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HANFORD ADVISORY BOARD
Final Meeting Summary
September 9-11, 1998
Pendleton, Oregon

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.

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Note: Attachments are numbered according to the order they are mentioned in the summary. The attachments that were distributed at or before the Hanford Advisory Board meeting are not routinely distributed with this summary. If you need a copy of an attachment, please request it from Donna Sterba at Technical Resources International, 509-943-1804, or Enid Reck at Fluor Daniel Hanford, Inc., 509-376-5856

Executive Summary

FY99 PERFORMANCE AGREEMENTS

Alice Murphy, DOE-RL, provided a comparison of the performance agreement and fee award process for FY97, FY98, and FY99. In FY97, the Project Hanford Management Contract (PHMC), had $54 million available in performance fee and earned approximately $29 million. The total incentives available were 244; 208 were met and 36 were not met. In FY97, the PHMC earned 30% of the critical few fee available for the spent nuclear fuel program, 31.5% of the fee available for site management; 68.6% available for infrastructure; 74.7% available for facilities stabilization; 75% available for tank waste remediation; and 100% available for waste management. For the mega incentive, there were a total of 79 incentives which were crosscutting over several projects and programs. The PHMC met 66 of those incentives (61 had to be met in order to earn any fee) and earned $8.5 million or 41.3% of the available fee.

For FY99, DOE has been meeting with the Board's committees to discuss what the performance agreements might look like. The issues discussed with the committees have been considered in finalizing those agreements and the consensus advice adopted at this meeting will also influence the final agreements. Input has also been solicited from regulators and the tribes. Last year, DOE did not receive its final funding amounts until December and so delayed finalizing the performance agreements. This year, the performance agreements are being developed and signed based on the President's budget, with the understanding that if the final allocations are changed from that budget, then the performance agreements will be revised accordingly. The Board adopted consensus advice on the FY99 performance agreements. It is Consensus Advice # 87.

PLUTONIUM DISPOSITION EIS

The Board agreed on a transmittal letter to Secretary Richardson of the Board's past advice on nuclear materials and waste disposition and outlined the Board's long history of interest in public participation related to disposition decisions. It will serve as a input to the public comment period on the Waste Management Programmatic Environmental Impact Statement.

HAB TRIP REPORTS

Board members reported back on several meetings that have been attended over the past several months. This included the Intersite Workshops held in Chicago and San Diego in June which were intended to bring stakeholders together with DOE to share information on the sites and differing ideas and perspectives between DOE and stakeholders concerning waste transfer. One of the major themes that came out of the workshops is the need to address the most urgent risks.

The Board also heard an update on the Nevada Low-Level Waste Forum held in Las Vegas and sponsored by the Nevada site-specific advisory board. The purpose the meeting was to share information between the sites. Out of the meeting came an action for the site-specific advisory boards to rank the six alternatives in the Waste Management Programmatic Environmental Impact Statement. After extensive discussion, the Hanford Advisory Board agreed not to rank

the six alternatives and provided a letter to DOE identifying the importance of a full public involvement process and an open decision-making process. It is Consensus Advice #86.

Two members of the Board met with a panel from the National Research Council that was asked by DOE to review its project management structure. The general themes discussed during that meeting included lack of continuity and consistent policies, lack of funding, and the importance of stakeholder and tribal input.

TWRS VITRIFICATION

The Board heard about the current status of the contract between BNFL and DOE to privatize the treatment of tank wastes. Also, Walter Howes, Director of the Contract Reform and Privatization Project Office, discussed with the Board DOE-HQ approach to privatization and the efforts to ensure that the funding and management skills are in place to make TWRS vitrification a success. The contract between BNFL and DOE covers a 24-month period after which the contractor will produce a vitrification facility at 30% design. That work will be used to obtain financing as well as prepare permit applications. The current contract covers the treatment of 10% of the tank waste and up to 25% of the radioactivity in the waste.

Ecology stressed the urgency of getting tank waste treatment capability at Hanford. Time is running out; with each new tank leak, there is an increased risk to the Columbia River and public. Ecology believes that the current contract between DOE and BNFL is the most viable path forward. However, Ecology is seeking accountability, commitment, and program integrity as well as enforceable milestones for the construction and operation of the facility. The Washington Department of Health noted that air permits cannot be obtained until the facility is at 100% design.

Board members provided their individual perspectives on the TWRS program which included the continued delay in the treatment of tank wastes, the increased risks to the public and environment, and the uncertainties that remain in the current contract approach. After considerable discussion, the Board agreed to closely track the 24-month design process to ensure that the long-term success of the project remains viable.

SPENT NUCLEAR FUEL PROGRAM

An agreement was announced between EPA and DOE that addresses the schedule, costs, and project management issues of the Spent Nuclear Fuel program. This agreement will be going out to the public for review and then incorporated into the TPA as enforceable milestones. EPA spent considerable time with DOE and its contractors over the summer going through a detailed review of the program and was able to reach an agreement on a framework for project improvement.

GROUNDWATER/VADOSE ZONE INTEGRATION

Prior to presentations by DOE, several Board members expressed frustration at the report of the potential dismissal of Bob Alvarez, DOE-HQ, who was intimately involved with the Groundwater/Vadose Zone Integration program. Based on a continued lack of effectively including stakeholder involvement in the program, these Board members stated their decision to discontinue their involvement in any discussions or meetings regarding the Groundwater/Vadose Zone Integration program.

DOE reported that the goals of the program includes integrating the many cleanup programs that involve groundwater and vadose zone issues, providing a set of tools with which cumulative impacts can be assessed, and making technically defensible cleanup decisions. DOE also reported that public participation has been key to the activities conducted to date; project workshops, weekly update meetings, and a draft consultation plan have all contributed to that effort. Problems remain with stakeholder involvement and the program is committed to fixing those problems. The program is facing a severe lack of funding with $10 to $11 million needed for FY99. EPA and Ecology both expressed their frustration with program and the lack of progress to date. There needs to be better involvement of both stakeholders and regulators.

HANFORD ADVISORY BOARD
Final Meeting Summary
September 9-10, 1998
Pendleton, Oregon

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Wednesday, September 8, 1998

The meeting was called to order by Chair Merilyn Reeves, Oregon League of Women Voters (Public-at-Large). The meeting was open to the public. Four public comment periods were provided at 11:45 a.m. on Thursday and Friday, at 4:45 p.m. on Thursday, and at 3:45 p.m. on Friday.

Members present are listed in *Attachment 1*, as are members of the public and others attending. Board seats not represented were: Kristie Baptise, Nez Perce Tribe (Tribal Government), Richard Berglund, Central Washington Building Trades (Hanford Work Force), Shelley Cimon, Oregon Hanford Waste Board (State of Oregon), Bob Larson, Benton-Franklin Regional Council (Local Government Interests), Charles Kilbury, City of Pasco (Local Government Interests), George Kyriazis, City of Kennewick (Local Government Interests), Rich Leaumont, Lower Columbia Basin Audubon Society and Columbia River Conservation League (Local Environmental), Jerry Peltier, City of West Richland (Local Government Interests), and Jim Watts, Hanford Atomic Metal Trades Council (Hanford Work Force).

Announcements Made Throughout the Meeting

[Items are listed in chronological order, rather than the order made. Announcements with no dates are listed last.]

- Tim Ewers, CRESP-UW, announced that an exhibit will be set up during the Board meeting which summarize the activities that the Consortium for Risk Evaluation with Stakeholder Participation (CRESP) is currently conducting. All Board members were invited to view the exhibits and ask questions of CRESP staff.

- The final report of the Hanford Openness Workshop is now available to Board members.

- Paul Schumann and Tory George introduced themselves as contractor support to the citizens advisory board at the Los Almos National Laboratory. That group was recently reconstituted and Paul and Tory have come to see how the Hanford Advisory Board works and what lessons could be applied to the Los Alamos citizens board.

- Board members should turn in their travel vouchers by September 25 to Kim Ballinger at DOE.

AGENDA ITEM #1: WELCOME AND INTRODUCTIONS

Louise Dressen, EnviroIssues, introduced changes to the Board's membership, including Paige Levin appointed as the new alternate for Heart of America Northwest; Ruth Sechena resigned as an alternate for Physicians for Social Responsibility; and Ken Niles appointed as the primary member of the Oregon Office of Energy, with Mary Lou Blazek, Doug Huston, Dirk Dunning, and Mike Grainey serving as alternates. It was announced at the Environmental Restoration Committee meeting that Tom Woods will be retiring as a representative of the Yakama Indian Nation, effective at the end of September.

Tom Engel, University of Washington (University), announced that this meeting will be his last as a Board member. He noted how important he feels the Board is and thanked those members who are not supported by salaries, but are active participants. Tom is resigning from the Board, both because of work load issues and a slight burn out on Hanford issues; he will also be on sabbatical from his position at the University. The Board has offered a lot of advice to the U.S. Department of Energy (DOE) and progress has been made, but in the area of new technologies, not enough progress has been made. In the long run, however, Tom feels that the real problem with advancing cleanup is the lack of effective management at DOE-HQ and DOE-RL.

Tom Carpenter, Government Accountability Project (Hanford Work Force), announced that on October 2 and 3, his organization and several regional interest groups will be sponsoring a conference entitled "A River Runs Through It," which will look at Hanford and its impacts on the Columbia River. Panelists will talk to about future actions, what people can do, and a common sense presentation on the issues.

AGENDA ITEM #2: APPROVE JUNE MEETING SUMMARY

Ken Niles, Oregon Office of Energy (State of Oregon), questioned whether the Board has received the cost information for the DOE-HQ evaluation of the site-specific advisory boards, as requested by Gerry Pollet, Heart of America Northwest (Regional Citizen, Environmental, and Public Interest Organizations). Merilyn Reeves reported that the Board has received a draft of the evaluation report, but not the cost information. This should be followed up on; possibly a letter should be written and shared with other site-specific advisory boards. Emmett Moore, Washington State University (University), noted that the meeting summary referred to leaks in the concrete basins filled with spent nuclear fuel and questioned whether there was a history of those leaks written down in a report. Dennis Faulk, U.S. Environmental Protection Agency (EPA), will check on that information.

Gerry Pollet noted that the June Board meeting summary did not accurately reflect the presentations and conversations regarding the reduction of overhead and indirect costs. He requested that the presentations be more fully reflected as well as the conversation that occurred.

AGENDA ITEM #3: FY99 PERFORMANCE AGREEMENTS

Louise Dressen introduced the agenda topic on FY99 performance agreements, noting that the Dollars & Sense Committee has closely tracked both the agreements and fee award and the Board has reached consensus on several pieces of advice. Most recently, the Dollars & Sense Committee reviewed the FY98 performance agreements and lessons learned from the FY97 performance fee award process.

Alice Murphy, DOE-RL, provided a comparison of the performance agreement and fee award process for FY97, FY98, and FY99 *(Attachment 2)*. In FY97, the Project Hanford Management Contract (PHMC), had $54 million available in performance fee and earned approximately $29 million. The total incentives available were 244; 208 were met and 36 were not met. This was a sign that performance needed to improve, neither DOE nor the contractor were happy with the performance. In FY97, the PHMC earned 30% of the critical few fee available for the spent nuclear fuel program. 31.5% of the fee available for site management; 68.6% available for infrastructure; 74.7% available for facilities stabilization; 75% available for tank waste remediation; and 100% available for waste management. For the mega incentive, there were a total of 79 incentives, which were crosscutting over several projects and programs. The PHMC met 66 of those incentives (61 had to be met in order to earn any fee) and earned $8.5 million or 41.3% of the available fee.

Alice said that in FY97, the mega fee was measured against objective measures. As this was found to not be effective, the mega fee in FY98 was measured against more subjective measures. Eighty-five percent of the available fee is in the objective pool with the rest in the subjective pool. In FY98, the number of strings was also reduced. The strings that remain still have a large impact because there are more negative fees associated with those strings.

For FY99, Alice said DOE has been meeting with the Board's committees to discuss what the performance agreements might look like. The Board will be considering draft advice on the performance agreements at this meeting, but DOE has been moving forward with developing the agreements so they are finalized by September 30. The issues discussed with the committees have been considered in finalizing those agreements and the consensus advice will also influence the final agreements. Input has also been solicited from regulators and the tribes. Last year, DOE did not receive its final funding amounts until December and so delayed finalizing the performance agreements. This year, the performance agreements are being developed and signed based on the President's budget, with the understanding that if the final allocations are changed from that budget, then the performance agreements will be revised accordingly.

