

Oregon Hanford Cleanup Board Meeting,
Hermiston, Oregon
May 19, 2004

Present:

Board Members:

Barbara Jarvis, Chair
Norm Dyer, Vice-Chair
Larry Clucas
Norma Jean Germond
Michael Grainey
Maxine Hines
Paige Knight
Wayne Lei
Armand Minthorn
Marc Rogelstad
David Van't Hof
Doug Woodcock
Sen. Ted Ferrioli
Rep. Linda Flores
Nancy Murray

Absent:

Robert McFarlane
Eric Nisley
Sen. Dukes
Sen. Nelson
Rep. Jenson
Rep. March

Washington Department of Ecology:

Laura Cusack
Suzanne Dahl

Oregon Department of Energy:

Dirk Dunning
Lynda Horst
Susan Hughs
Doug Huston
Ken Niles
Tom Stoops

U.S. Department of Energy:

Eric Olds
Shirley Olinger
Mike Thompson
Steve Wiegman

Tribal representatives:

Ted Repasky, Confederated Tribes of the
Umatilla Indian Reservation
(CTUIR)
Tom Bailor, CTUIR
Stuart Harris, CTUIR
Gabriel Bohnee, Nez Perce Tribe

U. S. Environmental Protection Agency

Larry Gadbois

Members of the Public:

None

On May 18, 2004, the board took a tour of the Hanford site in Richland, Washington. The tour began with registration and related details at 7:30 a.m. in the federal building in Richland. The tour concluded at the federal building following a meeting with Keith Kline of U.S. Department of Energy (DOE), at 5:30 p.m. From there, board members traveled to Hermiston, Oregon.

The board meeting was convened by chair Barbara Jarvis at 8:13 a.m. on May 19, 2004, at the Oxford Suites Hotel, Hermiston, Oregon, and adjourned at 3:40 p.m.

Administrative

Ms. Jarvis opened the meeting on Wednesday with introductions around the room.

Minutes from the January 2004 meeting were sent out in advance of the meeting, and they were adopted without changes. Ms. Jarvis noted that the comments in italics in the minutes are not actually a part of the minutes and should not be included in the adopted version.

Mr. Niles advised that Oregon public meetings law requires that minutes of board meetings list the names of the board members who vote on any issue. It was acknowledged that keeping track of the votes may add a little time to the administrative tasks at the meetings but staff would endeavor to make the change as simple as possible.

There was discussion about the temporary appointment of Nancy Murray to the board. The board's by-laws allow the chair to appoint a volunteer public member to one of the board's committees, and it was decided that Ms. Murray would be appointed to the public involvement committee of the board, which allowed her to accompany the board on its tour of the Hanford site. Ms. Murray serves as Ms. Germond's back up on the Hanford Advisory Board. Her temporary appointment terminates at the end of this meeting.

Board members reviewed and discussed the updated version of the board's by-laws that were sent out in advance of the meeting. Section II(2) provides that any board member who fails to attend two consecutive meetings "shall forfeit office unless the member is prevented from attending by the serious illness of a member or the family of the member or for any other cause that in the judgment of the Governor constitutes a valid reason for failing to attend." This language sparked much discussion; it was thought to come from statute. If the language is in statute, it will not be changed. If not in statute, this section of the by-laws will not be approved until next meeting. Ms. Jarvis noted the procedures outlined in the by-laws for adding items to the meeting agenda and suggested that board members review the by-laws to understand the process.

Mr. Dyer moved to approve the by-laws; Ms. Germond seconded. A vote was taken to approve the by-laws. Those voting in favor were: Mr. Clucas, Mr. Dyer, Ms. Germond, Ms. Hines, Ms. Jarvis, Ms. Knight, Mr. Lei, Mr. Rogelstad, Mr. Woodcock, Mr. Grainey and Mr. Van't Hof. No one opposed. Motion passed.

This meeting is the last meeting for Mr. Dyer. His term on the board expires at the end of May, 2004. There were many kind words for Mr. Dyer, and he spoke favorably about his time on the board. The Oregon Department of Energy (ODOE) director, Mr. Grainey, presented Mr. Dyer with a plaque commemorating his many years of hard work on the board.

