

**FINAL MEETING SUMMARY**

**HANFORD ADVISORY BOARD**

*January 27-28, 2005*

*Richland, WA*

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

**Executive Summary**

**Board Action**

The Hanford Advisory Board (HAB or the Board) adopted one piece of advice regarding the proposed U221 Plan. The Board also produced a letter regarding the M-45 Change Package milestones.

**Board Business**

The Board confirmed the selection of Todd Martin, Citizens for a Clean Eastern Washington (Regional Citizen, Environmental & Public Interest Organizations), as Board Chair for a third and final term. Board members were asked to complete the annual Self-Evaluation during this Board meeting.

**Plan for Central Plateau Closure**

Larry Romine, Department of Energy-Richland Operations Office (DOE-RL), gave an overview of the Plan for Central Plateau Closure and Margo Voogd, DOE-RL, further discussed several sections in the Plan. The Plan takes a comprehensive look at all the elements that will go into closure of the Central Plateau.

### **Caps and Barriers Tutorial and Policy Issues Workshop**

Kevin Leary, DOE-RL, briefed the Board on the history and advances in cap and barrier technology. He gave the Board an in-depth look at the caps that may be used at Hanford. Board members also participated in a workshop where they used the information Kevin had given to formulate questions and policy comments regarding caps and barriers at Hanford.

### **Tri-Party Agency Updates**

Erik Olds, Department of Energy-Office of River Protection (DOE-ORP), described progress on tank retrieval and commented that the Bulk Vitrification (BV) permit was activated on January 12<sup>th</sup>, allowing construction to begin.

Mike Weis, DOE-RL, mentioned several successes that DOE-RL has seen in the past few years. He also noted some of the goals DOE-RL would like to achieve in the next year.

Suzanne Dahl, Washington Department of Ecology (Ecology), discussed the Integrated Disposal Facility (IDF) and its path forward, since the Hanford Solid Waste Environmental Impact Statement (HSW-EIS) is delayed. DOE will be submitting a revised permit request so that construction can continue during more advantageous seasons.

Nick Ceto, Environmental Protection Agency (EPA), mentioned that there is concern regarding the shipment of waste and the possibility of gridlock across the DOE complex. He stated that the time is fast approaching when a national dialog will be unavoidable. He also informed the Board that groundwater issues are not just local at Hanford and that this may quickly become a bigger discussion.

## **HANFORD ADVISORY BOARD**

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Todd Martin, Citizens for a Clean Eastern Washington (Regional Citizen, Environmental and Public Interest Organizations), Chair, called the meeting of the Hanford Advisory Board (HAB or Board) to order. The meeting was open to the public and offered two public comment periods, one each day.

Board members in attendance are listed at the end of this summary, as are members of the public. 7 seats were not represented: University of Washington (University), Washington State University (University), Columbia Basin Audubon Society and Columbia River Conservation League (Local Environmental), Washington League of Women Voters (Regional Environmental/Citizen), Benton-Franklin Public Health (Local/Regional Public Health), the Nez Perce Tribe (Tribal Government), and Confederated Tribes of the Umatilla Indian Reservation, CTUIR (Ex-Officio).

### **Welcome and Introductions**

Pam Larsen, City of Richland (Local Government), introduced her new alternate, Vince Panesko.

### **Approval of November Meeting Summary**

The Board approved the November meeting summary without changes.

### **Plan for Central Plateau Closure**

Larry Romine, Department of Energy-Richland Operations Office (DOE-RL), started by giving an overview of the Central Plateau planning efforts. He stated that the remediation plan is framed by decisions and agreements that have been made up to this point. Examples of agreements that have addressed remediation include the Tri-Party Agreement (TPA) and the Comprehensive Land Use Plan (CLUP), using the Resource Conservation and Recovery Act (RCRA) and National Environmental Policy Act (NEPA) processes to work through the specific remediation. Examples of planning that have addressed remediation in various states include: the Hanford Performance Management Plan, the Groundwater Management Plan, the Central Plateau Optimization Strategy, and the Integrated Hanford Baseline, which pulls things together for the reference point.

The Plan for Central Plateau Closure (Plan) pulls together all the scope and the major closure elements. The closure elements include the 5 major canyons, 177 underground tanks, 884 waste sites, 955 structures, and about 2,000 groundwater monitoring wells. The Plan is a contractor deliverable and a planning tool, to help frame the scope of work to be dealt with and identify a comprehensive and systematic approach to remediation on the Central Plateau. It is a starting point. It identifies some of the gaps and decisions that need to be made and key interfaces that need to be worked out, and is a first step to identify key programmatic risks and opportunities that need further work.

Margo Voogd, DOE-RL, gave a high-level overview of some of the information contained in the Plan, which was produced last fall. She walked through the table of contents and encouraged the Board to become familiar with the Plan. Chapter 2 talks about the closure strategy and the approach, which deals with the closure elements and how closure will be done using the zone or geographic area approach. Chapter 3 talks about the regulatory approach including thinking about a Record of Decision (ROD) strategy. Chapter 4 has a management approach that was proposed by Fluor. Chapter 5 is about interfaces with on-going operations, detailing when certain things can be remediated based on operations nearby or within that facility. Chapter 6 is the life-cycle baseline. Chapter 7 shows the risks and opportunities; this is the chapter that Margo strongly encouraged the Board to be most familiar with, as they are looking for the most input on this chapter. Chapter 8 is references. Chapter 9 and appendix A are the zone closure packages.

The zone closure packages include broad comprehensive information for each of the 22 zones. There is a list of each of the closure elements included for each zone. The zone closure packages also illustrate how operations and activities for each zone support cleanup at Hanford, and include sections on risk to workers, the public and the environment; how to approach remediation in each zone; regulatory approaches by zone; and interfaces and constraints. For each zone there is also a before and after map and at the end of this section there is a schedule as proposed in this plan.

### **Regulator Perspective**

John Price, Washington State Department of Ecology (Ecology), encouraged members of the Board to get a copy of the document, as it includes a lot of good information. He stated that Ecology is not commenting on the Plan at this time. They want to talk about cleanup principles first. John noted there are a lot of assumptions in the Plan and Ecology will probably not comment on the assumptions, but will work through the more controversial points when they get the regulator documents. John added he thinks the Plan is a good basis for DOE to use for contracting and for negotiating TPA milestones, noting there are plenty of milestones regarding investigation, but not many regarding actual cleanup. John also encouraged the Board to keep an eye on contracting, as regulators are not allowed to comment on contracting, but the Board can.

