002, 2004, and 2008. One purpose of this HAB meeting was to hear about the steps taken in the past that have brought us to where we are today with Hanford cleanup.

CLEANUP CONTEXT AND HISTORICAL PERSPECTIVES

Past Stakeholder Group Efforts

Max Power, Washington State Department of Ecology (Ecology), spoke about four past opportunities for stakeholder input: the Future Site Uses Working Group (1992), the Tank Waste Task Force (1993), the Hanford Advisory Board Strategic Planning Workshop (1996), and the Hanford Comprehensive Land Use Plan (1998). The first two groups were predecessors to the Hanford Advisory Board (HAB) and were used as the basis for forming the Board. The main points established in the reports of these groups were used as a basis for the Tri-Party Agreement (TPA). Their common themes still underlie the HAB's work today.

Ken Bracken asked Max Power for clarification of the intent of the Future Site Uses Working Group relative to long-term storage of tank waste. Max said that he thought the idea was to keep the tank waste within the boundaries of the 200 Area. High-level waste would be vitrified and sent to an off-site repository. The report assumed low-level wastes near the surface would be left there in anticipation of disposal in something like the Environmental Restoration Disposal Facility (ERDF). This predated the decision to take wastes from the 100 and 300 Areas and move them to the Central Plateau. Low-level and low-activity waste would be kept on site; and high-level and transuranic (TRU) wastes would be taken off-site.

Greg deBruler, Columbia Riverkeeper (Regional Citizen, Environmental, and Public Interest Organization), clarified that the intent of the word "unrestricted" in the Future Site Uses Working Group report was unqualified and assumed more than just unrestricted surface use. He added that there is still not a comprehensive groundwater and vadose zone plan. Max Power acknowledged that the report could be read to mean unrestricted surface use. Groundwater would be cleaned up in a different time frame. He said it is important not to rely on institutional controls to avoid achieving a cleanup level that allows for unrestricted use.

Betty Tabbutt, Washington League of Women Voters, (Regional Citizen, Environmental, and Public Interest Organization), asserted that in addition to groundwater and the surface, the subsurface soil is also a concern. The intent of the Future Site Uses Group and subsequent groups was to clean up Hanford waste, not to import waste from other sites. State law requires limiting the use of institutional controls.

Dave Johnson, Heart of America Northwest, (Regional Citizen, Environmental, and Public Interest Organization), noted that calculations on the impact of immobilized low-activity waste have been done out to a million years as part of an environmental impact statement (EIS). There is a lot of low-level waste that needs to be looked at in the same way, such as the low-level burial grounds and submarine cores.

Charles Kilbury, City of Pasco (Local Government) said the surface cleanup is coming along and the groundwater will be dealt with in time.

Norma Jean Germond, Public-at-Large, reported that representatives of DOE told the Oregon Hanford Waste Board that a depth of 15 feet was considered the unrestricted surface use zone, causing great concern on that Board.

Max Power said the question of what constitutes unrestricted surface use needs to be discussed. In addition, we are just now in the process of determining what is in the vadose zone. There are laws and regulations governing these issues.

Todd Martin asked what characteristics of these four stakeholder group efforts made them successful. Max Power cited getting many interests to the table, the agencies agreed to listen to the groups' recommendations, and these groups had specific focus to their advice. He observed that some of the struggles for the HAB have been the result of having too broad a range of issues to consider at one time.

Review of Past HAB Advice

Doug Huston spoke about HAB advice through the years based on the summary work done by Ken Niles, Oregon Office of Energy (State of Oregon) earlier in the year. Common values throughout HAB advice include keeping the highest priority on tank waste stabilization and vitrification (e.g. Advice #113); compliance with the TPA (e.g. Advice #121, 115, 113); protection of the river (e.g. Advice #113, 61); and get on with the work. (e.g. Advice #90).

LEGAL AND REGULATORY FRAMEWORKS: A PRIMER

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

Doug Sherwood, U.S. Environmental Protection Agency (EPA), stated that in 1992 the major concern was to stop ongoing contamination. No cleanup decisions had been made; no risk assessment was being done. We are at the same point in the 200 Area now. Preliminary characterization of the 200 Area is being done on an operable unit-by-unit basis. The characterization work has been done for the 100, 300, and 1100 Areas, and work plans for the 200 Area are being submitted at a rate of three or four operable units per year.

Doug Sherwood compared the Resource Conservation and Recovery Act (RCRA) and CERCLA processes. One difference between them is that under CERCLA, very little detail is required when you submit your cleanup plan. The design is developed after the record of decision is issued. For the RCRA permitting process, you need about 80 percent of your design completed at the time you accept the closure plan. All decisions for the source units in the 100 and 300 Areas are completed, but not for the groundwater units. Cleanup in the 1100 Area is done, and it has been removed from the National Priorities List (NPL). The final review of the RCRA work plan for the 100 and 300 Area is going through agency comment now.

The schedule for the 200 Area is to submit all work plans for Tri-Party Agreement (TPA) milestone M-13 by December 2005; complete activities under milestone M-15, including work plans and feasibility studies by 2008; and to complete all remediation by 2018.

Resource Conservation and Recovery Act (RCRA)

Ron Skinnerland, Ecology, talked about RCRA and dealing with hazardous waste on the Hanford site. RCRA focuses on prevention and management of waste in such a way as to avoid the need for future cleanup. In Washington, its implementation is based on the state's Model Toxics Control Act (MTCA). CERCLA focuses on cleanup of contaminated sites on the federal level similarly to MTCA at the state level.

Ecology is authorized by EPA to administer and enforce RCRA in the State of Washington. The state has its additional hazardous waste laws and regulations contained in the Hazardous Waste Management Act (HWMA). RCRA demands treatment of generated waste prior to disposal. There is a list of contaminants that fall under RCRA jurisdiction. The TPA recognizes the state's regulatory authority and defines which cleanup activities are under the supervision of Ecology and which are under EPA.

RCRA regulates and permits the handling and treatment of contaminants. Congress created rules in the 1980s that addressed both treatment prior to storage and corrective action for past spills. Contaminated sites are not usually required to deal with the

contamination until the facility closes, but at Hanford, we do not want to wait that long. RCRA also requires closure plans for dormant facilities.

There is a site-wide Hanford RCRA permit to manage all the units. RCRA permits treatment and storage facilities, such as the Central Waste Complex and low-level burial trenches. The waste treatment plant (WTP) permit will be issued next year. The WRAP permitting process has been appealed by the agency. Negotiations are starting for the Plutonium Finishing Plant (PFP) cleanup plan. The TPA agencies are working on integration of all applicable requirements for the sake of efficiency.

Pam Brown said the Tank Waste Committee was told that we could not think about tank closure until all waste had been removed from the tanks because that is what RCRA requires. The committee was also told that once you decide you cannot remove all the waste, you can work with RCRA to come up with the next best alternative. She asked if DOE is required to submit a proposal for tank waste cleanup and whether National Environmental Policy Act (NEPA) analysis is required to determine a closure method. Roger Stanley, Ecology, explained that RCRA is not specific to the Hanford site. The regulations are written to cover many different types of sites. The requirement is that if you cannot resolve a problem immediately, you must develop a plan to do so. The TPA is considered such a plan for the Hanford site. Roger said that agreements will have to be reached on how much waste can be retrieved and what will be done with the residual. Under the M-45 TPA milestone series, work plans have to be submitted on a yearly basis for cleanup. This process will evolve into the closure plan. Roger did not know how NEPA requirements related to this process.

Madeleine Brown, Washington League of Women Voters (Regional Citizen, Environmental, and Public Interest Organization), asked who determines whether a site falls under RCRA or CERCLA jurisdiction. Doug Sherwood said it was determined by which sites were still active at the time the determination was made. Active sites were designated as RCRA sites. Some of those sites had become inactive by the time the agreement was actually finalized. In general, EPA oversees areas without closure units, and Ecology the areas with closure units.

