

FINAL MEETING SUMMARY

**HANFORD ADVISORY BOARD
RIVER AND PLATEAU COMMITTEE MEETING
March 10, 2009
Richland, WA**

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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

Maynard Plahuta, River and Plateau (RAP) Committee Chair, welcomed the committee, introductions were made, and the committee adopted the January meeting summary.

RL Systems Criteria

Bob Suyama introduced the draft advice on Department of Energy – Richland Operations Office (DOE-RL) systems criteria. He said at the last Hanford Advisory Board (HAB or Board) meeting, the Board issued Advice #214, which focused on providing systems engineering criteria for the Department of Energy – Office of River Protection (DOE-ORP). It was agreed that this advice should be expanded to include criteria relevant to DOE-RL, including the suggestion that the two offices collaborate on a systems engineering approach to cleanup, with the goal of accelerating cleanup.

The committee reviewed version two of the draft advice. Since there is existing criteria for a systems engineering approach, Bob said it is important to avoid being repetitive and to create advice that would be useful to DOE-RL. Bob said he removed criteria from Advice #214 that was aimed specifically at tank waste and added criteria aimed at issues like groundwater and soil cleanup. The committee compared the revision to the original

advice by reviewing a red-lined version of Advice #214. Bob said the discussion section of the revised version still has the same focus, but he added information from DOE-RL's 2015 vision for this section.

The S criteria covers stakeholder and legal issues, and Bob said the committee added the criteria of reducing risk to the public, as well as the environment. He shortened S-2 to say "comply with all applicable laws and regulations," and moved the list of specific legal directives to the discussion section.

Bob said section G, the guiding criteria, responds to G-1 through G-9 of Advice #214. He said there was concern about duplicating the numbering scheme from the original advice, so section 2-A includes G-1 through G-9 of the original advice, and G-10 through G-14, criteria specific to DOE-RL, were added.

Regulator Perspectives

- Dennis Faulk, Environmental Protection Agency (EPA), said he does not find the draft advice particularly useful. He said the advice for DOE-ORP was useful because it was focused on a cleanup approach not previously addressed. Past HAB cleanup advice for DOE-RL generated from this committee included flowcharts on groundwater and central plateau (CP) cleanup. He said the proposed draft advice is cumbersome and at times conflicting because it is so inclusive and overarching. He said in some ways the advice deviates from the Board's past values. Dennis said the advice does add value where new concepts that have not been stated before are included, and the Board's advice on institutional controls (ICs) was helpful because ICs have a distinct mission. Bob asked how the draft advice differs from Advice #214. Dennis said he did not care for Advice #214 at the time, but what was important about it is that, after focusing on DOE-RL for a long time, the Board stated that those values apply to DOE-ORP as well. He said all of the criteria embedded in the advice are fundamental principles they are trying to accomplish.
- John Price, Washington State Department of Ecology (Ecology), said DOE-RL has some systems challenges, but he does not think this advice addresses all of these. For example, every time a barrier needs to be put on a canyon building, one million cubic yards of dirt needs to be moved. He said that is a systems problem, and he does not think the draft advice adequately addresses this. He said systems engineering is an important problem, but this advice misses the mark.
- Dennis recommended overlaying the discussion of the details of the agreement in principle (AIP) with the current draft advice, which would provide more context for discussion. Ultimately it is helpful to have a document to refer to, and tanks had not done that in the past.

- Dennis said from his perspective it is useful to put forward advice that either refines previous values or identifies new ones. He said he wishes the Board would re-state its values in the same language as it originally did, as its nine generic but bold principles have formed a foundation and changing the language loses some of that.