Dennis Faulk, Environmental Protection Agency (EPA), stated that he was not quite as optimistic as John. There have been many planning documents in the past and this is just another interpretation. He stated the Plan does have some good context for the Board to have discussions around. One thing the Board could be helpful with is to look at the Plan and list the places where the Board is still not aligned with DOE. Dennis also noted that he gets nervous when budget numbers are discussed in conjunction with planning documents, because DOE-Headquarters (DOE-HQ) has the tendency to take these numbers and hold DOE-ORP and DOE-RL to them. He stated that many of the numbers are based on assumptions that have not been validated.

### **Board Discussion and Questions**

Susan Leckband Non-union, Non-management Employees (Hanford Work Force), stated she likes that the document attempts to look at the whole picture of cleanup at Hanford. She added that she is still concerned about groundwater. She asked if groundwater remediation will be done only from wells or if there will be a comprehensive plan developed. She noted that groundwater is not one of the scope elements. Larry Romine stated that groundwater is very important. It was scoped, but had not made it into the Plan yet. He reiterated the document is evolving and will continue to be improved as cleanup continues. Larry stated they did identify all the wells that need to be considered. Dennis added that currently the groundwater in the Central Plateau is being handled in four discrete units.

Leon Swenson, Public-at-Large, noted he is glad that DOE is looking at the big picture and has developed a document to look at all the elements together. He expressed concern that the budget numbers that Margo presented imply a level of accuracy that isn't true. He also stated there are disconnects presented with the risks and opportunities in Chapter 7. He suggested DOE look at these proactively and flag them, so that the regulators and the public know they are cognizant of the issues.

Ken Niles, Oregon Department of Energy (State of Oregon), stated that, after reviewing the Plan, Oregon is concerned about the assumptions and proposals within the Plan. They have submitted comments, but the main issue they have with the plan is that they feel the default position is to just cap everything unless there is a reason not to cap. Ken noted the volume of material required to cap everything in the Plan would be staggering. He realizes this is a planning document, but when a plan comes out with assumptions that are severely flawed, he would like to see the regulators come out more strongly against it.

Maynard Plahuta, Benton County (Local Government), stated that, while he understands why the regulators might want to wait until the regulatory documents are in, he encourages the agencies to get together and discuss the assumptions before things have progressed too far. He asked if the 300 Area was included in the Plan. Larry clarified the Plan does not address the 300 Area or the river corridor, noting that the area included is not a perfect square or rectangle. Larry stated that he would like to see the area more closely

defined, as there are some things in the 600 Area that he feels should also be addressed in this planning effort.

Pam Larsen asked how much of the planning effort was developed in conjunction with the End States planners. Larry replied that the planning efforts are being coordinated, but he is unsure as to what level of detail. He also pointed out that, with this discussion, the Plan is doing just what it is supposed to do by stimulating discussion. Pam also asked when the End States document would be ready. Matt McCormick, DOE-RL, said there will be a workshop in the spring and the document will be available after that.

Shelley Cimon, Public-at-Large, said she is excited that DOE has begun to quantify what is out there and has started to get a visual picture of the site. She asked if they were planning to use this document to focus on zone closure. Larry replied that it is not clear yet whether the outcome of the document will simply be a revision or if it will be a new baseline. He did caution the Board not to confuse this baseline with the one that is being developed by DOE-HQ.

Rob Davis, City of Pasco (Local Government), stated he thinks that it is too easy just to cap. He would like DOE to consider the retrieve, treat and dispose strategy. Rob believes that DOE and the regulators would be much more innovative if they considered retrieve, treat and dispose. He does not think that capping should be the first option and pointed out that the point of the Environmental Restoration Disposal Facility (ERDF) was so that there wouldn't be multiple smaller landfills each requiring separate monitoring and security.

Norma Jean Germond, Public-at-Large, asked whether there will be any changes to this document before spring. Larry replied that, since the document is a planning tool, there is no way to be certain whether or not there will be changes. The Plan is one approach to planning to help identify initiatives and work through the process. Norma Jean asked if DOE was going to make certain to add a cover letter to the document before sending it to DOE-HQ, making it clear that the document is just a planning tool and that there is a lot more information still coming. Larry pointed out that right now the document is a Fluor product. He assured the Board that DOE will be looking at it and fine tuning it before sending it to DOE-HQ.

Jim Trombold, Physicians for Social Responsibility (Local and Regional Public Health), stated that he is concerned the Board's concerns will not be incorporated into the document before it is sent to DOE-HQ, but that DOE-HQ will be told that it was discussed with the Board, giving a false sense of consent. He also believes that the decision to cap is being made solely based on cost. He would like to see the documents changed now, rather than waiting for the RODs.

Dick Smith, City of Kennewick (Local Government), also expressed concern that waiting for the RODs to make comments and changes is too late, as there is not sufficient opportunity to affect change at that time. He added there is no mechanism between the planning document and the ROD to make comments.

### **Caps and Barriers Tutorial**

Kevin Leary, DOE-RL, gave an overview of surface barriers for waste containment. This was a presentation similar to one he had previously presented to the River and Plateau (RAP) committee. Kevin started with an overview of the remedial alternative selection process. Primary factors influencing initial remedial alternative selection include: regulatory compliance, Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) criteria, remedial action objectives and preliminary remediation goals, and input from stakeholders and tribal members. Site-specific factors that are incorporated into the primary factors include: characteristic of contaminants, depth of contaminant, extent and volume of contamination, location of contaminant, waste acceptance criteria at ERDF, modeling of contaminant movement, and cost. Kevin stated that, while there is no site-wide policy on barriers, the evapotranspiration (ET) barrier will likely be the barrier of choice for the Central Plateau. He noted that long-term stewardship and institutional controls, as recorded in each ROD, will determine the need for long-term budgets.

