

DRAFT MEETING SUMMARY (v.2)

DRAFT - NOT APPROVED BY COMMITTEE

**HANFORD ADVISORY BOARD
RIVER AND PLATEAU COMMITTEE
RIVER AND PLATEAU & BUDGETS AND CONTRACTS COMMITTEES**

*October 7, 2003
Richland, Washington*

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This is only a summary of issues and actions in this meeting. It may not represent the fullness of ideas discussed or opinions given, and should not be used as a substitute for actual public involvement or public comment on any particular topic unless specifically identified as such.

Welcome and Introductions

Susan Leckband, committee vice-chair, opened the meeting and welcomed the committee. She briefly reviewed the agenda and goals for the meeting.

Committee Business

Yvonne Sherman, Department of Energy-Richland Operations (DOE-RL), announced that due to a July memo from Jessie Roberson, Assistant Secretary of Energy for Environmental Management, advisory board support from prime contractors is no longer allowed. This will affect the support of Nancy, Bechtel, and Barb, Fluor, to the Hanford Advisory Board (Board). Nancy and Barb will continue to provide public involvement

support for their firms but not in the context of the Board. Kim Ballinger's position has still not been filled so Peggy Terlson will be helping with some of the logistical issues until this is done.

Greg de Bruler announced that the invitation for the DOE Natural Attenuation workshop was signed by Keith Klein, DOE-RL site manager, on the 18th and was not received by his group until the 24th, which was after the workshop was held. This happened to several other organizations, Board members, and the State of Oregon. Sandra Lilligren commented that she never received the letter but was notified by a phone call. She attended the workshop and was disappointed that there were few stakeholders present. Susan noted that committee member Maynard Plahuta will be giving a presentation about the workshop at the November Board meeting. Mike Thompson added that DOE-RL can provide a presentation on the workshop for those who are interested. Greg added this should be more than an update because it is a critical topic.

John commented he is concerned about the combined committee meetings. For example, risk-based end-states will not be until tomorrow, however; he is not able to stay for just a few hours in the morning. He would like the committee topics to stay within the same days.

Shelly Cimon commented that Barb and Nancy's support are invaluable. She would like the Board to send a letter to headquarters regarding this. Todd noted that this change is affecting other Boards more heavily.

Dirk Dunning stated that a letter in the regard to the support staff for the Board should be sent to the Secretary of Energy. The transition from contractor support must be done in a more orderly fashion.

Penny Mabie, EnviroIssues, stated the structure of committee meetings is a new model. This model is a result of the leadership retreat in May. An agreement was reached at that meeting to make the Board more efficient. Todd added that it does appear these efficiencies are making it difficult for the Board to do its work. The purpose of joint committee meetings was to create a single point of entry for agency representatives. No commitment was made to limit the actual number of meetings.

The September meeting summary was adopted.

100 N Area Ecological Risk Assessment

Mike Thompson, DOE-RL, stated that John Price, Washington State Department of Ecology (Ecology), will be soliciting input from the communities about which species and end points are important for the ecological risk assessment in 100N. In the early 1990's a study was done to determine how to address the groundwater issues at Hanford. Of special concern was the strontium plume in 100 N. The best decision at the time was to install a pump and treat system. This has been operating for a long enough period to determine its effectiveness. It has become apparent that this system is not the best

solution. Most of the strontium is outside of the system although part of the flux has been stopped. The process has not been worthless but it is not the best long-term solution. The hope is that by the next five-year review in 2005, there will be better evaluations on how to address these issues in the next five years.

There are two objectives when making groundwater decisions. One is the overall protection of the groundwater resource. The other is the risk to human and environmental health. Given that strontium 90 does upwell, it is important to determine what actions can be taken to assess the level of risk, if that risk level is deemed acceptable or unacceptable, and what can be done about it. Additional information is needed to make informed decisions. There are currently 220 documents that describe the 100 N environment and levels of contamination, it is now important to determine which ecological receptors and pathways are important.

Committee Discussion

- Greg asked how the 1 RAD per day acceptance level had been determined. He stated that there should be a forum to discuss the issue of risk. He asserted the ecological risk assessment is the critical juncture. Mike conceded that what an acceptable level or dose is for the environment will clearly be an issue. The international community sets the 1 RAD per day as an acceptable level however; it may not be acceptable to the stakeholders. He asked how it is possible, given that pristine condition may not be achievable, to find an acceptable point in the middle. Greg asserted that the International Commission on Radiological Protection (ICRP) has never adopted the 1 RAD per day level. This is a critical discussion. A risk assessment can be completed but it still will not determine what is acceptable.
- Several committee members noted it will take communication and public involvement to develop a dose rate that is acceptable to the public. However, at the same time all indications are that public involvement does not seem important. Mike responded that there will be a statement to the effect that to establish an acceptable dose rate, public input is needed.
- Mike clarified that John Price will contact stakeholders to discuss this issue. Dib Goswami, Ecology, confirmed this is what will happen. There will be a detailed Data Quality Objectives (DQO) process involving input from many groups.
- Dirk asked if the DQO assessment will be part of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Mike stated the ecological evaluation would be the basis for cleanup and would be based on ecological risk. This evaluation would be based on CERCLA requirements and best practices. Dirk stated this is limited spatially and temporally and is not the basis of a good risk assessment. This does not look at the overall picture but rather is several small risk assessments lumped together. Dib clarified that the goal is to have the river corridor risk assessment be overarching.
- Several committee members noted the river corridor risk assessment is hard to comprehend. While a river corridor risk assessment will be done, at issue still is the Department of Energy's (DOE) desire to stop the assessment at the shoreline without

addressing the river. Responsibility must be taken for everything in the river but, to date, this is not happening. Mike added that because of the local impact of the plume into the river, it is impossible to move away from doing a localized risk assessment. It is important to look at the ecosystem and how it all works together.

- Dirk stated that the Board had been told it would be an ecological risk assessment of the river that excludes the river. He noted the DQO looks at the residual impact at this point in time not in the future, nor does the risk assessment look at the future impacts. By doing the assessments under one set of regulations, the cleanup under another, and then moving the land under yet another set, it will not meet the standards of the agency ultimately responsible for the land.
- John Sands, DOE-RL, stated the risk assessment is only in the scoping process and only one meeting has been had with the regulators. Meetings with the tribes will start later in the month and the DQO will not start for another year.
- Dirk clarified that Mike's comments indicate that DOE acknowledges the importance of groundwater as a resource and that groundwater is a state and not a federal resource and is a matter of high public interest.

Regulator Perspectives

- Dib Goswami commented that the Interagency Management Integration Teams (IAMIT) groundwater-working group is discussing the record of decision (ROD) five-year review. A better path forward for groundwater cleanup needs to be established. A holistic approach is needed for all of the groundwater operable units. The five-year review will be completed in the first part of 2005. Ecology and the Environmental Protection Agency (EPA) are pursuing the river corridor assessment though discussions have not yet been held on 100N. Ecology is currently preparing a path forward for DOE and a DQO process will follow shortly after. This process will be as open to the stakeholders and public as possible. There has been a good risk assessment discussion, as well as a two-day workshop with the tribes to discuss tribal scenarios. The hope is this process can continue.

100 B/C Pilot Project

Chris Smith, DOE-RL, stated that this effort is not starting from ground zero. Many of the lessons learned from the B/C area are being employed. The EPA and Ecology are also involved in laying this process out. It is important to capture the value in this broader assessment. Additionally, there is a great institutional memory in the public and it is important for the public to be involved in this project early on.

