

FINAL MEETING SUMMARY

HANFORD ADVISORY BOARD

September 6 – 7, 2007

Seattle, WA

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This is only a summary of issues and actions in this meeting. It may not fully represent the ideas discussed or opinions given. Examination of this document cannot equal or replace attendance and public participation.

Executive Summary

Board Action

The Board adopted several products: Hanford Contract Requests for Proposals (RFPs) advice; S-102 tank spill advice; a letter regarding the Groundwater and Vadose Zone Management Plan; a letter regarding the River Corridor Baseline Risk Assessment (RCBRA).

The Board finalized Fiscal Year (FY) 2008 Board priorities.

Look Back/Look Forward: Perspectives from the Board and Senior Tri-Party Agreement (TPA) Agency Managers

The Board heard agency perspectives of the past year's work and offered its own analysis.

TPA Negotiations Update

The Board was updated on the progress of the Tri-Party Agreement (TPA) negotiations; the Board will continue to track the negotiation process.

Board Business

The Board will have committee meetings in September and October, and will meet in November.

HANFORD ADVISORY BOARD

September 6-7, 2007 Seattle, WA

Susan Leckband, Hanford Work Force (Non-Union, Non-Management Employees), Board Chair, called the meeting of the Hanford Advisory Board (HAB or Board) to order. The meeting was open to the public and offered ongoing opportunities for public comment.

Board members in attendance are listed at the end of this summary, as are members of the public. Three seats were not represented: Franklin and Grant Counties and two university seats.

Welcome, Introductions and Announcements

John Martell is the new alternate for the Washington State Department of Health (Ex-Officio). Bob Suyama is a new Public-at-Large representative.

Cathy McCague (EnviroIssues) is the new lead facilitator with support from co-facilitator Jason Mulvihill-Kuntz (EnviroIssues). Penny Mabie (EnviroIssues) is the senior strategic advisor.

Susan noted that the Hanford Advisory Board Process Manual will be discussed at the November Board meeting. A piece of draft advice on document readability will also be discussed.

New member orientation was postponed until November due to the full Board meeting schedule. Susan encouraged new members to call her with any questions.

Dave Brockman, Department of Energy-Richland Operations Office (DOE-RL), announced that the Secretary of Energy signed the plutonium consolidation Record of Decision (ROD). Dave said shipping plutonium will alleviate the need for upgrades to the Plutonium Finishing Plant (PFP) and the associated costs for security. Dave noted that overall security costs for the site will continue to increase. Money saved through security costs for plutonium will be used appropriately for cleanup or other necessary work.

Tom Carpenter, Government Accountability Project (Hanford Work Force), announced that national award winning film *Arid Lands* will be shown on September 15 at Battelle Auditorium.

Shelley Cimon, Public-at-Large, the Board's national liaison, is at the National Waste Disposition meeting in Las Vegas.

Meeting goals included:

- Reviewing the past year's work and learning about the recent Tri-Party Agreement (TPA) negotiations with senior representatives of the TPA agencies
- Considering draft advice from the Budget and Contracts Committee (BCC) on the Hanford Contract Request for Proposals (RFPs)
- Considering a draft letter from the River and Plateau Committee (RAP) about the Groundwater and Vadose Zone Management Plan
- Considering a draft letter from the RAP committee about the River Corridor Baseline Risk Assessment (RCBRA)
- Learning about and considering draft advice from the Tank Waste Committee (TWC) on the S-102 tank spill
- Finalizing the Board priorities for FY 2008 and meeting schedule for 2008

Nick Ceto, Environmental Protection Agency (EPA), noted that DOE is looking for recommendations on educational elements of the Hanford Reach; Susan said Board members could provide recommendations as representatives of their individual organizations.

The Board meeting was audio recorded.

Approval of June Meeting Summary

Changes were submitted for the June meeting summary. The Board approved the summary.

Hanford Cleanup Contracts

Harold Heacock, Tri-City Industrial Development Council (TRIDEC) (Local Business), introduced the draft Hanford Cleanup Contract Request for Proposals (RFPs) advice. The three contracts are the Plateau Remediation Contract (PRC), the Tank Operations Contract (TOC), and the Mission Support Contract (MSC).

Gerry Pollet, Heart of America Northwest (Regional Environmental/Citizen), provided some background on the RFPs. He said the scope of contracts should reflect TPA milestones and should not assume TPA milestones will change. The scope of work should not come before regulatory decisions. He thought DOE would be vulnerable to funding problems if the scope of work is not tied to TPA cleanup milestones. Gerry said the contracts presume waste sites will be capped instead of retrieving, treating, and disposing of the waste (including leaks under the tank farms). Gerry also said it is not enough to reduce the groundwater impacts of long-lived mobile radionuclide contaminants of concern from past tank leaks by 90%. He said that hundreds of uninvestigated sites at Hanford burial grounds will be capped, with waste never being removed, treated and disposed. Gerry also noted that the current contract included the closure of forty tanks even though he thought this was legally impossible.

BCC thought the TOC scope included presumptions contrary to permits and rules, such as bulk vitrification, which has not yet been selected as a supplemental treatment technology. Gerry also noted conflict of interest and a lack of competition issues with the contract. He said the TOC assumes transuranic waste (TRU) will be shipped to the Waste Isolation Pilot Plant (WIPP) in New Mexico without treatment. He also said there is eighteen times more TRU in soil sites from pre-1970s TRU than DOE proposes to recover from retrievable storage and send to WIPP. The committee said that the PRC does not meet environmental laws and the TPA in regards to soils and pipelines. Gerry said the contract provides a high contractor fee award and no risk for contractors.

Regulatory perspective

Nick said that while EPA has limited resources, it offered to work with DOE before the RFPs were issued. He said EPA was not included in the RFP planning process. EPA is clear that they want 618-10 and 11 burial grounds completed under the current contract and is concerned it will be delayed.

Jane Hedges, Washington State Department of Ecology (Ecology), said Ecology was not included in the planning process either, even though it obtained legal approval to provide assistance. Ecology is concerned about developing a contract that is based on available funding rather than based on the TPA. Jane said the M-91 retrieval contract was changed without approval and now stands in violation of the TPA milestone because of a contractual decision change without EPA or Ecology consultation. She appreciated the advice and thought it reflected regulator perspectives.

Discussion

Paige Knight, Hanford Watch of Oregon (Regional Environmental/Citizen), asked why the contracts are for five years when the Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS) is not prepared yet. Dave said that due to contracting requirements, he cannot discuss anything having to do with contracts and acquisitions at this time.

Paige thought the advice was redundant and needed revision. She asked the agencies if they would use the advice; Dave could neither encourage nor discourage advice.

Ken Niles, Oregon Department of Energy (State of Oregon), thought there was competition from prospective companies bidding on the contracts. Gerry said the Army Corp of Engineers and the Government Accountability Office (GAO) was concerned that the new contracts were going forward without a competitive bid process.

Pam Larsen, City of Richland (Local Government), asked if contractors could submit concrete bid numbers. She thought it was expensive to design facilities or systems that have not been selected. Gerry thought all alternatives should be identified in the RFPs.

Susan Kreid, Washington League of Women Voters (Regional Environmental/Citizen), asked if it was still possible to amend the RFPs; Gerry said they have been amended several times in the past month. He thought the advice could also be used to review proposals.

Harold clarified that the RFPs cover a broad scope of work. Specific activities will be identified under task orders between DOE and the contractor. Contractors are not guaranteed any profit unless they perform well and adequately. Harold said contractors require a notice to proceed from DOE to do any work.

Pam thought bidders had to submit specific cost estimates for specific tasks; Gerry said they are required to submit a cost and schedule proposal based on the RFP scope of work.

Rob Davis, City of Pasco (Local Government), thought the public needs to be more involved in important cleanup decisions. He also thought the contractor was being misled about how much time needs to be allotted to public involvement. Rob is concerned the RFPs presuppose the use of bulk vitrification technology, which makes it seem like the decision to use it has already been made.

Maynard Plahuta, Benton County (Local Government), expressed concern about incentives for contractors to invest their own funds in technology development. He emphasized the need to ensure multiple contractor interest in doing the work. Maynard noted that there are many definitions of “overhead” and thought including past advice on overhead may be confusing.