Original RCRA barriers were designed to shed water away from the barrier and buried waste. ET barriers are designed to build on lessons learned from the original barrier designs. They act like giant sponges, holding the water until the vegetation begins to do its thing. The ET barriers rely on the water storage capacity of the soil. Kevin stated that they are planning on capping four of 33 sites in the U area. They are currently performing analyses to ensure that the silt layer is thick enough to hold even during times of low transpiration or fire. An ET barrier should be of sufficient thickness to store moisture generated from extreme conditions.

The two most common types of ET barriers are the Monolithic (or Monofill) ET barrier and the Capillary (Anisotropic) ET barrier. The primary difference between the Monofill ET and the Capillary ET is a fine sand interface layer in the Capillary ET barrier. The contrasting soil layers produce a pressure differential, preventing water from moving down until the soil is completely saturated. This causes the water to flow off. When building several Capillary ET barriers near each other, water must be channeled and routed away from the barriers. Kevin stated that ET barriers are gaining support and acceptance but long-term barrier performance is a major concern. Methods to alleviate concerns include: mimicking natural analog sites in barrier design, rainfall simulations, erosion studies, modeling, and barrier performance monitoring. Long-term monitoring can be done with a combination of redundant systems, installation of multiple sets of monitoring equipment as back-ups, and the continual evaluation of new technologies.

### **Regulator Perspectives**

John Price talked about cleanup principles. Ecology prefers to remove, treat and dispose (RTD) if it is practical. If the cost of capping is close to RTD, then RTD is the preferred cleanup strategy. Part of the reason is because of the cost of long-term monitoring of caps. John expressed some concern with the use of vadose zone monitoring to predict the success of the barrier. In one instance, Ecology was not comfortable with the degree of vadose zone characterization. They would like to ensure that the vadose zone materials are taken into consideration. John also expressed concerns with the movement and storage of the vast amount of material that would be needed for such large caps and with the quality of construction. He questioned whether barriers could be constructed as they are designed. He also thinks that groundwater monitoring should be used in addition to vadose zone monitoring and suggested formulating a plan for what to do if the barrier doesn't work as it is designed.

Dennis Faulk stated that, as Kevin mentioned, the barriers required by RCRA didn't work and now a lot of energy has been invested in the development of new barriers. He thinks it is a good idea to work with Mother Nature and take advantage of natural processes. He added that the simpler the barrier, the better chance it will work.

### **Board Discussion and Questions**

Pam said she is encouraged by John's response regarding the steps the regulators are taking to make sense of the site-wide conditions. She is relieved it no longer appears that there will just be a giant cap over the Central Plateau.

Wayne Lei, Oregon Hanford Cleanup Board (State of Oregon), asked why the RCRA caps had to be modified. He appreciates Dennis' transparency regarding that fact that these barriers have not been performing as expected, as he was mistakenly under the impression that the reason ET barriers were being investigated was because DOE was looking for cheaper and more easily accessed materials. He asked if there is a 15-year history with the engineered barrier and we know that it works, why isn't it the baseline at Hanford? He also it seems counterintuitive to concentrate the very substance you want to keep away on top of the material you are trying to protect.

Kevin responded the engineered Batelle barrier was originally designed to allow leaving transuranic waste in the ground. They have since noticed that there are problems with the multi-layer design, including problems with subsidence and tectonic activity. Regarding the "sponge-like" activity of the ET barriers, while it seems intuitive to shed the water away, the material that allows this activity is prone to swelling

and shrinking which causes large cracks in the barrier. Kevin did note the ET barrier would not be a good choice for sites on the western side of Washington, but that the high evaporation rates at Hanford make it an ideal choice.

Ken Niles noted he had recently participated in a bioremediation workshop and learned there are things that can be done under the cap to further immobilize the contaminants. Kevin replied that DOE does not feel it is necessary to do this at Hanford, as there is so little rain in the area. He has suggested installing a permeable reactive liner prior to putting the waste in, just in case there is an issue.

Susan Leckband noted that on page 13 of the Plan there is a statement regarding “stable disposal sites.” She asked what constitutes a stable disposal site. Kevin replied there is not an exact definition, as it depends on what is being capped and the possible degree of subsidence and degradation. Susan referred to page 17 of the Plan and asked what determines the depth and thickness of layers in a cap. Kevin replied the actual depths have not been determined yet, as they are still looking at climate changes and modeling with data and lysimeters, which will help determine the design. He also noted that placement of pea gravel stabilizes the soil and reduces wind erosion, thereby helping Mother Nature.

Helen Wheatley, Heart of America Northwest (Regional Citizen, Environmental and Public Interest Organizations), asked what is the longest term DOE expects these caps to last. Kevin responded that some are expected to last up to 1000 years. There are barriers in Nevada that are designed to build soil on itself, which should extend the life of the barrier.

Dick Smith stated that he thinks it would make more sense to simply take down the walls of U-221, and just leave the rest, as it has been determined to be such an impervious structure. Kevin replied that, in this case, it is probably mostly an aesthetic choice, as a vegetated hill would be more pleasing than a giant concrete monolith. Dick suggested covering the monolith with a little protective material, rather than using valuable material that may be needed elsewhere. Kevin agreed that should be investigated.

Paige Knight, Hanford Watch (Regional Citizen, Environmental and Public Interest Organizations), asked if there has been enough characterization done for in the U-plant area. John replied that there has been enough at all sites but one, where technetium-99 was found under the site. Ecology has asked DOE to recharacterize that site. Paige also asked about repair work on the barriers. Kevin responded that the monolayer barriers are self-healing, but the on-going operations and maintenance of the barriers are part of the considerations when looking at barriers. John added this is part of the reason Ecology feels that vadose zone monitoring, along with groundwater monitoring, is vital to determining if the cap is performing.

Shelley supported Kevin’s suggestion that rubbilized material be used as fill for barriers and void space. She suggested using the burn pit area as a staging site for material to be used to fill voids. She also noted that it would be most efficient to try to time the decontamination and decommissioning of suitable facilities with the construction of barriers that could use the material.

Rob Davis noted that putting a barrier on will be the final disposition for this waste as, once the barrier is on, it will not come off. He does not think that DOE should commit to something that is unproven and does not want to see Hanford turn into an experiment. Rob added the loam in the area is the region’s reserve and disturbing it would affect the Arid Lands Ecology Reserve. Rob has a number of questions he would like answered during the in-depth capping workshop in March.