As a result of Mr. Dyer's departure, a new vice chair is needed. Ms. Germond nominated Paige Knight as vice chair; Mr. Minthorn seconded the nomination. Ms. Germond moved to elect Ms. Knight as vice chair; Mr. Clucas seconded. A

vote was taken to appoint Ms. Knight vice chair. Those voting in favor were: Mr. Clucas, Mr. Dyer, Ms. Germond, Ms. Hines, Ms. Jarvis, Ms. Knight, Mr. Lei, Mr. Minthorn, Mr. Rogelstad, Mr. Woodcock, Mr. Grainey and Mr. Van't Hof. No one opposed. Motion passed.

Ms. Jarvis discussed the need for an alternate for the Hanford Advisory Board (HAB), now that Mr. Dyer is leaving. Ms. Germond pointed out that a full member and an alternate to the HAB are needed. Mr. Clucas asked for an explanation of the time commitments involved. Mr. Dyer and Ms. Knight provided information about serving on the HAB. It was explained that the HAB membership role can be shared with others, as alternates, and it was suggested that members who might be interested first attend a HAB meeting. Mr. Clucas offered to attend the next meeting. Mr. Lei and Ms. Hines both volunteered to be alternates. Staff agreed to provide them with information about the next meeting, including travel and cost reimbursement procedures.

Ms. Horst discussed the reimbursement forms in the packets, and reminded members to initial and sign the forms. There was some discussion about whether members should fill out the forms completely with actual costs or accept per diem. Ms. Horst suggested that members submit the forms with their receipts and she will determine which way works best to assure that members are fully reimbursed for expenses. There was also discussion about another form in the packet that provides members with reimbursement for their time, at the rate of \$30/day. This reimbursement is in addition to the expense reimbursement, although some board members mentioned that they usually only send in one or the other. Both are allowed.

Details provided by members in the questionnaire that was sent out by staff was given to board members. Mr. Dunning explained how the information provided was recorded and analyzed to determine a ranking of those issues the board members want to focus on. Mr. Niles assured the board that the questionnaire and its analysis was not intended to exclude from discussion any issues of concern to the board; it was designed to get an idea of what folks were most interested in.

It was suggested that a future agenda item should be the development of a communications strategy that details how to communicate and to whom, including consideration of DOE, general public, other stakeholders, etc. Members liked the idea of creating a communication strategy. Mr. Van't Hof said he would be available to assist in outlining a plan to present to the board at a future meeting.

Update on Solid Waste Environmental Impact Statement (EIS)

Mr. Dunning discussed the history of the reviews done by the board and staff of the draft EIS. There has been no record of decision issued yet, but DOE is working on it. ODOE has taken strong exception to the proposal of declaring the condition of the groundwater beneath the site as irreversible and irretrievable. There was a conference call between DOE and ODOE about this concern, and DOE insisted that it did not intend to write off the groundwater. Further, during the site tour yesterday, Mr. Niles was given an

opportunity to review some of the language expected to be in the record of decision. The language commits DOE to cleaning up current groundwater contamination. The language will be acceptable to Oregon if it appears above the signature line in the document.

There was a discussion about what kind of resource groundwater is considered to be. It was explained that groundwater is considered a state resource; therefore, Washington Department of Ecology (Ecology) is the primary agency responsible for groundwater issues.

Risk Based End States

Mr. Dunning introduced Shirley Olinger and Mike Thompson from DOE, and then reiterated Oregon's position on the concept of risk-based end states (RBES).

Ms. Olinger discussed the RBES project at Hanford. Her discussion included key project dates and the current direction of the program. She discussed the RBES document content, draft alternatives (variances), and she went into some detail about the seven alternatives identified for the Hanford site:

1. Cleanup the 100 area waste sites to achieve remedial action objectives that are based on the Comprehensive Land Use Plan (CLUP) conservation and preservation land use exposure scenarios;
2. Cleanup the 300 area waste sites to achieve remedial action objectives that are based upon CLUP industrial land use exposure scenarios;
3. Cleanup the central plateau waste sites to achieve remedial action objectives that are based on CLUP industrial exclusive and conservation/preservation land use exposure scenarios;
4. Stabilize high radioactivity material in the 200 area onsite and allow radioactive decay prior to final disposition;
5. In-place disposal in accordance with the Comprehensive Environmental Response, Compensations and Recovery Act (CERCLA) of contaminated materials within the central plateau core zone;
6. Retrieve tank waste and close tank farms based on risk consistent with CLUP industrial exclusive land use and integration of the Resource Conservation Recovery Act (RCRA) and CERCLA;
7. Leave reactor pipelines in the Columbia River and reactor cores in place based upon CLUP conservation and preservation land use exposure scenarios.