Greg deBruler, Columbia River Keeper (Regional Environmental/Citizen), said he appreciated the committee’s work. Greg was concerned that DOE plans include leaving waste in the ground and not cleaning up the vadose zone under tanks. He also said DOE is asking contractors to bid on a scope of work that is not clearly defined. He thought that put contractors in a difficult position if the law says to treat and remove waste but DOE’s contract says not to presume waste will be treated and removed. He thought it was unacceptable to have an RFP that is contrary to what is legally required. Greg thought the RFPs set a precedent for more cleanup delay and more cost overruns. He said DOE has shown over the last 18 years and \$25 billion that it has problems managing the cleanup at Hanford.

Keith Smith, Public-at-Large, appreciated that Integrated Safety Management System (ISMS) was given more weight in the RFPs. He noted that capping waste sites would require more vehicles on the site, and that the transportation cost of capping has not been evaluated. He said that the Health Safety and Environmental Protection committee (HSEP) will look into that impact.

Floyd Hodges, Citizens for a Clean Eastern Washington (Regional Environmental/Citizen), said selecting capping as a remedy without public input is unacceptable. He said capping is a short term solution.

Paige asked if there would be an environmental impact statement (EIS) if DOE chooses to cap waste sites. Nick said there is a process, but not an EIS because the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) does not require it.

Pam proposed advising that contractors be notified they will be directed to propose specific engineering proposals as well as cost and schedule estimates for technologies selected.

The Board decided to describe past advice rather than simply referencing it since readers tend to not look up past advice for reference. Advice regarding contractor incentives was kept because contractors tend to respond and perform better with financial rewards.

Maynard asked the Board to remember that the RFP is not for a fixed price contract. He also said that DOE needs to be thorough in describing the scope of work and ensure it is TPA compliant. Contractors need a clear scope of work to submit a bid. Maynard said work is not clearly defined within the RFP.

Gerry said that contract requirements can be different from what is required by the regulators. The contract work scope should be defined to support the range of reasonable alternatives under consideration.

Susan Kreid raised the issue about the specificity of some of the advice; the advice already says contracts need to be regulatory compliant. She believes the Board should express concern with specific work scope that disregards the regulatory process.

Pam was frustrated that the RFPs ask bidders to put engineering effort into alternatives that have not been selected.

Dick Smith, City of Kennewick (Local Government), thought the RFPs are too directive. He believes they should indicate the contractor will be required to conduct activities specified by DOE (and provide examples).

Nick thought the advice makes a good point: Specificity about expectations of work has the potential to undermine the ability of the public and regulatory process to make sound technical decisions. The cleaner and more forceful the advice can be, Nick said, the better it will be heard. Specificity is impossible when scope is uncertain. Nick said sound decisions are difficult to make when there is subtle pressure to provide an expected outcome.

The Board decided to include specific work scope examples from the RFPs in the advice as footnotes, which will focus the advice focused and be forceful while still providing examples to the reader.

Ken Gasper, Benton County (Local Government), did not want the advice to say that the TOC presupposes selection of specific alternatives for treating wastes by stating that the contractor shall not vitrify a significant amount of waste, which will be reclassified as TRU and stored in the hope that it will be disposed at WIPP. This point was removed from the advice footnotes.

Jeff Luke, Non-Union, Non-Management Employees (Hanford Work Force), asked if the committee was against a 4-line bulk vitrification facility in general, or the location the RFP specifically identified (200 East). Gerry said the committee was against the specificity of the RFP.

Maynard thought the advice should not say there should be no minimum guarantee of fee award; it was deleted from the advice.

Susan Kreid thought the Board should be careful about advising on uniform overhead costs. Bob Suyama, Public-at-Large, thought that contract negotiations between DOE and the selected contractor will deal sufficiently with overhead costs.

Ken Gasper said the Board should not say that the RFP should eliminate retrieval of wastes without vitrification for disposal as TRU wastes. It was changed to say that the RFP should reflect all alternatives for retrieval and treatment/disposal of tank waste, rather than specifying, for example, retrieval of waste for disposal as TRU wastes.

The Board discussed if the bulk vitrification facility design contractor should be able to compete for the construction contract. Susan Kreid thought the contractor evaluating the viability of bulk vitrification should not be the same contractor who constructs the facility. An independent evaluation of bulk vitrification should be done.

Dick agreed an independent evaluation of the viability of bulk vitrification should be done, but thought that the design contractor should be able to compete for the construction contract. Dick thought the RFP should be amended to ensure competition for the design and construction of supplemental treatment facilities.

Todd Martin, Citizens for a Clean Eastern Washington (Regional Environmental/Citizen), suggested the committee consider whether or not DOE is using the wrong type of contract for the scope of work.

Rob asked why the advice said to utilize alternative regulated offsite disposal locations; Gerry said the committee did not want DOE to assume that waste can only go to the Environmental Restoration Disposal Facility (ERDF) or Integrated Disposal Facility (IDF). Contractors should be able to recommend offsite

waste storage facilities instead of presuming waste will stay at Hanford. Nick cautioned the Board to be careful what it asks for; if incentives are provided, a contractor will find an offsite disposal facility. Given the history of illicit waste disposal, Paige said contractors should not be provided incentives for investigating alternative disposal locations. The Board decided to advise that the RFPs should not presuppose that retrieved wastes will only be disposed of at Hanford.

Bob Suyama suggested DOE has the opportunity to challenge contractors to be innovative on how to accelerate closure or cleanup of the site. He asked the Board to consider opportunities for innovation.

Susan noted that Board process dictates that the substance of advice is discussed on Thursday; Friday should be only for advice editing.

The Board adopted the advice addressing the Hanford Cleanup Contracts RFPs.

Groundwater and Vadose Zone Management Plan Letter

Pam introduced the draft Integrated Groundwater and Vadose Zone Management Plan letter. The River and Plateau committee (RAP) is encouraged by the accelerated focus on groundwater remediation and DOE's attention to Board groundwater advice, specifically Advice 197, and public involvement. RAP felt the Board should issue a congratulatory letter to DOE on the past year's work.

Regulatory perspective

Jane said Ecology reviewed the Integrated Groundwater and Vadose Zone Management Plan and made suggestions, which DOE incorporated. She noted that this is a DOE document, not a TPA document.

Discussion

Greg said the letter emphasized the Hanford Groundwater Management Plan of 2003 too much. Greg said he would provide the following wording to Pam: "The 2003 Groundwater Management Plan needs to be more robust in defining work schedules and target dates for completion of groundwater remediation. The Board strongly recommends that the focus of the Groundwater Management Plan is to prevent degradation and to remediate groundwater and increase groundwater monitoring."

Maynard expressed similar concern, but noted significant improvements were made. Karen Lutz, DOE-RL, remarked there have been no revisions to the 2003 plan, and reminded the Board that the Integrated Groundwater and Vadose Zone Management Plan will replace the 2003 Groundwater Management Plan. This is the Board's opportunity to provide input on the Plan.

Board members asked for further clarification of the documents named in the letter as well as clarification of other terms used in the advice, such as groundwater degradation.

The Board adopted the letter.

S-102 Tank Spill

Shirley Olinger, DOE-ORP acting manager, opened the discussion on the S-102 tank spill that occurred on July 27. She confirmed the seriousness of the event and wanted to share the actions DOE and CH2M Hill have taken in response to the event. She said getting exposed workers the care they need is the most urgent consideration. DOE requested a Type A investigation of the event, the most conservative and severe level of investigation, to understand the root and contributing causes. In addition to determining the causes of the event, the Type A investigation will evaluate the health effects of the workers in the area, emergency plans, and engineering design modifications. The work control processes and the tank retrieval conduct of operations will also be analyzed.

Shirley said the investigation team completed their work and have a few additional follow-up interviews. DOE will receive a draft of the report around September 14; the final report will be issued by September 20.

John Fulton, president of CH2M Hill Hanford Group, described the events leading up to the spill and the response to it. John mentioned the event could have been much worse than it was. Three CH2M Hill Hanford Group investigation teams were chartered to investigate: 1) the spill event and initial actions, 2) emergency response, and 3) health effects and personnel follow-up.