In April, an independent technical peer review of the 100 B/C risk assessment pilot project took place. The review was conducted by experts chosen by the Institute for Regulatory Science (RSI) not DOE. In their report, they agreed with the planned data collection, which was described in the sampling and analysis plan and in some cases

found it went beyond what was required. They also provided suggestions for the upcoming risk assessment report.

Sampling will include:

- Radiological survey of riparian and upland areas
- Shoreline radiological boat survey
- Upland sampling
- Riparian sampling – just been completed.
- Near shore sampling – conductivity survey, differences of composition of water in the near shore.

In December of 2002, a workshop was held with the tribes to describe the development of risk assessment scenarios. The participation of the tribes has been requested for the B/C pilot. In April the tribes had the opportunity to participate in a site walk through to use as a basis to begin thinking about appropriate uses for different areas of the site. The tribes have also been asked to develop tribal use scenarios. The Umatilla will be using Harper, the Nez Pearce will develop their own, the Yakama will use outside experts and site-wide consideration, and the Wanapum are working with Bechtel to develop site specific scenarios. These scenarios will be finalized in October 2004.

Committee Discussion

- Gerry Pollet asked who RSI is. Pam Doctor, Bechtel, replied they are a non-profit that was developed seven years ago to provide independent technical review. The organization has an extensive process to ensure an unbiased review. Shelley noted the Board provided input on the disciplines it wanted to see involved with the review. Chris added that the team made an effort to solicit input for lines of inquiry for the review team. Gerry noted the Board had given input on the professional backgrounds of people because it is not qualified to ask technically based questions.
- Dib commented that Ecology likes this process and that it went well. Dennis Faulk, EPA, echoed that the process went well and that the review was beneficial.
- Dirk commented that the DQO workbook was not made available until after the review took place. Therefore, RSI was asking for input before the information and process were far enough along. Some of the sites were excluded or did not have adequate information. He asserted dissatisfaction with the process, including the peer review, and commented that sampling had begun before the peer review started. Chris replied that the decision was made to begin sampling before the paperwork was completed so a sampling season would not be missed. DOE-RL came to the committee and asked for input on the peer review process. He stated that it was an open process and the opportunity was there to expand the scope of the review. This review was added in response to a request by Greg deBruler and subsequently, six months had to be added to the schedule.
- Greg stated he wants to ensure the same mistakes don't happen again. One concern he has is how is it determined if genetic damage is occurring. How is long-term protection of the ecosystem being ensured? Pam Doctor, BHI, replied that these

species are used as sentinels to determine if there are any problems associated with this ecosystem. Most of these species have been affected by contamination for forty or fifty years.

- Todd commented that the Board has been asked to provide advice on the integrated Hanford risk approach. He asked the agencies what they would specifically like advice on. John Sands replied they will need advice on which scoping products to produce. This will be needed in three to six months. Todd clarified that the agencies do not need any advice for the B/C pilot and there will be issues with N Area in the near future and next year.
- Greg asked if there is a target date for completion of the risk assessment. Dib responded it will be completed in September 2004 for the N area. Greg asked if the agencies believe they can do a quality ecological risk assessment in 11 months for N area. He stated he would like to see a schedule of the proposed work. John Sands replied that scoping will be this year and the DQO will start a year from now. Dennis added that if the process follows the B/C process, there will be two to three years of data collection.

Milestone M-24 Groundwater Monitoring Wells Change Package

Mike Thompson, DOE-RL, stated that the treatment and storage of hazardous wastes, which fall under the Resource Conservation and Recovery Act (RCRA), will need groundwater monitoring systems in place. This would mean that a large number of wells would need to be replaced, as the majority of the wells at Hanford are not to RCRA standards. When the Tri-Party Agreement (TPA) was first created, it was thought that a reasonable number of wells to install was fifty per year. The most ever installed in a year were sixty-four wells. Over the course of the years, three hundred RCRA specific wells have been drilled until this action was stopped a few years ago. It has since been discovered that the single shell tank farms are impacting the groundwater so, there is a need for the drilling of additional RCRA wells. This action therefore will draw resources away from the CERCLA wells. A decision was made to take a crosscutting look at all the wells being drilled because most often the wells serve multiple purposes. The M-24 milestone has been rewritten to do this. The new milestone establishes a three-year drilling schedule that is looked at every year to agree upon priorities and schedule. The comment period for this change ends on November 13, 2003. So far, ten of fifteen wells for this year have been completed and the other five will be started within the next few weeks. Discussions are starting to determine if the correct wells are scheduled for next year.

Committee Discussion

- Susan asked if Ecology is satisfied with the placement of the wells. Jane Hedges, Ecology, stated that Ecology is satisfied. The low-level burial grounds do need more wells however; Ecology hydro geologists have identified the single shell tank farm wells as the priorities.
- Gerry commented that the Board needs the priority well list. They need to know how many wells are needed to bring every facility into RCRA compliance. He is

disturbed that the regulators removed the language regarding RCRA compliant status. There was an original commitment to drill up to 50 wells per year, which was then changed to 30, and then 15. He asked what the total number unit by unit which need to be installed is. He asked what the competing priority is that is more important which caps the dollar amount to spend on new wells. Mike replied that given his choice, he would add more money to remediation than add more monitoring wells. Some of the gradients have changed and as a result some of the wells have gone dry. These issues need to be addressed. Gerry noted this is why the issue of priorities is so important to the public. The groundwater-monitoring program around the single-shell tanks is deficient but the spending is capped at 3 million per year. The regulators have said they are frustrated by dollar caps in tank negotiations while at the same time the Department of Energy-Office of River Protection (DOE-ORP) is indicating leak detection capability during retrieval will not be improved. Mike stated that groundwater-monitoring wells do not provide a good leak detection system. The issue at hand is specific to RCRA wells; the issue of leak detection is related but not solely. The detection system and data will have to be in place before retrieval begins.

- Dennis commented that the M-24 milestone was not working and the new milestone is. However, Gerry has brought up a legitimate issue. It is important for the Board and the public to flag where priorities are out of line. This type of advice would be helpful. Concerns with the baseline are legitimate and should be addressed. Dennis added that he will fight to ensure money is provided for groundwater remediation. Gerry stated that the Board has consistently advised that additional wells be drilled. Under this change, the regulators are giving up their leverage. Jane replied that months were spent in dispute when the milestone was up to fifty wells. Whether or not the ideal situation was to have fifty a year or not, the process was not working.
- Gerry stated the Board should provide advice stating that it is wrong to reduce the maximum numbers of required wells. The budget and installation of wells should be increased. The advice should reject the new milestone.
- Several committee members asked how many wells would be needed for the site to be RCRA compliant. Dennis responded it would be a great program if sixty wells were installed. Mike added the requirement is one upgradient and three down gradient wells.
- A committee member asked if the number and location of wells will support the decisions that the TPA must make. Jane replied she does believe this. There is also a major characterization effort under M-45, which has a separate drilling campaign.
- Harold Heacock stated that there is no technical basis for saying this amount of wells is the incorrect number. He has a problem saying that more wells should be drilled because that was what was done in the past. Gerry replied that those technical assessments have been previously issued by Ecology.
- Todd stated the committee needs to have a list of the identified priority wells before bringing advice on this issue.