Program managers, led by the Chief Financial Officer, review the incentives the programs are developing to ensure they are measurable and credible. Clear linkages with the Strategic Plan are being shown. Also, DOE is reviewing the performance agreement to ensure that the right work items are incentivized to meet Tri-Party Agreement (TPA) and Defense Nuclear Facility Safety Board (DNFSB) milestones as well as to ensure safety and health. Louise Dressen introduced draft advice on the FY99 performance agreements that has been written by the Health, Safety,

and Waste Management, Environmental Restoration, and Dollars & Sense Committees at the request of DOE.

Board Discussion

Susan Leckband, Non-Union, Non-Management Employees (Hanford Work Force), questioned whether DOE knows what performance agreements the PHMC has met for FY98. Alice Murphy responded that while there have been some submissions, most are not submitted until after the end of the fiscal year. Betty Tabbutt, Washington League of Women Voters (Regional Citizen, Environmental, and Public Interest Organizations), questioned the intent behind the point in the draft advice that recommends incorporating negative fee if the PHMC exceeds authorized costs. Alice responded that there is a provision in the performance agreements that the contractor has to perform to the established cost and schedule. However, there is no negative incentive for going above the estimated baseline. Gerry Pollet added the draft advice recommends that the authorized cost baseline cannot be exceeded without a change control package.

Tom Carpenter expressed his concern that in a safety situation where a budget would be exceeded in order to make the work environment safer, this type of negative fee association might discourage the contractor from making appropriate changes. The contractor should not be pressured to operate in an unsafe manner. Also, for health and safety, more definable criteria are needed. Gerry Pollet responded that the response from DOE when this issue has been raised in the past is that the baseline change control would be a way for the contractor to justify its cost increase based on a change made due to safety reasons. Alice agreed with that statement as well as noted that the mega fee and subjective and measurable criteria are used to measure safety.

Emmett Moore questioned the recommendation for external review of the Spent Nuclear Fuel program's baseline and the costs associated with such a review. Gerry Pollet responded that the Board has continually recommended for the past three years that all baselines be independently validated. Alice Murphy added that DOE has just developed a set of procedures for how baselines are validated. There are different thresholds, for example, if the proposed change is higher than a certain amount, an independent validation would be automatically required. If a baseline has gone three years without an independent validation, it would automatically be required. Usually baselines are reviewed by an independent contractor or someone outside the program.

Dick Belsey, Physicians for Social Responsibility (Local and Regional Public Health), suggested that the draft advice include a baseline for health and safety training for all workers on the site as well as a complete account for the number of workers who would make up the denominator for a health incentive. This would keep track of workers as they move on and off the Hanford site. Dennis Faulk suggested that the draft advice include a recommendation that the technology development program also be incentivized. Merilyn Reeves suggested that the National Research Council team with whom she and Harold Heacock met should also receive a copy of this advice after it has been adopted by the Board.

Action on Agenda Item 3 - FY99 Performance Agreements

Nanci Peters, Yakama Indian Nation (Tribal Government) noted that compliance with treaty rights should not be incentivized, but rather should be a basic component of any contract. Gordon Rogers (Public-at-Large) expressed concern with the recommendation that rewards the contractor for reducing the dose to users on the Columbia River. The contractors should be focused on measurable actions and meeting milestones. Dennis Faulk added that the Environmental Restoration program has been working over the past two years on dose reduction and the work is mostly complete. The idea of reducing risk to the public and workers is addressed in another recommendation.

Susan Leckband suggested that the health and safety performance agreements include a requirement to report every worker on the site in health and safety statistics, not just those for the major contractors. Gordon Rogers asked why the Groundwater/Vadose Zone Integration project should be singled out for increasing its public involvement when it is already making a good effort to obtain stakeholder input. Tom Carpenter noted that in letters written by himself to DOE-HQ and DOE-RL, he has noted that promises of workshops and meetings with stakeholders on the groundwater/vadose zone have not materialized. There is disagreement among stakeholders as to an appropriate level of public involvement; the advice should simply note that the overall program needs to be acceptable to the stakeholders. Tom Engel suggested additional recommendations regarding incentivizing technology development.

After further discussion on specific wording changes, the advice, as revised, was adopted. It is Consensus Advice #87. Madeleine Brown had previously recused herself from this advice.

AGENDA ITEM #4: SURPLUS PLUTONIUM DISPOSITION EIS

Tim Takaro, University of Washington (University), introduced a draft transmittal letter for previous Board advice on nuclear materials and waste disposition. The purpose of the transmittal letter is to bring to the attention of the new Secretary, the Board's long history of interest in public participation related to disposition decisions. This will also serve to remind incoming DOE staff members of the benefits of broad stakeholder involvement and the Board's intent to remain engaged in dispositioning decisions as accelerated site cleanup continues.

Board Discussion

Betty Tabbutt suggested that the draft transmittal letter clearly state that it should be considered as part of the public comment on the Waste Management Programmatic Environmental Impact Statement (PEIS).

Action on Agenda Item 4 - Surplus Plutonium Disposition EIS

After further discussion on specific wording changes, the Board agreed to send the letter on the Surplus Plutonium Disposition EIS to DOE.

AGENDA ITEM #5: HAB TRIP REPORTS

Shelley Cimon, Oregon Hanford Waste Board (State of Oregon), provided her perspective from the Intersite Workshop held in June in San Diego and hosted by the League of Women Voters; a second workshop was held in Chicago. The purpose of the workshops was to bring stakeholders together with DOE to share information on the sites and differing ideas and perspectives between DOE and stakeholders concerning waste transfer. The San Diego workshop focused on transportation issues. A handful of the sites, including Hanford were asked to make presentations. Max Power, Washington Depaartment of Ecology (Ecology); Jay Austenborg, DOE-RL; Ken Niles, Pam Brown, City of Richland (Local Government); Merilyn Reeves, and Beth Bennington from the Waste Isolation Pilot Plant (WIPP) were all part of the Hanford presentation.

Shelley reported over 140 people attended the workshops and constituted an interesting mix of interests, including students. Having students in attendance elevated the civility of the group and set the tone for the workshops. Shelley's major themes coming out of the workshops include the fact that DOE does not seem to be addressing the urgent risks that must be addressed before transferring waste. When attendees were broken into small group discussions based on their constituencies, some of the concerns that each group had included transportation, waste sites, scientific information, scheduling, long-term stewardship, management, national dialogue, waste consolidation, focus on stabilization, no more waste generation, life-cycle costs, long-term consequences, lack of tribal trust in the process, lack of tribal input to the process, piecemeal decisions, public education, trust, technology information, health and safety, need for a national energy policy, articulation of principles for decisions, geologically stable storage, impacts of inaction, and ability to reach consensus. A question for the Hanford Advisory Board is whether the Board should define a desired end state for the site and allow transportation of waste from site to site without consensus on permanent disposition?

Susan Leckband added her perspective on the Intersite Workshop held in Chicago. The workshop helped to illuminate the enormity of the problem at Hanford and how it compares with other DOE sites. In her opinion, there does not seem to be a DOE-HQ grasp of what needs to be done for the future. Attendees were very action oriented and recognized that the end states for sites need to be defined. There also seems to be no real champion for cleanup or someone who will take the message of what needs to be accomplished to Congress and the President. When participants were asked to move waste around the sites, some participants did not do that but rather talked about what needed to be known before such decisions could be made. Also, it was clear that the tribes have not been dealt with on a government-to-government basis.

Harold Heacock, TRIDC (Local Business Interests), added that another item of interest from the workshops was that there is waste that is not being dealt with by DOE. For example, depleted uranium is still in cylinders and pre-1970 Transuranic (TRU) waste at Hanford is not being addressed and there is no place to put it. Russell Jim, Yakama Indian Nation (Tribal Governments), added that the reason for the small Northwest tribal participation in the workshops was the boycott by some 70 groups that created confusion and prevented tribes from going. Nothing in the proposed plans for waste transfer addresses tribal treaty compliance.

Russell Jim's presentation at the workshop was eventually labeled as emotional participation which shows the gross misunderstanding of what is meant by treaty compliance and government-to-government relationships. There must be an assessment which will define end states to help guide DOE's decisions.

Tim Takaro noted that a large group of organizations did not attend the meeting and the number of DOE attendees greatly exceeded any other group. Stakeholders interested in this topic will have to work very closely with the new staff at DOE-HQ to ensure this issue is adequately addressed. Ken Niles expressed his appreciation for the number of DOE personnel at the workshops because it meant that there were people there to listen to the views being expressed. Another interesting part of the workshops is it seemed that all the sites went with the attitude that they were going to convince everyone else that their problems were the worst. This is an illustration of the site versus site competition and piecemeal approach to waste disposition. The most often mentioned message coming out of the small groups and overall discussion at the workshops is that the most urgent risks need to be addressed.

Norma Jean Germond (Public-at-Large) also expressed the importance of having DOE staff attend the workshops and listen to the stakeholders. There was universal knowledge and agreement by the participants that Hanford has overwhelming problems that need to be dealt with. There was also acknowledgment that there were a lot of unknowns that would need to be understood before waste transfer can begin. Ken Bracken, Benton County (Local Government Interests), noted that the answer at the Chicago workshop seemed to always be to send waste to the West, whether it was Hanford or Nevada. Many of the other sites felt that because the West is in a more arid environment, waste would be safer there. Also, it is important to note that if the smaller sites are cleaned up, the political base for cleanup will be lost; Hanford cannot wait for other sites to be cleaned up. Jim Owendoff, DOE-HQ, was adamant that only flat funding will be available to the cleanup program and decisions need to be based on that reality.

Jim Trumbold, Physicians for Social Responsibility (Local and Regional Public Health), reminded the Board that while Hanford has urgent problems, the rest of the sites' risks need to be remembered. This is not just a Hanford issue, it is a global problem. Paige Leven, Heart of America Northwest (Regional Citizen, Environmental, and Public Interest Organizations), also attended the Chicago workshop which had value. However, it was not part of the National Dialogue, which still needs to take place, and did not give the general public the opportunity to express their values are and for DOE to make decisions based on those values. Because so many DOE staff were attendees, the result was that a lot of DOE staff gave advice back to DOE. The other thing that occurred was that DOE continued to say that nothing is wrong and the end result will be fine. The students pointed out that this will only serve to build public distrust of anything that DOE says.

Pam Brown, expressed her perception that DOE did not dominate the San Diego workshop, but rather was there to listen to the discussion. Jim Owendoff made it very clear that there will not be any more national meetings of this nature, rather site-to-site discussions will need to occur. It was a tremendous value to go and listen to other sites' presentations and hear the range of

interests being expressed. It was also valuable for the Hanford representatives to get a chance to explain the issues facing the site.

Greg deBruler, Columbia River United (Regional Citizen, Environmental & Public Health Organizations), noted that other sites' presentations did not seem to represent the broader public at the sites. DOE must identify a champion for this issue and be willing to talk about the risks. The Columbia River Comprehensive Impact Assessment (CRCIA) would provide the opportunity for people to talk about the current risks and understand the issues. If the risks are talked about, the need for funding will become more apparent and urgent.

Merilyn Reeves attended both of the workshops and felt that the Northwest representatives delivered a truthful message about Hanford and the issues that are facing the site. The exercise of using lego blocks to move waste around different sites was a very graphic reminder of the national scope of the problem. She came away from the workshops with the impression that the workshops need to be the first of many meetings to involve the public. The student journalists that attended the workshops provided a valuable contribution, and one of the students, Heather Holben from the Tri-Cities, would like to start participating in the Hanford Advisory Board. Merilyn requested that Board members think of the best way to make this happen.

Jeff Luke, Non-Union and Non-Management Employees (Hanford Work Force), reported back on the Nevada Low-Level Waste Forum held in Las Vegas and attended by himself, Gerry Pollet, and Harold Heacock. Jeff distributed a summary of the meeting as well as slides from a DOE presentation that identifies the scope of the problem *(Attachment 3)*. The most urgent issue that came out of the workshops was an action item for the site-specific advisory boards to rank the alternatives presented in the Waste Management (WM) EIS. Harold Heacock noted that DOE is planning to issue a supplement to the current WM EIS and having the site-specific advisory boards select one of the six alternatives is the wrong way to approach the decision-making process.