John described the S-102 tank: S-102 is a single-shell tank in the 200 West Area, in the southwest corner near the 22-S laboratory. Its phosphate content is higher than other tanks, resulting in a fluid with the consistency of peanut butter. Normally, the pump for a single-shell tank is installed underground, but the S-102 pump is a special adaptation. The pump is operated from a control trailer, about 100 meters away. John said they suspect the hose ruptured near the Jersey barrier (he referred to a photograph). The spill event occurred at 2:15 a.m. The crew on duty arrived for their shift at 3:00 p.m. the previous afternoon and worked a 12 hour shift. At 8:00 p.m., the pump appeared to trip out on a ground fault. The crew was trained to flush the transfer line with water. An electrician was called to troubleshoot the ground fault, which had actually not occurred. The pump was verified as good-to-go.

Per protocol, the pump was manually run in reverse with water to clear it out and make the waste more pumpable. After the electrician was called, the crew called the millwright. John noted that the millwright had never been trained on the right torque value for a wrench on the particular nut on the pump. A minor item, but John said it was one of the nuances found during the investigation. The correct torque value was set and they cleared the pump several times. The crew returned to the control trailer, which got word the pump was cleared and ran the pump in reverse again. John said that is when the sensitivity meter swung up and the leak occurred.

John said there is a half-inch hole where the dilution water enters the waste stream. He believes that the hole has a half-inch angular space, and both the hole at the bottom of the pump and the half-inch angular space became completely plugged. When the pump was run in reverse, it created enough pressure up the water line that it pressurized the entire system and popped the hose. It released roughly 50 to 115 gallons of waste onto the ground.

John said they can almost guarantee the waste was from the bottom of the tank. John also said that when the leak happened, they did not know the hose had burst. Nobody was by the hose at the time to know there was a spill. The spill was identified by a spike on the reading instrument. Routine procedure at the end of a shift calls for a health physics technician (HPT) and operator to walk the transfer line backwards. The HPT did not walk with an open window reading on the instrument, which should have been done. They got within twenty feet of the spill and had a reading of 250 mrem; background readings were less than 1 mrem.

John said they recognized there was a high radiation area, but did not know there was a spill until later that morning. The spill area was stabilized with a fixative and continuous air monitoring was performed. The spill area was surrounded with a locked fence and posted with *High Radiation, High Contamination, Respiratory Protection Required for Entry*. The spill area was monitored for potential spread of contamination and they conducted surveys every four hours at the high radiation/high contamination area boundary. Weekly samples were also taken inside the fenced area including contamination and dose rate surveys.

John said the investigation is complete and concluded that the systems failed. The investigation identified engineering design and safety analysis weaknesses, namely that CH2M Hill did not consider a burst water hose a pathway for waste to get above ground. John said this is the only place this type of pump design and arrangement is used at Hanford, and was a latent weakness waiting to fail. The investigation also identified weaknesses in management systems; there was schedule pressure during the initial pump design and deployment in 2003.

The emergency response investigation team coordinated its investigation with the Hanford Fire Department and Hanford Emergency Response Organization. The initial report identified several opportunities for improvement:

- Strengthen procedures to require a call to 911,

- Take a more conservative response on personnel take-cover or evacuation when a source is unknown,
- Conduct additional emergency response drills,
- Consider additional chemicals and vapors in response procedures,
- Evaluate assigning Industrial Hygiene technician to second and third shifts.

The health effects investigation consisted of a Health Effects Assessment Team to assist workers in diagnosing and treating their illnesses. There were 60 potentially affected workers, including people on the crew, people in the parking area, and nearby herbicide applicators. Twelve workers expressed concern or reported symptoms. The investigation identified all potential worker hazards, including radiological and chemical hazards from the spill, environmental hazards and occupational hazards. The health effects from the hazards were evaluated by toxicologists, occupational medicine experts, personal physicians, and Harborview Medical Center physicians.

John summarized a more conservative response is necessary and protocol should assume that a spill occurred until proven otherwise.

Regulatory perspective

EPA

EPA sent a team to look at the spill site, and Nick thought some reporting requirements for spills were not complied with. He said DOE and CH2M Hill were very cooperative throughout the investigation. EPA is satisfied with the investigation response.

Ecology

Ecology is investigating the incident and looking at training materials. Jane said Ecology has been very well briefed. She noted that Ecology does not have authority over worker safety in this incident, but they have looked into potential exposures to the public.

Discussion

Norma Jean Germond, Public-at-Large, asked if the crew used respiratory protection; John said no. If procedures required assuming that there was a spill, then they would have worn respiratory protection. This is one of the reasons procedures need to be more conservative.

Wayne Lei, Oregon Hanford Cleanup Board (State of Oregon), asked if the crew whose shift ended at 3:00 a.m. thought the pump was working; John said they thought they did all they could manually and decided it had to be dealt with on the next shift. They told the control room that the pump was unblocked, which is why the control room ran it in reverse again. All workers wore dosimeters.

Keith was surprised that they did not think a spill was a possibility; any time a connection is pressurized there is potential for over-pressurization. He was glad there are plans to implement more realistic training. HSEP will review the incident.

Gerry asked if DOE and the regulators were looking into the failure to provide immediate notification to the National Response Center. He thought the Resource Conservation and Recovery Act (RCRA) was specific in giving responsibility to Ecology to require training to prevent exposure to dangerous substances. Shirley said the contractor and Type A investigation team is reviewing the notifications that were or were not done. EPA and Ecology are also reviewing notification, training records and procedures as part of their investigations. Jane said Ecology is specifically looking at training.

Gerry asked if and when the agencies will provide information on the incident in the Hanford Update; Shirley said they are putting together a communications plan for all the investigation findings, which will be made available on the Hanford website. Paige thought there should be more information distribution; Shirley said DOE will speak with congressional staff, the Board, regulators, workers and key stakeholders that have an interest in the event. Gerry thought that was inadequate and thought DOE legally has to mail out information as part of the quarterly update.

Rob thought the spill event was an example of the high cost of failure. He would like HSEP to review the cost of such a failure. Keith thought review of the spill costs could be a joint discussion between HSEP and BCC.

Jim Trombold, Physicians for Social Responsibility (Local/Regional Public Health), noted that major health effects from nuclear exposures usually take a while to manifest and require long term monitoring for chronic problems.

Tom said the GAO wants to make sure this does not happen again. He relayed unease concern there is not more use of supplied air during waste removal activities; more proactive personal protective equipment during waste monitoring and waste disturbing activities is needed.

Gene Van Liew, Richland Rod and Gun Club (Local Environmental), asked how old the hose was and if the pressure per square inch had been calculated. John said the hose was a few months old; age was not a factor. The hose was never intended to carry waste. Previous testing had been done for carrying plain water at twice the known rate of the hose.

Jerry Peltier, City of West Richland (Local Government), thought there should have been secondary and tertiary confinement methods, even if the hose was never supposed to carry waste. Engineering should analyze all worst case scenarios.

S-102 Tank Spill Advice

Rick Jansons introduced the advice, which formally requests an independent investigation and frequent, realistic training, and identified specific concerns from TWC. Rick noted a thermal event occurred in 1993 that was similar to this spill incident. Rick thought there was potential for additional advice.

Discussion

Keith said that there has to be an implemented and useful lessons-learned process.

Rob suggested the advice request a total cost of the incident.

Susan Kreid thought DOE and the contractors need to ensure and practice proper notification of hazardous leak events, including notification of the general public.

Todd expressed concern about the impact to the herbicide sprayers outside the fence, which should be part of the investigation.

Shirley said DOE determined that the incident was not a potential inadequacy in the safety analysis (PISA), although the design created in 2002 does violate a technical safety requirement (TSA) requiring double-valve isolation. Shirley said the safety analysis evaluates affects to the immediate worker, the co-located worker and the public.

Todd asked if the worker outside the fence was a foreseen situation in the safety basis; Shirley said there were controls in place that were violated, however, the root cause was the flawed design of the pump.

Pam asked if there is a mechanism in place to inform other contractors of incidents, to avoid incidents such as the Fluor herbicide sprayer being nearby the leak. Shirley said if the HPT had kept the window open on the instrument and been able to inform the necessary people at 2:30 a.m. when the spill occurred, there would not have been anybody in the immediate area, including the herbicide sprayer.

Shirley said the design standards for the pump were different when it was designed. Keith noted that DOE and contractors should find out if there are similar designs being used around the site and remove them.

Gerry requested that the results of the investigation be disclosed to the public.

Maynard suggested the Board advise that contracts include sustained training. Rick said increased or maintained training needs to be required by DOE, not by contractors or within contracts.

John pointed out there were engineering controls in place that should have caught the problem, but since they did not, the event represents a failure of institutional controls.