Regulator Perspectives

- Jane Hedges, Ecology, stated that during the Cleanup Constraints and Challenges Team (C3T) process this change was one of the recommended actions and the change package is the follow-up to that recommendation. This change will be beneficial to all the agencies.
- Dennis Faulk, EPA, stated that the EPA is thrilled because past negotiations were painful. Now the agencies are not fighting and EPA has a voice at the table. If more wells could be put in this year, that would be terrific. There is an identified need for additional wells but due to funding, these have been spread over three years.

Technology Development Update (618-10/11, N-Springs, Carbon Tetrachloride)

618-10/11

Kevin Leary, DOE-RL, stated firms are being selected to complete the first part of 618. This phase will have a budget of 2.7 million dollars to allow six firms to compete in a bakeoff. This will be a chance for the firms to show DOE how they will look at in-situ TRU, delineate the waste, and package and minimize the waste. The Richland company Northwind is one of the selected firms. The second phase will begin in April 2004 when a downselect to one or more of the vendors from phase one will occur. At this time, they will be working at the 618-10 facility or in the burial grounds on TRU retrieval actions. Phase three will include the selection of the vendor for the actual retrieval of 618-10. This will be completed by September 30, 2006

Kevin stated that during the first week of November, there will be a half-day seminar with experts from Sandia about the deployment of various caps at Hanford. There will be an opportunity to ask these experts questions about the caps and Board members are welcomed to attend.

Committee Discussion

- Richard Smith asked what will be done with the material once it is retrieved. Kevin stated the contact handled TRU will be shipped to the Waste Isolation Pilot Project (WIPP). The low-level and mixed low level will go to the Environmental Restoration Disposal Facility (ERDF).

N-Springs

Mike Thompson discussed the work being done at N Springs. Several ways are being looked at to reduce strontium 90 getting into the ecosystem. Phytoremediation was suggested as one possible solution. One technology was discarded due to installation issues however; a solution to this may have been created. A scope of work is being completed to share with Ecology. This will describe the laboratory studies developed to address the feasibility of using the different technologies. By the November Board meeting, Ecology will have reviewed the scope of work and determined if it is appropriate.

Carbon Tetrachloride

John Morse, DOE-RL, discussed the Carbon Tetrachloride program. This has been going well and Environmental Management (EM) funding is now in place. Three contractors have been selected to compete in a bakeoff, which will be completed in the March timeframe. DOE-RL needs these contractors to think out of the box to develop an improved conceptual model. The contractors need to develop a test to verify where the carbon tetrachloride is. In parallel with this work, there is programmatic work ongoing including sampling. The team is working to disperse the highly contaminated area Z-9 and the plume sites. It is important to not lose focus of where the contamination went into the ground and where the problem is. It is also important to develop a way to create less waste during the drilling process. A program is being developed to address this problem. The main focus is the characterization of the problem and ensuring that technologies are deployed in the right locations.

The committee discussed how to present this information to the Board, and decided to ask for a workshop approach at the November board meeting. Todd pointed out how full the November board agenda is, and asked the committee to be prepared to delay until February if necessary.

Response to Advice Review

The committee reviewed EPA's response to Advice #148 on the draft Hanford Solid Waste Environmental Impact Statement (HSW-EIS). The EPA fundamentally disagrees with the Board's advice #148 which asserted that the HSW-EIS was supposed to provide a site-wide cumulative analysis. There are still several years of investigation before a site-wide analysis can be completed. After discussion with Dennis, the committee decided to draft advice recommending a cumulative site-wide impact analysis be added to the TPA to be conducted in 2008. Gerry Pollet volunteered to draft the advice for committee review.

Committee Discussion

- Gerry asked if EPA will require DOE to do a cumulative analysis. Dennis stated there is no requirement to force them to do that.
- Dirk noted the EPA has stated DOE lacks and will continue to lack adequate information until 2008. If information is not available to assess the risk of the current waste, how can an evaluation of the addition of more waste be completed? Dennis replied that the Board has asked for a cumulative impact analysis of all the work at Hanford. The EPA does not believe the other two components are available. Neither the tank farm nor the CERLA work has been completed so the information is not available. Dirk reiterated that if the information is not available it does not seem reasonable to import additional waste. Dennis replied that the available information does not indicate the burial grounds are a major issue.
- Harold commented that an Environmental Impact Statement (EIS) is being written which will result in a decision being made and processes being determined.

However, the Board is now being told a decision cannot be made without more data. Dirk clarified that cleanup should proceed but there is a National Environmental Protection Act (NEPA) document requiring more data be added. Dennis noted if the Board continues to ask for additional information, it must recognize there will still be a great deal of uncertainty.

- Gerry asserted there needs to be advice that reiterates that there must be a site-wide analysis when the data is available in 2008 and that additional waste cannot be added until more cumulative analysis is completed.
- Gerry asked if the advice should request this be made a TPA milestone. Dennis noted the SAC was DOE's attempt at doing a site-wide analysis. He added that the more data that is available, the more comprehensive the plans can be.

Response to the Groundwater Advice #145

The committee decided this did not warrant a response. It was indicative of what was heard in this morning's discussion.

Groundwater Protection Program

Dick Wilde, Fluor, gave a brief update on the Groundwater Protection Program.

- The progress at Z-9 Crib is tough but good progress has been made.
- Wells are actively being decommissioned. Fifty-six high-risk wells have been completed to date and the last one in this series will be completed tomorrow. A contract for another hundred wells will be issued next month.
- The water line in 200 West is being replaced in some sections and relined in others. The north and south piece are currently being worked on. A number of lead joints were wet but were not actively leaking which is an indicator that water is trying to push its way through the seal.
- Fifteen of the M-24 wells will be completed this year.
- The team has started to remove transuranic (TRU) drums from the ground. A major issue is the physical integrity of the boxes and how to handle those. It is possible some of the drums have gasses which have built up which can cause an explosion. An explosion can result in the spread of contamination to the worker or offsite. It is imperative to move these drums slowly.
- Shipping progress is going well. Thirty-seven shipments were made to WIPP instead of the ten that were originally scheduled.

Site Specific Advisory Board (SSAB) Update

Todd provided a brief update on the SSAB chairs meeting. The agenda focused on defending the boards through identifying their usefulness and savings provided. A discussion also took place to obtain a better understanding of the requirements of board

administration. It was noted that the verbal direction from DOE-HQ does not mesh with the written.

Todd reviewed several of the issues discussed at the meeting that affect the Hanford Board:

Budget: The Board was praised for accepting a cut to its budget. On the other side, other boards received extreme cuts. Fernald for example, received an 85% cut over the next two years. The situation is similar at Rocky Flats and Los Alamos. As of yet there is no news that this will be the situation at Hanford but, it is very possible. This is an area where there are apparent communication disconnects from headquarters.

501C3: Some of the boards became very worried in response to the July 7, 2003 memo directing the boards to become more independent. Many of the boards are very dependent upon DOE contractors for support. This is being looked at as one way to administer the boards. The boards though will not have to incorporate. DOE has realized this is an extreme change and it will take some time before a direct contract relationship can be established between the boards and other contractors. This however, is in most part the system the Hanford board operates in. The way in which the Hanford board has responded to this request has been looked upon favorably and therefore the Board is lower on the radar screen.

Risk-Based End States: This discussion is very important to each site, each board, and Headquarters. There is less focus on the guidance and more focus on the end state plans each site is developing.