Norma Jean asked what would happen to the caps if one or more of the earthquake zones beneath Hanford became active. Kevin stated there have been many studies on this due to the Basalt Waste Isolation Program (BWIP). Norma Jean also asked about the long-term budget for barriers, since they will require ongoing operations and maintenance costs well into the future. Kevin replied that he has been working with the institutional controls department to develop a plan for the long-term budget to ensure there is a plan for the maintenance of the barriers.

Maynard noted that caps seem to work best when depth of contamination is not a concern. He asked if the barriers have been tested when depth is a consideration. Kevin responded that they have shown barrier

effectiveness to a certain depth, but the regulators have asked them to come up with new technology to handle deep contamination. Dennis explained most of the contamination is not deep.

### **Caps and Barriers Policy Issues Workshop**

Todd Martin reminded the Board that one of the Board's priorities for the year is to develop overarching principles to help guide Central Plateau cleanup. The difficulty in developing these values, policies and principles is that it should be a simple process: the Board wants the values, policies and principles to lead to decisions about cleanup. But there are nearly 4000 aspects to cleanup, which makes it hard to come up with overarching values, policies and principles without some understanding of DOE's and the regulators' values. In working through this, it has become clear that the Board is missing important cleanup data. Todd added some of the cleanup just has to happen and one of those instances is U-221. That proposal will be considered later in this Board meeting.

Susan Leckband said in order to determine the conditions of acceptability, there are questions that must be asked. The Board will need to ask the agencies to share the information they have and the Board will ask questions. Overall the Board is shifting from product-based work to process-based work and that is what the workshop is about.

Board members divided themselves into two groups to talk about framing Central Plateau cleanup values specific to the caps and barriers discussions. After 45 minutes of discussion, topics from each group were reviewed. Below are the notes from the two groups' discussions.

#### **Characterization**

- Capping does not make sense unless enough information is available for the anticipated life span of the cap and the material being capped
- Size of the cap based on thoroughly categorizing
- What is the depth of the contaminants

#### **Post Capping Action**

- Assuming that institutional controls will fail, consider how safe the cap would be or how subject to intrusion and harm
- Consider fire in the design, especially with regards to ET barriers
- Must have institutional commitment to monitoring, maintenance, repair and or replace as necessary for intended life span of cap and the contaminant
- Develop criteria "triggers" for when maintenance, repair or replacement is needed for each cap.
- Control systems should be passive – minimize the number of caps/barriers that need active monitoring

#### **Capping Bias**

- Start with 9 CERCLA criteria
- The decision tree prior to "stabilize and cap" should include "in-situ" treat and dispose" parallel to the "retrieve and dispose."
- Need to evaluate real treatment options for waste sites in place – so RTD doesn't just become R-D
- Have all alternatives (in its broadest sense) been fully studied before selecting capping -- No "bias" for capping
- What are the assumptions that went into the decision (i.e. how long can I.C. be maintained)?

#### **Do No Further Harm**

- Should there be size limitations on caps – resource considerations (i.e. capping material)
- Consider impacts of excavation for all cover material

#### **Technical Concerns**

- In deciding to cap, need to evaluate any potential that the waste will migrate.
- What are ancillary considerations (i.e. new groundwater wells)



- Cap sizing and performance assessments should consider lateral transport.
- Capping decisions should be made on the composite groundwater analysis for a period greater than 10,000 years.
- Set a goal to increase treatment technology options
- Any remedy must consider groundwater pathways

### **Weighing Risks**

- Is the waste safer (or equally as safe) for both worker and long-term safety where it's at as opposed to moving it to ERDF?
- Need to know the impact of each alternative to: workers, groundwater, environment, etc.
- Worker (short term) vs. public (long term) risk – do we protect a “hypothetical person” in the future?
- What happens to maximally exposed individual vs. larger populations? How do you get a metric?
- Remember: We currently have safety controls in place for workers, but not for the public
- Can't assume RTD will result in risk reduction
- Ask: What's the risk? RTD is the ideal at all sites, assuming similar risks (first, be satisfied that removal is not the best idea)
- We need to find a way to display relative risks so we can make decisions.

### **Holistic Approach**

- Comprehensive approach to all source terms
- No waste site is an island – need comprehensive picture of what's going on around that site
- Zone approach – is it at the right scale? Central Plateau Closure Plan zones seem reasonable.

### **Costs**

- Short-term costs should not over ride long term life cycle costs or long term performance
- Are there cost issues associated with ensuring workers are safe?
- Does waste site location matter when deciding what's reasonable/acceptable cost? Yes. Why? What attributes matter? Is it core zone or buffer zone? Doesn't matter if it's in the core zone, does matter if it's outside the core zone.
- How accurate are the cost assumptions about barriers? What are the costs if they fail?

### **Board Discussion and Questions**

General consensus among Board members was that questions and discussion surrounding capping will apply to other aspects of Central Plateau cleanup. It was agreed that these concerns and ideas would be refined by a sub-committee and presented to RAP where it will be further vetted and then sent to Kevin, to be used in framing the workshop in March.

Todd pointed out what he thought was a new value coming from the discussion: the Board acknowledges that worker risk can drive the cost of cleanup. He wants to test as a Board statement that, when worker risk mitigation drives the cost of a remedy to be several times greater than a barrier, a barrier should be considered, all other things being equal. Pam stated another Board value: Hanford waste that remains on-site must be left in a facility or configuration that will be protective of human health and the environment for generations to come. If there is any risk of contamination migrating to the groundwater, the HAB has a bias to remove, treat and dispose. These will have further discussion when the Board is ready to adopt a product about barrier decisions.

### **U-221 Proposed Plan – Draft Advice**

This advice came to the Board without committee consensus. The main point of the advice is that DOE did not consider other alternatives and did not go into depth with the few alternatives they did study. The advice requests that DOE perform additional analyses on at least two other alternatives not covered in the proposed plan.

## **Board Discussion and Questions**

Ken Niles asked how long additional analysis would take. Kevin stated it would probably take several months to perform the analyses requested by Dick and Rob.