Committee Discussion

- Maynard said the appendix of Advice #214 just included discussion, and this advice reiterates the criteria in the appendix. Bob said this is so the appendix can stand on its own.
- Dick Smith asked if the top-level criteria are identical to the advice issued to DOE-ORP. Maynard said specific words, such as “vadose zone,” were added.
- Wade Riggsbee said the underlying statement in T-1 that cleanup on the Columbia River will be completed by 2015 is not feasible. He said additional activities required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) will be required, and the 2015 goal does not address these issues. Bob said he took this directly from the DOE-RL 2015 vision. Dick said this should be revised to suggest completing waste site cleanup on the Columbia River by 2015.
- Maynard said some of the criteria cannot be independent, and depend on the completion of other activities. He suggested adding a statement that says the criteria depend on other activities and goals that need to be accomplished.
- Wade commented that the premise of S-3 is that basic tribal treaty rights will be honored, and its meaning could be clarified by adding the word “treaty.”
- Susan Kried asked if the intent is to repeat the criteria previously stated for DOE-ORP and add DOE-RL criteria. Bob said the committee needed to discuss whether its goal was to give DOE-RL a stand-alone document with all of the criteria, or one with only DOE-RL’s criteria. He said the end goal is to have DOE-RL meet with DOE-ORP and do an integrated systems approach. Maynard said criteria that apply to DOE-RL as well as DOE-ORP should stay, and there will be redundancy in criteria that applies to both. He said version two of the advice should stand alone for DOE-RL.
- Harold Heacock said he does not like the red-line version of the advice’s inclusion of statements such as “the Board determined...” and “Criteria is designed for ORP...” He said this is telling them how to accomplish tasks, rather than giving advice, and the Board’s role is to suggest issues that should be addressed but not tell them how to address them. Dick said the Board is telling them how to do cleanup by suggesting the use of a systems engineering approach. Maynard said the Board is suggesting they use systems engineering, but not telling them the specific way to do this.

- Wade said four or five years ago there was a lack of systems engineering for tank farms, and it was then asked why these operations were not integrated. He said this is an enormous piece of work, and it is important to look at the requirements for each piece and then verbalize the elements for each of these, and the Board has not done this. He said having diagrams for groundwater, the vadose zone, ponds, cribs, the ditch system and a closure approach was excellent. He said the committee has the vision but has not had a dialogue on how this is going to be done. The draft advice lays out a set of guiding principles but does not take a systems engineering approach.
- Dick said the Board is suggesting systems engineering and providing ways DOE should approach this. He said looking at upper-level tasks and constraints to their approaches is a more detailed look at this. Matt McCormick, DOE-RL, said to do a systems engineering approach an end point is needed, and tank operations have a defined end point. He said the draft advice includes a discussion of the end point, but he does not think the Tri-Party Agreement Agencies or the community have agreed to an end point or vision for the CP. Matt said it would be difficult to take a systems engineering approach without this end point, and the Board needs to determine whether this advice is talking about coming to a decision or implementing decisions that have already been made. The CERCLA process must be followed, and Matt said he thinks CERCLA is a systems approach that has an end point of protecting human and environmental health.
- Susan K. said as a newer member of the HAB this document would have provided her with guiding principles to use in assessing conversations and discussions. She said it may not be systems engineering, but as a set of guidelines for decision making she would have found this helpful.
- Susan Leckband asked if it would be helpful to adjust the advice to recommend a systems engineering approach and follow it up with guiding principles and criteria to consider. Dennis said he thinks that would help, and it is necessary to apply common sense to the process of coming up with a systems engineering approach. He said, for example, the criteria that says cleanup must comply with all the laws is not necessarily the most helpful approach, and it is important for the committee to listen to the AIP.
- Maynard asked about the timeliness of the advice. Dennis said bringing this to the June Board meeting would be fine.
- Bob asked if this advice is necessary. He said Doug Shoop requested it, and the Board suggested it at its last meeting. Susan Leckband said she does not think it ever hurts to emphasize a systems approach and recommend both DOE offices integrate. She said some cross-cutting issues, such as groundwater, are lost when they work separately. Systems engineering is not something the Board had talked about before, and she said it could prove helpful when DOE is making decisions.

- Harold said DOE-ORP has many execution issues that are not being addressed, such as secondary waste, and this led to a systems engineering approach to identify waste. He said on the DOE-RL side it is a different situation, as they have all the cleanup issues identified and it is now a question of what to clean up and how.
- Bob will take the feedback from today's discussion and work further on this draft advice.

Overall Central Plateau (CP) Cleanup Completion Strategy

Matt said he was asked to share DOE's discussions with Ecology and EPA about the cleanup of CP, mostly focusing on setting a vision for cleanup. He said this presentation was made to principles that signed the Tri-Party Agreement (TPA) and represents a DOE point of view that was proffered to EPA and Ecology to consider.