The Board adopted the advice.

Draft Risk Assessment Report for the 100 Area and 300 Area Component of the River Corridor Baseline Risk Assessment (RCBRA) Letter

Jerry Peltier introduced the draft RCBRA letter, which will be the foundation for developing the final Record of Decision (ROD) for the River Corridor Cleanup. The letter calls for a comprehensive risk assessment along the River Corridor and includes policy-level comments from RAP. Jerry noted that some individual Board members also submitted their own comments. The comment period was extended through September 6. Jerry understood that DOE would review and incorporate as many comments as possible into the final draft of the RCBRA, on which the Board will be able to comment again.

Discussion

Jeff said the Board should be specific about which waste sites it feels have not been adequately characterized; Jerry said that the risk assessment will only address remediated waste sites and the title of the risk assessment should reflect that.

Ken Niles said the Oregon DOE thinks the risk assessment is inadequate and changing the title of the document instead of making it a comprehensive risk assessment is not suitable or acceptable. Ken conceded that at the very least the name should change, but it really should be a comprehensive risk assessment document for the entire River Corridor.

Maynard agreed that more characterization is need for non-remediated sites in the River Corridor.

Greg said the purpose of the risk assessment was to provide a comprehensive risk assessment for the River Corridor. He did not think the current risk assessment comes close to fulfilling its original purpose or what is required.

Gerry thought the risk assessment needs to cover more than just remediated waste sites. Gerry discussed cancer risk, and how waste sites pose a cancer risk in addition and equal to background cancer risk.

Gerry added that the Board should avoid issuing letters rather than advice on important policy issues. Susan Leckband reminded the Board that a letter does not require a response from the agencies. She noted that since the risk assessment is an early draft document, the committee did not feel a response from DOE was necessary.

Nick noted that EPA asked DOE to perform the risk assessment because DOE was looking ahead to final RODs and final closure contracts. Nick encouraged the Board to focus its comments on this particular risk assessment rather than recommending DOE perform a more comprehensive risk assessment. Nick said this risk assessment will be used for decision-making and has to be a good product.

Greg asked if the public was unsatisfied with the risk assessment, would EPA be in favor of re-doing the risk assessment. Nick reiterated that the Board should submit its comments; this document is on the path to completion and will guide final RODs. Nick said it could be modified, but it would not be discarded like the Solid Waste EIS. Greg asked if there are deadlines to finish the risk assessment; Nick said yes.

Maynard asked if there would be an assessment of non-remediated waste sites. Nick said this risk assessment addresses other areas as well. Maynard mentioned there is a lot of cleanup left in the 300 Area. Nick said a risk assessment serves as the basis of action. There is already a ROD for 300 Area cleanup. Dennis Faulk, EPA, said the risk assessment identifies additional data collection needs.

Cheryl Whalen, Ecology, said an integrated master plan is needed for the risk assessment to understand how the individual plans fit together.

Jerry expressed concern the risk assessment is not all-inclusive as the title implied. It is all-inclusive for the remediated areas. If the document will be used as the ROD or decision point for the ROD, then the scope needs to be significantly expanded. Nick said that was a fair assessment, and reiterated that the risk assessment should be a package. He did not think there is the intention to do another risk assessment for other areas before the ROD – this is the chance to get it right.

Pam said the RAP learned that institutional controls and long-term stewardship will be included in the RODs. She thought the Board should indicate that is its expectation. Maynard said the risk assessment should identify costs associated with long-term stewardship.

Susan Kreid thought the risk assessment executive summary was inadequate; the public relies on the executive summary to understand the purpose of the document, what was done and the results.

Greg said the deadline for submitting comments was rushed. He did not want the Board to rush to send a letter that should be advice. Greg said it seemed like the same mistakes are being made. Instead of creating a scope of work and identifying the time necessary to perform the work, Greg said it seems like DOE wants to get work done however limited it may be. He said DOE should be concerned about whether or not the work will be protective of human health and the environment. He said there has been a need for this since 1989, but the current RCBRA does not meet what is clearly required and it does not look at deep vadose zone at current remediated sites.

The Board made the letter more readable to ensure the baseline includes a risk category for past interim actions and closure units with potential failure.

Wayne suggested the need to have a larger conversation about institutional controls and their costs; institutional controls are meaningless unless there is financial support. Susan Leckband noted that the Board has issued advice on that topic and RAP is working on something similar right now.

The Board adopted the letter.

Look Back/Look Forward: Perspectives from the Board and Senior TPA Agency Managers

Susan described 2007 as a year of change. There is a new DOE-RL manager, Dave Brockman, with whom the Board already has a positive relationship. She thanked the Board for supporting her as the new chair. The Board created good products, such as the groundwater flow chart, which the agencies use and have passed on to the national level.

Susan said the Board's major concerns continue to be the WTP, the TC&WM EIS, and the RFPs for new major contracts. She thought the Board turned over a new leaf by working more collaboratively with the TPA agencies including the 2008 Board priorities. The Board issued nine pieces of advice in FY 2007. She thought Board advice was maturing and becoming more focused and helpful.

DOE-ORP

Shirley distributed a handout charting Board priorities including an indication of how that advice influenced DOE decisions and processes. Shirley discussed some key points looking back over FY 2007:

- *Public policy values priorities*
 - Led to worker's compensation advice (#196): DOE-RL manages the program and is working to improve it.
- *Prioritization and sequencing of cleanup work priorities*
 - Led to Tank Waste Program Path Forward advice (#192): Helped DOE-ORP and TWC move to a higher level of detail.
 - Led to advice on FY 2008-2009 Outyear Budgets (#198), which helped craft a high quality transmittal for the FY 2009 budget submission. It also led to recognition of HAB values and priorities for more tank retrievals and cleanup of contamination from tank

- leaks, to continue to seek full funding for WTP and to agreement that a decision on DBVS is critical.
 - Led to Costs and Baseline Schedule advice (#199)
- *Institutional controls*
 - Led to the Groundwater Values Flowchart advice (#197): DOE-ORP is working with DOE-RL to strengthen groundwater and vadose zone integration.
- *Develop methods and recommendations to achieve public confidence on end-state decision points*
 - Led to Double Shell Tank Integrity Assessment Report advice (#193): DOE and the Board collaborated and worked through areas of concern to provide details of the double-shell tank program.
- *Groundwater integration*
 - Led to Groundwater Values Flowchart advice (#197) and Groundwater and Vadose Zone Management Plan discussions and informal feedback.
- *Public involvement*
 - Led to FY 2008-2009 and Outyear Budgets advice (#198): Created the useful Hanford Pie-Chart exercise.
 - State of the Site 2007

Shirley described some of the cleanup achievements in FY 2007:

- *WTP*
 - Goes GREEN, which builds confidence in funding
 - Deputy Secretary approved project baseline
 - Certification of the WTP Revised Ground Motion
 - Voluntary Protection Program (VPP) application (submitted)
 - Certification of Bechtel National, Inc. Earned Value Management System
 - Completed all three scheduled milestones
 - Resume construction on the pre-treatment facility and high-level waste facility; final steel placement on the analytical laboratory
- *Low-Activity Waste Facility*
 - Facility enclosed
 - Roof completed
 - Roof stack placed
- *Tank farm work and achievements*
 - S-102 tank spill inhibits progress; cleanup work must not become complacent
 - Certification of CH2M Hill Earned Value Management System: first in complex, important for obtaining consistent funding
 - Retrieved seventh single-shell tank (S-112)
 - Completed DBVS full scale dryer and integrated melt test
 - Completed 242-A Evaporator campaigns to reduce approximately 1.21 million gallons of waste
 - Deployed five new tank retrieval technologies
 - Double-shell tank integrity activities are on track to complete milestone M-48-15 by the end of September 2007
 - Completed five of the 14 milestones on schedule; two are on track to be completed on schedule

Shirley noted that cleanup challenges include:

- *WTP*
- Resolving outstanding technical issues on the pre-treatment facility; on schedule for resolution in January 2008
- Quality assurance: insisting on more independent reviews
- Safety
- Consistent and predictable funding
- Staffing the workforce: goal of 1350 people on the workforce
- Tank farms
- S-102 tank spill event: need to institutionalize lessons-learned
- Retrieving waste
- Supplemental treatment solution

Shirley said DOE would address the following in FY 2008:

- Tri-Party Agreement
- TC&WM EIS
- WTP
 - Ramp up full construction
 - Pre-treatment Experimental Platform start up
- Tank farms
 - DBVS
 - Pre-treatment at tank farms
 - Complete retrieval from two single-shell tanks using innovative technologies
 - Continue double-shell tank integrity activities
 - Perform 242-A evaporator campaigns
 - Continue characterization of tank farm soils

Shirley suggested the following issues for the Board to address in the coming year:

- Tri-Party Agreement
- River Protection Project Low-Activity Waste Treatment Review: Still in an independent review but will be ripe for discussion in October and November
- TC&WM EIS: Still on schedule to produce a draft in March 2008
- DBVS: The integrated dryer test is complete and DOE-ORP will soon have results for DOE-HQ. DOE will want the Board's feedback.
- Vadose zone and groundwater
- Integrated Disposal Facility (IDF) Performance Assessment: When the TC&WM EIS draft is available

DOE-RL

Dave said the DOE-RL deputy manager will be DOE-RL's Deputy Designated Federal Official (DDFO); Doug Shoop will be the acting DDFO and the trustee for the Natural Resource Damage Assessments; Dave will be the senior trustee.