Bob Larson, Benton-Franklin Council of Governments (Local Government), referred to the briefing Wednesday night, October 31, on the River Corridor Contract Draft Request for Proposal (RFP) and asked if all the legal requirements had been met in order to make the contract award by July. Wade Ballard, DOE-RL, said that the RFP involves two phases. The RCRA and CERCLA considerations have been taken into account in Phase One. Phase II decisions have not been made yet.

Ken Bracken asked Doug Sherwood about an average completion times for the various steps in the RCRA and CERCLA processes. Doug said plans submitted under M-13 are submitted as drafts. They have 60 days for review. Plans usually go through one or two review and comment cycles, taking about three months. From planning to agreement on a Remedial Investigation and Feasibility Study (RI/FS) usually takes about four months. The decision document usually takes three to six months. The remedial design portion is

usually nine to twelve months. Completion of cleanup is set in milestones depending on the scope of the work.

Leon Swenson, Public-at-Large, asked Roger Stanley about the standard of removing all waste from the tanks and what cost is considered too high to do that. Roger said that decision would be made in the context of forming the closure plans. The requirement is to use the best available technology.

Model Toxics Control Act (MTCA)

John Price, Ecology, explained the application of the State of Washington's Model Toxics Control Act (MTCA) at Hanford. This is the State's version of Superfund. The TPA specifically recognizes MTCA and says it must be applied to Superfund cleanup at Hanford. In 1995, EPA and Ecology went through MTCA and decided which parts applied to Hanford. MTCA has a table of standards, which CERCLA uses to develop cleanup standards.

MTCA regulations apply statewide, but Ecology treats federal facilities and Superfund sites differently. The state has its own list of priority sites. Federal Superfund sites have a zero state priority because work is already going on at those federal sites. Hanford is one of the few state sites with radionuclides.

Exposure Scenarios and Public Values

Gerry Pollet, Heart of America Northwest (Regional Citizen, Environmental, and Public Interest Organization), explained that "exposure scenario" is the term used in cleanup rather than "end state". MTCA has a stricter standard for human health risk than CERCLA, and the MTCA standard applies to Hanford. MTCA uses an unrestricted use standard. If that is modified, there are specific public involvement steps required. Under the new MTCA rules, you must get public input if you plan to restrict land use in the future.

In addition to MTCA standards, there are other factors that represent public values for future site use such as the Hanford Reach National Monument, the Treaties of 1855, and community development plans. They all have to be considered regarding future land use. When you develop exposure scenarios, you have to know what the public expectations are for the land. Cleanup is driven by the maximum exposure scenario. In some cases the default assumptions are too low.

You have to have a public involvement plan specifying how you will give notice of hazards found and how you will implement institutional controls. The notices and public information materials have to be explicit about the institutional controls and the default assumptions used in the risk assessment.

Betty Tabbutt was unaware that there was an agreement between Ecology and EPA about what parts of state law would apply to Hanford. She wanted the Board to understand that

the applicable state law was passed by the voters by initiative. The question is whether Federal facilities will follow the same standards as state entities. She was alarmed about the exceptions allowed in the agreement. She was also concerned about the technical methodology driving risk assessments under MTCA. The agreement is missing the public involvement component from MTCA. She questioned the public participation in creating this agreement between Ecology and EPA.

Doug Sherwood and Mike Wilson, Ecology, recognized the document that Betty Tabbutt was referring to an appendix to the Memorandum of Understanding between the two agencies. This appendix is specific to Hanford. This memorandum spells out the division of labor between the two agencies. It was specified that each project would be evaluated independently to determine which requirements apply. Public involvement with each evaluation. Doug Sherwood pointed out that this agreement applies to Superfund sites, and not the tank farms. CERCLA says that if there are other applicable requirements, you must use the strictest requirement. It covers potential conflicts in laws.

Gerry Pollet explained that there is a clear list of cleanup priorities in the state law. It says you have to do waste retrieval until technology is exhausted. You then go to the next level of cleanup based on engineering controls.

Treaties

Russell Jim, Yakama Nation (Tribal Government), spoke about the Treaty of 1855. He stated that the Native American interests are consistently kept on the periphery of Hanford decision-making. He pointed out that the courts have sided with tribal rights. He feels there needs to be a greater understanding that the tribes are legitimate governments and should have the standing of a government for purposes of cleanup decisions. He stressed that the tribes do support unrestricted use of the land for its historical uses and do not support sacrifice zones. He reminded everyone that treaty rights cannot be changed in an EIS process. Only Congress can make those changes.

There are no unclaimed or open lands on the Hanford site. The land belonged to the tribes before it was taken for government use. Mr. Jim stated that given that the tribes have the greatest vested interest in the land, they are grossly underfunded to the point that they are short of staff and their participation in the cleanup process has been curtailed. However, their interest in the site is not dependent on federal funding.

The Yakama Nation was the only native group to contribute to the legislation that became the Nuclear Waste Policy Act of 1982. Native American rights have been affirmed in legislation and court decisions on an ongoing basis. The Treaty of 1855 is still in effect in spite of efforts of annihilate the treaty by annihilating the people it protects.

He pointed to the effort to redefine high-level waste so that DOE can bury it on site rather than removing it. He expressed his belief that those making the decisions on the East Coast do not understand the issues here, and they would do well to come here to learn.

He reaffirmed his commitment to working on the cleanup process so that the land can be returned to its former state for the benefit of future generations.

John Stanfill added on behalf on the Nez Perce Tribe that the authority for protecting Native American rights on the land comes from Congress and urged that those rights be upheld during the cleanup process.

Atomic Energy Act

Bob Carosino, DOE-RL, spoke about the Atomic Energy Act. The law was enacted in 1954, replacing the Atomic Energy Act of 1946. It is a broad statute that authorized the Atomic Energy Commission to control the development, utilization and control of atomic energy for both military and peaceful purposes. Atomic Energy Commission responsibilities included licensing now done by the Nuclear Regulatory Commission

The act provides for the production of nuclear materials and weapons and for storage, processing, transportation and disposal of radioactive waste from those activities. The 1957 amendment included the Price Anderson Act to provide prompt and fair compensation to people injured in nuclear incidents. It indemnified facilities that might be liable for injury to third parties. Today the Nuclear Regulatory Commission provides indemnification for civilian nuclear reactors.

In 1974 the Atomic Energy Commission was abolished and its responsibilities were split between the Energy Research and Development Administration (ERDA) and the Nuclear Regulatory Commission (NRC). ERDA was responsible for research and development and for the defense program. NRC licensed civilian nuclear power projects. ERDA functions were transferred to DOE in 1977.

Mike Wilson said it is important to pay attention to the self-regulation question in regard to the site and construction of storage facilities. Doug Sherwood does not think self-regulation is good. He said there are materials that need protection now that are not subject to cleanup. There are too many overlapping regulations, which raise costs and make it hard to get to workable solutions.

Gerry Pollet had hoped the TPA agencies would discuss the dramatic disagreements that currently exist, such as whether there will be external regulation of plutonium laden waste materials that have been declared surplus at the Plutonium Finishing Plant and DOE's self-regulated allowance of unlined burial trenches. State and Federal law will not allow a sanitary dump to be unlined. Mike Wilson agreed with Gerry regarding burial grounds.

Paige asked about the indemnity standards. Bob Carosino said there is \$9.43 billion allotted per incident. If this money were used, Congress would have to appropriate more.

OVERVIEW OF CURRENT PROCESSES AND CLEANUP FRAMEWORKS

Cleanup Constraints and Challenges Team (C3T)

There was debate at the September Board meeting about the role of the Board in the C3T process. Todd Martin, Susan Leckband, Non-Union, Non-Management Employees (Hanford Work Force), and Gerry Pollet attended the most recent C3T meeting as observers. They felt this was an appropriate role for the Board. They reported that the meeting was worthwhile as a valuable exchange between the agencies. Disconnects in the cleanup process were identified and an extensive matrix was developed.

The agencies expressed disappointment that the Board was participating in the C3T process as an observer. Susan Leckband explained to them that the Board would give them input, whether it is through the C3T process or through advice. Pam Brown felt the Board might take a more active role since it has the most history Hanford cleanup. Board members have a good memory of what has been done, what has worked, and what has failed.