Gerry Pollet added that the supplement to the current WM EIS will be a Record of Decision (ROD). Many of the participants from other sites were pushing to ship waste to Hanford without full consideration of the impacts. The draft transmittal letter proposes the Board not rank the six options in the WM EIS and transmits the Board's past advice on the subject. Max Power, noted that the one other area of controversy is the issue of full cost recovery by the sites accepting waste. Some of the other sites do not believe that it is a reasonable request for those sites to pay for the disposal of legacy waste they inherited from past practices. When participants ranked items of importance, full cost recovery ranked high in the West, and not at all at Oak Ridge and Savannah River.

Merilyn Reeves noted that the ranking of the six alternatives was not the purpose of the meeting, rather it was convened by the Nevada site-specific advisory board to share information between sites. The Board needs to deliver the message that it is not the job of the Board to rank the alternatives, nor are the site-specific advisory boards representative of all the public interests at the sites. Jeff Luke expressed his opinion that it was clear from the beginning that the purpose of the workshop was to select an alternative. There is an opportunity for the Board to provide

advice and if it chooses not to select an alternative, the Board should stress that any decision should be selected based on the least negative impact on the environment. Max Power noted that the action of selecting an alternative was not part of the preparatory discussions held by the facilitators. Merilyn Reeves questioned whether the comment period for the WM EIS is closed and how the site-specific advisory board comments would be used. Gerry Pollet responded that DOE-HQ will be reopening a public comment period for the ROD and the site-specific advisory board's decisions will be used in that process.

Dennis Faulk notified the Board that there will be another natural attenuation seminar held in Seattle on December 2 and 3 sponsored by EPA and the United States Geological Service. State and tribal nations are invited as well as all interested stakeholders.

Harold Heacock reported back to the Board on a meeting held between himself and Merilyn Reeves and the National Research Council (NRC). The NRC was asked by DOE to look at their project management structure. A panel is visiting a number of the sites across the country to look at DOE's management structure on a project basis. The general themes expressed by Harold and Merilyn to the panel were the lack of continuity and consistent policy, lack of funding, importance of stakeholder and tribal input, the TPA, and problems in looking outside for an external viewpoint. Merilyn Reeves added that the meeting was very worthwhile. They were able to provide good information to the panel and the panel had thoughtful questions.

Action on Agenda Item 5 - HAB Trip Reports

Merilyn Reeves introduced a revised version of the letter that would go to DOE regarding the action from the Nevada Low-Level Waste Forum meeting which directed site-specific advisory boards to rank the alternatives in the WM EIS. Ken Bracken asked for clarification as to whether the action to rank the alternatives was a direction or whether the attendees voted to take the action. Gerry Pollet responded that the group did vote on the action and those who opposed it lost the vote. Paige Knight warned that it is important to clarify in the letter that this was not an action suggested by site-specific advisory boards. Tim Takaro suggested adding a reference to the need for a credible and sustainable National Dialogue to discuss waste disposition issues.

Paige Knight suggested that the Board reference the fact that Hanford should not accept waste until it has a fully funded and functioning program for treating tank wastes. Ken Niles cautioned that Hanford is already accepting low-level waste from offsite, i.e., submarine reactor cores, and should be careful not to contradict current practices. Nanci Peters, noted that the tribes cannot say that they would ever agree to accept additional waste coming to the site. Jeff Luke expressed his opinion that the Board cannot say it will stop accepting waste; continued acceptance of waste contributes to the budget of the site.

Gerry Pollet suggested that the Board needs to spend time discussing intersite waste transfer, possibly over a period of several meetings. Topics that should be considered include what is currently being sent to the site, what is planned to be sent to the site, costs, and impacts. After further discussion on specific wording changes, the advice, as revised, was adopted. It is Consensus Advice #86.

THURSDAY, SEPTEMBER 9, 1998

AGENDA ITEM #6A: TWRS VITRIFICATION

John Wagoner, DOE-RL, introduced Ron Hanson, the new president of Fluor Daniel Hanford (FDH). Ron has worked for FDH for the past three years after a long career with DOE. He has a very strong background in the Environmental Management program, including experience working with citizen groups in New Mexico as well as similar environmental issues. Ron Hanson noted that he was very involved in setting up the site-specific advisory groups in Albuquerque and Los Alamos and has an appreciation for the value that they bring to the complex issues facing cleanup. He stressed his commitment to stay at FDH and the Hanford site for a long period of time. As he works at Hanford, the safety of the public and workers will be the top priority. Protection of the Columbia River is also a very important issue. However, the critical factor will be getting funding to get the work accomplished. He is looking forward to working with the Board and incorporating its ideas and concerns into everyday work planning and decisions site.

John Wagoner introduced Walter Howes, Director of the DOE-HQ Contract Reform and Privatization Project Office, who joined DOE in March to assist in the privatization efforts going on around the complex, including the Tank Waste Vitrification System (TWRS) program. He came to Hanford at a point where the privatization proposal was being evaluated and negotiated and immediately began making a significant contribution to the process. Walter Howes noted he has been with DOE for six months. He has heard a lot about the Board's involvement in the TWRS program and is a believer in stakeholder involvement. Walter has been involved in the Environmental Management Advisory Board and has training originally in chemistry and economics and then received an MBA in finance. He has been involved in raising capital for energy and environmentally related projects and commercializing environmental technologies. Walter Howes has worked in eastern Europe on privatization efforts and serves on Duke's School for the Environment Board, on the Environmental Board for the United Nations, and sits on advisory boards for the U.S. Department of Commerce and EPA.

Walter said part of the problem facing DOE in implementing privatization is its continuing change in management. The privatization office came as a reaction to congressional and other stakeholder concerns that DOE was initiating privatization without the skills in-house to manage the project correctly. The privatization office reports directly to the Secretary's office and and looks at DOE's entire program, not just environmental management, to better integrate privatization into the existing programs. The incoming secretary and the existing personnel have committed to improving the overall management of DOE and is willing to look at anything that is suggested..

Walter reported that Hanford will be getting a good part of the attention of the privatization; TWRS is the largest privatization contract DOE has ever taken on. When the TWRS privatization was first proposed, Walter was a vocal and constructive critic of DOE pursuing that type of contract approach. The question has continued to be why DOE picked the most

complicated program as its first attempt at privatization. DOE has actually ended up in the right place for pursuing this type of contract and Walter has the confidence that DOE has picked the right team to execute the program and has some of the best technologies available to the agency. The current approach is slightly different from what DOE originally proposed – it is not truly privatization, but it is not a cost plus, management and integration approach.

He added DOE has done some course correction in how it utilizes the privatization contracting method and it will succeed. There are currently two concerns: funding and managing of the contract. The parties that are interested in seeing TWRS privatization succeed will have to be speaking with one voice to get the funding necessary to execute the contract. TWRS privatization will require DOE to act differently than it has done in the past, including using a different set of skills, team base, and a different way of collecting information. It is difficult, but DOE is in the process of hiring new people and will do the work it takes to ensure the agency manages and partners with BNFL correctly in the next several years.

John Wagoner provided an overview of the TWRS vitrification contract and what it means for the TWRS program *(Attachment 4)*. The phrase that he is using to describe the current contract is "no more talking - we're off and running." The Board now has available to it the report to Congress which is the most informative contract on the TWRS contract and goes into detail on how the contractor was selected and the contract written. In the first part of the contract, the activity now underway is a 24-month period in which the work is financed by the contractor. DOE has backed up the contract with budget authority given by Congress, so the government's commitment is legally there. During the next 24 months, BNFL will get to the 30% design phase, which is enough design to flush out a lot of gaps. With that information, the contractor will be ready to move from design into actual construction. During that period of time, all things that need to be done to complete construction will be put in place.

Other important aspects are obtaining private financing and completing permit applications and obtaining permits. Those two items will be done during the next 24 months. This first phase of the contract has an estimated worth up to $350 million and will be a combination of expenditures that BNFL will make to accomplish the work plus the maximum commitment the government has to pay for the work being accomplished. Only the fee will come as a government payment, with costs still financed by the contractor. If, and only if, BNFL accomplishes the minimum, the base fee available is $20 million. However, DOE is interested in having engineering work reduce the total cost of the physical facilities and has incorporated an incentive feature that would add $20 million in fee if costs are decreased.

The contract is different from a cost reimbursable contract because if the work is completed and products are not acceptable, the rework comes at the contractor's expense. Once the first phase of the contract is completed, DOE will then authorize facility construction. During the construction phase, payment will come only when product comes out of the plant. The total estimated cost is $6.9 billion, calculated in today's dollars. The contract does have a provision for inflation and economic adjustment. If inflation is included, the cost may increase to $10.5 billion.

The schedule for completing the work includes starting low activity waste facility construction in 2002 and completing high activity waste facility construction in 2009. The first hot operations will occur in April 2006 and begin the pretreatment process to concentrate the radioactive isotopes into the smallest amount of space to ship to the permanent geologic repository. The process will leave the bulk of the waste on site for permanent disposal. It is expected that up to 95% of the chemicals could be pulled out of the waste. DOE believes it is practicing good environmental stewardship when it concentrates the radionuclides and also decreases the overall cost. The most expensive waste is that put into stainless steel canisters and moved to the repository.

Treatment of high activity waste will begin early in 2007 and the low activity waste will start in 2008. What is significant is the switch from starting with low activity waste to beginning with high activity waste. This was the engineering approach that BNFL preferred and the overall schedule provides a considerable incentive to the contractor to not only achieve it, but to do better. The sooner BNFL gets payment from DOE for delivering a treated product, the sooner debts can be repaid. BNFL has committed to putting their company assets at risk by committing to achieving the schedule and covering cost overruns. BNFL has also made a strong commitment to resolve any technical issues.

Hanford waste is different from the waste BNFL has treated in the United Kingdom. The contractor is planning the first phase to set the stage for how all of the tank waste will eventually be treated. In the final contract, there will be ways to ensure protection on the taxpayer side from the standpoint of excessive profits. There will be further negotiation on the risk-reward equation to ensure that the taxpayers do not face a wind-fall situation. In BNFL's contract, only 10% of the waste will be treated. That includes up to 25% of the radioactivity in the tank waste, comprising approximately 50 million curies. There are six tanks on the hydrogen watch list and four of those tanks will be dealt with in the first phase of the contract. By treating the waste, the equivalent of 7 double-shell tanks will be available for continued storage of waste removed from the single-shell tanks.

There are still a lot of questions as to how DOE will manage this contract. DOE-RL will be adding people to the TWRS privatization organization in order to effectively manage the project. Some of the skills that DOE will be bringing into the project include investment, banking, and project finance. Another part of DOE's responsibility is the regulation of industrial, radiological, and nuclear safety. DOE is operating under a memorandum of agreement with the Nuclear Regulatory Commission which is assisting DOE in designing a program similar to how a private sector project would be regulated, including an openness standard. It is important to ensure that the designs are correct and reviewed to satisfy the Regulatory Unit criteria unit for safety. The Regulatory Unit reports directly to the site manager and DOE will ensure that the project manager is satisfied with the project's process as well as the safety regulations have been met. There will be a rigorous independent review of the key milestones in the project as time goes on and DOE is constructing an oversight from DOE-HQ. Today, DOE has a 20-year contract with an off-ramp option and plenty of checks and balances. If DOE cannot get a reasonable price from BNFL, then the agency has the ability to go in a different direction. At the end of the two

years, DOE plans to settle on a fixed price and schedule and see BNFL's full equity commitment to the project.

Suzanne Dahl, Ecology, discussed the current regulatory perspective on the TWRS privatization contract, including capacity, credibility, and commitment *(Attachment 5)*. Time is running out to protect the Columbia River in the current time frame for getting treatment capacity on line. There are more leaking tanks at Hanford than at any other site. Seventy of the tanks have leaked more than a million gallons into the soil. The waste has reached the groundwater, which travels towards the Columbia River. Eventually, all of the tanks will leak to the soil and groundwater. With each new tank leak, there will be an increased risk to the Columbia River and public. Once waste reaches the groundwater, the technical capability to cleanup up that contamination is very limited and will probably be more expensive.

Hanford has had a number of false starts, but can no longer afford more delay. Since 1998, Ecology has been looking for progress in the areas of tank safety issue resolution; upgrading of aging infrastructure; removal of pumpable liquids from the single-shell tanks; and retrieval and treatment of tank waste. The site is currently left with single-shell tanks that are 30 years past their design life and when the double-shell tanks are finally emptied, they will be 50 years beyond their design life. These facts show the urgency for getting treatment capacity. While it seems that 2028 far in the future, it is probably not a sufficient amount of time to get the work done.