Paducah: The challenges at this site are very large as are those with its board. As previously mentioned, seven members have resigned and the board is being told which topics it can and cannot address. They are currently limited to looking at four specifically defined cleanup documents and are using the Freedom of Information Act (FOIA) to obtain responses and participation from DOE.

Joint Committee Meeting with River and Plateau and Budgets and Contracts Committees

Department of Energy-Richland Operations Baseline

Rich Holten, DOE-RL, reviewed the DOE-RL baseline with the committee. A contract was signed with Fluor last December that accelerated a large portion of work. As part of the Hanford Performance Management Plan (HPMP), there was additional money available for the project. Fluor was asked to reflect these changes in an updated baseline, which they completed at the end of June. DOE-RL has reviewed these changes and, with a few exceptions, agrees with what has been developed. The new Fluor baseline does a good job of representing the scope of work, the schedule, and the estimated cost.

There is still no new information on the River Corridor Contract. However, nine months after the contractor is in place, a baseline will be submitted. DOE-RL is confident that the bids will be less than or equal to what has been planned. The main point is that the scope is well represented by the schedule

Jim Kelly, Fluor, is responsible for managing the production of the Fluor baseline. The baseline was completed on June 27, 2003 and is consistent with the Fluor Hanford contract and DOE life-cycle expectations. The milestones within the Fluor contract are planned in accordance with contract performance incentives (PIs) and are, in most cases, accelerated from the TPA. This baseline also supports the HPMP commitment to closure as well as Department of Energy-Headquarters (DOE-HQ) gold metrics, and the Defense Nuclear Facilities Safety Board commitments. Planning enhancements in the baseline strengthen the execution of the project. These were achieved by creating a work breakdown structure, control accounts, and coding accounts to realign consistently with the statement of work and to focus on PIs and cleanup activities which support the TPA. This baseline also provides an improved basis for estimates and an emphasis on earned value planning. The end result provides an improved ability to monitor performance and control changes.

Fluor's contract breaks down into four fundamental areas:

- Cleanup work
- Waste and spent nuclear fuel management operations
- Infrastructure and Hanford site services
- Other work scope

A multitude of activities are included in the baseline. The contract scope encompasses:

- Accelerated TRU waste retrieval
- M-91 facility capability
- Fast Flux Test Facility (FFTF) funding
- Guidance for Argonne National Laboratory – West Idaho fuel receipt processing

The baseline excludes change requests submitted after March 31, 2003. Additionally, Fluor's scope has been extended to include the River Corridor Contract scope until the new contractor is in place.

The work schedule accelerations are being incorporated into Fluor contract negotiations. Some activities are impacted by ongoing negotiations and there are others that have seen dramatic accelerations in the baseline. Several commitments have also been modified from the last baseline.

Groundwater Protection activities are still under discussion. These include:

- Elimination of artificial recharge conditions
- Remediation of waste sites
- Remedial Investigation/Feasibility Study (RI/FS) Process
- Exhumation of the high-risk waste sites
- Shrinkage of the contaminated footprint
- Remediation of the groundwater
- 100 Area groundwater remediation
- 200 Area groundwater remediation
- Monitoring of the groundwater including additional CERCLA/RCRA wells

Facility disposition activities will include:

Surveillance/de-activation/decontamination/demolition (D&D) – This activity could be completed earlier if the money was available for potential decontamination.

U Plant regional closure

Plutonium concentration facilities – The balance of facilities (radiological and industrial) will be completed. The demolition dates will be driven by the construction of the vitrification plant.

Rich commented that meeting the significant challenge of the Hanford management contract commitments and DOE-RL operations life-cycle objective requires:

- Innovative approaches
- Incorporation of “new deals” (teaming with DOE, regulators and government to furnish services and items)
- Increased emphasis on cleanup, reduced reporting, and administrative requirements
- Reduced conservatism and operational efficiencies
- Use of commercial practices including subcontracting strategies

The end result of these items is an achievable, aggressive baseline. This reflects the changes in the work being done at the site over time. This also will help prepare the site for the longer-term strategy.

Rich and Jim reviewed some of the key points in the schedule. The presentation was at a summary level to illustrate the major TPA commitments in relation to the work that needs to be completed. The delay resulting from the sludge work slowdown has been incorporated into the baseline schedule. The total DOE-RL life-cycle baseline is 21 billion dollars.

Committee Discussion

- Gerry asked why the cleanup and protection groundwater activities are not reflected. Rich replied they are currently under negotiation. The groundwater protection plan was released after the baseline had been finished. The contract changes to reflect this negotiation will have to occur at a later date.
- Gerry asked why Fluor is laying off employees when they are receiving a record level of funding. Rich replied that some of the employees are being removed from indirects and being reassigned to field positions. Gerry added that there is a history of employee concerns under these circumstances, so it is important to understand how layoffs will affect the baseline. Jeanie Schwier, DOE- RL, commented that as projects are completed, some employees migrate to other positions and others will need to be laid off. Rich added that there are times when adjustments are needed. When the Fluor contract is complete, there will be more emphasis on the River Corridor Contract; additional money will be directed there.
- Todd noted that Fluor should have a schedule and a figure for person loading activities. Jeanie asked how this information would tie into Board advice. DOE-RL will be able to demonstrate that its resource management is effective. The schedule rolls up from work skills and workload.
- Gerry asked when the initiation date for treatment of TRU is. Rich answered it will be 2015 but will depend on negotiations and budget planning.
- Shelley asked what the schedule of TRU importation for packaging is. Rich stated he does not believe any remote-handled TRU is being imported. He has heard discussion about importing contact-handled TRU. Jeanie added it is up to the agencies to decide. Gerry noted the importation of remote-handled TRU is discussed in the draft HSW-EIS and the TRU performance Management Plan.
- Al advised that special attention should be given to the redox tunnels. Rich stated those will have to be collapsed and then mounded over, due to the waste inside.
- A committee member noted that Fluor's scope is for 900 million dollars and the presentation only accounts for 700 million. Rich stated there is 150 million for the River Corridor Contract, community grants, PNNL, and groundwater monitoring. The rest is for building maintenance.
- Todd asked what will happen if the work is not finished. Rich explained that if money is not all spent in one year, it can be moved to the next. Money may also be moved between jobs. However, this does not negate contract commitments. Unforeseen challenges are encountered and this flexibility in resource allocation is beneficial.
- Todd asked at what dollar level does the contractor have to go to DOE for approval to move money. Rich stated they want to stay out of the contractor's way but it is at 5 million or fifteen percent.
- Gerry asked if the drop to a 550 million dollar budget parallels the DOE-RL and River Corridor budgets by a corresponding amount. Rich replied the peak year is in 2005. The overall budget will then decrease. Gerry noted the committee should

focus on the fact that the money is not actually going into the River Corridor Contract but rather is disappearing. He asked if the regulators understand that money has been taken from Hanford cleanup. Rich replied the overall site budget is \$800 million per year. Due to the accelerated cleanup, this year had an increased influx of money. The site needs to find other initiatives to attract additional funding such as a HPMP2. The team pushed two things: what work can be completed early so the mortgage is reduced and where risk can be reduced.