Dave learned a lot about different perspectives and ideas from the Board last year. He said Board advice is valuable even if DOE cannot always implement the Board's recommendations. Dave thought the most valuable part of the advice was witnessing the Board's deliberation and hearing dialogue at Board meetings. He will encourage members of his staff to attend Board meetings.

Dave said the implementation of the two new contracts will be a critical transition in FY 2008. Dave said his vision for Hanford is the TPA: It is the manual for cleanup and has been agreed upon by the TPA agencies. Dave believes the site can accomplish more work with their money, but only with an improved focus on safety. He is interested in Board advice regarding work and cost efficiencies.

Dave also discussed the Board's 2007 priorities, products associated with those priorities, and their influence on DOE decisions and processes.

- *Public policy values*
 - Pension and Benefits advice (#194) led to DOE-HQ policy level decision to remove the two tier system
 - Draft RFP advice (#195) is being considered in the draft RFPs
 - Worker's compensation advice (#198) was successful in fostering an ongoing dialogue with the Board on worker's compensation issues
- *Institutional controls*
 - Groundwater values flowchart advice (#197) was useful in improving the process
- *Develop methods and recommendations to achieve public confidence on end-state decision points*
 - River Corridor Baseline Risk Assessment Workshops
 - Groundwater values flowchart advice (#197)
- *Groundwater integration*
 - Groundwater values flowchart advice (#197) and Groundwater and Vadose Zone Management Plan discussions and informal feedback
- *Public Involvement*

- State of the Site 2007
- FY 2008-2009 and Outyear Budgets advice (#198) played a critical and hope to continue improving budget dialogue and the flow of information. The collaboration on content of information and meeting format is a direct result of your input.

Dave said a top priority continues to be groundwater remediation and cleanup with a focus on stopping contaminants from reaching the Columbia River.

Dave thought there was some increased productivity by shifting TRU retrievals to the night shift; as the temperature cools, retrievals will switch back to the day shift. Dave described the massive amount of drums that were retrieved and how the contents are often unknown.

DOE-RL's goal was to remediate 39 waste sites; they ended up remediating 65 sites. Dave said there were issues with waste site remediation in the 100 N Area, including the compaction problems and falsification of records at ERDF. Dave called ERDF the "crown jewel" and without it there would not be the same level of cleanup work. There have been some safety concerns and a number of spills; WCH was penalized for some activities. Dave said they are improving, though.

There are four Pacific Northwest National Laboratory (PNNL) facilities remaining in the 300 Area; the 300 Area will remain part of the Hanford site and will be operated by PNNL. Dave noted that at K Basins, DOE plans to remove some of the K East Basin from the ground by this time next year. Dave also congratulated the ingenuity of the workforce at transferring all the waste from K East Basin to K West Basin.

Dave said DOE continues to plan for the unexpected, like wild land fires. There was one fire in the 200 Area this year, and it was stopped quickly because of improved preparation and firefighting techniques learned from the fire in 2000.

Ecology

Polly Zehm, Ecology, appreciated the new sense of collaboration regarding Hanford cleanup. She believes it saves time and creates trust between Congress and taxpayers, showing that money is being spent wisely.

Polly said Ecology has successfully worked with DOE to stop strontium from reaching the river and in cleaning up the 300 Area. They are working on a field scale biomass study, using bioremediation, and will test at the strontium site in the N Area in two years. DOE is planning to enhance the in-situ redox barrier using iron microscale fillings. Ecology has seen progress in addressing groundwater remediation, and needs to continue to be creative and push innovative technology.

Polly noted that Ecology issued the plan for the C Farm Demonstration Project, which will help define regulation for closing waste tanks at Hanford. Unfortunately, Polly said, working with DOE to integrate groundwater and vadose zone cleanup work has not gone as well as anticipated.

Ecology's nuclear waste program continues to involve stakeholders and the public; Ecology cares about the transparency of the program. Regarding the relationships between the TPA agencies, Polly said that although there are fundamental disagreements between the agencies, different points of view help them arrive at sound cleanup decisions. She thought TPA negotiations are an important part of the work for FY 2008, to understand how they will reach the milestones. More importantly, negotiations will also assess funding. Ecology is pleased with congressional support for WTP and to see construction resumed. Polly said the retrieval of tank waste and construction of WTP are cornerstones of the Hanford cleanup.

Ecology is concerned about the WTP schedule and the domino effect of its delays on tank retrievals. Polly said they will continue to be concerned about the federal government's commitment to meet its legal and social obligations in cleaning up the Hanford site. She said it is essential that the state and DOE continue to work together.

Polly said Ecology is working to make sure the TC&WM EIS addresses alternatives with substantial and understandable data; the EIS is intended to give a comprehensive analysis of the cumulative impacts. It is critical for a number of cleanup decisions.

Polly appreciated Board advice, in particular four pieces of advice had a direct impact:

- FY 2008-2009 out-year budget advice: Ecology agrees with it and shares the Board's concern.
- Cost and baseline schedules advice: Ecology agrees with the advice points and is concerned that DOE-ORP changed the baseline without proper review by the regulators. The TPA agencies must have a common understanding of the baselines.
- Double-shell tank assessment: Ecology is using the advice to develop the double-shell tank permit.
- Groundwater values advice: Ecology has consistently used those values.

Polly thanked the Board for its work and advice. She appreciated the difficulty in forming useful and understandable advice. Ecology looks forward to working with the Board on the 2008 priorities.

EPA

Ron Kreizenbeck, EPA, said the TPA has been a sound tool for guiding cleanup and establishing milestones. Good progress has been made to clean up waste sites along the river and moving spent fuels to safe storage. Ron described the TPA as a mechanism for enforcement.

The fine for the improper handling of sodium dichromate and the penalty for ERDF compaction issues have been leveraged through the TPA. Ron said EPA wants to ensure those penalty funds go back to the community to support supplemental environmental projects. Some money went to Benton County to address spills and other money was used to construct a greenhouse for in-situ revegetation, and to prove the viability of large scale revegetation.

Ron said EPA is disappointed that WTP will not be finished until 2019. EPA is focused on accelerating groundwater work to address the deep vadose zone work to help mitigate the risks posed by the delay in tank retrieval. A document that addresses the scope, schedule and budget is critical to help establish a robust cleanup budget. Ron also noted the TPA agencies need to decide how to deal with pre-1970s TRU around PFP.

Ron thanked the Board for its work.

Discussion

Tom asked if the agencies think the tanks will last for another fifty years since they are beyond their engineered design life. Shirley said the agencies are also concerned about tank life and are discussing it in the TPA negotiations. They are talking about committing to a single-shell tank chemistry review. She said they should be able to get data from the seven tanks emptied so far and correlate it to evaluate tanks that still contain waste. Shirley said their monitoring program is only mitigative, not preventative. DOE is also hopeful that other things will help accelerate cleanup of other tanks. If bulk vitrification turns out to be a viable alternative supplemental treatment technology, Shirley said DOE could start double-shell tank retrievals as early as 2014.

Tom asked if DOE was evaluating earthquake potential; Shirley said the team is looking at a new revised ground motion study.