Ecology wants a project that is "doable" and is technically capable of turning tank waste into glass, given the financial and contractual arrangements. The current contract between DOE and BNFL is the most viable path forward. Ecology endorses the contract as it makes use of available mature technologies and resources that exist now. There will be technological problems and glitches along the way due to Hanford's heterogeneous wastes. Privatization has evolved over the past several years. For a larger facility, rather than the pilot plant, there is a greater cost and a longer design phase will be required. Other parts of the evolution of privatization include no longer having competition between plants as well as a continual change in the financial arrangements and risk sharing.

There are now differences in the path forward and what is in the TPA. The contract is only through 30% of the design process and then there will be a decision point to go or not go forward. Having a go/no-go option is of concern to the agency; Ecology has not yet seen the criteria for making a decision to proceed with the project. Also, the financial approach and its viability remains uncertain. Continuing to have the potential for delay leaves open the possibility for impacts on other parts of the tank program, including removal of liquid from single-shell tanks. Ecology is seeking accountability, commitment, and program integrity. DOE must elevate the priority of constructing and operating a treatment plant to a critical level; it is no longer just a DOE-RL issue, but also a DOE-HQ issue. There needs to be a joint goal of\\for each organization to reach the goal of tank waste treatment, not just the 24-month design phase.

Ecology expects to be involved in meetings going on at different levels in order to monitor progress, including meetings with the contractor, PHMC, DOE-HQ and DOE-RL. The agency is

looking for DOE to negotiate enforceable milestones for the construction and operation of the facility based on a 90% confidence level schedule. Remaining environmental concerns include the development of a comprehensive program that identifies and commits measures necessary to ensure safe extended in-tank storage of waste. DOE must provide a sound, strategic accountable management plan to ensure that all tank waste will be treated by 2028. In order to accomplish that, DOE will have to have a significant integrated management team between DOE-RL and DOE-HQ and between BNFL and the PHMC, with common goals between all parties.

Ecology's approach, under the current circumstances, is that this contract is the most viable option for treating the tank waste. If more assurances can be made that address the above concerns, the agency is willing to revise the TPA by working with DOE and Hanford stakeholders in a process similar to the Tank Waste Task Force. Those parties need to be working toward defining TPA milestones that commit to the path forward, a signed contract for construction and operation, groundbreaking for construction, and the first day tank waste is turned into glass.

Al Conklin, Washington Department of Health (WDOE), reviewed the state regulatory requirements for radioactive air emissions. Under the federal and state clean air regulations, privatization does not fit neatly into the requirements. Under the federally delegated programs that the departments of Health and Ecology have received, any site that consists of operations made up of more than 51% of DOE work, falls under the DOE air permit. The contract between BNFL and DOE was written without a clear understanding of the federal and state air quality laws. The commencement of construction after 30% design completion is not possible under state law because permits require information available only at the 100% design completion.

Board Discussion

Russell Jim reminded Walter Howes, DOE-HQ Contract Reform and Privatization Project Office, that treaty compliance issues must be considered more than just on the periphery of the cleanup effort. If treaty rights and the indigenous people's concerns are not included in cleanup, a lot of problems will arise. As currently written, the contract with BNFL does not mention treaty rights at all.

Gerry Pollet thanked Walter for coming to the Board meeting and asked whether he was familiar with the Board's previous advice on contract reform and privatization and why DOE has not responded to that advice. He also questioned whether Walter will be addressing the issues raised in the Alliance for Nuclear Accountability report. Walter responded that he has read the Alliance for Nuclear Accountability report as well as talked with Board members regarding their concerns on contract reform. In terms of the Board's past advice on contract reform and privatization, the Board's concerns have been elevated to a senior level. By creating his office, giving it a budget, and hiring people, DOE has responded to concerns raised about privatization. DOE is moving towards a policy of continued improvement. Gerry questioned whether Walter has looked at the proposed legislation which would cap overhead rates at 30% and how it might impact the TWRS privatization program. Walter noted that overhead budgets at many of the sites could be improved and managed more effectively, but it is a different issue than overall contract reform.

Ben Floyd, Benton County (Local Government Interests), questioned DOE's commitment to the BNFL contract and approach and whether how the contract will be managed reflects a commitment to the approach. Walter responded that the TWRS privatization contract will be managed out of DOE-RL with a direct line back to DOE-HQ and resources there that will include the Environmental Management program, Field Management, contract reform, and the Contract Reform and Privatization Project Office. If the TWRS privatization program does not have the support of DOE-HQ, it will not succeed. Walter's office is hiring a staff who will be dedicated to the TWRS program. Also, the Office of River Protection is being created this year by Congress and will report directly to DOE-HQ. The Contract Reform and Privatization Project Office will ensure that DOE-RL has the right skills mix and management capability.

Betty Tabbutt asked Walter Howes to address the three issues that have continually arisen in Board discussions including competition, alternate path, and compliance with the TPA. Walter explained that DOE is trying to take privatization from being a separate program to a better way of designing contracts and doing business. When private sector capital is brought into the federal government, it brings about certain unique aspects of the federal procurement process and requires a unique approach. Privatization is not the answer to every one of DOE's programs. The approach to TWRS privatization has developed into an appropriate response. Competition was used during the first phase of the selection process and DOE is confident that the winner of the competition is the most skilled entity to get the job done. BNFL will have to continue to compete to move forward, including a preparing a fixed price proposal. Incentives are in place to keep the costs low and the alternate path is being developed over the next 18 months.

Merilyn Reeves questioned how many people are part of the Contract Reform and Privatization Project Office's staff. Walter responded that there are currently four employees in the office and four more will be hired. The office will also be using contractor support. For each of the missions of DOE, the office is hiring people who are skilled on each of those issues. A team of federal and contractors are being put together to go out to the sites and work on programs. Ideally, if his office does its job effectively, then his office can be closed eventually.

Merilyn Reeves identified her concern with the compartmentalization that happens at DOE; there can no longer be a lack of integration. Walter suggested that the Board make a formal request to have him come back and visit the Board and provide a report on the progress of privatization. There is a lot of compartmentalization in DOE and that requires a cultural change. The political process that DOE operates in which leads to change in management makes it difficult to have a stable mission. Jeff Luke noted his concern with more staff being hired in a management role at DOE-HQ while the number of workers on the Hanford site have decreased. Walter explained that the Contract Reform and Privatization Project Office is not hiring very many people and will not be a permanent, growing organization. However, to implement change, resources have to be redirected and a different skill mix is needed which is not present in DOE right now.

Paige Knight noted that by 2020, the current TWRS privatization contract will only have treated eleven of the tanks holding waste. John Wagoner replied that until the waste is treated, it will have to remain in the tanks. Of the 54 million gallons of waste in tanks, the current contract will treat 10% of the waste volume and 25% of the radioactivity, as well as resolve the safety

concerns of six of the tanks. Paige questioned whether DOE took any of the Board's advice during its contract negotiations with BNFL. John responded that DOE had the Board's advice throughout the negotiation process; if the Board would like a comparison of where the Board's advice was and was not used, he would be willing to provide that. Paige agreed that that information would be very helpful. Paige also asked who will be responsible for safety inspections. John replied that the Regulatory Unit will have responsibility for ensuring that the treatment facilities are safe. Seventeen DOE staff are part of the Regulatory Unit and will be getting additional support from contractors with specialized expertise.

AGENDA ITEM #6B: TWRS PRIVATIZATION

Todd Martin, Hanford Education Action League (Regional Citizen, Environmental and Public Interest Organizations), provided an overview of what has changed in the contract and what it means for the Board's tracking of the project *(Attachment 6)*. John Wagoner presented information on what is good with the current contract between DOE and BNFL. That is not the right approach for the Board to be taking. Rather the Board should be looking at the fundamental practicality of the contract actually becoming a reality. DOE's goal was fixed price contracts with two contractors to finance, design, build, and operate two low activity waste (and possibly one high activity waste) vitrification facilities. Both facilities would be operating by December 2002 at a projected cost of $3.9 billion for the treatment of 6 to 13% of the waste over 10 to 14 years. Today, DOE has signed one contract to design one treatment facility that will vitrify both high and low activity waste. DOE will not receive a fixed price estimate until July 2000 and the total projected cost to treat 10% of the waste over ten years is $6.9 billion.

Todd said the message in the BNFL proposal was that the project was going to take longer and cost more. Reviewing past Board advice, this should not be a surprise. The current approach is a movement to a more realistic approach. The original privatization approach proposed building two demonstration plants for low activity waste treatment beginning in 1998. By 2007, two larger low activity waste treatment plants would be on line with two high activity waste treatment facilities on line by 2009. Vitrification would be complete by 2028. Privatization as described in 1995 through 1997, has 2002 for the completion of 2 low activity waste plants; 2009 for the completion of one high activity waste plant. Vitrification of the low activity waste would be complete by 2024 and vitrification would totally complete by 2028. The current 90% BNFL schedule begins the design phase in 1998 and this lasts through 2000 or 2001. The high activity waste facility would be complete by 2008 and the low activity waste facility by 2009. In 2018, 10% of the waste will have been treated.

HEAL prepared a report for DOE which outlined an alternative proposal to vitrification. It began with DOE identifying contractors interested in designing, constructing, and operating a low-level waste vitrification facility. DOE would pay two to four of those contractors to develop a preliminary design package. DOE would then enter into a fixed price, incentive based contract with the best preliminary design package. After the contractor demonstrated that the vitrification plant was working, they would be paid the fixed price, plus incentives. The designer and builder could continue operating the facility or competitive bidding could take place for operations of the facility. The operator is then paid for glass waste products which meet DOE specifications.

Todd said the current contract/proposal has questions remaining, based on the Board's past concerns. Management ability, the availability of funding, space in the double-shell tanks, and interim stabilization remain unknowns. The contracting mechanism also remains unresolved. Other issues include regulatory oversight, cost, the TPA, public involvement, and overall schedule. Todd pointed out that the TPA in 1994 identified 2005 as the start of low activity waste vitrification, and 2009 as the start of high activity waste vitrification. Single-shell tank retrieval would have been complete in 2018 and all of vitrification complete in 2024. One year later, the TPA was revised to show 2002 as the start of low activity waste vitrification and 2009 as the start for high activity waste. Single shell tank retrieval would still be completed in 2018 with vitrification complete in 2028. The DOE change request submitted in July 1998 shows vitrification complete in 2028. There are no TPA milestones for tank waste treatment and disposal.

The Board should serve notice to DOE and Ecology of its expectations and then focus on the two to three year design period, Todd suggested. The question to ask is whether DOE is supporting the readiness-to-proceed work adequately enough to be able to provide feed to the privatization contractor. In the next six months, BNFL will be delivering documents that include information on pricing and repricing, idle facilities payments, sharing of cost savings, and initial project schedule and cost estimates. DOE must also show the program will be funded in the near term. DOE's decision points on contract deliverables should be TPA milestones. Ecology and DOE should expeditiously negotiate milestones for the design phase and through to 2028.

Harold Heacock provided the Dollars & Sense Committee perspective on the TWRS privatization contract. The Committee has agreed on a list of issues that should be considered as the Board moves forward on this topic, however, there remain divergent views on the specific issues. These include the following:

- Potential to shorten the TWRS vitrification schedule
- Inability to meet TPA and other regulatory milestones
- Need for cost reduction, especially in outyears when cash flow requirements are high
- Ability of the PHMC to deliver waste on time to the privatized contractor; impacts and costs of non-delivery
- Risk of the design and permitting in parallel; need for large contingencies to cover risks
- Comparison of the privatization approach with alternative contracting methods
- Risk of setting the unit price at the 30% design phase; need for large contingencies to cover risks
- DOE's role in managing a privatized contract; DOE program staffing
- Role of regulatory agencies and other affected parties
- Capability to maintain progress
- Need for and timing of NEPA/SEPA review and public process
- Adequate public involvement in the TPA change process
- Impacts of privatized financing on the project schedule

Gerry Pollet provided a Heart of American Northwest perspective on how the contract has changed since it was originally proposed and the potential impacts *(Attachment 7)*. The TPA requires the initiation of low activity waste treatment by December 2002, not 2003 as used in the report to Congress. The current contract says that low activity waste treatment will begin in April 2009, and low activity waste treatment capacity and the pace will be half of what was previously projected. This leads to the impacts of not emptying single-shell tanks that Ecology addressed earlier. Originally, more than 12% of the waste was going to be treated by 2012; the current schedule has 10% being treated by 2018. This leaves a lot of opportunity for change.