Matt said the Tri-Parties are well aligned in terms of river corridor cleanup, and interim actions such as removal, treatment, and disposal (RTD) of waste sites and moving equipment to the CP are nearing completion. There is a shared vision to remove contamination adjacent to the river, with the goal of completion by 2015. He said this same vision is now needed to guide cleanup on the CP, and the HAB, tribes, and other stakeholders have provided input on establishing a vision for the CP.

Matt then reviewed how DOE plans to reduce the size of the Hanford site's footprint. Currently, there is active cleanup in the river corridor and the CP. The Hanford Reach National Monument includes the southern part of the Columbia River, which is still actively being cleaned up. Interim decisions under CERCLA have been implemented, and the final decision making process for the river corridor needs to be completed. There are six decision units being pursued under CERCLA, covering four reactor areas, the 300 Area, and IU-2 IU6, and these are going through CERCLA to confirm the actions that will be taken.

DOE plans to take a geographically-zoned approach to the CP and coordinate with tank farms to have consistent decisions on contaminants of concern such as technetium. For groundwater treatment, carbon tetrachloride, uranium and technetium are the main focus, with the goal of containing plumes until they can be restored on the CP. The deep vadose zone is another focus area, especially for technetium and uranium. Matt said DOE plans to remediate the sources of contamination to prevent future groundwater contamination. An early warning system is needed to ensure actions are taken quickly to remediate groundwater plumes and contain contamination so it does not reach the river. He said DOE envisions a robust groundwater-treatment capacity in the East and West areas that would be versatile in the treatment of various contaminants.

The CP covers 75 square miles, and has been divided into two areas for the purposes of cleanup discussion. The outer area has less contamination than the industrial area next to facilities and cribs. The inner area will have waste kept in place, and long-term management will be needed. Matt said DOE wants to use a single record of decision (ROD) that would use river corridor cleanup levels with a bias for RTD. The goal is to treat waste as needed and dispose of it in the Environmental Restoration Disposal Facility (ERDF). Matt said these areas would be remediated to the same cleanup levels as along the river. The inner area is where there was heavy industrial use during the plutonium-production days, and Matt said long-term waste management activities to protect human health and the environment in the future will be necessary.

Matt reviewed a timeline of decision making concerning the CP. In 1965, Washington State and the Atomic Energy Commission made the decision that low-level waste would be buried on the central portion of the CP. That burial ground, which is operated by U.S. Ecology, a private radioactive waste disposal facility operator, with oversight from the state, is on leased land, and DOE is responsible for caretaking at this waste site when the lease expires in 2070. Matt said this pre-existing decision will be part of long-term stewardship on the CP. In 1986, the United States government made the decision to dispose of naval reactor compartments on the CP, and more than 100 reactor compartments are there now and will continue operating. Matt said this area also has a pre-approved closure plan. In 1992, the Future Sites Working Group, which included Washington State, DOE, Ecology, HAB, and other organizations, concluded there would be a need for long-term monitoring on the CP and gave recommendations on this. This area contains mixed low-level waste trenches that are permitted by Ecology but have a closure plan. Matt said ERDF will be expanded as needed to accept waste from remediation activities. In 1999, DOE went through a formal process under the National Environmental Policy Act (NEPA) to define future land use and create a Comprehensive Land Use Plan (CLUP) and corresponding ROD.

Matt said the inner area of the CP is less than 10 square miles, and the goal is to reduce this area as much as possible. He said DOE and regulators share this value and think the final footprint can be minimized. The means to make consistent, performance-based cleanup decisions on a larger scale will be established within the inner area. Matt said implementing the key principles for river corridor cleanup can result in a dramatic reduction in the area of the site that will require long-term management. Assuming the river corridor cleanup is a success, the final footprint would be less than 2 percent of the current footprint of 586 square miles. Groundwater contamination would be reduced to small, discreet areas, mostly in the CP. Waste sites on the CP would be remediated and facilities would be demolished.

Matt said the goal for the outer area of the CP would be for unrestricted surface use. The inner area would need long-term waste management activities. He said a balance is needed to protect human health and the environment and implement long-term management to ensure future safety. The core zone is shown as 10 miles, and he said this could potentially be reduced by half.