Paige asked how Bechtel was able to implement an earned value management system given that there were problems with WTP last year. Shirley said the system Bechtel used in 2003-2005 did not meet American National Standards Institute (ANSI) requirements, and the data entered into a cost and schedule tracking program showed that Bechtel and DOE-HQ were essentially comparing apples to oranges. Now Bechtel is using the earned value management system certified by Office of Enforcement and Compliance Monitoring (OECM) to meet ANSI requirements.

Paige asked if Shirley thought that would make a difference with Bechtel's performance; Shirley said DOE-HQ, DOE-ORP and Bechtel managers will be able to more clearly communicate using accurate information. If things do go awry, DOE-ORP will be able to intervene early because they are "speaking the same language."

Paige asked if DOE-ORP has missed any major milestones; Shirley said yes. The M-45 milestone series for tank farms were missed and DOE is working with Ecology on how to integrate those with the vadose zone milestone series.

Pam provided some comments: She thought there were many accomplishments in FY 2007, and that it was great to hear the plutonium shipments will happen. The improvement in the budget process was a long time coming and the interaction between DOE-HQ and the site offices made a huge difference. She asked DOE to keep the community in mind since the RFP process is very personal and can be unsettling for the community.

Ken Gaspar was pleased with coordination between the DOE site offices and DOE-HQ, which the Board should continue to encourage. He suggested that as the agencies make their yearly presentations, they explain how the work measured up to the standards that were set. Instead of saying there were 359 shipments of TRU waste, say that there were 359 shipments of TRU waste out of a goal of X shipments. Ken stressed that the Board responds to work by the expectations created by DOE and the TPA.

Jim noted that all three agencies should be champions of the TPA; Nick agreed and believes they are. He noted that EPA is fighting for the cleanup schedules set forth in the TPA, but funding is a huge issue. Cleanup at Hanford is resource-constrained.

Gene asked if any revegetation work had been done since the last fire. Dave said they are still exploring what they can do and will partner with the U.S. Fish and Wildlife Service for funding and implementation. Dave said DOE does not have money set aside for post-fire revegetation, but they are figuring out post-fire needs.

Susan Kreid liked the presentation formats and commended EPA on their creative approach to penalties leveraged on DOE; she thought it was almost like imposing community service rather than a fine. She thought the greenhouse would not have been funded without EPA's creative use of a penalty.

Rob expressed interested in being involved in the single-shell tank assessments. He asked if the agencies were fully staffed. Jane said with the exception of Laura Cusack leaving, Ecology is fully staffed. Nick said EPA is hiring another staff person and could use more resources. EPA does not have enough people to spend time on issues such as the RFPs. He noted that EPA is supposed to play a problem-solving role and it is easier to be proactive when they are fully staffed. Dave said DOE-RL is not fully staffed but they are in the process of filling existing positions. Shirley said DOE-ORP has 109 staffers but has positions for 115.

Rob asked how many permits were written for the site; Jane said Ecology is renewing the site-wide permit. Permit modifications were completed for WTP and the IDF permit was issued.

Larry Lockrem, Non-Union, Non-Management Employees (Hanford Work Force), asked about supplemental treatment technologies in FY 2008; Shirley said the Technology Readiness Level (TRL) report needs to be approved by Jim Rispoli, Assistant Secretary of Energy, reviewed by stakeholders and then approved by Congress. The report will be done at the end of September. Design money is available when critical decision two is approved. The 2008 budget is restricted but funding for demonstration bulk vitrification may become available. In addition, Shirley said, the report discusses supplemental treatment in the form of early startup of the Low Activity Waste (LAW) facility and other options.

Keith asked if DOE still had problems with WTP construction materials; Shirley said they are addressing the problems of obtaining the right grade and quality of materials from the supplier.

Dave said that the bulk of the fighting the recent fire used national, state and county assets. The Hanford Fire Department primarily pulled back to protect the reactors.

Susan thanked the agencies for the detailed presentations and their willingness to share their thoughts with the Board.

TPA Negotiations Update

The TPA agencies updated the Board on the TPA negotiations that are primarily focused on milestones for WTP, single-shell tank retrievals, and groundwater remediation.

Ecology

Jane provided background on the reasons for re-negotiating the TPA. She said DOE missed critical milestones in FY 2007 due to overestimating abilities, funding and feasibility. The missed milestones will affect future milestones. Ecology and EPA felt the issues were major enough to merit robust discussion instead of the typical technical review. She noted that Ecology had the option of litigation but opted for negotiating a path forward since all the agencies want the cleanup to proceed. Ecology and EPA are also seeking commitments from DOE to accelerate groundwater cleanup work to mitigate potential environmental impacts.

In May, the TPA agencies entered into negotiations and have had five mediated meetings to date. Jane said the agencies felt they were at a point where they have a clear understanding of the technical issues and wanted to update the Board to ensure transparency, instead of the “decide-disclose-defend” method. Jane noted that communications between the agencies is ongoing and they anticipate meeting again in October. If the TPA agencies reach an agreement, Jane said they will utilize a public involvement process before finalizing the agreement.

DOE-ORP

Shirley said they have discussed specific milestones for WTP and have a good understanding of what can realistically be accomplished. Shirley said unlike the current TPA, which has less than ten milestones for constructing WTP, there are now 35 proposed milestones to give the agencies and regulators confidence that WTP will be constructed on time. Most of the 35 are enforceable and dictate hot operations of WTP by May 2019 and all are end-state driven. She noted the decision to close technical issues with the pre-treatment facility by December 2009. The agencies will also decide whether to proceed with a final design of DBVS by December 2007. Shirley noted that it does not presume Ecology wants bulk vitrification, it just establishes a timeline in case it is selected. Shirley said negotiations have also focused on completing removal and treatment of all tank wastes by 2047.

DOE-ORP will also have new timelines for retrieving single-shell tank waste. Negotiations on waste retrieval have focused on single-shell tanks because they present the greatest risk. Shirley said the TPA agencies have agreed to add enforceable milestones for single-shell tank retrievals, closure of Waste Management Areas, installation of six interim barriers over tanks and Waste Management Areas, as well as conducting a single-shell tank chemistry control program. Shirley noted that they will utilize a peer review in 2008 to ensure that tanks will not fall apart awaiting retrieval. The agencies are also discussing using emergency space and raising the fill height on double-shell tanks. This would allow the retrieval of up to approximately 2.9 million gallons of waste before WTP is operational in 2019. Shirley noted that the agencies have agreed to complete all single-shell tank retrievals by 2040.

DOE-RL

Dave described new requirements for vadose zone and groundwater cleanup:

- 100 Area
 - o Contain hexavalent chromium plumes by December 2012
 - o Contain strontium-90 plumes by December 2016
- 300 Area
 - o Contain uranium plumes by December 2018
- Central Plateau
 - o Contain all existing plumes including technetium-99, uranium and carbon tetrachloride, (except iodine, nitrate and tritium) by December 2020

Dave said that the agencies are designing cleanup work to satisfy specified treatment, containment goals, and dates. He said there are nearly fifty milestones. The agencies are also focusing attention on deep vadose zone remediation in the Central Plateau with the target goal of deploying full-scale technologies by September 2011.

The agencies are discussing the development of a lifecycle scope, schedule and cost analysis report for completing the cleanup at Hanford. Dave said the scope is necessary to meet the TPA and all environmental activities. He said the report will also assist the agencies see how much money they will need in any given year.

EPA

Nick emphasized that the agencies have not reached a deal yet. They think they have agreement on many issues, but Nick said they want to meet and consult with all Hanford stakeholders, including the tribes. Nick said they intend to give the Board additional detail and would like their feedback on how to do that. With the next negotiation meeting in October, Nick said the Board has about a month to think about what it would like to see and provide input. The Board will also be able to comment when the draft package is released. Nick said the agencies have considered technical sessions and workshops and would like the Board's opinion on what would work best.

Discussion

Susan thanked the agencies for sharing information with the Board so early.

Rick thought the handout prepared by the agencies seemed fairly reasonable. He thought some issues are controversial, like installing six interim barriers. Rick thought a workshop would be helpful; he noted that the Board's process would be too slow to have advice ready by the November Board meeting. Rick commended the agencies on avoiding spending money on litigation; public discussion is a good way to avoid litigation. Rick asked if all aspects of site work would be updated in the lifecycle scope, cost, and schedule analysis report; Dave said yes, it will be updated to reflect reality annually.

Maynard asked if the lifecycle cost analysis would include institutional controls; Nick said the intention is to cover everything, including institutional controls.