Gerry added the contract has no definition of what it means to "initiate treatment services" and no minimum capacity figure is specified. It is important to remember that 90% of the waste will still be untreated in 2018. New facilities will be needed as well as the maximum expansion possible of the Phase I plant. The completion of Phase II is highly uncertain and changes to the TPA have not yet begun to be negotiated. He said it is disingenuous for DOE to be saying that it will not change the 2028 deadline if the current contract language does not plan for that. The treatment of low activity waste by 2024 and high activity waste by 2028 are both highly uncertain. Also, if the treatment capability had been contracted under a fixed price, non-privatized contract, the cost would have been under $3.9 billion. There is no cap in the contract on the rate of return or interest rate to be paid.

Board Discussion

Tom Engel stressed the importance of getting treatment capability at Hanford and the need to go with a company that has the experience to accomplish the task. However, it appears that the contract is being written with only legal considerations in mind, not the ultimate success of the project. The technology that has been put forward by BNFL needs to be validated and tested by others to determine if it has a good chance of working. He questioned who was going to be responsible for ensuring that BNFL's approach was sound and the success of the project. John Wagoner responded that there are a number of people that have been brought into the TWRS program who have built their careers on the building, designing, and operating of big projects. DOE has to have that capability in-house and the strong capability of assessing the performance of the contractor. The PHMC is also responsible for the total systems integration as well as understanding what waste is in the tanks and what will be going to treatment. Walter Howes noted that a lot of the integration work is just being started now that the contract has been signed. The structure of the contracting approach is that BNFL will not get paid until a product is developed; this gives the contractor a high motivation to make the system as successful as possible before it is implemented.

Tom Engel questioned whether the Pit 9 project at the Idaho site and the past performance of the PHMC at Hanford have shown that performance incentives will not help performance. Walter Howes responded that the Pit 9 project is very different from the TWRS privatization project and should not be directly compared. Neil Brown, DOE, noted that he was asked recently whether DOE was going to over-manage the project. Obviously, DOE is going to have to walk a fine line between over and under management of BNFL. DOE put together a team of 50 consultants from

industry, academia, and other fields, which reviewed all of the deliverables for Phase I. The same system will be used as the project moves forward.

Suzanne Dahl noted that Ecology has already spent a significant amount of time with the contractor developing a permitting work plan. The permitting work plan includes when deliverables are due, an outline of everything that will be involved in the permit, and how the contractor and regulatory agency will work together. With recent changes in the schedule and contract, some of the agreements in the permitting work plan will have to be revised. Within six to seven months after the contract signing, Ecology should receive a permit application which will start a two-year permitting cycle that is part of the sitewide permit. DOE will be a co-signer on the permit. During the two-year period, Ecology will hold workshops with BNFL to resolve differences.

Gordon Rogers asked whether Ecology can assure the Board that they do not have the same permitting problems previously mentioned by WDOH. Suzanne Dahl responded that as part of the initial discussions, Ecology did tell BNFL what its design requirements were. Al Conklin noted that WDOH has to issue a license for the treatment facility to be constructed and operated. In order to issue a license for operation, there need to be adequate controls (administrative and physical) to ensure that the air pathways are protected. The review process is much shorter than Ecology is; the agency has 30 days to determine completeness of the application, which is incumbent upon the applicant. If complete, WDOH then has 60 days to approve or disapprove the license.

Betty Tabbutt asked DOE to elaborate on the fact that they are expecting construction to begin with only 30% of the design work completed. Neil Brown responded that DOE has told BNFL that they need to accomplish everything in Part B in the next two years and do everything they need to do to maintain their schedule. If the air facilities have to be designed to 100% in the next two years to obtain WDOH permits, that is what will have to be accomplished. BNFL's job is to get the permits processed in time.

Ken Bracken questioned whether there will be enough support from the PHMC contractors to support the waste delivery needs of the BNFL team. The report to Congress showed a $20 million difference in what the PHMC had to support readiness to proceed and what it would need to do so. John Wagoner recognized the significance of that shortfall and noted that decisions on the FY99 budget have not been made. Once Congress completes its authorization bills, there should be a better understanding of what amount is available for Hanford. At that point, DOE will have to make a judgment as to what allocations are made to what projects, based on the commitments that have been made. If funding continues to be level, DOE and others, including the Hanford Advisory Board, might be forced to prioritize projects to determine what will receive funding. Ken noted that DOE-RL has identified what is necessary to make the TWRS program successful and DOE-HQ must be responsible for ensuring that adequate funding is available. Walter Howes agreed that that the funding issue is of high importance to everyone, including DOE-HQ. DOE-HQ is working to ensure that DOE-RL is not put in a place where decisions have to be made that leave all of the site's projects underfunded.

Jeff Luke expressed his concern that the reason LMAES was not selected was because of some of the lessons learned at the Pit 9 project, which were integrated into their proposal. He also added that based on his many years of permitting projects, it is unlikely that WDOH will give its permits at the 30% design phase. Jeff requested that DOE respond to Gerry Pollet's assertions that treatment of the tank waste can be accomplished for $3 billion less than currently estimated. Al Conklin noted that the PHMC has an excellent permitting structure in place and could be used by BNFL. He also added that in parallel with any permitting that BNFL has to do, there are significant licensing requirements that the PHMC must comply with in order to retrieve waste.

SPENT NUCLEAR FUEL PROGRAM

Randy Smith, EPA, distributed to the Board a copy of an agreement reached between himself and Lloyd Piper, DOE-RL on the Spent Nuclear Fuel program *(Attachment 8)*. The agreement includes both the schedule and framework for project improvement. During this past summer, signs have been seen that demonstrate some things are turning around, but there remain actions required to remedy some of the management problems. DOE and its contractors have been focusing on those, but there needed to be some form of written plan and commitment to them.

Doug Sherwood, EPA, noted that there are some significant changes in the schedule. EPA was trying to start fuel retrieval earlier than original planned; the agreement starts fuel removal two months earlier. It seemed unrealistic to move the fuel out at the rate DOE had proposed so there is now a longer fuel retrieval time span. The cost of the program has also increased; the handling of the sludge will be more expensive. DOE and its contracts are still trying to cut the cost and schedule.

John Wagoner expressed how impressed he was with the focus of everyone on getting an agreement in place. This issue was elevated to an extremely high level at a point where DOE could make commitments that it would be able to deliver on. Fluor Daniel Hanford and Duke Engineering Services are working together and EPA has become very involved in the details of the project. The proposed changes will add to both DOE's and EPA's confidence.

Board Discussion

Pam Brown questioned whether the Defense Nuclear Facilities Safety Board (DNFSB) was involved in the negotiations and agreement reached between EPA and DOE. Randy Smith reported that he talked to John Conway, chair of the DNFSB, yesterday and he was comfortable with the concepts included in the agreement. Doug Sherwood and Dan Ogg, DNFSB have been working closely together on the technical issues. Doug added that Dan has attended all of the baseline review meetings and DNFSB was at the site a couple of weeks ago when the Spent Nuclear Fuel program was discussed.

AGENDA ITEM #6C: TWRS VITRIFICATION

Board members presented perspectives of the organizations they represent on TWRS vitrification.

Gerry Pollet provided the Heart of America Northwest perspective. The current approach to privatization will cost the cleanup fund 50% more than it really should; privatization costs an additional $3 billion for a product that was government financed. DOE has been asked to provide a cost comparison between a fixed price, incentivized contract with government financing versus privatization, but has only provided a cost comparison between privatization and the old management and operation concept, which is not allowed under current regulations. Also, there are significant environmental impacts of delaying the retrieval of waste that are outside the scope of the TWRS EIS. The risks of delay are very significant, resulting from the fact that only 10% of the waste will be retrieved and treated by 2018. DOE should complete another EIS to address the environmental impacts and a public involvement process at the outset before the TPA is renegotiated. The public needs to be able to give informed input on what tradeoffs are acceptable and what should be negotiated. It is the position of Heart of America Northwest that along with any delay, there should be a new set of milestones for characterizing the vadose zone and preventing the migration of leaks. The delay of 6 years in the onset of treatment is driven by privatization financing and there is plenty of opportunity to change that schedule. The TPA should be based on what is technically feasible for being constructed and operated, not privatization financing. The current contract allows an opportunity to look at an alternative contracting method. Also, DOE is putting funding to support BNFL ahead of the resolution of compliance and safety issues. The public should understand that there is little chance of the current proposal meeting the 2018 deadline of emptying tanks and 2028 of treating the waste. The contract has some major public policy concerns because it includes a clause that holds the contractor harmless if DOE tells it to do something, even if it violates the TPA. This is against public policy because DOE is contracting on the basis of knowing it is going to violate the TPA. Also, the principles of the Tank Waste Task Force are being violated if DOE ignores the cost of disposing glass canisters in the repository.

Ben Floyd provided Benton County's on the current TWRS privatization contract. Benton County just adopted a comprehensive land use plan for the next twenty years, which includes plans for residential areas, commercial activity, industrial activity, open space, and meeting the demands of schools, cultural opportunities, etc. The comprehensive land use plan has one major assumption built in -- cleanup at Hanford is going to proceed within a timeframe that is dependable. That includes treating the tank waste and removing spent fuel from the basins. This assumption is called into question when we have the "four laws of TWRS" that continue to haunt us and need to be broken. In 1990, we had a process by which we were going to have low activity waste in grout facilities. Now it is 1998 and a contract with BNFL that still has uncertainty as to what will happen after the initial treatment period. The region's dependency upon Hanford needs to be changed. The region talks about moving beyond Hanford and breaking this dependency; yet for that to occur, DOE needs to perform and be successful and stop delaying cleanup progress. From Benton County's perspective, the Board must assist in breaking the "laws of TWRS" that make failure inevitable. Questions that still need to be answered include what is DOE's commitment to full design and operation, when will TPA milestones be designated, and what is the strategy for dealing with the entire tank waste problem. The Board put pressure on DOE to not build more storage capacity and get on with treatment; that strategy needs to be revisited. There are also still questions about whether DOE can actually ensure

success. There are also questions about the commitment in the Administration to close the loop on the Cold War at Hanford. The bottom line is that there needs to be performance from the TWRS program.

Ken Niles provided an Oregon Department of Energy perspective on the current TWRS privatization contract. The State of Oregon has some major concerns with the current proposed schedule, cost and approach. There remain significant challenges to treating just 10% of the waste in the next twenty years. Hopefully, TPA negotiations will secure the commitments necessary to make the project a success. In the beginning, the State of Oregon did not embrace or take a position on privatization; it was a method for resolving an important issue. The State of Oregon was willing to give it a chance and remains so today. If DOE proposes to use privatization for another project, Oregon would have to review the approach much differently, based on the process to date. The period when BNFL and DOE were in contract negotiations was extremely frustrating; interested stakeholders were not able to receive any information on what was occurring. There are a number of issues that the Board could and has raised which would have been better addressed during negotiations rather than after the contract has been signed. Even with all of these concerns, the reduction of the threat of the tank waste to the Columbia River remains the State of Oregon's primary goal. Its greatest concern is not that it may cost more or delay TPA milestones; its greatest concern is that the privatization effort will collapse and treatment will be delayed by another 5 to 10 years. The State of Oregon wants to see this approach succeed and we are willing to help make that happen.

Pam Brown provided a City of Richland perspective on the current TWRS privatization contract. The City of Richland and others in the Tri-Cities region have determined that removing and safely storing waste from the tanks should be the top priority of Hanford. These jurisdictions are very concerned about the protection of groundwater and the Columbia River. In order to protect those, the source terms must be removed. The jurisdictions want to see a vitrification plant built as soon as possible. Two major concerns with the current contract that should be addressed include the lack of commitment to the construction of a facility and the commitment to treat all of the waste.

Dick Belsey provided a Physicians for Social Responsibility perspective on the current TWRS privatization contract. The reason that the Physicians for Social Responsibility is interested in Hanford is that Hanford is a health issue. The organization is not interested in looking back and placing blame for the current situation, but rather looking at how the risk can be reduced. Hanford has had several false starts in the treatment of tank waste that have cost billions of dollars and delayed progress over a decade. Now the site has the opportunity to do something better. DOE must treat both the tank waste and get on with the removal of spent nuclear fuel from the basins and reclaim the land for other uses as well as reduce the risk to human health.