- Todd asked if the FFTF project will really need to be funded at the level of \$46 million. Rich replied it is unlikely.
- Dan Simpson noted there will be a need for long-term surveillance and there are many activities which will need to be completed before that time. There are many facilities to tear down and remediate. At this time, the plan does not go beyond 2035.
- Gerry asked if Rich could discuss the improved basis of the estimates. What is the confidence level of the long-term cost estimates for these baselines and what is meant by improved basis of estimate? Rich replied it is the detailed estimates that back up this baseline. The last time the baseline was reviewed, there was not sufficient backup for the cost estimates. This time, with one exception, all the figures could be sufficiently backed up. Fluor could show where a figure evolved from start to finish. Gerry asked if there were any independent estimates of these cost figures and what the range of confidence for these numbers is. Rich stated there was no independent estimate. There is about 50% confidence level in these figures. There are many big assumptions attached. Until the regulatory documents are completed and signed, it is difficult to know if these numbers are accurate.
- Dirk stated he is encouraged to see acceleration moving forward in a realistic way. However, some of the assumptions being made are enormous. Gerry added there should be an acknowledgement that this is a huge regulatory and public risk.
- Dennis commented it is important to plan assumptions for out-year budgets when issues come up with regulations.
- Todd noted the Board has been directed that commenting on the baseline is the way to affect priorities and budgets. He asked what the avenues are for Board comment and inputs.
- Gerry requested the committees have a chance to review the budget breakdown received by the regulators.

Regulator Perspectives

- Dennis stated that while parts of this process have been frustrating, overall it has met expectations. Some of the projects had information down to a level needed to ascertain if these were in compliance. A meeting has been scheduled on waste site cleanup. EPA was given the needed details but there are still questions and a meeting has been scheduled to address those. The biggest issue is that incentives set between DOE and its contractors are dependent upon regulator's actions. The regulators will

try to help the contractors meet these incentives but before DOE signs on the dotted line, it is important they speak to the regulators.

- Melinda Brown, Ecology, said Ecology is still reviewing the baseline. If DOE-RL and its contractors chose to follow a path that assumes acceleration on Ecology's part, this may not happen. Ecology is committed to its regulations and will not skip or ignore these. These plans are very ambitious and the contractor is taking a business risk. There are still some issues in negotiations that will need to be addressed for this baseline to succeed. Ecology is pleased with the effort Fluor is making to complete this intensive planning and that they have cut some of the margins for errors.

River Corridor Contract Update

Beth Bilson, DOE-RL, updated the committee on the River Corridor Contract. The contract had been awarded last spring and the award was protested. This protest was upheld and finalized in the middle of August. The General Accounting Office (GAO) decided to look at how the contracting decision was made in order to ensure the evaluation and methodology was correct. Subsequent to this decision, DOE is developing a path forward. The Washington Closure Company, who was awarded the contract, is regrouping and determining how to move forward. Cleanup is continuing under the existing Fluor and Bechtel contracts in the 100 and 200 Areas. Work in the 300 Area was shut down after the work pulled significantly ahead of schedule because the money was better used elsewhere on the site.

Committee Discussion

- Susan asked when the contracting decision will be made. Beth stated this is a priority and headquarters should make the decision in the near future. The GAO set December 3 as the decision deadline. Washington Closure Company has submitted a request for reconsideration protesting the GAO's decision. A new hearing officer will now be appointed to review the record.
- Dirk asked if the competitor would file a lawsuit for reconsideration. Beth stated the first thing she did when the protest was upheld was to call the regulators and commit to ensuring the milestones would be completed on schedule. It is imperative that there is a path forward in place to meet those milestones.
- Melinda stated she is pleased to hear work in the 100 Area is proceeding. She is as anxious as everyone else to learn the outcome of this protest.
- Dick Smith asked what happened to the people working in the 300 Area. Beth replied they were moved to K Basins and the Plutonium Finishing Plant (PFP) and are the reason work is moving ahead in these areas.

Budgets and Contracts Committee Leadership Selection

The Budgets and Contracts committee selected Gerry Pollet as chair and Harold Heacock as vice-chair.

RAP and RAP/BCC Handouts

- B/C Pilot Study Progress Summary, October 7, 2003
- Groundwater Well-Drilling Milestone Changes, Tri-Party Agencies, September 18 2003.
- Fluor Hanford Life-Cycle Baseline Briefing to the Hanford Advisory Board, Jim Kelly, October 7, 2003
- Response to Board Advice #148, Nicholas Ceto, August 20, 2003
- Response to Board Letter dated April 4, 2003, Tri-Party Agencies, May 22, 2003
- Fluor Hanford PHMC Master Schedule, Fluor Hanford, October 7, 2003

RAP and RAP/BCC Attendees

HAB Members and Alternates

Shelley Cimon	Susan Leckband	Richard Smith
Greg deBruler	Sandra Lilligren	John Stanfill
Dirk Dunning	Todd Martin	Dave Watrous
Harold Heacock	Gerry Pollet	
George Jansen Jr.	Dan Simpson	

Others

Steve Chalk, DOE-RL	Rick Bond, Ecology	Pam Doctor, BHI
Kevin Clarke, DOE-RL	Melinda Brown, Ecology	Nancy Myers, BHI
Rich Holten, DOE-RL	Dib Goswami, Ecology	Tom Yount, BNFL
John Morse, DOE-RL	Jane Hedges, Ecology	John L. Cox, CTUIR
John Sands, DOE-RL	Fred Jamison, Ecology	Liana Herron, EnviroIssues
Kerry Schierman, DOE-RL	Max Power, Ecology	Lynn Lefkoff, EnviroIssues
Jean Schwier, DOE-RL	Dennis Faulk, EPA	Penny Mabie, EnviroIssues
Mike Thompson, DOE-RL	Mike Priddy, WDOH	Jane Borghese, Fluor
Yvonne Sherman, DOE-RL		Tom Fogwell, Fluor
Janis Ward, DOE-RL		Bruce Ford, Fluor
		Larry Hafen, Fluor
		Vern Johnson, Fluor
		Barb Wise, Fluor
		John Stang, TC-Herald
		Linda Guinn, WCC

HANFORD ADVISORY BOARD
RIVER AND PLATEAU & PUBLIC INVOLVEMENT AND COMMUNICATION COMMITTEES
RIVER AND PLATEAU & HEALTH, SAFETY AND ENV. PROTECTION COMMITTEES

October 8, 2003, Richland, Washington

Joint Committee Meeting with River and Plateau and Public Involvement Committees

Risk Based End States (RBES) Vision and Implementation Plan

Mike Thompson, Department of Energy-Richland Operations (DOE-RL), stated that headquarters has finalized a policy to guide sites in the preparation of the vision and implementation plan. The final guidance document was released on 9-11-03. There are a couple of significant changes in this draft. One is the addition of a variance report. This will describe what the site looks like now versus what it will look like in the future and identifies variances between the two. In the past, the variance document was not part of the public review process but it is now. The variance document also describes where the site direction varies from headquarters' policy. It is important to remember that the document produced at Hanford is not a decision document but rather a description document of how the site currently looks. It is important to follow established protocol for cleanup. The Department of Energy (DOE) does not intend to use this document to make changes but rather to identify changes.

An Interagency Management Integration Team (IAMIT) has been created to look at the development of this document. John Sands, DOE-RL, is the DOE Hanford representative on the headquarters team for the development of this policy.

John Sands described what the policy is and how it will be used. The end-state vision document will contain narrative maps, conceptual modes, and variances. Hanford is going beyond this by including a public involvement piece. The final document is due to headquarters on January 30, 2004.