Craig Cameron, EPA, noted a broader range of alternatives was studied in phase 1 and those studies are available to the public. The Tri-Parties agreed to narrow the range of alternatives for more in-depth study. Craig also noted that when the canyon agreement principles were put together in 1996, the idea was that the canyons would be considered an asset to Hanford, rather than a liability. They were trying to consolidate, rather than just moving everything to ERDF. Craig does not think that a new feasibility study or an entirely new plan is necessary. He thinks this advice can be factored into the decisions being made based on the proposed plan.

Kevin stated that, when looking at a structure with 8 feet of concrete, it is more logical to leave it in place than to move it to a structure without concrete. The robustness of the canyon indicates it was built for disposal.

Dennis pointed out that, since this is the first proposed plan for the 200 Area, which alternative is best is not the germane issue. Looking at how cleanup is being communicated is the most important thing at this time.

Craig agreed perhaps DOE did not communicate the history of the proposed plan well enough, as alternative 6 was presented as the preferred alternative several years ago.

Dick Smith stated the thing that upset him most about the proposed plan is the underlying feasibility study. Typically, there would be documentation illustrating the exploration into how to make this a better plan, but that is not available. He also pointed out that there has been a lot of discussion regarding CERCLA alternatives, but no discussion of the primary concerns or the ranking of those concerns. He suggested that this approach would be a good way for DOE to look at and present this issue.

The advice was adopted.

## **M-45 Change Package – Draft Advice**

Al Boldt, Government Accountability Project (Hanford Work Force), introduced the advice. The change package propose to delay milestones by 15 months due to the schedule extensions for the Tank Closure Environmental Impact Statement and Bulk Vitrification tests. Shifting these two milestones makes sense, so that the data can be incorporated. The third milestone is on work planning activities from 2006-2008. The proposed extension would make the completion of the negotiation of the activities 5 months behind the start of the activities, making it an illogical milestone. The advice states that DOE should provide logical, progressive and realistic schedules and that M45-00C should be realigned to drive negotiations and be based on recent retrieval experiences and status.

## **Board Discussion and Questions**

There was some concern among Board members as to whether or not this advice is at the level of policy advice or if it is more of a letter or comment. Todd stated that it was the committee's intent to have it as an official comment on the change package. There is a policy aspect to it and a letter would not be sufficient, as it does not require a response.

Wanda Munn, Benton-Franklin Council of Governments (Local Government), noted a big concern was that the schedule is not based on most recent experience and status. Howard Gnann, DOE-Office of River Protection (DOE-ORP), responded that DOE-ORP is committed to take what has been learned and put that into a schedule. He is confident that there is already a process in place to take care of this.

Laura Cusack, Ecology, explained that when DOE-ORP and Ecology agreed to move the milestone and realized this caused a conflict with retrieval, they moved negotiations back to the end of 2006. Laura stated they recognize now that they probably will not be ready for additional retrieval beyond what is already in the milestone. This issue could be fixed easily by fixing the timeline in the milestone. Todd asked Laura to clarify if this meant that the negotiations were really for no activity. Laura said the negotiations are for no additional retrieval focus for 2007-2008.

Board members decided to submit a letter as a comment on the change package, rather than advice.

### **Board Chair Selection**

Todd Martin was the only nominee for Board Chair. There were no additional nominations. The Board confirmed the selection of Todd as Board Chair for a third and final term

### **Board Annual Self Evaluation**

Self-evaluation forms were handed out and Board members were asked to look at draft pages of the annual report when completing the form. The report was incomplete due to a disagreement among the agencies regarding verbiage. The final report should be ready by the March Board meeting.

### **Board University Seat Representation**

The Board earlier agreed to enforce the charter's participation rule. The first instance has occurred where the Board has sent a letter to a non-participating seat, Washington State University (WSU) Tri-cities, and has not received a response. Todd said the time has come for the Board to make a decision. The Board had several choices regarding the non-participating seat: they could choose to seek another university to fill the seat, assign the seat to an additional constituency, or abolish the seat altogether. Todd noted that abolishing the seat could increase the efficiency of the Board, but added that he wants the Board to make the decision consciously and not just go with the easy option.

Dennis noted that, historically, the university seats were public-at-large seats that were converted. Pam added that, in designating the seats for university representation, they were hoping to form a valuable relationship with the university. While some of the past representatives have made very valuable contributions, she thinks that some of the more recent representatives have participated more as individuals, rather than as university representatives. She has communicated frequently with the contact at WSU and the Board does not seem like a priority for them at this time.

Jim Trombold reminded the Board that they have been trying to get more participation, not less. He would like to stay with WSU or another academic institution.

Several Board members mentioned other local and regional universities, including: Columbia Basin College and WSU-Pullman. Board members were in general agreement that the seat should be maintained as a university/academic seat and that efforts should be made to appeal to all eligible schools.

Dennis reminded the Board to look at the charter to ensure they are following the correct procedures for filling vacancies. He noted that this is a cumbersome process for EPA and Ecology. Nolan Curtis, Ecology, and Joe Voice, DOE-RL, both encouraged the Board to think critically about what they have gained in the past from this and similar seats and to consider what they may have lost due to lack of participation. Joe reminded the Board that the university seat is a constituency representative.

The Board decided to make the vacancy and application letters available to Board members who will take them to local universities. The personal touch may help to impress the significance of a position on the Board as well as help explain the time commitment. Interested universities will be required to contact EPA and Ecology to complete the application/nomination process.

Todd clarified that, since WSU-Tri-Cities and WSU-Pullman are considered different entities by the university, WSU-Pullman can be contacted to gauge their interest. WSU-Tri-Cities is not eligible.

### **Tri-Party Agency Updates**

#### **DOE-ORP**

Erik Olds, DOE-ORP, reported that tank retrieval operations are continuing with tanks C203, S102 and S112 as the focus. C203 is nearing completion and will probably be done in the next couple of weeks. S112 is about 95% retrieved and will probably be the next that is completed. The Bulk Vitrification (BV) plant Research Design & Development (RD&D) permit was effective January 12<sup>th</sup> and construction work has begun. When the weather improves, construction will begin in earnest. DOE-ORP hopes to be making glass with tank waste by the end of the year. Work continues on the Tank Closure Environmental Impact Statement; a draft should be out for public review around mid-summer 2005. Waste Treatment Plant (WTP) construction continues, weather permitting. The facility is about 30% constructed and 60% designed. They are working on getting some revised seismic criteria for the facility.