Wade Ballard explained that the C3T process began in response to the national top-to-bottom review but has since evolved in quite a different direction. It became a forum in which the agencies could have open discussions and where they can come back for further dialog during negotiations. The C3T process has identified four issues: common vision, recommitment to the TPA, looking for unnecessary and redundant requirements, and finding ways to get funding commitments beyond one year.

Work on the common vision issue is led by Mike Schlender, DOE-RL. Doug Sherwood is heading up the recommitment to the TPA group which has developed a table illustrating the disconnects between the TPA and the cleanup baselines. Fran DeLozier, CH2M Hill Hanford Group (CHG), is leading the group looking at requirements, which is more an internal DOE activity between the agency and its contractors. The C3T group felt that if it was successful in the work of these first three groups, it would be easier to address the funding issue.

River Corridor Agreement in Principle

The site strategy development was divided into River Corridor and the Central Plateau pieces because the two areas are at different levels of maturity regarding cleanup. An Agreement in Principle to guide TPA negotiations for the River Corridor was signed on October 31st. The Central Plateau strategy encompasses work by both DOE-RL and DOE-Office of River Protection (DOE-ORP). The risk framework is the most important aspect of this strategy. The TPA agencies are also developing on Agreements in Principle on Plutonium Finishing Plant, the waste sites, and the tank waste recovery plan.

Wade Ballard showed the timelines for the work of the C3T groups. C3T expects to bring information to the HAB. The agencies anticipate holding three workshops over the next several months, completing the process by June when they expect to have alignment

on TPA, baselines, and contracts. After that, everything will be implemented through the TPA.

TPA negotiations for the River Corridor will occur over the next two to three months. Discussions are ongoing on the Central Plateau; waste treatment facilities; the Plutonium Finishing Plant, transuranic and mixed transuranic wastes, and tank farms. The agencies expect those to conclude in the December or January timeframe. They are committed to working with the HAB on how to do the public involvement in this time frame in a way that avoids confusion. There will also be budget hearings. In April, the agencies expect to be able to start implementing the new milestones and getting everything aligned with the budget.

Beth Bilson, DOE-RL, spoke about the status of the River Corridor contract. She referred to the recently signed Agreement in Principle. DOE felt it was philosophically close to the other agencies. It decided it wants to set TPA milestones for the River Corridor project, including scope and definition for completion of 100 Area remedial action completion by 2012. This would include addressing waste sites, decontamination and decommissioning work, and interim safe storage of reactors.

Beth Bilson noted that more definition is needed for the 300 Area. There are sites where DOE could take action now as soon as money and contracts have been set. Some things will not be done by 2012, such as the 618-10 and 11 sites. The agencies have agreed to talk about definitions and milestones for that area.

DOE agreed with Ecology that the current RCRA closure program for the 324 Facility projects reuse of that facility is no longer reasonable. A lot of money could be saved if they could find a better way of doing that cleanup. The agencies have also agreed that final groundwater actions associated with source remediation actions are not going to be addressed as a part of the negotiations under this first, signed Agreement in Principle. Negotiations will begin November 8th and should be done by the end of the calendar year.

Doug Sherwood observed that there was not uniform support on the Board for what to do in the 300 Area, and the Agreement in Principle indicates a need for some process time with Board involvement. The Agreement in Principle contains a lot of technical specifics because the 2012 Plan has been developed for some time. Beth Bilson added that the new TPA milestones will be incorporated into the River Corridor contract.

Plutonium Finishing Plant and 200 Area

Peter Knollmeyer, DOE-RL, announced that the Plutonium Finishing Plant (PFP) Integrated Project Management Plan is on the Hanford website. In the TPA change request, they committed to start negotiations by November 1st. They had the first meeting October 31st. They are working on an Agreement in Principle and hope to then move into negotiations. The public information fact sheet on PFP negotiations has been distributed.

The 200 Area Agreement in Principle will be delayed until the DOE gets the 100 and 300 Areas going. DOE needs to make a technical presentation to the regulators on what 200 Area operable units will be selected for remedial investigation and feasibility studies. After that, they will go into the development of an Agreement in Principle. They hope to have that by mid-November and negotiate the tentative TPA agreement by February 2002.

The M-13 milestones are the work plans for the remedial investigation and feasibility studies. These then generate the M-15 milestones to do the investigation that, in turn, generate M-16 milestones to do the remediation. Then the M-20 milestones cover the RCRA Treatment, Storage, and Disposal programs (TSDs). Those will all be part of the negotiations. They will try to integrate these things into the discussions in a time frame consistent with the strategy for the tank farms, but tank farm milestones will not be a part of these negotiations.

Paige Knight, Hanford Watch (Regional Citizen, Environmental, and Public Interest Organization) asked if DOE-Headquarters (DOE-HQ) would interfere with getting the TPA negotiations done by June first. Wade Ballard said communication with DOE-HQ is good. DOE-RL is talking to the person responsible for Richland once or twice a week. There will be a meeting on Monday, November 5 with Jessie Roberson, and these issues are on the agenda. They expect to have any problems resolved in a timely way.

Greg deBruler asked about monitoring wells in the 100 and 300 Areas. Doug Sherwood said because wells are part of the five-year Superfund review process which was just completed, the agencies did not discuss them as part of these negotiations. Greg also asked about identification of slowdowns in other areas due to accelerated work under the 2012 Plan for the river corridor. Doug Sherwood did not know if there would be any delays. There are expected to be cost savings in the work planned during the next five to seven years. Wade Ballard said DOE-RL is pressing for a closure contract so the agency can get a commitment from Congress for funding.

Ken Bracken thought the Agreement in Principle showed too low a priority for the 618-10 and 11 burial grounds by delaying cleanup off until 2018. Doug Sherwood said if they remove the material before that date, there probably would not be facilities available to process the waste until at least 2012. There are other big capital projects that are going to take precedence over remote handled transuranic waste. Ken replied that it will always be a challenge, but you have to get started. Wade Ballard noted that there is a comprehensive monitoring program for that area. Although there are high contaminant concentrations, the volume is small and localized. If action becomes needed, they will do it. Peter Knollmeyer said there are preliminary discussions with Fluor about pinpointing where the lithium targets may be located to see if we can go after the source of the tritium.

Amber Waldref, Heart of America Northwest (Regional Citizen, Environmental, and Public Interest Organization), asked if the public would have an opportunity for input into the River Corridor Contract that is going out for bid in January. Wade Ballard said there has been a request for comments on the draft Request for Proposal (RFP) that closes on

the 14th of November. The expectation is that once comments are received, they will be evaluated. The final RFP will be written in late December. He said that even with that schedule, there is time for the HAB to adopt advice at its December meeting that can provide input into the draft RFP. The TPA negotiations also have a 45-day public comment period. Beth Bilson explained that the contract and the final TPA negotiations must be aligned. Doug Sherwood said the goals for this are consistent with the long-range cleanup plan that has been in place for years. The agencies are trying to keep the current milestones in place, and expand commitments rather than doing something different. DOE moved up the 300 Area discussions from next June until now to make this a complete package.

Keith Smith, Hanford Atomic Metal Trades Council (Hanford Work Force), said the Hanford workers are anxious to get the technology necessary to address the 618 burial grounds.

Groundwater/Vadose Zone Integration Project and Central Plateau Risk Framework

Moses Jarayssi, Bechtel Hanford Inc. (BHI), explained that for the last six to seven years, the emphasis for making decisions at the Hanford site has primarily involved the 100 and 300 Areas. We are now at the point where decisions will be made on the Central Plateau.

While starting to make decisions on the CW-1 operable unit in the 200 Area, the agencies realized that to proceed with the Remedial Investigation/Feasibility Study (RI/FS) work, risk parameters and assumptions about land use needed to be developed. Representatives from each TPA agency have come together to form a committee to develop a set of assumptions. Moses is the facilitator for the group, which includes Dennis Faulk, EPA; John Price, Ecology; and John Morse, DOE-RL.