She also discussed the reasons for evaluating this effort now in what she termed a mid-course evaluation and the proposed public dialogue on end-states. She detailed the comments submitted by the Hanford Advisory Board. She discussed the stakeholder workshops that would be part of the public dialogue, and what clarifications she wants from the public. She is hoping to receive information that is sustainable and useable. In response to questions, she said she does not expect consensus among stakeholders and others who comment and does not believe DOE HQ is expecting it, either.

There were questions about the need for this mid-course evaluation in light of the fact that an initial document was already prepared and submitted to DOE headquarters. Ms. Olinger explained that the assumptions used for the alternatives in that document were faulty because they were not based on risk based end states. DOE HQ has extended until December 1, 2004 the due date for submission of a revised Hanford RBES document that includes consideration of public, tribal, state and local government and HAB input. Board and staff emphasized that there is ongoing concern among stakeholders that DOE is focused on doing things cheaper without regard for environmental concerns.

Board members and staff asked Ms. Olinger what is meant by DOE's assertion that the RBES vision is not a decision document. She replied that the document is not a "record of decision" document. This generated much discussion and concern. Mr. Minthorn pointed out that many decisions will be made based on this document and therefore the tribes believe it is a decision document. Board members agreed, and it was suggested that DOE HQ has already made a decision and is using this document to justify the decisions, instead of the other way around.

Some board members commented that there is distrust of DOE-HQ, so any proposals from HQ are suspect. The board wants assurance that the people who live in the Hanford area and along the Columbia River are satisfied with the end state vision. Trying to plan now for site uses in hundreds of years is unrealistic and impractical, particularly when adequate institutional controls have not been identified. Ms. Olinger agreed that a long-term land use plan should not be predicated on a proposal that only extends for fifty years. Mr. Lei recounted his experience in Portland as part of a committee trying to anticipate land use out fifty years and how difficult it was to come to any realistic expectations for only fifty years, let alone hundreds of years.

Mr. Minthorn commented that the tribes have a good working relationship with DOE and Mr. Klein of the Richland office. He was disappointed that Ms. Olinger did not discuss the tribal use scenario. Mr. Minthorn said it was his expectation that government-to-government discussions on RBES between DOE and the tribes would take place and he was looking to Ms. Olinger to provide a schedule for these discussions.

Some board members wondered if DOE had contacted communities along the river to participate in the discussions about RBES. Ms. Olinger mentioned that Hood River, Portland, and Seattle had been contacted in April but they did not want to participate. She hoped that with the additional public dialogue planned there would be a more positive response to the request. Board members were quick to point out that there are many other communities along the river that will be affected by these decisions and requested that DOE contact these other communities.

There were discussions between board members about using the legislature or the governor's office to provide comments on the board's RBES concerns. Mr. Van't Hof pointed out that the board should use these avenues only when absolutely necessary, so as not to dilute its effect.

Public Involvement

Ms. Hughs discussed the forms sent out to board members, and pointed out the form for recording public outreach activities. She reminded board members to fill out the forms and send them back when they do presentations, including informal meetings like book clubs and other local community meetings. Staff has available a collection of electronic overheads, Powerpoint presentations and slides that are available for use, as well as a video that is in the process of being updated.

Trustee Issues

Ms. Hughs explained that a year and a half ago, the Yakama Nation filed a lawsuit under the superfund (CERCLA) law seeking damages for injury to the natural resources at Hanford. In April, 2004, the lawsuit was referred to mediation. U.S. Department of Justice (DOJ) will represent US DOE in the mediation. Recently, Oregon, Washington, and the Nez Perce Tribe formally requested an invitation to participate in the mediation. DOJ now has 30 days to respond to that request. If denied, Oregon will consider litigation.