Dick Smith asked Erik to remind the Board which retrieval techniques are being used at which tanks. Erik responded that C203 is vacuum retrieval, and S102 and S112 are salt cake dissolution. Dick said he is interested in how well the vacuum retrieval is working. Erik responded that, after some initial difficulties involving pipe length, vacuum retrieval is working quite well.

Susan Leckband asked if the seismic analysis will delay construction or significantly change construction plans. Erik replied that they do not really have a feel for it yet. There have not been any delays of construction at this time, aside from slight delays due to weather.

#### **DOE-RL**

Mike Weis, DOE-RL, compared 2005 to a senior year, stating that it is a year to reflect on past accomplishments as well as add to those accomplishments. Past accomplishments include getting the spent fuel away from the river and into dry storage; making sure that all the plutonium at the Plutonium Finishing Plant (PFP) is packaged and ready to move off-site; and retrieving over 1900 cubic meters of transuranic (TRU) waste from storage on the Central Plateau. DOE-RL has 5 focus areas for 2005, as this is the ultimate year in terms of funding. They want to make sure they are focused on stabilizing plutonium and moving it off-site. They are working hard to ensure a good strong technical path forward for moving plutonium-238 drums, currently in the burial grounds, off-site. Currently they store a small amount of material for the International Atomic Energy Agency. This complicates operations at Hanford because you have to have special cameras and have access for international inspectors to come in. While DOE-RL cannot physically move the material, they are working to have it moved in terms of paperwork. They are trying to swap it out for material that is at Savannah River. They have also found that some of the source waste at Hanford is valuable and useful to other sites, so that material is also being moved off-site. Another main area DOE-RL is focusing on includes working on the sludge and remnants in the K-basins. They have taken a small amount of sludge up to T-plant and are doing the operations necessary to put it into final disposal form. They are working to get all the sludge off the K East basin floor and are working with the regulators to ensure they have a ROD in place to protect the river. They are also working on the plan for U-plant. Mike also reminded the Board DOE-RL has many contracts coming up for renewal. The River Corridor contract is coming out soon in order to be able to execute the final closure of the 300 Area facilities.

Ken Niles asked if Mike could give a couple of examples of source term being moved off-site. Mike replied that he could get more specific examples of where source terms have been moved off-site. They have made shipments to the Waste Isolation Pilot Plant (WIPP), which is a good example of material being moved off-site and they are planning to accelerate their shipments to WIPP. Ken also asked Mike for the results of the studies on the cracks in the K East basins. Mike responded that they have found seven cracks in the walls and several more in the main basin. It appears that these crack are just surface cracks in the 2-foot thick walls, created when the basin was constructed and backfilled. DOE-RL believes the cracks have

been there since construction and had been painted over, but the material in the basin has etched the paint and cover. They have looked under the basin and have not found any evidence of the sumps being activated or signs of contamination in groundwater wells within a few hundred feet.

Susan Leckband asked if DOE-RL knows yet whether they will issue new requests for proposals (RFPs) or extend the contracts for the two main scopes of work. Mike responded they want to ensure a competitive process for all the work on the site, so are looking at how to do that site-wide. He stated that, in the spring it will be more obvious as to what the appropriate path forward will be. As for the River Corridor contract, the bids are in and in order to ensure they are making a good decision, the schedule is for the contract to be let in the spring.

### **Washington State Department of Ecology**

Suzanne Dahl, Ecology, stated that the BV RD&D permit did become final and construction is underway. She thanked the public for their comments, many of which were very helpful in writing a better and more protective permit. She also noted that the 2+2 melter configuration permit modification for the Waste Treatment Plant will be out for public comment in March.

Suzanne discussed the Integrated Disposal Facility (IDF) and its path forward. IDF has 2 cells, including a RCRA half and a non-RCRA half. Initially, Ecology had issued a temporary authorization, as they felt the siting criteria had been met and they were trying to help DOE move ahead. They were hoping to get State Environmental Protection Act (SEPA) coverage through the Hanford Solid Waste EIS (HSW-EIS); however, there are currently differences of opinion on the quality of this NEPA document, so they are unable to use it for their SEPA coverage, which is causing a delay in the issuance of the IDF permit. DOE-ORP has come to Ecology and asked about limiting the initial scope for the RCRA half of the facility, essentially eliminating the portions that are holding up the process. DOE-ORP has suggested they will resubmit the permit application, revising it to include only the immobilized low activity waste to come out of the WTP and the first 50 boxes to come out of the BV RD&D facility. There is a question of whether or not they have SEPA coverage to do that. Ecology believes that, although they cannot use the HSW-EIS, with the reduced scope they can use the original Tank Waste Remediation System (TWRS) EIS to find enough SEPA coverage to allow moving forward with the construction of the facility. The permit application will come in with reduced and restricted scope and Ecology would bolster that by putting permit conditions in. Right now the facility would not address off-site waste, mixed waste across the site or secondary waste from the WTP. Suzanne said Ecology is not pushing those off, but they are working to resolve the NEPA/SEPA discrepancies while still moving forward with work that must be done.

Gerry Pollet, Heart of America Northwest, stated it seems the value of the public input on the BV RD&D permit was that they found a path forward where none was seen before. He does not think it is a good idea to fast track this decision and he would like to see the revised documents made available to the public.

### **EPA**

Nick Ceto informed the Board that Mike Goldstein has resigned. He reminded the Board that EPA is still looking for several people to fill open positions. The EPA office is moving; they will probably have a lease by the end of the week. Nick was at an EPA federal facility leadership council meeting and mentioned a few things that came up in that meeting. First was the concern regarding shipments of waste across the DOE complex: other regions and states are very concerned that things are going to get clogged up. This illustrates the need for a national dialog. At this time they are unsure if this will be a DOE effort or if Congress will get involved, but it needs to happen soon, before things get out of hand. Second is that Hanford is struggling with groundwater, and most people are aware that this is a problem at other DOE facilities, but what came up is that this is also a common issue at other federal facilities, including Air Force, Army and Navy bases that have extensive groundwater contamination. It looks like there will be a larger public debate because the costs of groundwater cleanup across the country are extremely high and people are starting to wonder if pump and treat solutions are the best ones. Nick urged the Board to remain vigilant on this topic, as they will have a valuable contribution to make.