The committee held a workshop on October 2nd. It brought its information to the River and Plateau Committee on October 10th and now is presenting it to the Board. They will meet with the Tribal Nations on November 6th. The group will hold internal technical meetings to discuss risk parameters and groundwater buffer zone configurations. Next they will develop a set of assumptions to take to the Board and the public for comment. The group has set some preliminary time schedules and defined their basic assumptions for those time periods. Moses said the group would like Board input on its assumptions.

Gerry Pollet asked about the timeframe for that feedback. Moses Jarayssi said the group would like to come up with their agreed-upon assumptions by February or March of 2002 so that they can use them for the RI/FS work for the CW-1 operable unit. Gerry did not think the Board could give meaningful input in that timeframe.

Dennis Faulk said they need the Board's help so that they can have a meaningful process. He said that they just need to have enough information to go out in February or March to the public. Gerry re-iterated the importance of getting public input. He specifically asked where the group got the assumption regarding the expansion of buffer zones. Moses Jarayssi said that the group sees the buffer zones as being dynamic. They will

move inward as the zone shrinks. Their assumptions now are based on existing technologies. Gerry replied that the set of assumptions they have started with are offensive to him and will not be acceptable to the public.

Susan Leckband said she was encouraged that the agencies are working together and that Moses Jarayssi has such enthusiasm. She emphasized that the long-term goal is cleanup because long-term stewardship is expensive.

Norma Jean Germond, Public-at-Large, agreed with Susan Leckband. Norma Jean pointed out that EPA is going to do five-year Superfund cleanup reviews on a continuing basis. She suggested that the shape of government may change over time, so our present assumptions may not hold true, but we need to do this now.

Leon Swenson questioned the assumptions about barriers to keep people away from contamination. Moses Jarayssi said that risk scenario was still being developed. Dennis Faulk said that some of the DOE sites assume institutional controls in perpetuity. That assumption changes the cleanup dramatically.

Wade Riggsbee, Yakama Nation (Tribal Government), asked if DOE-ORP was involved in the group. Moses Jarayssi said DOE-ORP was fully engaged. Wade Ballard said the vadose zone program includes both DOE-RL and DOE-ORP.

Doug Huston asked how you get from active to passive controls if cleanup is not sufficient to get to passive controls. He asked why not go straight to passive controls? Dennis Faulk explained that with current technology, we cannot get there. We have to do the best we can based on the technology we now have.

DOE-Office of River Protection Balance of Mission Concept

Steve Wiegman, DOE-ORP, talked about the context of the emerging balance of mission concept: what it is, how we got here, and where we are going. He described the balance of mission in view of the values discussed today regarding environmental protection, protecting the public and the workers, and “getting on with it”. DOE-ORP is in the process of demonstrating that it takes these values seriously. It is maintaining the tanks and assessing their longevity and integrity. They are removing the last of the liquid from the single shell tanks and putting it into safer storage to protect the environment and people. They have the right kind of contracts to complete this mission.

A plan has been submitted to Ecology to show that DOE-ORP can begin vitrification in 2007, and Congress is continuing to support the plant. The issues now are beyond the initial tank waste treatment and vitrification. The baseline currently calls for the construction of successive plants of different scales. When DOE-ORP began to move away from that concept, it did not update the entire baseline. The old baseline is being used by the current administration for budgeting purposes; however, the information is misleading.

Harry Boston, DOE-ORP, has been trying to get a credible baseline that maximizes the use of the initial plant and uses it as long as possible throughout the balance of mission. To correct the baseline, DOE-ORP has to deal with serious issues, such as how delays could affect the baseline. DOE-ORP is using a systems approach and is doing it now instead of waiting until the outyear budgets are announced or construction has started. This Administration is very impatient. It has already initiated a top-to-bottom review with a view to saving money. If we have a credible plan that carries the investments through to fruition, we are in a better position to show we are making progress on the mission.

No decisions have been made. They will be made within a public process. DOE-ORP is aware of the applicable regulations and believe the work of Moses Jarayssi's team has merit for the tank farms. However, DOE-ORP cannot make risk-based decisions until it has demonstrated how much progress it can make retrieving waste. The M-45 milestones address this issue and contain decision-making timeframes. DOE-ORP recognizes that it needs a credible timeline to support decisions.

Mike Wilson, Ecology, made some presumptive comments based on what he believed Harry Boston would say in his presentation on the balance of mission the following day. DOE-ORP is being fined for failure to begin construction of the vitrification plant on time pending receipt of a recovery plan that gets the project back on track for the 2007 date for plant operation, including a funding plan showing adequate funding to do the job. The recovery plan looks good, but it does not yet contain funding assurances. The Congressional conference committee approved what looks like adequate funding yesterday, but Ecology needs assurances from the Administration. Ecology has not received any formal proposals from DOE-ORP. The agencies are in the earliest stages of discussions.

Mike Wilson cautioned that it is important to be able to discuss any and all options without having overreaction from the regulators and the stakeholders. Simply having discussion does not mean that these things are seriously being considered. We need a process to have those kinds of discussions, but they should be cynical in nature because DOE has yet to meet any commitments to the state for construction of tank waste treatment facilities. In the past, when it comes to actually spending money, DOE backs back away from the project. Ecology is concerned that DOE-HQ is trying to do that again.

DOE often wants to talk about how much waste it can leave in the tanks before it demonstrates how much it can remove. Ecology finds no compelling reason to get into those kinds of discussions without DOE's commitment to demonstrate retrieval in a variety of tank environments and to demonstrate the capabilities of the vitrification plant. Ecology will not commit to closure standards for tanks using undemonstrated technologies when the tank farms will continue to be operated as part of a waste management and treatment system for another 30-40 years.

DOE-ORP has said for the last three or four years that it would be interested in discussing operational closure of tanks. Ecology wants them to get as much waste out of the tanks as possible. However, at this time, many tanks may be able to be put in an inactive status using the technologies we have today to cut the stand pipes, cap them, and do whatever minimal monitoring is necessary. DOE-ORP could then address formal RCRA closure in the future.

Ecology will not listen to DOE-HQ threats to not build the vitrification plant unless the State is willing to back away from its current regulatory authorities and requirements. DOE and others have suggested that the tank farms be regulated under CERCLA because CERCLA is more “friendly”. Ecology is not interested in that because the tanks are associated with a treatment facility and that falls under RCRA jurisdiction. When the waste is out of the tanks as much as possible, Ecology will be willing to talk about what kind of regulatory system makes sense at that point in time.

Pam Brown said the communities around the Hanford site area are also getting indications that there are problems at DOE-HQ. She had a conversation with Bob Card, DOE-HQ, last week. She is concerned that even if Congress appropriates the money, DOE-HQ will not choose to allocate that money to Hanford for fiscal year 2002 and that DOE-HQ is not considering a Hanford budget for fiscal year 2003 that will support the treatment project. She proposed that the HAB should send a message to the DOE-HQ saying that this unacceptable to the people of the region. DOE-ORP is not the problem; DOE-HQ is the problem. She thinks DOE-HQ is planning to seriously slow down the project, if not derail it. She has drafted a letter for signature from local mayors and county commissioners and encouraged others to do the same.

Keith Smith expressed concerns about the plans for the infrastructure to support the project. If the plant will be there for longer than originally planned, the infrastructure needs will be different. Steve Wiegman explained that those things are coordinated daily with DOE-RL. Over the life of the treatment tanks project, DOE-RL will have to provide the infrastructure and that impacts the whole site.

Susan Leckband asked DOE if it had any preliminary information regarding the top-to-bottom review. Steve Wiegman responded that he did not. The review is still one the highest priorities for the Secretary of Energy. Wade Ballard said the focus of the conversations had been how Hanford ties into the rest of the DOE complex, such as what to do with plutonium, where material will end up, and less expensive ways to deal with the waste and solve problems complex-wide. He has heard there is a report being requested right away for budgeting purposes.

Dave Johnson, Heart of America Northwest (Regional Citizen, Environmental, and Public Interest Organization), mentioned he had heard about some nebulous conversations about a plan to handle waste by treating one-third as high-level waste through the vitrification plant, a third in a cheaper way with grout or something, and leaving a third in place and closing the tank tanks with some of the waste in place. He

thinks this concept has serious ramifications and did not think the public would approve of it.