Matt said DOE believes cleanup standards are needed that would apply to individual waste sites or burial grounds within the inner area. This cleanup standard would probably follow the CERCLA process and would be agreed to up front then implemented as the decision process continues. Matt said this would also apply to contamination outside tanks or tank farm hardware. This would help the end point in terms of the systems approach to configure contamination in this area to best protect three areas: human health, ecological or biota, and groundwater. Matt said ICs are needed to minimize or eliminate the threat to the environment.

Regulator Perspectives

- Dennis said he think the bias for RTD in the CP is a monumental step forward that is consistent with the 1992 working group. He said the seventh ROD does make sense, and the feasibility study needs to be finished on two or three operable units. The agencies have not yet had discussions on the inner area, and there are a number of ways to reach a consistent set of cleanup criteria through these discussions. He said he thinks if the same cleanup standards are applied, the regulatory mechanism to begin work is already in place, and the stimulus money could allow this project to hit the ground running. EPA wants to finish the decision process for the CP, and the river corridor is showing that interim actions do not always make for a final wrap. Dennis said a final decision in the outer area makes a lot of sense.
- John said in 1978 the president came out with the decision that federal agencies have to comply with federal pollution regulations. Thirty years into the Hanford cleanup, he said it is important to come up with a strategy. John said the Board could weigh in on pieces of this plan that it disagrees with, agrees with, or needs more information about. Additionally, he said there are four difficult decisions left for the CP: tank closure, plutonium sites around Z-plant, burial grounds with pre-1970 transuranic (TRU) materials, and vadose zone sites in areas besides tank farms. He suggested the Board weigh in on these four challenging decisions.

Committee Discussion

- Pam Larsen asked if the preference for RTD on the CP is a new choice. Matt said it is not brand new. There are 180 waste sites in the outer area, including ponds and waste sites associated with fuel storage, and there is a bias for RTD with some exceptions. Matt said for the most part the contamination would be removed and those areas would support conservation and preservation activities of the large area for unrestricted surface use.
- Maynard asked whether there is deep vadose zone contamination in this area. Matt said it is expected that there is not deep vadose zone contamination. Generally the bias would be to remove contamination, treat it as necessary and dispose in ERDF. DOE is proposing pursuing a seventh ROD that would take waste sites agreed on by Ecology and EPA, and converting these to river corridor cleanup levels since those have been well vetted with the public and tribes. Matt said there would be some exceptions, but DOE thinks it could come to a ROD by quickly writing a feasibility study using remedial studies that have already been done on some of these waste sites.
- Gerry Pollet asked if unrestricted surface use would change this area from an industrial designation, and whether ponds are outside the unrestricted surface use area. Matt said ponds within this area would have the goal of RTD and movement to ERDF. He said he would prefer not have signs or fences, and use would be totally unrestricted. Dennis said through the CERCLA process some areas may not meet unrestricted levels immediately, such as a pond with a sliver of contaminated soil where it is determined to let nature take care of itself.
- Susan K. asked if unrestricted surface use includes the use of irrigation. Matt said this land use does not anticipate irrigation.
- Wade asked if there is concern about the uptake of contaminants by plants. He said this is an emerging problem with hot tumbleweeds and areas where herbicides have been used. He suggested these assessments need to be part of the plan for the CP. Matt agreed.
- Wade asked if the seventh ROD would include only the inner area. Matt said it would include waste sites in the outer area, with the purpose of shrinking long-term waste management as much as possible.
- Susan L. asked whether the seventh ROD would take long-term glass log storage into account. Matt said if there is a need for long-term storage of vitrified waste from the waste treatment plant (WTP), it would be inside this area, along with the canister storage building (CSB).
- Wade asked how many RODs are anticipated for the inner area. Matt said DOE thinks they can do one ROD by recommending a combined ROD corrective-action

document that would cover cleanup standards in this area. Individual CERCLA decisions would be made based on the cleanup standards in the overarching ROD.