Nick stated it is critical to keep work moving in both the 300 Area and the River Corridor, so EPA is working to support both operations as best they can. DOE has requested to delay documents on the feasibility study for groundwater. Nick also noted that EPA and Ecology are going to request DOE-RL slow down demolition of the Fast Flux Test Facility (FFTF). They are concerned that money is being spent on something that is not a high environmental priority. He acknowledged that there are some other concerns with slowing down the work, such as whether or not the money would stay at Hanford or go to another site and what it could mean to current contracting.

Paige Knight asked whether the leaders are already debating the groundwater issue. Nick stated he does not know of a coordinated response. As a side note, the defense agencies are far less cooperative about cleanup. They have pushed back and do not want to pump and treat, but simply install institutional controls. There are cases where things are so contaminated that they could remove a huge amount of contaminants and still not reach minimum contaminant levels. There are people who think if it can't be cleaned up to drinking water standards, then why bother. This is a debate that is currently happening on a site by site basis, but there are things happening in Congress that will make it so that no one has a say. Nick wants the Board to be aware that this is something bigger than just Hanford at this time.

Rob Davis asked if Nick had any suggestions on how the Board might be involved. Nick noted as currently organized, it is hard for the Board to move quickly on decisions. Everything requires dialog and committee discussion. Nick suggested the Board empower a small group able to move more quickly, so as the national discussions continue, there would be someone who could speak, with caveats, in the Board's interest.

### **State of the Site Meetings**

Nolan Curtis explained the Tri-Parties have begun discussion about the State of the Site meetings, but those discussions have not been as extensive as they could have been. In the past there has been some disagreement as to what should be covered at the meetings. There is also a need for a Hanford cleanup priorities public meeting, a chance for the public to understand and have input into the budget process. The agencies have decided to go ahead with these two sets of meetings and hold them around the same time. They would like to hold the State of the Site meetings in conjunction with HAB meetings in June, September and December. This left the problem of when to have the budget meeting, which really needed to happen in the March timeframe. There are other issues that need to be addressed and Nolan invited the Board's comments.

### **Board Discussion and Questions**

Gerry Pollet expressed outrage that the agencies would consider decreasing the number of budget meetings during a year when extensive budget cuts are expected. The TPA requires the agencies to have public meetings about the budget. He noted the Board had just heard how DOE-RL is being encouraged to delay demolition on FFTF, but that has not been vetted with the public. Gerry thinks that it is too late to come to the public with information on the budgets in September and November. He stated the public wants and needs more information and opportunities, not fewer. It has been several years since a meeting was held in Spokane and Hood River has been dropped now, too. These are both areas that have expressed interest in the past. Nick responded that the agencies feel they are meeting the requirements. They think this is a better way to get the information out to the broadest range of people. It also allows a wider timeframe in which to share information, which is important, since budgets are not static and they change throughout the year. They are also hopeful that this will foster interaction between the Board and the general public. Mike Weis agreed with Nick, stating that the agencies are working with limited resources now, including fewer people.

Susan Leckband said she likes the idea of having the State of the Site meetings at the same time as the HAB meetings. She asked if the proposal was to have one budget meeting in Richland and that would be the only real opportunity to comment on the budget. She also asked if there would truly be an opportunity to affect the budget or if that would be more of an informational meeting. Nolan responded that, yes, the current plans are to have just the one budget meeting. They would like to be better about posting pertinent

information beforehand, so that attendees have time to review the material before the meetings and give useful comments during the meeting.

Ken Niles stated that, in recent years, especially with the current administration, the budget has been slow to come out and there has been very little time to affect it. It seems the meetings have shifted to a sharing of values, but the values of the Pacific Northwest have not changed. This year is a critical year for the public to provide input as to how they would expect to see things done. In the past, the State of the Site meetings were some of the most useful public meetings. Ken said he does not see the benefit of having the State of the Site meetings at the same time as the HAB, other than making it easier on travel schedules. He asked the agencies to reevaluate the schedule and not exclude Hood River.

Steve White, Columbia Riverkeeper, read a letter from Columbia Riverkeeper voicing strong objection to the decision to exclude Hood River as a site for the meetings. The letter opposed the schedule for the meetings and asked the Board to take a strong position in opposition to the agencies' plan.

Pam said in previous years the Board has had spreadsheets and information about the budget, but with the current administration the budget has been put back into a black box. There hasn't been too much outrage, but it is imperative the public have a chance to comment. She suggested the agency representatives present talk to their bosses and make sure they are informed about the issues surrounding these meetings.

Paige said the budget and State of the Site meeting have brought out crowds in the past. She agrees that budget constraints may necessitate having the State of the Site meetings at the same time as Board meetings, and she encouraged the agencies to hold the meetings in the evenings, as turn out is not usually good during the day.

Harold Heacock, TRIDEC (Local Business Interests), agreed State of the Site meetings are vital, but it is more the on-going process than the timing of the meeting itself. He noted the turn out for budget meetings is usually very low, and so he supports the idea of not having additional public budget meetings.

Maxine Hines, Oregon Hanford Cleanup Board, said receiving a bunch of paper is not as useful as attending a budget meeting. Being able to attend the meeting and see the agencies face to face is important for building trust.

### **Yakima Board Meeting Planning**

Amber Waldref, Heart of America Northwest, reminded the Board that the impetus for having a meeting in Yakima was to follow-up on a request from Martin Yanez, Public-at-Large, and initiate interaction with minority groups who are close to the site. The current plan is to have an open house right after the Board session on Thursday. The Public Involvement Committee (PIC) would like to make it an open and welcoming environment so that people feel comfortable and are able to ask questions and give feedback. There will be stations set up with information like the Oregon Office of Energy video and contractor and DOE displays. They are hoping to have some material translated into Spanish. Amber and the PIC encourage Board member support and participation. The PIC has created two subgroups to help with setup. One group is dealing with the core logistics of the meeting; the other is working on public relations and outreach before the event. The PIC would like other Board members' involvement in communicating the event to their constituencies.