Ken Bracken thinks Ecology's willingness to talk about operational closure is important for the Board to recognize. This willingness may lead Ecology and DOE-ORP to a point where they can discuss doing these kinds of things. Other sites have gone through with those steps. Ken endorses these conversations.

Paige Knight said news about this plan was presented to the Oregon Hanford Waste Board meeting last week. She was outraged. She did not think we are going to get cleanup. She noted that if stakeholders do not make it clear that they demand cleanup, it will be easier for DOE-HQ to walk away from it. The Tank Waste Committee has been saying there is a cheaper, faster way to do these things for a long time, but if we walk away from current contracts, we are back to square one. She thinks the concepts outlined in the article *From Waste to Wilderness* are being imposed. She recommended fighting that.

Shelley Cimon, Oregon Hanford Waste Board (State of Oregon), was concerned that a lot of people had no idea of what this discussion was about. Steve Wiegman came to the Oregon Hanford Board last week and presented this balance of mission concept. This tank waste treatment program has been stopped and started too many times. She was glad to know negotiations are going forward on PFP. Everything needs to be out in the open, and we need to find a way to go forward. The way forward is not clear.

Mike Wilson clarified Ecology will not entertain any discussions that do not include the vitrification plant in place and operating in 2007. Leon Swenson agreed with Mike and cautioned that we have to be careful not to undermine construction of the vitrification plant and inadvertently stop the project.

Todd Martin suggested that the HAB act on Pam Brown's suggestion and draft a short letter so that after Harry Boston spoke on Friday, it would be ready if Board members wished to adopt and send it.

IDENTIFYING FUTURE BOARD WORK

In October, the HAB committees had generated a list of issues concerning the Central Plateau and River Corridor. The facilitation team identified a possible nine top policy issues from the broader list. HAB members then added additional items to that list, including:

- Is it the policy of the Board to reopen issues that have been closed if it would lead to better solutions that we currently have?
- Exposure scenarios discussion
- Hanford's relationship with the rest of the complex, particularly relative to importation of waste to the 200 Area.
- The new DOE-ORP balance of mission concept

- The River Corridor contract and the Agreements in Principle for 100 and 300 Areas to ensure they align with the TPA
- Priority for the 618-10 and 11 burial grounds
- Addressing mixed low-level waste and remote handled transuranic waste
- A strategy for coordination of tank closure under RCRA versus the rest of the 200 Area under CERCLA
- Groundwater - an aggressive strategy.

Betty Tabbutt wanted to stay focused on getting the waste out of the tanks. She did not want to talk about the waste that might be left behind. Paige Knight agreed with Betty. Leon Swenson disagreed, saying it makes sense to look forward to where we want to go, so we know how to get there. He thinks if the costs can be brought down by discussing alternatives, we have a better chance of getting funding.

Steve Wiegman noted that the baseline is outdated. He said that we need to know how we are going to deal with the waste that will be in the tanks for a long time while we get the vitrification plant up and running. The Board needs to be involved in defining interim closure and safe storage in the near term while we move toward our long-term goal. The question is: does the Board want to get involved in that? Steve added that setting cleanup standards is difficult, but the Board needs to stay engaged. DOE is required to have a life cycle baseline, and an audit is done every year by the Inspector General on that baseline to examine the cost to clean up the site.

Doug Sherwood said the East Coast does not have the waste we have. The life cycle baseline says for the 200 Area it is going to cost at least \$100 billion to clean up 25 square miles. We are being asked if we can do it for less. Doug thought we need a different approach that does not attack the TPA. If we stop looking for smarter solutions, we will not get funding from Congress.

Jeff Luke, Non-Union, Non-Management Employees (Hanford Work Force), felt that the goal of this Administration is to derail funding for the vitrification plant at least until it is out of office.

Further HAB discussion focused on the request from the TPA agency group headed by Moses Jarayssi for Board input into risk and exposure scenarios since this issue rose to the forefront of the things the Board identified as high-priority work items.

Wade Ballard, Max Power, Doug Sherwood, and Dennis Faulk clarified what the TPA agencies were asking from the Board. They noted that a lot of the planning work for the 100 and 300 Areas has been done. There are still groundwater and shoreline decisions to be made with the input from the Board. The groundwater timeline is dependent on source control decisions, unless the TPA agencies decide to make more interim decisions, especially in the Central Plateau.

Moving from the 100 and 300 Areas to the 200 Area is a huge challenge because of the complexity of the site. The TPA agencies will need to go to the public throughout the

planning process for the 200 Area. The first plans and feasibility studies are expected to be issued in March 2003. The agencies need to develop risk scenarios by then and are asking the Board for help in developing the values and goals to be used in establishing risk scenarios and exposure scenarios. They are required to present these scenarios to the public, and the agencies feel they will have a better product with input from the Board. The solutions to 200 Area issues may not be conventional. Priorities are shifting at the national level. The ability to get contracts depends on the public's understanding and support of what is being done on the Hanford site. Even though some of these decisions have been made, it is important to revisit some of them. In addition, re-affirming what has already been done is valuable.

The agencies explained that in order to formulate exposure scenarios, you have to determine what ecological resources are important to protect. In addition, many remedial alternatives will rely on some form of institutional controls. The TPA agencies and the HAB need to discuss what controls are important and appropriate. Some of these issues are important for the River Corridor as well.

Max Power highlighted two key questions as: What are the remedial options? What are the related institutional controls? Dennis Faulk explained that he needs two specific things: help in negotiating final cleanup schedules for the 100 and 300 Areas and help with the risk piece for the Central Plateau.

The main points of HAB discussion regarding future HAB work were the need for clarity of focus, clear identification of products and deliverables, and timing. Direction, support and assistance from the TPA agencies would also be important. Key discussion points included:

- Concern that this scope of work cannot be done by April 2002,
- Other voices in addition to those represented on the HAB need to be included in discussions,
- Risk assessment is ongoing
- The Board is most effective in initiating discussion and identifying values and goals, not in developing actual exposure scenarios
- Public involvement is best done by the agencies
- Exposure scenarios flow from desired land and resource use.

If the Board is going to do undertake this work, it will have to set some priorities and other committee and Board work will have to be pared down. Todd Martin observed that this work and the budget development process are the two main topics that need to be addressed by the HAB in the near-term.

Todd Martin asked about the schedule for the pilot ecological risk assessments. Dennis Faulk said the schedule has not been set, but it is probably a 2-3 year project. The Agreement in Principle is due at the end of April. Doug Sherwood added that they do not have a solid plan for ecological restoration or a plan from the natural resource trustees as to what they want to see. The agencies need this information in order to design how to assess ecological risk.

Leon Swenson was concerned about discussing closure scenarios in areas where the source term has not been addressed. Most of the contamination seems to be coming from the Central Plateau. Maynard Plahuta, City of Richland (Local Government), agreed. He said that there are things that can be done to stop the harm being done today. Norm Dyer, Oregon Hanford Waste Board (State of Oregon), said the exposure scenarios follow from how the site and the river are going to be used in the future. The Columbia River is especially important to the Oregon Hanford Waste Board and the citizens of Oregon.

Doug Huston warned about solutions in one area creating problems in another and the need for a unifying principle. Doug Sherwood also noted that it is important to look at the whole picture so that we do not expend all the resources in one area and ignore the needs in another. Assigning risk across the site is extremely important.

Greg deBruler sees a lot of interest in this topic. There are people not represented on the HAB who are not in on this discussion, such as the National Marine Fisheries Service and the U.S. Army Corps of Engineers. He suggested forming a task force that could include these additional interests. Greg thought that such a group could be formed and the work could be done to have the desired products by April 2002. He suggested hiring a facilitator for the group and that DOE help finance the effort.

Harold Heacock, Tri-Cities Industrial Development Council (Local Business), pointed out that when the Hanford Reach National Monument was established, there was a letter from the President instructing DOE to consult with the Secretary of the Interior on any future site use planning. The U.S. Fish and Wildlife Service is working on a land use plan for its own areas of responsibility. It will be a few years before it is completed.