Harold Heacock provided a Tri-Cities Industrial Development Council (TRIDEC) perspective on the current TWRS privatization contract. The focus of the discussions should be on the vitrification of waste, not the privatization approach. How vitrification is achieved is a contract administration issue. TRIDEC supports the current approach, which is a major step in moving forward at Hanford. It provides for the protection of the Columbia River. TRIDEC also strongly

supports the award of the contract to BNFL, which has the capability to treat the waste. The TWRS program needs to be placed under strict TPA milestones and DOE must establish a high degree of credibility with Congress in order to have funding available for its commitments. It is important that pressure continue to be placed on DOE and Congress to commit beyond the initial two-year design contract. TRIDEC also supports the current approach of vitrifying high activity waste first. There are some concerns, however, that include DOE's management ability, DOE's regulatory role, funding impacts on other programs, the PHMC's ability to support privatization, commitment beyond the initial two years, outyear funding requirements, progress payments to reduce overall cost, schedule acceleration, and application of lessons learned.

Shelley Cimon provided a Oregon Hanford Waste Board perspective on the current TWRS privatization contract. DOE keeps saying that there is enough money to fund tank waste treatment; the question is where is the money. The current projections are that funding shortfalls will extend into the future. However, current initiatives being funded by DOE are not only new weapons research programs, but also take money away from cleanup. The refocusing of DOE efforts away from cleanup to a weapons mission may be comfortable and natural, but being unable to deal with existing waste streams other than moving them around the complex is unacceptable. The Board cannot just tell the TPA agencies whether to continue or not to continue with the current approach. Rather, it needs to look at the programmatic decisions and complete a critical analysis of DOE's commitment to the program. A large part of that commitment is adequate funding. The Board also needs to address what the contract is not -- urgent risks. Embracing the current approach should not send the signal that everything is okay, but the Board should rather support progress and identify issues that will impeded that progress.

Greg deBruler provided a Columbia River United perspective on the current TWRS privatization contract. Recently, his Board asked him whether the $6 billion treatment program will be enough. He was unable to answer with certainty that it would and this is troubling. There remain a lot of unresolved questions and truthful, honest answers are needed. The Hanford Advisory Board is failing to come together on this effort, but rather is going apart. To solve the problem, the Board must come together and use its own resources and those around it. DOE still has stovepipes within the agency as well as a great deal of fragmentation. The Columbia River Comprehensive Impact Assessment (CRCIA) would help make the urgent decisions needed on the treatment of tank wastes, but that information is not available when it is now needed. Part of the ongoing problem is that acknowledging problems is still something people are afraid of. For example, everyone knew that tanks were leaking, but only this past year did DOE acknowledge it. If the Board is going to be successful, a Task Force should be created that looks holistically at the TWRS program and all the issues that should be addressed to ensure the contract succeeds. The Board also needs to be able to understand what the long-term risks are of delaying progress.

Russell Jim provided a Yakama Indian Nation perspective on the current TWRS privatization contract. His responsibility is to carry out the policy established by the official government of the Yakama Indian Nation. The Yakamas have been consistent throughout the years in trying to promote a methodology to help DOE find solutions to the cleanup dilemma. As a people, with a contract with the U.S. Government that guarantees a way of life and protection of cultural aspects, the Yakamas speak in terms that are called emotional. Yet the issues faced by the Indian

Nation are no different from anyone else - the health and welfare of the Yakama Indian Nation is paramount. It is inconsistent to divide health and environmental issues. The Yakama Indian Nation has been a part of many committees, but the respect shown to its treaty rights has always been watered down. And it is not just respect that the Yakama Indian Nation demands, but compliance with the treaty rights, which will be enforced either in the court of law or some other forum. Russell Jim is consistently disturbed that while trying to be part of the solution, there has been a consistent failure to understand what the role of the Yakamas is and can be. An assessment of Hanford needs to be completed. The current contract approach will only reach 30% conceptual design, but in order to decide the ultimate disposal of the waste, an assessment of the risks is necessary to provide guidance on what should be the end state of Hanford.

Todd Martin provided a Hanford Education Action League perspective on the current TWRS privatization contract. DOE and the Board are underestimating the amount of money it will take to complete tank waste treatment. It is going to cost $1 billion a year for the next three to four years just to build a treatment facility. The Board's rhetoric is to consistently address urgent issues first, however, its actions are the exact opposite. In 30 years, DOE will have addressed the least risky issues. Every decision that has been made over the last 10 years on the most urgent risks has been to avoid capital expenditures. DOE is in danger of doing that again. A person from France that Todd works with at Fernald has said that in France, people figure out what needs to be done, build it, and then figure out later what it will cost. He believes that the United States focuses so much on cost because the government does not really want to build facilities.

John Wagoner noted that the thread that has run through the previous discussions is on the magnitude of the project and costs. That is indicative of why there needs to be an effort to align the voices from the Pacific Northwest and command respect for the need to fully fund this project. He does not have an answer on the finite resources and decisions that will have to be made. He said we had a risk-based approach to budget allocations, but as DOE has discussed individual budgets on a year by year basis, a prioritization of the issues has never occurred. Ultimately, that is the decision that will have to be made. There will always be constraints and DOE will have to do everything it can to get as much funding as possible. DOE is entering into a different type of contract with BNFL because it benefits from the experiences the agency has had on other major projects. The current approach will take advantage of experience, both within DOE and from outside experts as well as it has already taken advantage of competition by starting with two teams. It is important to recognize that DOE is committing to that for which it has been able to get reasonable commitments from the private sector. DOE is not authorizing construction until the final price is determined. Also, DOE believes that it is entering a long-term deal; it would be foolish to commit to a $350 million expenditure with the intention of just buying a treatment facility at 30% design and not proceeding with construction.

Walter Howes expressed his agreement with most of the comments and concerns that have been brought up. That is not true of the subject of cost comparisons. What has been most helpful in explaining this issue is to talk about the contract structure and cost. It is extremely difficult to do an apple to apple comparison between privatization and other types of contracting and the ultimate cost of capital to accomplishing something. One of the points in the Alliance for Nuclear Accountability report and brought up by others is to talk about the cost of capital. The

federal government starts out from the Treasury with a 5% interest rate and the commercial rate starts at 10%. However, once the U.S. money is put through the bureaucratic system, the net cost of the capital can be upwards of 50%. Even if the commercial rate starts at a more expensive rate, the project costs will be cheaper at the end of the project. Walter would be happy to engage in further discussion with Board members on the contract and cost issues that have been raised.

Tim Takaro provided a University of Washington perspective on the current TWRS privatization contract and expressed his appreciation for the heartfelt messages from Board members on the urgency of treatment. In any cost savings discussion, there should be money set aside for public education. Tim shared some statements made by the University of Washington's vice provost for research at last year's Health of the Site meeting. He said we need an attractive region to bring the highest quality faculty and students to the UW. With a healthy Hanford site, people will be attracted to the region. It is important to remember that the speed of stabilization impacts directly the risk of future releases from the tanks. The University is thinking in the long term; this will remain an issue for future generations. Preventing releases to the vadose zone and a functioning stabilization program are critical to protecting public health.

Paige Knight provided a Hanford Watch and Hanford Action of Oregon perspective on the current TWRS privatization contract. One of the messages consistently heard is that DOE has finite resources available for tank waste treatment, while there seem to be infinite resources for nuclear weapons research and production. The Board needs to ensure that those infinite resources are used for cleaning up weapons production sites. Congress, the Administration, and DOE have got to change the modes of behavior in order to reach success and the Board can affect that change. This has been the first time that there have divisive issues that have polarized Board members. Now is the time to move past those issues and stand united for progress on the tank waste treatment program. BNFL needs to be seriously committed to hearing the Board's concerns and incorporating them into the plans that will be made.

Norma Jean Germond provided a public-at-large perspective on the current TWRS privatization contract. When the Report to Congress was issued, the most substantive part was in the first four to five pages and what it said was that it would still be 24 months until the treatment facility is at a 30% design stage. What she really wanted to know was what the construction would look like, where is the feed going in and out, what quality of steel will impress the glass, and other such details. Since that information is not available, the Board needs to join Ecology in helping DOE put together steps in a process where these things can be determined so that there are viable milestones and everyone can receive and share information as well as ask questions. The public involvement process needs to be done correctly and as currently structured, needs a lot of restructuring. There needs to be a careful working relationship with the tribes, public, and regulators.

Susan Leckband provided a perspective as a non-union, non-management employee on the current TWRS privatization contract. Readiness-to-proceed must be ready to provide waste feeds to the vitrification plants. The readiness-to-proceed document needs to be looked at to determine whether things need to be changed now that there is only one plant. Also, as funding decisions are made, infrastructure changes cannot be delayed.

Louise Dressen commented on the coming together of Board members in the previous discussion and the many topics on which members agreed. There are major themes that can be carried forward into future discussions, including what the Board needs to do in the future relating to TWRS privatization. Pat Serie, EnviroIssues, commented that she has consistently heard that the formation of some group that assists with TPA negotiations would be extremely helpful. It would build on the process of what has helped bring people together on this issue and turn that into something that can move forward into something constructively.

Betty Tabbutt questioned whether there will be other proprietary information that will get in the way of the Board being fully involved in the TWRS program. Alan Dobson, operations manager for BNFL, expressed the corporation's commitment to keep the public fully formed and work with both DOE and the Board on the best way to accomplish that. Jackson Kinzer, DOE, responded that proprietary information will most likely no longer be a concern and there should be far more opportunities for participation in BNFL's deliverables.

AGENDA ITEM #6D: TWRS VITRIFICATION

Merilyn Reeves asked for suggestions for a process that the Board can use to continue to track the TWRS privatization project. Suzanne Dahl commented that Ecology has been talking about how the Board could be involved in the TWRS project and some sort of task force or group would certainly be welcome. That group could give guidance as to what the expectations of the stakeholders were. Pam Brown noted that the Health, Safety, and Waste Management Committee has explored the possibility of having a subcommittee to track TWRS, asking Todd Martin to be the issue manager and inviting people from other committees to be a part of the subcommittee. Direct communication with BNFL would also help the Board understand exactly what their approach is and what lessons learned they are applying to TWRS. Russell Jim noted that if there is an ad hoc group of some kind, the Yakama Indian Nation would want to be a part of it, but DOE and BNFL need to be working with the Yakamas on an individual basis as well.

Ben Floyd noted that there are a number of issues for an ad hoc group to track in the next two years, including technical feasibility, regulatory oversight, cost and funding, and management. Gerry Pollet noted that a proposal was distributed to the Public Involvement Committee which recommended integrating the review of the impacts with providing information to the public early in the TPA renegotiation process. There needs to be both a Hanford Advisory Board task force that provides a sounding board to the TPA agencies and an expert task force that reviews the contract independently and identifies potential areas that need to be looked at and defined as the scope of a supplemental EIS. That expert task force needs to be separate from DOE and accountable to Ecology. A good example of what should occur is something similar to the report prepared by Glen Paulsen.

Merilyn Reeves asked DOE to clarify what independent review will already be taking place in the next 24 months. Jackson Kinzer responded that independent experts will be used similar to the process used in the selection of the contractor. They will work with DOE to evaluate the deliverables submitted by BNFL. Any additional oversight and input from the Board would be

welcome. Gerry Pollet questioned whether there would be more access to information during the next 24 months. Jackson responded that almost all of the information should be available to the Board and public.

Ben Floyd suggested that even if there is an expert panel, the Board should still have its own task force and ask Todd Martin to lead the group forward. He asked Ecology whether it feels it has the expertise on staff to fulfill its role as regulator on the TWRS program. Will the agency be bringing in additional skills? Suzanne Dahl responded that Ecology has been reviewing its project planning for the next two years and identified gaps that it needs to fill, including an additional permit writer, financial experts, and a reviewer of the deliverables. Ecology is currently determining if it can reallocate internal resources and then fill what gaps remain. The Board agreed to continue this discussion at Friday's meeting.

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Alice Murphy distributed the comment response document which includes the Board's advice on the FY2000 budget *(Attachment 9)*. Gerry Pollet asked that DOE send the comment response document to all of the attendees at the public hearings. He also asked whether DOE has responded to the Board's comments on the Ten Year Plan. Alice said that she will ensure that the comment response document gets sent to the public hearing attendees. The comments on the Ten Year Plan went to DOE-HQ for its responses.