Nick said that the cleanup has been budget-constrained for so long, it will be good to clearly identify what cleanup work can happen and how much it will cost.

Susan asked the agencies if a workshop would be as helpful as formal advice. The agencies said yes.

Greg thought a workshop would be valuable. He said the focus seems to be on groundwater contamination containment rather than remediation. He was concerned that groundwater contamination remediation completion dates have not been identified. Jane said many people felt the same way; containment is the first step, followed by a series of milestones to remediate to highest beneficial use. She said each milestone could be seen and discussed in a workshop setting.

Greg noted that pre-1970s TRU waste is still an issue and said that WTP needs lifecycle costs through completion and evidence of why 2019 is a credible end date.

Ken Niles thanked the agencies for sharing information and said that the Oregon Hanford Cleanup Board specifically requested a process such as this. He asked if there are milestones to make bulk vitrification or an early LAW facility operational after the full facility goes online. Shirley said yes.

Regarding tank pumping and emergency space, Ken said the TRU waste would have to be processed. Shirley said the double-shell tank report identifies actions to take if there is a leak. It is a low-risk proposition.

Ken thought the lifecycle cost and scope analysis should be preserved regardless of the success of the negotiations.

Keith asked if there will be a decision on DBVS soon; Shirley said the decision will be made in November.

Dick asked if the M-62-08 milestone would be replaced; Shirley said yes, a new milestone is being negotiated. The Supplemental Treatment Alternative Study examines data on potential and advanced technology, technology readiness, and cost. It also looks at an early LAW facility startup, with the necessary pre-treatment and associated cost.

Paige was glad more milestones were being created. She asked if there was a downside to raising the fill height on double-shell tanks. Shirley said they have to demonstrate that it is possible to put more load into the tanks and show maintenance is possible.

Paige was concerned about installing six interim barriers over tanks, and commented on the occurrence of interim solutions sometimes becoming permanent solutions. Nick said they are trying to minimize the impact of the delays of tank farm retrievals, and are trying to focus on groundwater in the 200 Area and prevent contamination.

Gerry thought that public and Board values were not represented. The Board has said that emptying one tank per year is not acceptable. He was disappointed that completing tank waste treatment is delayed until 2047.

Jane said they are concentrating on groundwater, WTP and tank retrieval, which are the key missed milestones. They have not focused on other issues yet, such as offsite waste issues. She shared Gerry's concern over the speed of tank retrieval; there is no agreement yet and there will not be until there is full agreement on all issues.

Todd favored the lifecycle scope and cost analysis and understood why it makes programmatic sense. He questioned, however, that such a document could be used as a reason for not performing certain cleanup actions rather than getting more funding. He also noted that there is a very poor record of cost and schedule estimates at Hanford and he was concerned that such a document would compound the program. He asked the agencies to think carefully and strategically about that document.

Tom was concerned about completing single-shell tank retrieval by 2019. He thought it may even be cheaper to fix the problem sooner, with the possibility of new tanks, rather than mitigate a disaster later. He thought slightly different technologies than vitrification, like iron phosphate glass, should be analyzed. Tom was concerned about containing waste rather than treating it.

Susan Kreid asked the agencies to think about component costs as they reach final cost estimates, as well as what needs to happen to make a realistic deadline. She thought deadlines need to be carefully thought through to ensure they are realistic. Susan hoped that the agencies will be open about which milestones remain unchanged so the public understands what changes are being made.

Norma Jean asked if retrievals could be done faster if there were more money; Nick said new double-shell tanks could be built if money were not a constraint.

Pam was glad that there is a final decision coming on bulk vitrification. She was also thought it was reasonable that the agencies were looking at additional capacity in tanks. Pam was concerned about the deadlines for cleaning up the hexavalent chromium plume and thought there may be opportunities to make that happen sooner.

Larry Clucas, Oregon Hanford Cleanup Board (State of Oregon), was worried that the regulators do not have much leverage in the negotiation process. Larry also thought that the need to enforce a "Plan B" solution should be considered.

Jeff also thought it might be a lopsided process. He recognized that the regulatory agencies are faced with the decision to litigate or compromise; he did not like that the milestones are moved out, but preferred it over litigation.

Rob said that single-shell tank removal and clean closure should be a milestone; Jane said it will be.

Rob asked what happens if funding levels do not support a minimum safe effort at Hanford. He also thought they should recognize that the LAW facility will be ready for operation in 2012 and will sit vacant when as many as ten tanks could be processed with an early startup. Rob thought early use of the LAW facility should be a milestone. Jane said the milestone they are setting is to do the initial engineering work for feasibility, not for pulling the tank out of the ground.

Bob Suyama asked if the TPA is being developed based on an unconstrained budget, and if the site never gets the budget it needs, will there be an automatic reopening of TPA milestones? Dave said no. Nick thought that was a good point, and like Todd said, the lifecycle cost and scope estimate could be used by "friends and enemies."

Board 2008 Priorities and Meeting Schedule

The Board 2008 Priorities were agreed upon at the Leadership Retreat. Susan asked the Board to review and finalize the priorities.

Gerry said that the TPA revision was one of the most important issues at the Leadership Retreat. He encouraged the Board to develop a process for the agencies similar to that of the Cleanup Task Force that used an intense public process. He did not want the Board to see the TPA negotiation workshop being scheduled in October to be just a workshop – it will help develop a process for negotiations.

Susan asked how that aligns with DOE's Community Relations Plan; Gerry said the plan only requires public meetings.

Nick said EPA is committed to pausing TPA negotiations, getting community input, and then heading back to negotiations.

Gerry said an iterative process is the only way to have a good negotiation. He asked for an agenda for the October workshop and a public involvement process for negotiations process. He said the workshop should not be the only component.

Susan asked if the Board wanted to take that on; Rick thought it needed discussion. Gerry said he would like the workshop agenda framed so that a goal includes agreement on a public involvement process during TPA negotiations. The Board decided that was already included in the 2008 Board Priorities; no change was made.

Susan asked the committee leadership to look at how the priorities fit into their work schedule and how the committees will be tasked.

Susan said travel to the workshop would be paid for Board members.

The 2008 Board Priorities were adopted.

Board Meeting Schedule 2008

The Board identified the meeting schedule for 2008:

February 7 – 8	Tri-Cities
April 3 – 4	Jantzen Beach or Portland
June 5 – 6	Tri-Cities
September 4 – 5	Olympia or Seattle
November 6 – 7	Tri-Cities

An additional meeting will be held if necessary.

Dick asked if there is more public participation outside of the Tri-Cities; he said holding meetings out of the Tri-Cities costs more. Paige said public participation is low in the Tri-Cities, too. The original purpose of having meetings around the region was to share the travel duty and to be in other environments. Paige thought some meetings should be held outside of the Tri-Cities.

Gerry thought the Board should consider holding an evening session, when more members of the public would be able to attend.

Bob Suyama thought it would be good to invite members of the legislature to attend the meeting in Olympia, if they are in session. Susan Leckband thought that was a good idea and will look into it.

Agency Updates

DOE-ORP

Erik Olds, DOE-ORP, thought the Look Ahead, Look Back discussion covered the DOE-ORP update.

DOE-RL

Karen Lutz, DOE-RL, said they will conduct a supplemental analysis for the Hanford Comprehensive Land Use Plan (CLUP) EIS. It has not been updated in eight years. It does not require a formal public comment process but they intend to do one anyway, and will work with RAP.

Ecology

Nolan Curtis, Ecology, said there was a fact sheet available on the consolidation of materials at FFTF and a public comment period. He said the 2+2 Melter Configuration responsiveness summary is nearly complete and will be posted on the website. The judge ruled on the proposed dismissal of the NRDA lawsuit brought by the Yakama and other parties, including the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), the Nez Perce, and the states of Washington and Oregon should go forward.

Cheryl Whalen updated the Board on the proposed reservoir at Black Rock located north of Sunnyside on Highway 12. The reservoir would be filled with water pumped from the Columbia River to a capacity of 8000 acres. As part of Black Rock's evaluation, it was discovered that it may raise the water table under the Central Plateau. Cheryl noted the information from the Bureau of Reclamation is preliminary. Ecology asked DOE to evaluate potential impacts from Black Rock in the TC&WM EIS; the Bureau of Reclamation will also examine it. Ecology is concerned that if the water table rises significantly, it could mobilize some vadose zone contaminants. The Bureau of Reclamation has an EIS specific to Black Rock. DOE will coordinate with the Bureau and a report will come out later for public review. The actual process of evaluation will be through the two EISs.