Jim Curdy, Grant and Franklin Counties (Local Government), thinks that we do not know what we can do and what rules and regulations apply. We cannot by-pass contractual agreements. We have to continue using the current large area displayed on the map and see how it affects the use of the river and water and stay within the rules.

Board members identified three options to approach this work, ⁽¹⁾ through an ad hoc task force, ⁽²⁾ a separate HAB committee, or ⁽³⁾ the current HAB committee structure.

Steve Wiegman pointed out that DOE is focusing right now on the C3T process dealing with the same issues. It might be good for this HAB group to work through the C3T process so as not to fragment the efforts.

Harold Heacock cautioned that the HAB needed to identify the product to be developed before deciding on how to proceed. Todd Martin clarified that the 11 key questions for the group to answer were listed on a handout and on the overhead projector.

Max Power observed that the 11 questions were a mixture of issues and the function of the group to be created needed to be clear. Max noted that it was important to get the 11 questions/issues into a form that can be discussed with the public. In addition, the TPA agencies need advice on some of these things that are now coming due and need help

thinking creatively about the sequencing of some of these issues. Ruth Siguenza, EnviroIssues, observed that some of the questions imply getting input on values regarding specific issues. Others are focused on obtaining and understanding basic information.

The HAB discussion returned to the way to organize to work on the 11 questions. There was extensive discussion on the advantages and disadvantages of a task force versus various committee structures. A section from the local HAB Charter was read to clarify the Board's groundrules relative to task forces. Many people thought setting up a task force would be too cumbersome for the time restrictions to deliver the needed products. The discussions of committee structures centered on Board restrictions on the number of committees members can be on and the number of leadership positions they can hold, as well as the time commitment for volunteer board members. Forming a separate committee had the potential to exclude people whose time and resources are limited. Using the current committees would fragment the work and cause communication problems for the agencies. All agreed that all of the options allow for getting input from agencies and organizations not currently represented among the seats of the Board.

There was universal agreement that this project will require a substantial time commitment. Some suggested the Board, acting as a committee of the whole, could meet to do this work. There was also discussion about whether the final product would go through the Board for approval. In the end, it was decided that products from this group should come to the full HAB for adoption and approval.

Gerry Pollet pointed out that this product is very different than what the Board usually does. He did not think it mattered if the product is a HAB product, because consensus on this product is not required. Every viewpoint has to be represented in the product. He pointed out that there are a lot of interest groups that care about risk scenarios that do not care about other HAB issues. These groups need to be represented in this work. He did not believe DOE wanted to spend the money necessary to have the kind of public involvement required by law on these issues. Gerry said there should be funding for any additional activities required to do this work.

Wade Ballard said that DOE intends to meet the legal requirements for public involvement. There are an extensive set of public involvement activities planned for February and March. These are separate issues from getting Board input into the information that will be going to the public in February and March.

Todd Martin made a proposal to form an ad hoc task force, invite outside input, and reduce the other work of the committees so that people can work on this. The Thursday of committee week was not scheduled with a HAB committee meeting, so the proposal also included a first meeting of the task force on November 8. All who are interested would be welcome to joint the meeting.

Greg deBruler doubted that people would be willing to give up their pet issues on their committees so this new work would get short shrift.

Gerry Pollet commented that there was work that should have been done before these issues were brought to the Board. He said if people meet on Thursday of committee week, that work will not have been done. He noted that this whole process started because someone thought the Board wanted to work on end states. He observed that at the recent C3T meeting, there were at least four different ideas of what an end state is. He said someone needs to do the up-front work.

Todd Martin asked if Gerry Pollet was willing to do the work of defining the product for the group and to identify what the risk assessment requirements are. Gerry said someone should spend two weeks getting these things defined. Dennis Faulk agreed. Todd asked what could be accomplished at a meeting the following week. He thought a small group of people could meet to work on definitions of scope and product for the new workgroup. Doug Huston thought the first meeting during committee week could be used for that.

Gariann Gelston offered to work with Gerry Pollet in doing the up-front work for the workgroup and to shepherd the group at its first meeting. Todd Martin noted that at the meeting on November 8, the agreement was for the group to get to the next level of detail on the scope of the work, decide who should be involved, how often the ad hoc task force should meet. He emphasized the Thursday meeting was an open meeting shepherded by Gariann and Gerry.

Greg deBruler asked if this was an ad hoc committee or a task force and if the products have to come before the Board for approval. Todd Martin recapped the Board's agreement that it is an ad hoc task force whose products will come before the Board for approval. Greg adamantly disagreed with that. His concern was that outside voices will be excluded from the process, and the Board can veto alternate viewpoints. However, Greg said he would not block the process of forming the ad hoc task force.

SITE TECHNOLOGY COORDINATION GROUP

Gordon Rogers, Public-at-Large, introduced Paul Kruger, DOE-RL who said that he is interested in getting more HAB involvement in the Site Technology Coordination Group. Things the group is doing may help to accelerate cleanup. In some cases, getting cleanup done at all depends on integrating science and technology.

In fiscal year 2001, there have been 31 first-time deployments by cleanup contractors. DOE-HQ dollars are used to support these technologies. Paul Kruger's office is working more closely with the projects to determine technology needs. Cleanup contracts are incentivized to have a technology program in place to provide answers to problems in meeting the aggressive TPA milestones. The focus is on outcomes, and success is based on meeting baselines.

In the past year, Paul Kruger's staff has worked with Wade Ballard's Planning and Integration group to produce a document called the Hanford Site Cleanup Challenges and Opportunities for Science and Technology that identifies areas where technology can be

infused into cleanup baselines. This helps DOE-HQ identify where to put its money to support the program. The web site for the Strategic Assessment document is <http://222.pnl.gov/stcg/2238aall.pdf>.

Jeff Frey, DOE-RL, discussed advice the HAB could give that would be helpful, including the following questions:

- Is Hanford adequately addressing and answering the tough questions and issues in meeting the baseline and understanding and supporting the science needed to do that?
- Does Hanford manage and mitigate the risks inherent in the complex baselines?
- Are we identifying and investing in technology and making use of the best available technology and improving how we perform the work?

Science and Technology is a user-driven program, and the participation of the HAB is important. DOE is starting a program-level road mapping activity using the Cleanup Challenges and Opportunities document. They are mapping groundwater and subsurface technologies, remote handled waste, surface burial development and performance monitoring, and facility disposition options. In addition, they conducted a comprehensive needs workshop this year.

A science and technology assessment was issued in March. It is a top-to-bottom process linked to the 2012 plan. DOE-HQ has a program to accelerate site technology deployment, so DOE-RL is submitting a proposal package on Nov. 29th including proposals for characterization of the carbon tetrachloride plume, 327 hot cell monolithic removal, an epithermal neutron multiplicity counter, and the conversion of a Waste Receiving and Processing glove box to handle transuranic waste.

Other science and technology topics being worked on right now include addressing surface contaminants in cold weather in the 100 Area, monitoring the 100 Area chromium plume, F Reactor fuel storage basin cleanout, remote excavation in radiological areas, characterization using a gamma camera in the 300 Area and for the 618-10 and 11 burial ground, using gas analysis to monitor the tritium plume, soil removal from congested areas, evaluating 200 Area carbon tetrachloride data in the vadose zone, uranium concentrations in ground water, and assessing contaminant flows in the vadose zone. They are also looking at the Canyon Disposition Initiative to review options for addressing large processing buildings on site; at stabilization of PFP polycubes; and at a bagless transfer system to expedite the PFP processes and eliminate plastic bags as part of the waste stream.

Future challenges include groundwater and subsurface technologies, remote handled waste retrieval and disposition, surface barrier development and performance monitoring, and massive facility disposition options development.

Billie Mauss, DOE-ORP, talked about the technology accomplishments for fiscal year 2001. She helped develop an Integrated Technology Plan for DOE-ORP based on the different drivers in the baseline, risks, and reduction of costs. DOE-ORP is also using the road mapping methodology developed in conjunction with the contractors. DOE-ORP

plans to have this document finished in December 2001. It will be posted on the DOE website when completed.