AGENDA ITEM #6E: TWRS VITRIFICATION

Ken Bracken reported on an upcoming tank closure meeting that is an information exchange between sites that have tanks and includes regulators and DOE personnel. At last year's meeting, some of the sites were vocal about how money should be spent at individual sites. Also at the last meeting, Hanford was put on the defensive as to why it cannot make progress on tank closure. Merilyn Reeves added that Wade Riggsbee, Yakama Indian Nation (Tribal Government), will also be attending.

Shelley Cimon provided an overview of what the Tank Waste Task Force and Board's values have been regarding tank waste treatment. From the beginning, the TPA agencies were committed to an open process which involved a limited duration. The most important piece to the Tank Waste Task Force process was the fact that to be useful to the negotiations, the group had to be kept up to speed with the negotiations, understand the issues, and hear where the agencies were stuck and needed assistance in moving forward. It was a very iterative process. The TWRS privatization process has been difficult to grapple with because there has been a strong sense of mistrust by the Board of what privatization is and is not. Some progress is being seen in DOE's commitment to work with the Board as the program moves forward. The Board needs to have a working relationship with BNFL. DOE needs the Board to make this program successful and that should empower the Board to move forward and set expectations for what success is. There needs to be full disclosure of information, proprietary or otherwise. BNFL appears to be willing to provide the information needed and the Board needs to see that same commitment from DOE. Several options exist for how the Board moves forward, including creating a standing committee

or subcommittee. The scope of such a group would include identifying design phase priority deliverables, scrutinizing the proposal in the context of the Board's concerns and developing TPA change input. The Board should not go back and rehash old issues, but should focus on where the program stands today and what needs to occur to ensure its success. Merilyn Reeves added that the Board should go beyond the TPA and Hanford and include the Office of Management and Budget, the Secretary of Energy, and Congress. She suggested that a summit or conference on the long-term outlook of the program might be appropriate in the springtime.

Todd Martin added that the region needs to form a consensus on what should be done and how it will be done, which would then be used at a summit. Merilyn suggested that a planning group meet in October to discuss what the Board should do to address the TWRS program. Ken Bracken expressed a sense of urgency with regards to having Ecology and DOE come to closure on milestones in the next 24 months. The October planning meeting should focus on ensuring that will occur and any advance work that could occur should also happen.

Suzanne Dahl noted that there is a draft Agreement in Principle that the Board could begin to review. Max Power added that Ecology has been helped by the sense of importance and urgency expressed by Board members in terms of the milestones within the design phase of the contract. Ecology's staff will be carrying back to its management that it needs to clarify the first step in the Agreement-in-Principle and engage the Board in discussion at its planning meeting.

Shelley Cimon asked for the commitment of Ecology and DOE to the work being done by the HAB. Max Power stressed the commitment of Ecology to the Board and advocated moving forward with some type of planning group. Jackson Kinzer added that DOE is ready to participate in whatever process the Board develops. Todd Martin stressed the importance of the Board's focus on the near-term actions. The program has a high likelihood of failure in the next two to three years and the Board needs to ensure that does not happen. The Board's approach should be to place a higher priority on the deliverables and DOE's response to those deliverables during the next two years, rather than focus on what is happening in 2018 or 2028. The Board wants treatment capability, wants it soon, and should do what it can to ensure the current effort does not fail.

Doug Sherwood clarified what information comprises the Agreement-in-Principle, including the subject matter that will be negotiated, actions that support privatization or are actual privatization efforts, and how the agencies and applicant will interact with stakeholders, tribes, and other appropriate agencies. A time limitation is placed on the negotiations. Paige Knight asked if there were any issues on the horizon that might prevent the Agreement-in-Principle from being signed. Max Power responded that there is nothing that Ecology is aware of at the moment. This is a non-traditional approach to negotiations and there will be some difficulty in determining what should be addressed in a near-term milestone and what needs to be left flexible in the long-term.

Greg deBruler suggested that the planning group should not only look at the TWRS program, but look at the program in a holistic manner and consider all the issues that are germane to the success of the project. There is a need for expertise on the cost analysis. The increased risks of

the delay also need to be fully considered. Greg suggested that an independent person interview Board members that are part of the TWRS discussion and identify the different perspectives sitting around the table.

Pam Brown identified one of the concerns that is outside the TWRS privatization effort, which is the impact of continued delay on the tanks. Building new tanks has been put off but that should be reconsidered, given the delay in waste retrieval. Also, Pam expressed her opinion that the tank waste treatment program could not have been funded in a traditional manner; the contract mechanism was going to have to be different, but that generates a number of questions. One of the mechanisms for addressing those questions would be to have a discussion with Walter Howes, similar to what has occurred with Al Alm in the past. Tom Engel suggested going back to the Glen Paulsen report to review the criteria for determine whether additional tank space was required. Greg deBruler noted that the reported prepared by Glen Paulsen cost $40,000 and that small cost should not be a consideration because of the magnitude of decisions being made.

Jeff Breckel, Ecology, encouraged the Board to break the process into discrete pieces, including the importance of the next 24 months and defining the cost, financial package, and schedule. The Board should be involved in the discussions as they progress. The next element that needs to be considered is what are the most explicit milestones for construction and operation of the initial treatment capacity, e.g., when is construction or hot operations begun). Another important issue is the integration of the privatization and BNFL efforts.

The Board agreed to hold a planning meeting in November to further discuss its approach to the TWRS program.

AGENDA ITEM #8: SPENT FUEL/K BASINS

Randy Smith reminded the Board that materials which explain the agreement reached between EPA and DOE on corrective measures need for the Spent Nuclear Fuel program were handed out Thursday. Today, the agency will go into a little more detail as to the substance of the agreement to, the work that has been done to get to the agreement, and what comes next. Doug Sherwood outlined EPA's goals at the beginning of the negotiation, which included getting enforceable milestones into the TPA, an earlier start of fuel retrieval, a decrease in the schedule length and costs of completing the project, improving contractor performance, and reaching a cost and schedule baseline that was consistent with the TPA and DNFSB milestones.

EPA wanted a commitment from DOE to work very seriously on the sludge problem and decrease the cost estimate for that task. Over the summer, a very detailed review was conducted of the subproject level. The team went through three hours of review for each subproject, in which the cost was reviewed to see where it could be decreased and identified a number of performance issue that needed to be worked on to increase the chances for success. In the materials distributed to the Board, the proposed change package includes a lot of enforceable milestones and a number of items in the framework for project improvement. This latter part will ensure that the CERCLA pathway will be used effectively. The last piece of information

provided to the Board was a commitment from FDH to DOE on funding requirements for the next two years.

Charlie Hansen, DOE, offered DOE's perspective on the change package. When FDH made a significant change to the project by creating a joint team with Duke, a significant improvement was seen. DOE, the contractors, and EPA were able to work together to review, at a very detailed level, the issues that were causing problems in the project. DOE has been pleased with EPA's involvement this summer because of their experiences with what works well in the Environmental Restoration program with Bechtel. With the changes that have been made and the ones that will continue to be made. One of the key things that came from the Congressional hearing was a direction to DOE to be reasonable with its project schedules rather than being optimistic. The schedules do include contingency.

Randy Smith added that the review process for the proposed modifications will begin on October 14 and run through November 13. The changes will then be formally incorporated into the TPA along with any modifications based on public comment. The second substantive review process will begin internally between EPA and DOE this fall in reviewing a proposed plan and then subjecting it to public comment. Before the proposed plan goes out for public review, there is a process of review by the National Remedy Review Board to determine how efficient and cost effective the proposed remedies are. The public comment period should begin in early 1999. Doug Sherwood added that the most important part of the proposed plan is how the sludge, water, and debris are managed. Those portions of the project are not well-defined and occur in the next five years.

Jeff Breckel added that, from his perspective, the two most notable results of the dispute resolution process were the fact that DOE has committed to a schedule and the fact that some rigor has been applied to the additional provisions that DOE and EPA developed to strengthen the project management.

Board Discussion

Merilyn Reeves questioned how Ecology will be involved in approving this proposed change package. Jeff Breckel responded that it will be the same as any other TPA change package where all three agencies have to approve it. Merilyn asked what the problems have been with the subcontractors on the Spent Nuclear Fuel project. Charlie Hansen responded that in the normal course of contracting for equipment and facilities, change orders were issued that were unpriced were not followed up to determine what the cost liability actually was going to be. DOE is continuing to follow up on those to ensure that there are no outstanding unknown cost liabilities and it should be settled before fuel retrieval begins.

Pam Brown noted that one of the challenges facing the Spent Nuclear Fuel program has been the incomplete safety analysis. She asked the current status of that analysis and whether it holds future surprises for the project. Charlie Hansen responded that EPA did review the safety analysis. The teamwork that has been established should help the situation and the contractor will be assigning a critical path manager to the project. In the past, workers were getting along

too well and the proper oversight was not being provided. This is changing and DOE-RL will be adding several people to its staff to give more management oversight. Doug Sherwood added that the framework for project improvements includes streamlining the safety analysis process and ensuring a closer degree of coordination on preparation and review. The other change that has been made is modifying the schedule to allow a longer gap between retrieval of fuel from the east and west basins.

Ken Niles questioned what will be happening between the last interim milestone in October 2006 for the completion of water removal and the end of the project. Charlie Hansen responded that the work included during that time period will focus on decommissioning the facilities so they can be turned over to the Environmental Restoration program. Doug Sherwood added that the last debris and operational equipment will be removed during that time period.

Jeff Luke questioned whether Walter Howes' statement that DOE would not steal money from other programs to fund fuel retrieval is guaranteed. Doug Sherwood responded that there is no guarantee that will not happen. Charlie Hansen added that DOE agreed to identify an $18 million need above the President's budget for FY99. DOE has already identified ways to alleviate that need and at the same time maintain a $21 million contingency. For FY2000, DOE has requested more money from the Office of Management and Budget to work to alleviate the $29 million gap for that year. Randy Smith stressed that EPA will never negotiate based on budgets. The message that EPA was trying to send was that the ethic of the project has to be that it can continually be more efficient because it is their job to get it done within the share of the Hanford budget that has been given to it.

Gerry Pollet asked several questions including whether water treatment capability is being delayed, why the sludge safety analysis is being delayed until 2003, and how sludge will be removed while water appears to be remaining in the basins as long as it exceeds legal standards. Gerry also asked EPA to address the criticism of its role in cost oversight and negotiation with contractors. Also of concern is how the management commitments are going to be guaranteed to be implemented as well as a continued role for EPA in oversight of the program. Randy Smith expressed his appreciation for the support provided to EPA's approach to integrating cost and performance into the negotiations. DOE and FDH had very good people in the review process who were able to scrutinize the details and cost. The question of whether the management changes should become an enforceable milestone is really a question of whether there are common commitments and shared values and practices. That process takes time. If the process completely falls apart, then a more official relationship can be formed.

Dick Belsey questioned what mechanisms have been put in place to ensure that there are early warning signs of impending problems and the ability to have early intervention to keep the project on schedule. Charlie Hansen responded that the detailed work completed this summer stemmed from a FDH action to have a joint baseline review board established with Beth Sellers, DOE, and other team project members working cooperatively with the contractor senior management. That process will continue. In addition, two senior management meetings are being held on a monthly basis at which issues that are holding up progress are brought to the table.

Todd Martin thanked DOE and EPA for reaching an agreement on this project, but highlighted several concerns with the proposed changes. There is only one milestone relating to safety analysis, which is unenforceable. Also, the milestones that fall within the next two years are less than 40% enforceable. Beyond 2000, 70% are enforceable. The skeptical approach might question DOE's own confidence in meeting the near-term milestones, which, in turn, threatens the outyears. Nanci Peters questioned from where the water used in fuel retrieval will be coming and whether the workforce is trained to complete the project. Emmett Moore questioned how EPA will ensure that the milestones are enforceable when one federal agency will not sue another federal agency in court. Randy Smith responded that in the TPA, which is a binding agreement, DOE has agreed that under certain circumstances it will pay the fine and it is not appealable. EPA has fined DOE in the past and it has been paid without any dispute under the TPA.