- Gerry asked if DOE is proposing substituting CERCLA for the Resource Conservation and Recovery Act (RCRA). Matt said CERCLA would be used for radionuclides not covered by RCRA. DOE needs decisions that cover all contaminants, and RCRA does not cover everything.
- Wade said there is a potential to have one or more RODs, and he could see a dozen that could be developed. He asked whether DOE is proposing a single ROD. Matt said they are proposing one ROD that recommends cleanup decisions for this area then follows up on cleanup decisions that use those standards. Either way, Matt said DOE believes this area needs common cleanup standards on which each individual decision can be based. He said agreeing on an overall common vision will streamline the decision making process.
- Pam asked how this cleanup plan relates to the three plutonium waste sites the committee had a workshop on earlier. Matt said there would be key contaminants that would be addressed by the cleanup standards. If cleanup standards on the CP go forward, DOE would work with EPA on interim actions.
- Gerry asked if DOE wants one decision on remedial action levels that covers the outer area as well as the inner area. Matt said the outer area is the buffer area and would be included.
- Wade asked whether the surface area south of the BC cribs that includes the contaminated 10 square miles would have unrestricted use. John said the cleanup level is twice the residential level, and after 30 years of decay it would be down to the residential level. Dennis said he thinks 30 years is a reasonable timeframe. He said the BC cribs still need to be discussed by the agencies, and they will have deep vadose zone problems.
- Pam said she is profoundly pleased by the direction for the CP and thinks the presentation should be shared at a full HAB meeting. Maynard asked how critical this issue is time-wise. Matt said it is a starting point for many discussions DOE is having with agencies, and it could be presented to the Board in June.

Environmental Restoration Disposal Facility (ERDF) Record of Decision (ROD) Amendment

David Einan, EPA, discussed EPA's intent to amend the ERDF ROD to allow for expansion of the facility. He said the proposed plan for ERDF will be released the first part of April. The proposed plan has three elements – two are activities and the third is administrative. David said EPA is expecting to need space sooner and would like to

authorize the next expansion and incorporate some design changes. Additionally, from the administrative side, they are working on ways to authorize future expansions.

David said ERDF would be expanded only for Hanford waste, and expansion is needed for river corridor and CP cleanup. CP and tank farms cleanup will be sending more waste to ERDF, which was originally focused on river corridor waste. David said other contractors are beginning to provide waste projections for ERDF. The facility's specialized equipment requires floor space, and it is important to have flat areas for these. ERDF containers are 18 to 25 tons, or 12 to 14 cubic yards. He said ERDF currently processes 200 to 300 containers daily, and this could double. David said there is also a need for dump ramps, which require additional space for safety considerations. The CP contractor has talked about using a slightly different container that needs a specialized ramp, and this would be possible with more space.

David reviewed potential design changes to ERDF's liners and cells. He said there are four main design changes, and the first two are the most important changes. Each cell has a drainage dump, and the first design change would be to combine two cells into one cell to save on infrastructure and piping. The second change would be to use a geocomposite material for one drainage layer. Currently, artificial clay with a plastic membrane on top is used, followed by a foot of gravel, then a second plastic membrane and drainage layer, then the waste. The geocomposite would be used instead of gravel on the side slopes on the bottom of the secondary drainage layer. David said this would save on costs, the time to get test results, and the amount of pipe while still facilitating drainage. Additional design changes proposed are a fourth expansion of cells seven and eight. David said the last ROD amendment authorized four cells, and ERDF's track record shows they have only built what was needed. He said at least 12 cell equivalents will be needed for the river corridor, not including the CP. EPA is proposing to put a fact sheet out each time ERDF needs to expand, rather than doing a ROD amendment each time.

Regulator Perspectives

- Dennis said an interim cover was placed over cells one and two, and asked whether it was evident that they were getting any leachate out of those cells. David said the interim covers only about half of cells one and two, but there are flow meters on each cell. He said one near-term activity is to get an interim cover over the rest of cells one and two and a good portion of three and four.
- Deborah Singleton, Ecology, said she had the opportunity to review the ROD and, because of all the work expected for river corridor cleanup, Ecology supports the expansion of ERDF to get the river corridor cleaned up.