DOE-ORP's goal is to look at ways to accelerate cleanup, reduce cost and risk, achieve closure, and optimize function. Among the DOE-ORP accomplishments cited were vadose zone and groundwater monitoring at the tank farms, above-grade transfer lines, the Pit Viper demonstration, a topographical mapping system, and leak detection monitoring and mitigation.

Paige Knight asked how these three science and technology staff people interface with the labs and CH2M Hill Hanford Group (CHG). Paul Kruger noted that today, there is more of a distinction between the federal workers and the contractors. DOE is focused on what to do; the contractors are focused on how to do it. They also have a science and technology coordination group. Pam Brown and Gordon Rogers participate on this group that includes regulators, tribes, stakeholders, DOE project people, contractors, and technology people from lab. It is a good venue to promote communication and cooperation.

Paige Knight asked if the technology group is looking at what is going on with the vitrification plant and its melters, including sulfate and sodium issues with the melters. Billie Mauss said DOE-ORP is submitting a set of needs to DOE-HQ.

Keith Smith said he did not think DOE was taking credit for all its accomplishments, such as the device for qualifying steel on the ground that saves a lot of money. He has talked to Joe Cruz, DOE-ORP, and Steve Wiegman about developing a technology to repair leaking tanks. Keith suggested DOE needs to embrace worker participation in the Integrated Safety Management System (ISMS), which offers some good examples of using worker-generated technology.

Pam Brown explained that there are subgroups, and there is HAB participation on each subgroup. There have been changes in the group. You cannot request funding unless there is a program manager saying they need that technology. Hanford is competing nationally for technology needs. Hanford and the Lab have done well over the past few years.

Pam said Site Technology Coordination Group members have been questioned about the viability of the group, and she wondered what the results of those inquiries were. Paul Kruger acknowledged that DOE had done a survey. The feedback was that there are some needed improvements in clarifying the role of the group. DOE is summarizing the survey data, and it will help DOE move in the right direction. Paul also wants input from the HAB and its members.

Betty Tabbutt expressed concern that she has heard nothing about how Hanford is responding to the September terrorist attacks. Paul Kruger said the Secretary of Energy made an announcement that he can share with the HAB clarifying DOE's mission related to national security. Betty clarified that her concern was more focused on materials at the

Hanford site that could be the target of terrorists. Paul Kruger said that the Pacific Northwest National Laboratory has a significant national security program and a significant portion of its funding comes from the national defense appropriation. The lab is looking at accelerating some of its technology development to help with anti-terrorism activities.

Leon Swenson asked Billie Mauss about the interface between the technology people and the contractors and the importance of the removal of sodium salts in tank waste. Harry Boston flagged this at the September Board meeting as one of the areas that could have a huge impact on the amount of vitrification that has to be done. Billie said DOE-ORP is looking at it for strategic investment, although it is outside the Bechtel National tank waste treatment contract. It is a balance of mission issue. They are taking a two-pronged approach. If they can remove sodium salts during the retrieval of single-shell tanks waste, they can decrease the amount of waste put in double-shell tanks and optimize space use. They are looking at several technologies.

Wade Ballard pointed out that Doug Sherwood was instrumental in instigating the Science and Technology Assessment Report when he challenged Gerald Boyd, DOE-HQ, that DOE was not getting much support for science and technology. Gerald had responded that if DOE field offices developed a set of site priorities, DOE-HQ would look at it.

Dennis Newland, Benton County (Local Government), suggested that there should be an accelerated site technology deployment program at Hanford. If the work force can see the technology, work teams will be more likely to use it. This might be a productive use of some of the Accelerated Site Technology Deployment (ASTD) money for deploying the technology. Paul Kruger noted that there is a pollution prevention component in projects this year in ASTD. DOE is considering submitting ASTD proposals to the HAB for its endorsement, if the HAB would be comfortable doing that. Proposals are due November 29th. The proposals are not done yet, but the HAB endorsement help get funding.

DOE-OFFICE OF RIVER PROTECTION BALANCE OF MISSION

Harry Boston, DOE-ORP, said that for many years he has felt that DOE needed to have a plan for finishing the tank farms work at Hanford. The plan has to be affordable and credible in order to get continued funding from the Administration.

Work is progressing now. Plans are in place and contracts are in place. DOE-ORP is working on accelerating the work currently under way. The new Administration is very interested in getting things done faster and cheaper. DOE is being asked to show that it is getting the most for its money. There is no need to change near-term plans.

Harry Boston summarized that there is a wide variety of materials in the tanks. Some are nearly empty and may be candidates for early closure. Formally closing a tank is a regulatory decision that requires public input. DOE-ORP needs to know how clean is

clean. He does not want to spend so much money in some areas that he cannot do anything in others. The last 20 tanks have less than 1/10th of one percent of the total tank waste inventory. There appears to be much opportunity to complete waste treatment, close tanks earlier and cheaper, and protect human health and the environment.

The current plan for the entire treatment project is not credible. Congress is using the baseline that includes a Phase II plan that has been abandoned. It is too expensive and will take too long. Harry Boston proposed that there may be cheaper and faster ways to treat portions of the waste, meaning that less waste would have to be vitrified. The current plan says that the first vitrification plant would treat 10 percent of the waste and then be torn down. If you keep running it, you can treat perhaps 50 percent of the waste during the design life of the first plant.

It looks like the first plant can begin with a much higher production rate than first thought. DOE-ORP now thinks that it can treat all the high-level waste by 2028. DOE-ORP will probably only treat 50 percent of the low-activity waste by 2028. The TPA agreement is to finish treatment by 2028, so DOE-ORP needs to think about how to treat the rest of the low-activity waste. They are thinking about a number of ways to do that.

DOE-ORP has to keep producing results if it wants to keep getting funding. Harry Boston wants the regulators and the public to start looking at closing tanks with less waste treatment. There is time to decide if there is a need to build additional vitrification plants. We may find cheaper technologies in that time. We need to start the National Environmental Policy Act (NEPA) process to get the public involved from the beginning. We can start developing an understanding of risk, cost, and outcomes. We have to choose the most cost-effective technology that will protect the human health and the environment. Harry emphasized that we do not have to decide these things today, but we have to start thinking about them today.

Gerry Pollet suggested that since the costs being used currently are inaccurate, simply showing the correct numbers will produce the appearance of large cost savings. Then, DOE-ORP can go ahead with retrieving waste from the tanks. Gerry noted that the public has already rejected the idea of leaving waste in tanks, and there currently is not a technology that is better than vitrification. Harry Boston explained that there are technologies that could be used. If the waste went through pretreatment, the residue could be grouted. He said if there is a way to stabilize tanks, we need to look at it. Gerry reiterated that the national environmental standard is to retrieve waste, not to leave it in place.

Harry Boston said that the low-level vitrified waste will be disposed of on the Central Plateau. Gerry Pollet further clarified that right now, the plan is for it to be put into retrievable vaults. DOE-ORP appears to be proposing to put it into ditches, something that has to go through a NEPA process and is not proven to be as protective.

Suzanne Dahl, Ecology, referred to Mike Wilson's comments from the day before. She refuted Harry Boston's contention that the large tank waste treatment expense comes

from having to treat 99 percent of the waste. She asserted that the biggest cost in treatment is in the buildings and infrastructure that you have to construct. She also emphasized that it is important to get the tank waste retrieval demonstrations going forward.

Suzanne Dahl explained that DOE-HQ is asking for more near-term risk reduction. She said space could be created in the double shell tanks, and more waste could be moved over from the single shell tanks. With current processes, several tanks could be emptied. There are other constraints to closing tanks than just RCRA. DOE Order 435.1 requires performance assessments and cumulative risk assessments, which cannot be done quickly. Ecology would be happy to consider interim retrieval or operational closure so that we can show progress to the Administration. The agency is also willing to consider a public process to move this progress forward. Harry Boston agreed.

Paige Knight suggested that to do things faster and cheaper, the melters would be pushed harder, and the melters are not up to specifications yet. Harry Boston noted that the melters are expected to process a certain amount of waste per day, but those currently being tested are actually processing more. Paige expressed concern that sodium and sulfate in the waste may be problems. She wondered if there had been solutions to these issues. Harry said DOE is looking at pretreatment technologies.