Martin added the input of minority groups is important and he would like to see the agencies there to meet with the attendees face to face and share their knowledge. PIC is considering a public school as a meeting location. He would also like to see more college students involved. He will be inviting several of the Hispanic newspapers in the area, too.

Shelley asked if the focus groups mentioned at the Portland meeting were still being planned. Nolan replied they are still willing to conduct these, but they are not clear on what to focus on. The concerns of the less-informed public may not be in line with the Board's concerns.

## **Committee Reports and Issue Manager Updates**

Leon Swenson said the Tank Waste Committee (TWC) and RAP had a good joint meeting in January. They are encouraged by the progress they are seeing on the mass balance and the WTP. There is no plan for the committee to meet in February.

Pam Larsen reported RAP has received the Central Plateau plan and the issue managers have been given assignments. Maynard Plahuta will be chairing the February meeting. The committee will be looking at the ROD for ERDF and what material should be disposed of at ERDF. The committee is concerned with pre-70 TRU waste and will be discussing material that is retrieved and sent to WIPP. RAP is also trying to do a better job of following up on the various documents that are out for review, however, that is proving to be a challenge with the decreased number of meetings in which to bring issues forward.

Amber reiterated the PIC's main focus has been the Yakima meeting. The other issue from last fall is the tank waste fact sheet. That is currently on hold, waiting for the completion of the Tank Closure EIS.

Keith Smith, Public-at-Large, reported the Health, Safety and Environmental Protection Committee (HSEP) has received direct and appropriate responses from both Ecology and DOE regarding the stop work advice from November's meeting. Safety representatives have told him this response has been huge for them. The unions have responded, too, and are working to train their folks to understand and utilize stop work.

Gerry Pollet reported on the Budgets and Contracts Committee (BCC), noting the Board has just heard about the budget, public meetings and baseline priorities. The committee met in December and discussed a calendar for workshops and development of information. They are planning to develop advice to provide input on public meetings and what kind of input would be generated from meetings on budget discussions. The expectation is that the committee would discuss baselines and also issues related to Central Plateau closure and how to get a contract passed without years of protests. Some other things that should be reviewed are priorities in the baselines, the budget for groundwater, TRU retrieval, and the fact that there are no negotiating priorities set up for single shell tank retrieval and closure.

## **Board Business**

Todd Martin mentioned three agenda items for a March Board meeting: the list of issues to be sent to Kevin Leary regarding the capping workshop; information on the budget request; and, instead of a leadership retreat, perhaps a Board review of the way it does business and an open forum to reconsider the Board's approach.

Leon stated he thought a forum on how the Board does business would be worthwhile, especially in light of the discussion regarding filling vacancies on the Board. He would like to have an overview and a workshop session as well as a report on the self-evaluation results and perhaps some activity tied to the self-evaluation. Todd also noted that the new member orientation packet has not been revised in four years.

Pam expressed reluctance at having a wide open forum. She said the Board is currently running smoothly and she would prefer to not mess with that.

Maxine suggested producing a map of the site to help give new members a visual idea of where everything is. She would also like to see an acronym sheet.

Rob suggested the Board empower someone to collate recent technical issues that might be important to the Board.

Gerry pointed out the March Board meeting will be right after a budget workshop and BCC will have an educational role and may also have advice.



**Public Comment**

Ted Repasky, Confederated Tribes of the Umatilla Reservation (CTUIR), offered public comment on Thursday. He stated that a report the tribe did on the tank farms has just been released. He also wanted to invite the HAB to meet at the reservation in the future.

**Attendees**

**HAB MEMBERS AND ALTERNATES**

Jim Curdy, Member	Gerald Pollet, Member	Gary Petersen, Alternate
Norma Jean Germond, Member	Keith Smith, Member	Wade Riggsbee, Alternate
Harold Heacock, Member	Leon Swenson, Member	Dick Smith, Alternate
Rebecca Holland, Member	Jim Trombold, Member	Art Tackett, Alternate
Mike Keizer, Member	Martin Yanez, Member	Amber Waldref, Alternate
Paige Knight, Member	Al Boldt, Alternate	Dave Watrous, Alternate
Pam Larsen, Member	Shelley Cimon, Alternate	Charles Weems, Alternate
Susan Leckband, Member	Rob Davis, Alternate	Helen Wheatley, Alternate
Jeff Luke, Member	Maxine Hines, Alternate	Steve White, Alternate
Ken Niles, Member	Rick Jansons, Alternate	
Todd Martin, Member	Wayne Lei, Alternate	Ex-Officio
Bob Parks, Member	Wanda Munn, Alternate	Earl Fordham, Ex-Officio
Jerry Peltier, Member	Nancy Murray, Alternate	Debra McBaugh, Ex-Officio
Maynard Plahuta, Member	Vince Panesko, Alternate	

**AGENCY, CONTRACTOR, AND SUPPORT STAFF**

Steve Chalk DOE-RL	Rick Bond, Ecology	Jeff Daniels, Babcock Services
Larry Romine DOE-RL	Nolan Cutis, Ecology	Bryan Kidder, CH2MHill
Joe Voice DOE-RL	Laura Cusack, Ecology	Brad Smith, CH2MHill
Margo Voogd, DOE-RL	Suzanne Dahl, Ecology	Tammie Holm, EnviroIssues
Janis Ward DOE-RL	Dib Goswami, Ecology	Stacey Howery, EnviroIssues
Mike Weis DOE-RL	Jane Hedges, Ecology	Lynn Lefkoff, EnviroIssues
	Zelma Jackson, Ecology	Penny Mabie, EnviroIssues
Howard Gnann DOE-ORP	Ginger Wireman, Ecology	Becky Austin, Fluor Hanford
Eric Olds DOE-ORP		Lansing Dusek, Fluor Hanford
	Nick Ceto, EPA	Mark Gibson, Fluor Hanford
	Dennis Faulk, EPA	Barbara Wise, Fluor Hanford
		Kim Ballinger, Navarro
		Sharon Braswell, Nuvotec-ORP
		Mike Priddy, WDOH

**MEMBERS OF THE PUBLIC**

Julie Longenecker, CTUIR	Ted Repasky, CTUIR	Annette Cary, Tri-City Herald
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