Committee Discussion

- Bob inquired about the life of the geocomposite material. David said it would last as long as the current system since it would be the secondary layer and not much water enters this layer. He said gravel would still be the primary layer.
- Dick asked whether the geocomposite would support the load on top of it. David said the engineering still needs to be determined.
- Susan K. asked whether the geocomposite is known to clog. David said this has not been a problem.
- Gene Van Liew asked the cost of the geocomposite, compared to gravel, and the cost of installation. David said the material is easily installed and would replace one foot of gravel. He said he did not know the cost considerations.
- Pam asked if ERDF has had lessons learned as it has gone through the process of amending RODs, and what is considered when a ROD amendment is done. David said waste projections are looked at and additional space that needs to be built. He said there have not been problems from iteration to iteration.
- Maynard asked if the leachate and pumping system could accommodate the addition of cells, and if there would be a review process for these systems. David said they have been able to work out electrical capacity, but ERDF is about to run out of pipe capacity. He said the conduits are currently full and gravity flow in the pipes is about to daylight. He said the facility will need a different leachate pipe run, but the leachate storage tanks are still working. Maynard asked if this would require another ROD amendment, and David said it would not because the amendments have been specific about the design being consistent, and they are changing some of these requirements.
- Susan K. asked if strategies for volume reduction to preserve space for essential disposal have been discussed. David said the current requirement is to minimize waste.
- Owen Robertson, DOE-RL, said it takes one million gallons a year for all of the cells before the leachate collection system will go dry. He said he has been involved in this project for a long time, and the super cell nine is going to be the first innovative technology to be implemented. It is going to be easier, faster and cheaper, and he thinks it will operate better.

Environmental Restoration Disposal Facility (ERDF) Performance Assessment (PA)

David presented the results of ERDF's performance assessment (PA), which evaluated the environmental impacts of radionuclides and will be used to set operational limits. PA development includes collection of background and modeling input data, completion of modeling analyses, and documentation of the analyses. He said the radionuclide concentrations came up with limits on the PA and Remedial Investigation/Feasibility Study (RI/FS), and the more stringent of the two was incorporated into the waste acceptance criteria (WAC). Specifically, the PA proposed inventory limits for uranium, carbon-14 and technetium-99, which are, respectively, 610, 69 and 111 chemical ionization (Ci) levels. David said the current inventory of these materials is, respectively, 333, 41 and 77.

Committee Discussion

- Gerry asked how the PA inventory limits were set. David said these were arrived at using maximum contamination levels (MCLs) and a 10^{-5} risk, based on groundwater being 100 meters away from ERDF. Gerry asked if CERCLA standards and MCLs would now be applied to the PA results. David said this has been discussed, specifically for technetium-99. He said if current dose methodology and risk methodology is used it would probably be higher, but the MCL is 900 and that is what will be used. He said the assessment is done very conservatively and does not take credit for liner and waste being grouted.
- Gerry asked why DOE is doing a PA rather than an EPA risk assessment. He said this is a different methodology and asked why a PA was conducted if it does not meet CERCLA requirements. David said a usable document was needed, and it was assumed EPA would have enough influence on the PA that it would be usable. Gerry said the Board should issue advice on this, and said he thinks it is a step backward and a waste of money. Dennis said the idea was to do a PA using a MCL of 900, the drinking water standard, but using the methodologies of CERCLA. He said Gerry's comment is something to consider.
- Gerry said commenting on the expansion without WAC based on a new assessment that does not work with CERCLA is a big issue. Mark French, DOE-RL, said his understanding is they took both together and used the most restrictive criteria. Dennis said he thinks the salient point is that DOE and EPA may not be aligned.
- Janice Williams, CHPRC, said a complex-wide initiative on past consistencies is currently taking place, specifically focusing on tank farms. She said this is a new effort on top of the RI/FS. She said if the two pieces come up with different numbers, something different in the CERCLA process will be found because of new information. She said from a CERCLA standpoint it is a DOE process. Dennis said the issue is EPA was operating under the assumption that this PA would update risk assessment (RA) work from the early 1990s, but ultimately they want to set it on

MCLs. He said ERDF was set up through the CERCLA process. David said ERDF has operated for nearly 15 years, and it is important to make sure appropriate limits are in place. His assumption was that the PA would be useful because it would have enough of the needed criteria in it.