The original lawsuit covered the 1100 area but has been amended to include damages to the 100 and 300 areas as well. The parties will decide the scope of the issues. This is a unique position for Oregon, and will help Oregon protect or replace the injured resources. There will be more information for the board as this progresses.

EPA and Tribal staff-to-staff meetings.

Mr. Niles provided the board with an update on staff-to-staff meetings ODOE has had, separately, with the Richland EPA staff and the CTUIR. In the packet of information sent to board members is a detailed listing of the EPA staff responsibilities.

EPA identified as big issue the B/C trenches, which the group parked near during the tour. Also, the carbon tetrachloride plumes in the 200 area is an area that EPA believes deserves greater focus.

These two issues are ones that EPA and ODOE and the board may be able to work together on. Traditionally, the board and ODOE have worked closely with Washington Department of Ecology (Ecology) staff. It would be desirable to achieve a similar cooperative working relationship with EPA.

Mr. Minthorn briefed the board on a meeting he and Ms. Hughs attended in Albuquerque, New Mexico, with the State and Tribal Working Group (STWG). The STWG members are concerned about risk-based end states and its effect on cleanup. There were concerns that the RBES process would limit rather than enhance cleanup.

In response to Mr. Minthorn's request, Mr. Niles provided the board with an update on the status of litigation relating to DOE's desire to reclassify tank waste. There are

currently options in the Nuclear Waste Policy Act for treating and removing tank waste. DOE does not want to follow that process and would rather have the discretion to determine the waste classification, and therefore the method of treating the waste, since treatment is based on classification. DOE's attempts to assert their authority to discretionarily determine the residual tank waste classification were met with a lawsuit, and the judge ruled against DOE. The case is now on appeal. ODOE is actively involved in this case. Mr. Minthorn mentioned that some of the tribes have asked to join in this lawsuit, as well.

In the meantime, DOE has enlisted the help of Senator Lindsey Graham of South Carolina to insert language into a defense spending bill that would give DOE the authority to reclassify the tank waste at the Savannah River site, located in South Carolina. Washington and Oregon, and other states, are concerned that such language, if passed, would set a precedent at sites other than Savannah River.

There was much discussion about attempts by various legislators to either push the language through or get it stricken. An advertisement by the Natural Resources Defense Council was published that morning in the *Portland Oregonian* urging the public to voice their opposition to the language.

Following this there was a lengthy discussion about what options were available to the board in order to voice its concern on this issue. Suggestions were made for the board to write an op-ed piece for publication in the *Portland Oregonian* and/or a news release for wider distribution. Ms. Jarvis reminded folks that because this request for action – the op-ed piece or news release - was not on the agenda, the by-laws required a vote indicating that the issue is of such urgency that action must be had at this meeting and not put off until the next meeting.

Ms. Knight moved that this issue is too urgent to put off until the next meeting and therefore needs to be added to this agenda. Ms. Germond seconded. Those voting in favor of the motion: Mr. Clucas, Mr. Dyer, Ms. Germond, Ms. Hines, Ms. Jarvis, Ms. Knight, Mr. Lei, Mr. Rogelstad, Mr. Minthorn, Mr. Van't Hof, and Mr. Woodcock. No one opposed. Motion passed.

There was further discussion about whether the issue should be addressed by way of an op-ed piece or a news release. Mr. Niles explained that the *Portland Oregonian* does not like to run op-ed pieces that are submitted to other papers. A news release would get wider distribution, but op-ed pieces are more effective.

Mr. Dyer moved that the board direct staff to draft a news release explaining Oregon's issues as discussed and that the release be signed by the board chair. Mr. Clucas seconded the motion.

Following much discussion about the differences between a news release and an op-ed piece, there was a request that Mr. Dyer amend his motion to request an op-ed piece instead of a news release. Ms. Knight moved that the board direct staff

to write an op-ed piece on behalf of the board. Mr. Clucas seconded. Those voting in favor of an op-ed piece: Mr. Clucas, Ms. Germond, Ms. Hines, Ms. Jarvis, Ms. Knight, Mr. Lei, Mr. Rogelstad, Mr. Minthorn, Mr. Van't Hof, Mr. Woodcock, Mr. Grainey. Abstaining: Mr. Dyer. Motion passed.