The new DOE policy requires the use of risk-based end states. The purpose of these is to focus DOE on conducting cleanups that are protective of human health and the environment in the planned future use of each defined area on the site. Previously, the perception at headquarters was that the sites were either going too far or not far enough. This policy is not a license to do less but instead links decision making to the larger perspective. DOE must continue to comply with applicable federal, state, community, and treaty requirements and regulations.

DOE is working with the regulators, affected governments, tribes, stakeholders, and the general public to develop Hanford's end-state vision. The variances between the current cleanup plan and the end state vision will be described in the end state document. This will probably be where the Board wants to concentrate most of its efforts. The development of this plan will use information from the Comprehensive Land Use Plan

(CLUP) and the national monument proclamation. Decisions will be documented in terms of variances, which, will need to be clearly defined. The final end state vision will drive all cleanup actions at each DOE site. The end states are the basis for the exposure scenarios developed in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) risk assessments. These in turn help to establish acceptable cleanup levels. It is possible that the risk assessment may have multiple exposure scenarios consistent with the end state vision however these are used for comparison purposes only.

After the end state vision is complete, an implementation strategy will be developed to assess current cleanup strategies and baselines and align these with the end state vision.

200 Area Draft End State Vision

There will be a core zone, which is the area within the fence in the 200 Area that includes the burial grounds and production facilities. This land use will be industrial and there will be a buffer around this zone. The groundwater plumes in the 200 Area will be managed for containment and CERCLA will be used to establish groundwater records of decision (RODS). The groundwater must be managed so as not to further impact the rest of the groundwater. Consumptive use is not foreseen in the 200 Area. After retrieval, the tanks will be stabilized in place.

It is anticipated that cleanup implementation discussion will address several important issues. These include, the consolidation of smaller waste sites if it results in the optimization of caps/barriers, the coordination of retrieval and closure schedules with the schedule for caps/barriers adjacent to the tank farms, and the management of source units to minimize further groundwater degradation.

Within the buffer zone, remediation will be completed with the goals of environmental protection and unrestricted recreational and tribal surface use. There will be no human habitation within this zone nor will there be any groundwater consumptive use. The intent is to use passive institution controls, such as deed restrictions, and limited operation and maintenance activities to ensure these are the only uses.

This vision will be a variance in the report to Headquarters because it uses performance based cleanup rather than risk-based cleanup for tank retrieval. The site has clearly chosen to use a Resource Conservation and Recovery Act (RCRA) pathway that has an arbitrarily requirement that 99% of the waste or whatever is technically feasible, be removed from the tanks. RCRA is not a risk-based regulation but rather a performance based regulation. The site will note the rational and justification behind the use of RCRA in the report to headquarters. This pathway will not be changed.

100 Area Draft End State Vision

The 100 Area land use will be for preservation and conservation. The preservation is due to the national monument status. Given the national monument status it is not believed

that the groundwater will be used for consumptive purposes for the foreseeable future. There will clearly be water entering the riparian and near shore environments and that will be the primary driver for cleaning up the water. The river will be used for recreational purposes. These items will be the primary drivers for the exposure scenarios under the river corridor contract.

The 100 Area interim RODS use a resident farmer exposure scenario, which is not consistent with a conservation and preservation end state. This will be noted as a variance in the report to headquarters. However, the river corridor risk assessment will run multiple exposure scenarios consistent with a risk-based end state. Interim actions will continue until a final ROD is in place.

300 Area Draft End State Vision

Due to the deep uranium plume in the vadose zone and aquifer, there will be no consumptive use of the groundwater for the foreseeable future. This plume will dissipate but it will be a much longer time frame than was anticipated when the ROD was written. The ROD will be reviewed again in five years and the team is working to gather additional information during this time. The upwelling of the uranium is the primary issue and this will clearly need to be addressed along the shoreline. A better assessment of the ecological and human risks needs to be completed. Because of the Uranium issue, the 300 Area will be zoned for industrial use.

The only variance, which will be noted on the report to headquarters, is the possible remediation of eight “satellite” solid waste burial grounds to “unrestricted surface use”. If the plume is not present in these sites, the cost difference between cleaning up to industrial use versus unrestricted use is minimal.

400 Area Draft End State Vision

There has not been much discussion on the 400 Area at this time but an end state vision of industrial use has been chosen. No variances have yet been identified.

Committee Discussion

- Todd Martin asked if the end state really describes a land use. Dennis Faulk, Environmental Protection Agency (EPA), answered it is a projected land use. Mike added all those who had legal right to establish a land use participated in developing the CLUP. Dirk Dunning noted the DOE had the legal right and the other parties can only make requests. Todd added this is an important issue to communicate to the Board and the public. Mike stated that risk-based end states (RBES) is a concept which looks at the projected land use and establishes cleanup goals to meet the 15 milirem level based on the exposures possible under a given land use.
- Dirk stated the policy has internal contradictions. On one hand it states it will comply with all laws while on the other, it will determine land uses. Mike stated that it does

not say DOE will set the land use. A lot of work is being done with the outside communities to develop a likely use. Land use planning documents are also being used. Dirk asked if since there is no plan beyond the end of the CLUP, is the land use unrestricted? John noted that under CERCLA, a plan could be developed for only so long. Mike stated that many times, the ability to cleanup a site will set land use. The plan will focus on meeting all of the laws and regulations and meeting all the CERCLA criteria.

- Shelley Cimon asked if a land use plan is needed from the national monument office before cleanup begins in those areas to ensure that agency's needs are met. Mike stated the decisions are conservative enough to be appropriate for the monument. The land transfer is still some ways in the future and the end state vision in the document is not final. He added that in terms of protection of the resources, digging any deeper would not make any sense for the river. There will always be chromium residual. The strontium plume will also be in place for the next 250 years. It is important to clearly define what the real level of risk is to the environment. Max added that most of the activities are supportive of the needs of U.S. Fish and Wildlife Service (USFWS). If headquarters tried to change any of the plans, there would be a real issue. There have been conflicting signals from headquarters in terms of the 300 Area, which is seen as a prime candidate for transfer. There are concerns however about the institutional controls which will be needed in the 300 Area. Mike added that he briefed the management and does not believe headquarters will attempt to change the cleanup agreements based on the risk-based end-states.
- A committee member noted this document uses the National Environmental Protection Act (NEPA) and the CLUP for narrative basis. The document is not a decision document. It must ensure that the institutional controls and long-term stewardship plans are in concert.
- Amber Waldref asked if there will be a process with stakeholders to discuss possible future land uses. She asked if DOE-RL would like stakeholders to comment on the identified variances or on the future land uses, or on the potential variances. Max stated it is important, given the intent of the policy, to have a discussion with the interested public on where the policy is. The intent is to hold open houses as well as interactive discussions. It is important to be open with people who disagree with the DOE position. The framework for input will be modeled after the future site uses working group structure. The discussion will be focused on those areas with identified variances to start.
- Amber asked if there will be a discussion about how the current path differs from the risk-based end states map. She supported the concept of a workshop or any other forum that allows stakeholders to share their views. Dennis responded that this is a Tri-Party Agreement (TPA) effort to complete the work of the Exposure Scenarios Task Force. One of the goals of the process is to ensure the public understands the information.
- Several committee members asked if there is public participation in the IAMIT team meetings. Dennis and Mike replied there has been participation by several Board members in the IAMIT meetings.