EPA

Nick said that Ecology and EPA are interested in the Central Plateau. He said some pump and treat systems are underway on the Central Plateau, which illustrates collective action at Hanford. Nick thought EPA has done a good job of leveraging resources, such as obtaining assistance from other offices. The United States Geographical Survey (USGS) is helping EPA with modeling in the 200 Area, and the Seattle office is helping with hydrogeology work.

Regarding the supplemental environmental projects, Nick said EPA proposed a penalty amount for ERDF violations. DOE has been responsive by working on proposals and has made good progress, buying two landfill compactors and GPS systems to do real time elevation monitoring. In addition, the supplemental environmental projects were intended to provide non-monetary compensation to satisfy the penalty. Nick said the vegetation issues are still important and he will report on them in November.

Discussion

Paige suggested that DOE-RL contact members of the Future Site Uses Working Group who were involved with the development of the CLUP. Karen said they are doing that.

Regarding the faulty pump at S-102 tank, Keith asked Eric to see if any other poorly engineered equipment is currently in use; Eric will look into it.

Rob asked if fires increased the levels of contamination in the air; John Martell, Washington State Department of Health, said that the Department of Health's air monitoring after the fire did not show elevated levels.

Rob said Black Rock was interesting because it showed how something outside the site has direct site impacts and long-term stewardship implications. He encouraged the agencies to monitor similar issues

Jerry said dams also have a tremendous effect on groundwater levels; Jim thought RAP should have a discussion on Army Corps of Engineers work and effects on Hanford groundwater.

Committee Reports

RAP

Jerri Main, Public-at-Large, said RAP has the following work plan:

- Polish outstanding advice on the readability of DOE documents
- Receive a presentation on bulk vitrification when the testing is complete
- Review Board priorities in relation to the RAP workplan
- Discuss the draft Board process manual
- Re-evaluate DOE's response to Advice #197 on groundwater values
- Look at the CLUP and the Consortium for Risk Evaluation and Stakeholder Participation; RAP will draft advice on how DOE will communicate risk results, particularly with the 100 and 300 Area RCBRA.
- Track TPA negotiations related to groundwater cleanup and containment issues

TWC

Ken Gaspar said that the TC&WM EIS workshops that he, Jerri Main, and Dirk Dunning participated in have moved forward with an emphasis on groundwater. Ken said a workshop including an alternatives discussion will be held in September.

Ken was glad the TPA negotiations are using a systems integration approach but hopes to hear more about its progress soon. He said TWC has focused on the supplemental treatment alternatives report to Jim Rispoli. The committee learned that DOE-ORP is revising the report to make it a higher level document and that it would not be available to the public. This concerned the committee because it felt that technical details show quantitative trade-offs, like starting the LAW facility versus building a second LAW facility. DOE-ORP has been candid with the committee, Ken said, but their hands are tied. He said the committee is looking forward to a summary presentation on the technical assessments.

Rick noted that issue managers are working on the double-shell tank integrity report and are looking at the single-shell tank systems. The committee looks forward to hearing more results from the S-102 tank spill investigation.

HSEP

Keith said that the response to the worker's compensation advice was very positive; Karen helped understand how worker's compensation operates and arranged some meetings. The committee will discuss advice regarding the use of uniform training for worker safety on the site. Keith thought the committee will also advise on issues learned from the HAMMER tour. Jim said the committee will continue to look into beryllium exposure and will track the S-102 tank spill investigation and response, including the health monitoring of exposed workers.

BCC

Gerry said BCC's meeting in October will be determined by whether or not there is a 2008 appropriation from Congress. The committee has talked with DOE-ORP and DOE-RL about what happens if a budget is not passed and funding continues under levels from two years ago. Gerry said the committee talked about having a plan for the cost of contracts resulting from the TPA negotiations. BCC also hopes to have a report back on changes made to the RFPs; RFPs are in the committee's workplan.

PIC

Steve Hudson, Hanford Watch of Oregon (Regional Environmental/Citizen), reported PIC is evaluating many public involvement activities. PIC will debrief DOE's budget meetings and how participants used information for further involvement. Steve said that those who attended received a postcard indicating how their comments were addressed and incorporated.

Steve said another issue PIC will track is how DOE does public involvement when they release a document. PIC will evaluate the transparency and readability of agency documents, the timely notification to the public and framing issues that need addressing. He said Ecology is preparing to submit Revision 9 on the site-wide permit for review on site-wide dangerous waste, but there is only a 60 day comment period. Steve said it is a massive document. Nolan noted that Ron Skinnarland wants to address the permit issue with the committee at a future date.

Steve said PIC will assist with the CLUP roll out, as well as the TC&WM EIS. The committee wants to institutionalize public outreach so there is protocol for reviewing materials. Steve said PIC will revisit how Hanford site tours relate to public involvement.

Public Comment

No public comment was offered.

Board Business

The conference call schedule will be emailed to Board members.

- RAP will have a conference call on September 18
- TWC will have a conference call on September 17 and will meet in October
- BCC may have a call in September; it will be decided via email
- HSEP will have a conference call on September 17 and will meet in October
- PIC will have a conference call in October
- EIC will have a conference call on September 20

Potential topics for the November Board meeting include:

- Update on Demonstration Bulk Vitrification System
- Update on TPA negotiations
- Draft advice on document readability (RAP)
- Draft advice regarding HAMMER issues (HSEP)
- Update on the S-102 tank leak (TWC)
- Institutional controls (RAP)

Attendees

HAB MEMBERS AND ALTERNATES

Gabe Bohnee, Member	Jerry Peltier, Member	Nancy Murray, Alternate
Tom Carpenter, Member	Maynard Plahuta, Member	Gary Petersen, Alternate
Rob Davis, Member	Gerald Pollet, Member	Wade Riggsbee, Alternate
Greg deBruler, Member	Keith Smith, Member	Dick Smith, Alternate
Norma Jean Germond, Member	Bob Suyama, Member	John Stanfill, Alternate
Harold Heacock, Member	Jim Trombold, Member	Betty Tabbutt, Alternate
Becky Holland, Member	Gene Van Liew, Member	Charlie Weems, Alternate
Rick Jansons, Member		Helen Wheatley, Alternate
Mike Keizer, Member	Kristy Baptiste-Eke, Alternate	Steve White, Alternate
Paige Knight, Member	Phil Brick, Alternate	
Susan Kreid, Member	Gerry Dagle, Alternate	John Martell, Ex-Officio
Pam Larsen, Member	Ken Gasper, Alternate	
Susan Leckband, Member	Floyd Hodges, Alternate	
Jeff Luke, Member	Steve Hudson, Alternate	
Todd Martin, Member	Wayne Lei, Alternate	
Ken Niles, Member	Larry Lockrem, Alternate	
Bob Parazin, Member	Jerri Main, Alternate	
Bob Parks, Member	Laura Mueller, Alternate	

AGENCY, CONTRACTOR, AND SUPPORT STAFF

Dave Brockman, DOE-RL	Sharon Braswell, Ecology	Tammie Holm, EnviroIssues
Karen Lutz, DOE-RL	Dru Butler, Ecology	Hillary Johnson, EnviroIssues
Stephen Weil, DOE-RL	Nolan Curtis, Ecology	Penny Mabie, EnviroIssues
	Andy Fitz, Ecology (OAG)	Cathy McCague, EnviroIssues
	Jane Hedges, Ecology	Jason Mulvihill-Kuntz, EnviroIssues
	John Price, Ecology	
Lori Gamache, DOE-ORP	Ron Skinnarland, Ecology	
Erik Olds, DOE-ORP	Mike Wilson, Ecology	John Britton, CH2M Hill
Shirley Olinger, DOE-ORP	Cheryl Whalen, Ecology	Karen Caddey, CH2M Hill
	Mary Sue Wilson, Ecology (OAG)	John Fulton, CH2M Hill
	Polly Zehm, Ecology	
	Nick Ceto, EPA	Janice Williams, Fluor Hanford
		Dale Bignell, WCH

MEMBERS OF THE PUBLIC

Annette Cary, Tri-City Herald	Ann Parazin	Bob Cooper, Heart of America NW
Margaret Dagle	Beverly Penny, CTUIR	Natalie Troyer, Heart of America NW