- Susan K. asked how many cells ERDF could hypothetically accommodate. David said there is room for either 26 or 28 pairs of cells. Susan said the facility is at approximately 70 percent of the inventory limit for technetium-99, which is less than half of the hypothetical capacity but more than half the radionuclide limit. Mark said there are ways to control and mitigate the limits of materials like technetium-99, such as grouting the waste form.
- Dirk Dunning said natural resource damages should be directly mitigated, and this issue still needs to be addressed. At the time ERDF was built, it was on one of the site's worst places for habitat and the tightest soil. He said when ERDF was sited, it was originally going to be an immense facility. Additionally, the original risk assessment is a spreadsheet analysis, which raises some issues. When ERDF was originally sited, it was a dual RCRA/Corrective Action Management Unit (CAMU) and a joint EPA/Ecology-licensed facility. That was dropped because of CAMU questions and it became a CERCLA site. It was said RCRA wastes would not be disposed of at a CERCLA site. He said to do the RCRA/CAMU for design and operation there will be one set of results with potential timeframes. Last year's Hanford Annual Report showed high concentrations of ERDF leachate. He said he does not think the PA or the RI/FS considered how this is actually operating or failing. Based on current leaching, he thinks it should be mined and processed into a waste form like glass or a waste site that will permanently maintain it. He said it is now known that preferential lateral transport is taking place in the subsurface, and it is evident how actual fate and transport is happening differently from the RA. He said this PA and RI/FS have issues that need to be addressed now.
- Maynard asked how much room is left in the cells. David said the last pair of cells has filled up faster than previously, and another pair of cells is about to open. He expressed concern about answering these questions without getting into the PA or RA development. Dennis said ultimately they do not want to hinder cleanup.
- Maynard asked if it would be sufficient to introduce advice at the June Board meeting. Dennis felt that advice in June would still be timely. Mark said this process is a long-term effort. With the acceleration of work on the CP, ERDF capacity will be needed in a couple of years.

Outline – Plutonium Toxicity Tutorial (Joint topic with HSEP)

The review and finalization of the outline for the Plutonium Toxicity Tutorial was postponed until the April RAP committee meeting, and the presentation will now take place at the June Board meeting.

Committee Business

Future Topics:

1. Placeholder: CP update on seventh ROD – Matt McCormick
2. RL system criteria draft advice (April or May committee meeting)
3. ERDF potential Board advice (April committee meeting – may need 2 hours)
4. 618-1 closure (April)
5. LTS – “Gap analysis” (April)
6. Science and technology update (Announce June workshop at next Board meeting)
7. ZP-1 (April or May – 1 hour)
8. Contract integration (Not for April – possibly May)
9. PW 1, 36 RI/FS update (On hold – this summer)
10. Fire rehabilitation on CP – 1996-2000-2007 fire – DOE/USFWS response (May)
11. Plutonium toxicity presentation (April committee meeting)

Action Items / Commitments

- Action: Dirk and Shelly Cimon will work with agencies on advice on the ERDF PA without imposing the effort to move this forward in the river corridor, with the goal of bringing it back for the April committee meeting.

Handouts

NOTE: Copies of meeting handouts can be obtained through the Hanford Advisory Board Administrator at (509) 942-1906, or tgilley@enviroissues.com

- Draft RL Systems Criteria Advice – v. 1, Bob Suyama, March 10, 2009.
- Draft RL Systems Criteria Advice – v. 2, Bob Suyama, March 10, 2009.
- ERDF Topics for the River and Plateau Committee, David Einan, March 10, 2009.

Attendees

HAB Members and Alternates

| | | |
|-----------------------|-----------------|---------------|
| Dirk Dunning | Susan Leckband | Dick Smith |
| Harold Heacock | Maynard Plahuta | Bob Suyama |
| Susan Kreid | Gerry Pollet | Gene Van Liew |
| Pam Larsen (On phone) | Wade Riggsbee | |

Others

| | | |
|------------------------|----------------------------|--|
| Paula Call, DOE-RL | Rick Bond, Ecology | Dale McKenney, CHPRC |
| Mark French, DOE-RL | Sharon Braswell, Ecology | Rob Phipps, CHPRC |
| Matt McCormick, DOE-RL | John Price, Ecology | Janice Williams, CHPRC |
| Owen Robertson, DOE-RL | Deborah Singleton, Ecology | Barb Wise, CHPRC |
| | Ginger Wireman, Ecology | Susan Hayman, EnviroIssues |
| | Craig Cameron, EPA | Molly Jensen, EnviroIssues |
| | Dennis Faulk, EPA | Sandra Lilligren, Nez Perce (On phone) |
| | | D. Swanberg, SAIC |
| | | Peter Bengtson, WCH |