- Todd stated that with the information presented today, he is uncomfortable moving into the December decision date. Mike stated that the Board advice has provided a tremendous basis to move forward on. It will be important for the Board to thoroughly review the draft when it is released. Dennis added it is important for the Board to understand that the vision does not differ from the plans of the last ten years. With the exception of the tanks information, and the groundwater deviation, nothing has changed.
- Several committee members noted it would be helpful for the Board members to have something in hand before the November Board meeting. It would be beneficial to have a presentation on the history of the plan, a discussion of the workshops, and a discussion of the draft plan. Mike replied he will provide maps, documents, and conceptual models at the Board meeting. Todd stated it would be helpful for the committee to have this information in hand to prepare for the Board meeting. Mike added that the national academies of science have a task force that will review the document in March at both the site and headquarters level.
- Amber asked in terms of CERCLA, who participates in and makes these decisions. Dennis replied that the EPA and the Washington State Department of Ecology (Ecology) are the ultimate decision makers and DOE recognizes this in the document. This is one of the most important things to be communicated to the public and the Board. Amber noted it is important to ensure that the participation of EPA and Ecology does not prohibit them from disagreeing. Dennis stated this is the case.
- A committee member asked if the document will include the institutional controls that will be used. Mike stated the document must clearly define that institutional controls will be an integral part of the land use.
- Dirk noted that there are currently lawns being grown in the 200 Area, which would seem to disagree with the risk based use. He stated that either there must be an industrial surface use applied or it must be recognized that there will be applications of water to the ground.
- A committee member asserted the plan to stabilize the tanks in place assumes regulator compliance. Mike replied that in developing an end-state vision, it is necessary to pre-judge to some extent. This does not mean it is the final decision.
- Dirk asked what the 99% figure refers to. Max Power, Ecology, answered it is 99% or what is technically feasible to retrieve of the waste. If this can't be met, then the decision becomes risk based. Mike stated this is the only variance with headquarters policy. Dirk asked if that is a variance since the policy states the sites are supposed to comply with regulations. Mike noted there are contradictions in the policy. For example, in the 200 Area, it may not be possible to bring the water to drinking water standards. However, this determination cannot be finalized without following the process of the law. All parties have agreed this issue falls under CERCLA and now there are a series of steps to follow. The vision is the groundwater will continue to be contaminated despite best efforts to clean this up and all efforts will be made to contain this contamination. Dirk asked how the agency will determine the natural resource value and pay damages. Mike replied that by law, this process begins after cleanup.

- Dirk commented he thought the land outside of the national monument would be turned over to the county. This goes back to the issue of determining a different land use. In Washington, the counties set the land use however; they can only take land that is zoned for unrestricted use.

Regulator Perspectives

- Max commended Mike and John on their effort to involve stakeholders and regulators in the drafting of the end state vision. DOE-RL has gone beyond the other sites in involving the public. When risk scenarios are developed, there are many uncertainties and it is important to use conservative assumptions in developing these scenarios. The residential farmer scenario is beneficial because it uses conservative assumptions. While there may never be a farmer on this land, it is conservative enough for all uses. State law is clear that if at all possible, land is to be cleaned to unrestricted use levels. If this is not possible, then there must be strong assurance about the effectiveness of the needed institutional controls. It is important to think about this in terms of a land transfer to USFWS. They must be either legally willing or able to assume the institutional controls in the areas they manage. The policy and draft implementation plan raised concern because it seemed to assume a single methodology could be applied across many sites to result in a solid answer. It is the state's perception that DOE headquarters has not thought about how to address this. Headquarters assumption is given the science; certain assumptions and priorities can be made without considering stakeholder opinion and values.

Joint Meeting with River and Plateau and Health, Safety and Environmental Protection Committees

Lock Out/Tag Out Safety Procedures

Keith Smith briefly reviewed the history of this agenda item. He noted that there have been a number of lockout/tag out violations at the Plutonium Finishing Plant (PFP). The Board has advised that the Integrated Safety Management System (ISMS) should be an integral part of the work plan. It raises concern about how well ISMS has been implemented if issues such as these arise. The committee would like to know how these issues are being dealt with and how ISMS is being deployed.

Rod Hastings, DOE-RL, discussed the lockout/tagout program. He commented it is an administrative program that controls hazardous energy to protect personnel from injury during performance of maintenance and repair. The program uses locks to control energy sources. The program also utilizes tags and multiple administrative barriers to establish and maintain an isolation boundary throughout the performance of work. The hazardous energy control program employs the following barriers:

- Use of trained and qualified personnel
- Independent review of isolation boundaries

- Installation of lockout/tagout on sources of energy
- Independent check of installation of lockout/tagout on identified sources of energy
- Safe condition check to verify energy is not present to potentially harm workers
- Final check of controls prior to work authorization
- Worker checks to ensure sources of energy do not exist in the work area

Multiple hazardous energy control issues have led to a loss of confidence in Fluor's site-wide program. Over the last fiscal year, there have been fifteen events. There has been a failure by Fluor to establish a consistent program with clear roles, responsibilities, and expectations for the users of the program. There has been a lack of adequate training and qualification of personnel and a lack of decisive contractor action to quantify and resolve problems with the program.

Several significant corrective actions have been identified to date. These include:

- Implementation of compensatory actions
- Development of a single Fluor lockout/tagout procedure – Fluor is the only contractor with multiple procedures. Because many of the maintenance facilities are centralized, workers move from facility to facility. Having a standard procedure will reduce confusion.
- Independent review of lockout/tagout events
- Independent review of worker comprehension of lockout/tagout requirements
- Fluor training and qualification for new lockout/tagout procedures
- Evaluations of lockout/tagout implementation

To date, the following actions have been completed or have begun:

- Compensatory measures
- Single procedure development
- Review of events
- Review of workers
- Procedure training

Improvements to date:

- No significant events have occurred since 8/25/2003
- There is a significant increase in understanding and performance due to mentors
- Increased awareness of the importance of compliance to this procedure
- New single Fluor-wide procedure simplifies and strengthens the program

Committee Discussion

- Keith asked if an example could be given of the types of violations that occurred. Rob stated the violations consisted of workers without any lock and tag. Workers and their immediate supervisors choosing not to comply with the lock and tag program at the spent fuel facility. While the situation was not unsafe, it was not compliant and was particularly negligent because a supervisor was directly involved. While some of these situations may not seem significant, they are significant in the minds of DOE-RL.
- Margery Swint asked what safety procedures the subcontractors must follow. Rob stated that Fluor subcontractors must follow Fluor safety procedures. If the contractor is on the site under five days, they are accompanied at all times by a Fluor employee. If they are on site longer than this, they must complete Fluor safety training.

K Basins

Department of Energy-Richland Operations

Larry Earley, DOE-RL, stated that several milestones were completed in FY2003. The only milestone that was not met was the sludge milestone, M34-08. The sludge project is projected to begin in late November. In FY2004 it is projected that the removal of spent fuel from K West basin will be slightly behind schedule. A change request has been submitted for the removal of sludge from K basins. Some of the water removal milestones may be completed early if deactivation plan changes are approved.

Several actions are underway to improve the safety of the spent nuclear fuels project. These actions include:

- o Continuing the workplace improvement initiative
- o Manager/supervisor development classes
- o Providing an employee developed safety handbook to all project employees
- o Corrective actions to address deficiencies and improve safety

Fuel Production Accomplishments: 33 multi-canister overpacks (MCO) have been shipped containing 217.16 metric tons of heavy metal. Half of the remaining fuel is of good quality, 10% is of extremely poor quality, and the rest is of average quality.