Harry Boston noted that funding could be more difficult next year because of the weakening economy and the cost of fighting terrorism. HAB members responded that the terrorism issue should be a selling point for getting on with cleanup.

Todd Martin reflected that the HAB has a long history of pro-actively trying to make the tank waste project and the vitrification plant quicker, cheaper, safer, and better. Usually, the Board's input could not be accommodated because DOE was focused on moving forward. The Board feels its input could have routinely benefited the project. Now all the rules we have played by appear to be gone, and we are talking about things that have arisen very quickly, fundamentally changing the project, and the changes do not immediately show how it will improve anything. Because of the thoughtful work the Board has put into this over the years, that is unacceptable because that speed undercuts getting a better, cheaper product.

Harry Boston emphasized the he is doing what he honestly believes DOE-ORP needs to do. Its focus remains getting the vitrification plant on line. In addition, DOE-ORP is talking about what they can do for the balance of the mission.

The Board adopted a letter to Secretary of Energy emphasizing the need for Hanford to obtain the ability to vitrify wastes as soon as possible.

LETTER OF CONGRATULATIONS TO KEITH KLEIN

The Board adopted a letter of congratulations to Keith Klein, DOE-RL site manager, regarding his receipt of the 2001 Presidential Rank Award for Distinguished Executive Service.

BOARD BUSINESS

The Board does a self-evaluation every year. Todd Martin has asked HAB co-vice chairs Ken Bracken and Shelley Cimon to lead the effort this year. This year's evaluation will be simpler than last year's.

The Board decided to have eight or nine meetings in calendar year 2002. Todd Martin will take the lead to identify possible dates and locations in accordance with his responsibilities as Board chair under the local Board charter.

COMMITTEE REPORTS AND ISSUE MANAGER UPDATES

Harold Heacock announced that the Draft Request for Proposals (RFP) for the River Corridor Contract was released for public review 10 days ago. The comment period closes in mid-November. DOE has said it will accept Board comments, including possible advice, until after the December meeting. Members of the HAB and the Budgets and Contracts Committee learned about the Draft RFP at a meeting the Wednesday night prior to this Board meeting. The committee will be working on draft advice to present to the Board for consideration at its December meeting.

Leon Swenson announced that in the Tank Waste Committee work planning process, committee members have re-organized the work plan in terms of statements of policy issues and essential policy questions in order to provide clearer focus and direction for committee issue managers.

The Public Involvement and Communication Committee will meet on Monday, November 5 to work on a white paper offering an approach to evaluating public involvement activities. They plan to present the white paper at the December Board meeting. This could feed in to the ad hoc task force work on exposure scenarios.

Pam Brown announced that the River and Plateau Committee will have a presentation on the Hanford Reach Monument at its November 7th meeting. The committee will also look at the environmental assessment that was done last summer on the burial grounds and negotiations for the Plutonium Finishing Plant.

Next Site-Specific Advisory Board chairs meeting will probably be held in April 2002 at the Fernald site in Ohio.

Doug Sherwood said there is a new Environmental Restoration Disposal Facility (ERDF) Record of Decision amendment out for public review. One purpose of the amendment is to expand ERDF so it can accept additional waste from the River Corridor. The agencies are not waiting for the negotiations on the River Corridor milestones to be completed

because they need the space soon. The amendment also includes a staging area away from operable units. Both of these benefit cleanup along the river.

The Groundwater Workshop at the Savannah River Site has been rescheduled from November 2001 to January 31st - February 2nd. Gordon Rogers would like suggestions from the Board to help develop the focus and agenda for the workshop.

Public Comment

There was no public comment offered at this meeting.

ATTACHMENT 1 – ATTENDEES

HAB Members and Alternates

Ken Bracken, Member	Kristy Baptiste-Eke, Alternate	John Erickson, Ex-Officio
Pam Brown, Member	Madeleine Brown, Alternate	Debra McBaugh, Ex-Officio
Shelley Cimon, Member	Norm Dyer, Alternate	
James Cochran, Member	Gariann Gelston, Alternate	
David Cortinas, Member	Jim Hagar, Alternate	
Jim Curdy, Member	Doug Huston, Alternate	
Greg deBruler, Member	David Johnson, Alternate	
Norma Jean Germond, Member	Robin Klein, Alternate	
Abe Greenberg, Member	Todd Martin, Alternate	
Harold Heacock, Member	Wanda Munn, Alternate	
Russell Jim, Member	Dennis Newland, Alternate	
Charles Kilbury, Member	Maynard Plahuta, Alternate	
Paige Knight, Member	Wade Riggsbee, Alternate	
Robert Larson, Member	Keith Smith, Alternate	
Susan Leckband, Member	John Stanfill, Alternate	
Jeff Luke, Member	Stan Stave, Alternate	
Gerald Pollet, Member	Art Tackett, Alternate	
Gordon Rogers, Member	Amber Waldref, Alternate	
Dave Rowland, Member	David Watrous, Alternate	
Leon Swenson, Member		
Margery Swint, Member		
Betty Tabbutt, Member		

AGENCY, CONTRACTOR, AND SUPPORT STAFF

Wade Ballard, DOE	Rick Bond Ecology	Bruce Ford, Bechtel/Hanford
Helen Bilson, DOE	B. L. Becker, Ecology	Kim Koegler, Bechtel/Hanford
Harry Boston, DOE	R. K. Biyani, Ecology	Moses Jarayssi, Bechtel/Hanford
Mary Burandt, DOE	Rick Bond, Ecology	Nancy Meyers, Bechtel/Hanford
Bob Carosino, DOE	Laura Cusack, Ecology	Barry Vedder, Bechtel Hanford
Jeff Frey, DOE	Suzanne Dahl, Ecology	Carolyn Haass, CHG
Peter Knollmeyer, DOE	Dib Goswami, Ecology	Tony Knepp, CHG
Paul Kruger, DOE	Jane Hedges, Ecology	Fred Mann, CHG
Ellen Mattlin, DOE	Fred Jamison, Ecology	Mary E. Todd, CHG
Marla Marvin, DOE	Steve Moore, Ecology	Kim Ballinger, Critique, Inc.
Gail McClure, DOE	Max Power, Ecology	Linda Grotefendt, EnviroIssues
John Morse, DOE	Tracy Richards, Ecology	Tammie Holm, EnviroIssues
T. Erik Olds, DOE	Ron Skinnarland, Ecology	Penny Mabie, EnviroIssues
Walt Pasciar, DOE	Roger Stanley, Ecology	Ruth Siguenza, EnviroIssues
Dana Ward, DOE	Joy Turner, Ecology	Judy Connell, Fluor Hanford
Steve Wiegman, DOE	Nancy Uziemblo, Ecology	Gloria Cummins, Fluor Hanford
Barbara Williamson, DOE	Mike Wilson, Ecology	J. S. Hertzell, Fluor Hanford
	Ginger Wireman, Ecology	Paul Scott, Fluor Hanford
	Mary Anne Wuennecke, Ecology	Keith Thomson, Fluor Hanford
	Craig Cameron EPA	Barbara Wise, Fluor Hanford
	Dennis Faulk EPA	Kristine Collins, Infomatics
	Larry Gadbois, EPA	Kristin Lerch, Infomatics
	Mike Gearheard, EPA	Dave Nichols, Jacobs
	Mike Goldstein, EPA	Sharon Braswell, Nuvotec
	Doug Sherwood, EPA	Chris Chamberlin, Nuvotec
		Peter Bengtson, PNNL/ORP
		Rich Brown PNNL
		Phil Gaught, PNNL
		Janice Parthree, PNNL
		Terri Traub, PNNL

MEMBERS OF THE PUBLIC

Allyn Boldt	Sandra Lilligren	John Stang, Tri-Cities Herald
Les Davenport	Barry Moravek	Lisa Stiffler, Seattle Post-Intelligencer
John Keating	Joyce Olson, Congressman Doc Hastings' office	Lynn Waishwell, CRESP