AGENDA ITEM #9: GROUNDWATER/VADOSE ZONE INTEGRATION

Prior to the scheduled presentations on the groundwater/vadose zone integration program, several Board members expressed their thoughts and perspectives on the performance of the program. Tom Carpenter reported that in November 1997, DOE announced that high-level radioactive waste from the underground storage tanks had reached groundwater, only after intensive public pressure and revelations of whistleblowers. In February 1998, Assistant Secretary Moniz visited the Hanford site and announced that vadose zone activities would become integrated and one of the highest priority activities of DOE. Bob Alvarez, DOE-HQ, has visited Hanford numerous times and been intimately involved in vadose zone characterization issues and has been instrumental in challenging the status quo. Today, it was learned that Mr. Alvarez had been asked to resign his post, effective October 1. Tom said this termination is clearly a reprisal for his actions, which were contrary to DOE-RL's wishes. The Government Accountability Project views Mr. Alvarez's termination as a slap in the face to the public and business as usual for the DOE. The Government Accountability Project will no longer offer its cooperation, energy, and time, on this issue and will be absent from all public involvement activities, including the Hanford Advisory Board meetings, regarding the groundwater/vadose zone issue,

Greg deBruler added that CRCIA would have been a template for the project moving forward. In May of this year, the commitment was still there, but internal politics made it impossible. Columbia River United has stopped going to groundwater/vadose zone meetings. Bechtel has tried to do a good job of integrating these complex issues, but DOE politics have not allowed the program to move forward. Greg also announced that he will no longer be participating in activities regarding the groundwater/vadose zone issue.

Gerry Pollet concurred with Tom Carpenter and Greg deBruler's comments. Until there is adequate public involvement, integration, and involvement of regional scientists he will also no longer be participating in the groundwater/vadose zone process. It is ironic that Ecology just sent a letter to DOE-HQ commending it for its onsite presence shortly before Mr. Alvarez was terminated. As the project is currently structured, it does not have a single goal for stopping contamination to the Columbia River.

Russell Jim noted the large number of people that have been removed from their positions once they had spoken in support of the Yakama Indian Nation. There is much faith in the public in the Hanford Advisory Board and he appreciates the efforts of its members. Something so blatant as disregarding very sound efforts that have been accomplished up to this point is somewhat disconcerting to the public and himself. While the Yakama Indian Nation will continue to participate in the Board's meeting, it also wants to voice its complete assistance and backing to Tom Carpenter and others who have described what has taken place. This action is certainly a slap to the face to the environment and the Columbia River, which has always been the first priority for every group working on the issue.

Dick Belsey agreed with the previous statements made by Board members and noted that DOE has demonstrated that it can be one of the most effective grassroots organizer in the country, based on its actions. Dick has worked with Mr. Alvarez closely over the years and will also symbolically vacate his seat at the Board meeting.

Tom Engel requested that the Board meeting be adjourned based on the absence of a number of members. Merilyn Reeves agreed that there was no longer a quorum present in the room, but out of respect to the presenters that had traveled to Pendleton, asked that the Board members who remained provide them an opportunity to make their presentations on an information basis only. Members still present at the meeting agreed to proceed to receive the information and no actions would be taken.

Linda Bauer, DOE, reported that she did not know that Bob Alvarez would be leaving DOE until Dick Belsey reported it to her a couple of hours earlier. DOE-RL has been working closely with him since February and he has been instrumental in guiding the project. DOE-RL takes very seriously the commitment of carrying forward the sentiment of Board members and values their input. She said Rich Holton, DOE, and Mike Graham, BHI, are in Washington D.C. to ensure that DOE-HQ and others have a clear understanding of the goals of the project as well as a clear understanding of why funding is needed. The Groundwater/Vadose Zone Integration Project has been ongoing for the past six months and will continue to experience growing pains as it moves forward *(Attachment 9)*. DOE has several projects that are executing the cleanup mission that affect this project, including facility deactivation, waste site remediation, and solid and liquid waste management. Even with symbiotic relationships, there have been fundamental gaps and inefficiencies, which led to the creation of the Groundwater/Vadose Zone Integration Project. The objective of the project is to get programs integrated, provide a set of tools with which cumulative impacts can be assessed, and make technically defensible cleanup decisions.

Linda said peer review will be critical and a new expert panel is meeting next week. The National Academy of Sciences is also being involved and stakeholders and tribal representatives have been included in the process since its beginning. A Monday project meeting is open to everyone and has an 800 number that people can use. The project mission includes integrating sitewide groundwater and vadose zone activities; assessing the cumulative health and environmental effects upon the river; understanding the current volumes of waste; defining the actions necessary; and identifying and overseeing the science and technology initiatives. Mike Graham is the project manager for Bechtel and Rich Holton is leading the DOE team. FDH and

PNNL are also members of the project and everyone is working together as an integrated team. Linda also added that public participation has been absolutely key to the activities to date. Three project workshops have been held, focusing on public involvement, project mission, and funding. All were well attended and included 800 numbers. Minutes of the weekly meetings are issued. Through those meetings DOE received input for a draft tribal and public consultation plan which is now out for comment. There remain difficult issues focusing around decision-making and the overall credibility of the project. The final consultation plan will not be completed for awhile.

Linda outlined other work that has been completed by the project, including the project specification document which explains the project scope, regulatory requirements, and technical approach. Ecology has written to express concern over its lack of involvement in the plan development. DOE did work with Tom Woods extensively to understand the CRCIA approach and there have been some general agreements reached. The most difficult thing to deal with in CRCIA is not the requirements, but rather how those requirements are implemented. The national laboratories have been critical to the project, including their participation in three workshops helping to identify the technical gaps and develop the science and technology roadmaps. Funding is needed to support the current project commitments. The project has made plans to get new work accomplished next work, including beginning the design of the CRCIA approach, yet there is not funding in place yet. TWRS characterization is only funded for one tank. Also, national laboratory involvement needs to be funded. Last spring, the project set aside $2 million for FY99, but an additional $10 to $11 million is needed for the peer review, system assessment development, science and technology roadmaps, TWRS/200 Area characterization, system assessment and conceptual model development, and implementation of the science and technology roadmaps.

Doug Sherwood noted that the national laboratories are receiving funding for their participation, but not Board members. That is troubling to Doug and a disconnect that the project needs to seriously examine. Dr. Moniz is very technical, favors technical input, and sometimes that is at the expense of the voice of stakeholders. When a program has Undersecretary support, but is only able to get $2 million out of a needed $10 to $15 million funding, the commitment of DOE-HQ to the project has to be questioned. The project seems to be going in several different directions. The hope had been for everyone to agree on several projects and then to move forward to implementation. Expectations have been raised because of DOE-HQ involvement.

Steve Alexander, Ecology, provided the Board with information on what Ecology sees as a way to make this project more successful. The frustration has been that for the past three years the working relationship with DOE's Environmental Restoration program and Bechtel has been very successful. When Ecology heard in early Spring that Bechtel was going to be responsible for the vadose zone/groundwater program, there was a high level of optimism that it would work. However, the project has turned into a lot of blaming, finger pointing, and mixed messages and everyone shares in some responsibility for that. What has not been happening regulators and DOE have not been sitting down early and looking at the overall program plan to determine what are the big priorities, what are the technical details needed, what the scope is, and what schedules are needed. From that point on, information is generated that technical and regulators can review. That has not been occurring.

Linda Bauer added that the regulator relationship has been very successful in the past. This is a new ballgame with new components and rules. Everyone is frustrated that it is not as far along as was expected. It is going to take a while to build off the past working relationship. We do have the mechanisms and processes in place to make it work.

Wade Riggsbee provided a brief perspective on the Groundwater/Vadose Zone Integration Project from the Environmental Restoration Committee. The project needs to be further along before the Board can offer advice. Although there is a much better base of understanding, there is still not enough information available on which judgment can be placed. The Environmental Restoration Committee is concerned that it may not have adequate funding. The project needs to address the full scope of impacts and include an impact assessment in its work program. The potential for return on investment needs to be considered.

Board Discussion

Norma Jean Germond noted that being on the phone during the weekly meetings is not the same as attending and that many of the people dialing in have felt like they are missing out on some of the dialogue taking place. Linda Bauer responded that if there are technical difficulties with dialing in, those can be fixed. Any ideas of how to involve people without giving them funding, which is not available, are welcome. It was Linda's recommendation that DOE not set a precedent outside the existing mechanism for public input, i.e., the Hanford Advisory Board. Gordon Rogers said he is attending the meetings and is unfunded for that time commitment.

Ken Bracken asked whether the funding shortfall continues in FY2000. Alice Murphy responded that a placeholder of $10 million has been put in the FY2000 budget request. Linda Bauer noted that not everyone has reached consensus on what project participation should entail. DOE needs continued feedback and patience until it is being done effectively. DOE is committed to a full and open process. Merilyn Reeves noted that it is incumbent upon DOE to provide whatever information it can regarding the termination of Bob Alvarez.

Merilyn questioned what the Board could have done to avoid reaching this crisis point of misunderstanding. It is an unprecedented step for enough members of the Board to lose faith in a project to leave. The goals of CRCIA and the Groundwater/Vadose Zone Integration project have always been confusing for members of the public to understand. The Board did have a representative that was funded to participate in the project development, but it did not come to resolution or understanding and then merged into something that was even confusing. Louise Dressen noted that the Environmental Restoration Committee has devoted a large portion of their agenda to this topic, but is not at a point where there is enough substantive information coming out of the project on which advice could be offered.

Tom Engel expressed his opinion that without the full Board in attendance, it is not possible to get a full picture of the range of opinions on the subject. The nominations for the expert panel were frustrating because there were few opportunities to have members with a wide range of experience. The staff pulling together nominations did not seem to be interested in covering the topics stakeholders had requested. Tom questioned whether there has been any attempt to

assemble existing information. Linda Bauer responded that the national laboratories have been responsible for identify gaps as well as the project team has been gathering information from the different programs. Tom also noted that if the budget is not available to move the project forward, then the Board should consider whether it is a truly serious effort.

Gordon Rogers noted that he had attempted to obtain a Tri-Cities representative in the CRCIA team. When repeated requests were ignored, he asked Martin Bensky to attend CRCIA meetings as an observer. Gordon submitted comments on the draft report which was an excellent effort. The only point that he strongly disagreed with was assigning management authority to the CRCIA team. That comment was not honored in the final report. That same comment was provided to Rich Holten, who was asked to make clear DOE's opinion on the responsibility of the management team, which he did. Gordon was under the impression that the initial workshops in which the national laboratories participated would be funded by DOE-HQ. Gordon feels that there has always been a degree of inequity in the payment of stakeholders and tribal interests to participate in meetings; no funding is provided to local participants. Both Doug Sherwood and Steve Alexander expressed their agreement with Gordon's concerns regarding assigning the CRCIA team management authority. Linda Bauer noted that DOE has had numerous discussions with Tom Woods regarding the management authority question and there is an understanding why the CRCIA team proposed that approach.

Ken Bracken relayed Ben Floyd's comments on the Groundwater/Vadose Zone Integration Project in his absence. The Tri-Cities gave Under Secretary Moniz a list of values to apply to the project, including the fact that it should be a project that results in deliverables, not just research. That is not to say that research is not useful, but the issue needs resolution. Ben continues to feel a high level of frustration with this project and a lack of understanding of where things are going. There has got to be a way of breaking the cycle of repetitive actions which does not appear to lend itself to the end.

It was clarified that the national laboratories were funded for one person to attend each of the workshops and then Under Secretary Moniz requested more participation. The additional attendees were paid for by the national laboratories. Wayne Martin, Non-Union, Non-Management Employees (Hanford Work Force), noted that PNNL has been putting a lot of its business development funds into participating in the vadose zone program. Those business development funds come from the fee received for running the laboratory. As long as the project is related to research and science, the labs will continue to be willing to participate.

Merilyn Reeves thanked the Groundwater/Vadose Zone Integration Project members who came to the Board's meeting and stayed to make their presentations.

Attachments

1. Attendees List
2. FY99 Performance Agreements
3. NV Low-Level Waste Forum Presentation Materials and Meeting Summary
4. BNFL Contract Overview
5. Treatment Capabilities for Tank Waste: An Urgent Need
6. TWRS Contract, Cost and Schedule Changes
7. TWRS Contract and Cost Presentation from Heart of American Northwest
8. Resolution of Dispute: Milestone M-34 (Spent Nuclear Fuel Project)
9. Response to Public Comments on the DOE-RL's FY2000 Budget
10. Groundwater/Vadose Zone Integration Project