Fuel Transfer System Accomplishments: 22 FTS shipments from K East to K West were completed during the period of June 7 and October 6, 2003. The original target had been 18 shipments per week however the most ever shipped was ten on round the clock shifts. There was not adequate staff to continue the around the clock operations and currently, the project is behind the baseline schedule. At this time, project completion by 1/31/04 does not seem realistic.

MCO welding accomplishments: The project is ahead of schedule and to date has been a success.

Deactivation accomplishments: A contract has been awarded to perform a phased underwater concrete hydrolyzing demonstration in the sediment basins. Fluor is prepared to submit a baseline change request (BCR) recommending the grout and remove approach for the deactivation and decontamination of the k basins. Before this can be done though, Fluor must prove the material can be shipped to the Environmental Restoration Disposal Facility (ERDF). EM50 money has been provided through technology funding to investigate hydrolyzing.

One area of concern is the budget and cost of the project. Less work than planned was completed and that work cost more.

Sludge Water System Issues

The sludge water system in K East is forecasted to be eleven months behind schedule and currently, the project is about twelve days behind that schedule. There are paths to make up about half of that time through operator training and sequence work. The current training and procedural development is at risk if there are any changes to the plans. If the plans do change, some of the development work may need to be re-performed. One of the main issues with this project is that readiness was declared prematurely.

The latest project design change is the addition of an Active Inert Ventilation System. The main advantage of this system is that it uses argon. The previous system used helium, which required strict time limits for equipment installation because it was lighter than air. Argon is heavier than air and therefore it will stay in place with minimal exchange.

Fuel Transfer System (FTS) Issues

The combination of equipment reliability and additional time to complete fuel inspection requirements for the higher degraded K-East fuel has impacted the production in K West. 102 shipments (1,020 canisters) are behind schedule. K-East and K-West FTS tables continue to experience multiple problems. To address this, a contract engineer with FTS design/installation experience has been assigned to the project. The engineer is working with the project team to support a system evaluation and repairs.

Fuel Production Issues

Currently, 18 multi-canister overpacks (MCO) are behind the baseline schedule. Focused monitoring of equipment performance for corrective actions prior to major failures, and assessments of alternatives to the current inspection criteria and process should improve the production rates.

Defense Nuclear Facilities Safety Board

Dave Grover, Defense Nuclear Facilities Safety Board (DNFSB), stated that enhanced DOE oversight of Fluor has begun. There is also an increased presence by the safety and engineering group of DOE and Fluor oversight. Of concern were the safety basis problems. Fluor is currently completing a review of any relevant documentation. Because of the identified problems at FTS, there are a select number of people who are second reviewers of all unresolved safety issue documentation. A team is also in the process of completing a review of FTS design and implementation. What has been noted, is that when there have been equipment problems; the equipment has not been restored to as new condition. This has resulted in increased shutdowns. Fluor is now trying to ramp back up as well as take a closer look at what the maintenance issues are.

When the sludge water system was developed, engineering and nuclear safety processes were not followed. The plan re-submittals address this issue to a more substantial degree. The plans are currently under review and all design issues are being resolved. The DNFSB will continue to resolve the design basis and will continue to watch the DOE and contractor oversight.

Environmental Protection Agency

Larry Gadbois, EPA, briefly discussed 100 K Area cleanup activities.

A pump and treat system has been installed to investigate the Chromium levels in the northeast end of the plume. It is important to determine the extent of contamination in this area. Additional wells will need to be drilled to complete this system. Alternate technologies are being studied to determine if there is a better treatment method than pump and treat.

Excavation of the 116-K-2 Trench will be starting in the near future. It will be imperative that this excavation is protective of cultural resources.

Crib 116-K-1 is almost complete. Confirmatory sampling is now underway.

The cooling water basins are nearly finished. The contamination was not very deep here so cleanup went quickly. Due to eagle roosting upstream, work must be completed prior to November 15.

Larry briefly addressed the situation at K Basins. The removal of sludge from the K Basins is about one year behind schedule. Originally, the intent had been to remove the storage racks from the basin and the retrieve the waste. However, the plan now is to leave the racks in place. EPA is unsure if an adequate job can be done without removing the racks. Water removal from K East Basin was to have begun in September. The removal of the “bathtub ring” and other decontamination or fixing/shielding work necessary to support this still has not begun.

Committee Discussion

- Shelley asked if any of the equipment design changes have failed. Larry stated that because there are only seven to eight months left in the budget new designs have been reviewed but the plan is mostly to repair the existing equipment.
- Keith noted the equipment wasn't designed for this work. Larry stated the equipment was designed to be used in one basin and is now being used in both.
- A committee member asked how much of the work is being done manually. Larry replied it is all being completed manually and that manual loading tools will continue to be used to load the baskets in the future.
- Susan asked what the expectation is that the schedule will be met. Larry stated they expect to meet the schedule but did not realize how hard it would be.
- Dirk noted that given this is the first time this type of project has been done he is encouraged by the progress. A letter of commendation and thank you has been issued by the Oregon Department of Energy. The project has not been without its problems but many people are doing a lot of hard work. Larry noted working in a mask is very stressful. Dirk added that one issue of concern is it is critical to have the FTS production schedule under control as the project moves into the lower quality fuel.
- Several committee members noted that K Basins are one of the dirtiest jobs on the site. Considering all the problems, a lot of progress has been made. The one holdup has been the sludge and it is positive to see the work finally beginning to start.

Todd asked what the cumulative cost of the schedule, including variances, is for the project life. Larry stated it is difficult to determine because of the Baseline Change Request (BCR), which zeros out the costs. Todd noted most people think the costs are different by 40 to 60 million dollars from the 1.6 billion dollar project cost.

RAP/PIC/HSEP Handouts

- Hanford End State Vision, John Sands, October 8, 2003
- 100 K Area Cleanup Activities, Larry Gadbois, October 8, 2003
- Hanford Spent Nuclear Fuel Project, Larry Earley, October 8, 2003

RAP/PIC/HSEP Attendees

HAB Members and Alternates

Shelley Cimon	George Jansen Jr.	Richard Smith
Dirk Dunning	Susan Leckband	Margery Swint
Harold Heacock	Todd Martin	Amber Waldref (via phone)
Rebecca Holland	Keith Smith	Dave Watrous

Others

Beth Bilson, DOE-RL	Max Power, Ecology	Pam Doctor, BHI
Steve Chalk, DOE-RL	Dennis Faulk, EPA	Nancy Myers, BHI
Kevin Clarke, DOE-RL	Larry Gadbois, EPA	David Houghton, BNFL

Jim Daily, DOE-RL	John Martell, WDOH	Liana Herron, EnviroIssues
Larry Earley, DOE-RL	Mike Priddy, WDOH	Lynn Lefkoff, EnviroIssues
Jodi Manley, DOE-RL		Penny Mabie, EnviroIssues
John Sands, DOE-RL		S. Kooiker, Fluor
Yvonne Sherman, DOE-RL		Barb Wise, Fluor
Mike Thompson, DOE-RL		Chuck Wolfe, Fluor
John Swailes, DOE-ORP		Peggy Terlson, Innovations
		Sharon Braswell, Nuvotec
		John Stang, TC-Herald