Lunch discussion

There were many questions asked and observations shared about the site tour. It helped considerably to actually see the facilities and areas that are discussed in the board meetings.

Many comments centered on the waste treatment plant (WTP) under construction; it is huge and expensive and is designed to treat high-level waste, low activity waste, and will have a pre-treatment facility as well.

During the tour, a demonstration project site was also visited. This site is designing "bulk vit" treatment; staff noted that the containers in which the vitrification occurs look like dumpsters, so staff is now referring to it as "dumpster vit." This demonstration project is quite small, basically a few people working out of what resembles a garage.

Comparing the two facilities raised questions of why DOE is constructing a huge facility that will cost \$600 million to treat low activity waste if it can be done via the dumpster vit process.

Mr. Huston explained that the WTP being built to deal with high-level waste and some low activity waste is a holdover from a previous contract. Originally, the WTP was designed to deal with only some of the waste and was to be a pilot for a larger facility. The Tri-Party Agreement (TPA) presently requires that all of the waste be processed at the WTP.

At this point, the WTP is not large enough to process all of the waste it is intended for, so DOE began to look at other technologies to deal with the rest of the waste, in the hopes of avoiding having to construct another WTP. Bulk, or dumpster, vit is one of the supplemental technologies being looked at. It is too early to tell if this alternative will work, but it looks promising, and during the tour board members saw some examples of what the end product might be. There is no data to determine what the ultimate cost of this alternative might be, and there are technical issues yet to be dealt with.

Groundwater Update

All areas of Hanford have contaminated groundwater. There is currently about 100 square miles of groundwater that exceeds drinking water standards. It is a significant issue and will factor in when injury and damage to the natural resources is determined.

Mr. Stoops had members recall an area visited during the tour that consisted of a series of pipes sticking out the ground, in close proximity, along a line 680 meters long, in the 100

Area. The pipes indicate what is called the in-situ redox manipulation (ISRM) barrier. This is an area where it has been found that hexavalent chromium is present in the groundwater and is moving towards the river. The ISRM barrier consists of chemicals pumped into the ground water to create a barrier in an effort to stop the movement of the contaminant. This attempt is proving unsuccessful and DOE is working on other ways to stop the contaminant from reaching the river. A pump and treat system is installed and is being expanded to help reduce the concentrations of contaminants in the ground water, and will give DOE some time to determine the best course of action.

The BC cribs area is considered a high-risk area by the Tri-Parties and, as such, is being included in an effort to accelerate characterization, investigation and cleanup efforts in the next few years. The BC cribs are located south of the 200 East area on the central plateau of the Hanford site. Because of the release of some highly radioactive particles to the surface in this area, there is a radiation control zone around the area, preventing access. During the tour, the bus stopped at a place allowing members to see the general area of the cribs, from a safe distance.

The BC cribs area is where large amounts of contaminated liquids, by-products of plutonium production, were discharged directly to the soil. Over the entire Hanford site, it is estimated that 450 billion gallons of liquids were discharged into the ground, raising the water table up to 100 feet above the water table. The BC cribs areas alone received over 50 million gallons of liquid waste. As a result, the BC cribs areas contain some of the most concentrated radioactive and hazardous waste disposed to the ground at Hanford, including the largest inventory of Technetium 99 (Tc-99).

There was discussion about DOE's use of analogous site strategies for some of these areas. Staff is concerned about using analogous strategies because it is not known what went into each waste site and it is not known how lateral flow affects each site. Tc-99 is highly mobile, yet DOE is of the belief that there is no way to remediate it.

To give some perspective, Mr. Repasky related information from a workshop he attended on the 300 Area. It was originally projected that the uranium present in that groundwater would degrade over ten years. Ten years have passed and the uranium is still there, indicating that DOE's projections are incorrect. Mr. Repasky indicated that the uranium in the river currently exceeds human health standards. The tribes are very concerned.

The board has reiterated over the years, through letters and with its report, *River Without Waste*, that cleaning up the groundwater is of utmost importance. There was much discussion about whether the time has come for the board to restate its position on groundwater, and if so, in what form it should be done. There were suggestions that the board should write a letter and highlight the issues of primary concern. Mr. Gadbois of EPA recommended that the letter provide specific concerns and recommendations.

Mr. Minthorn moved that the board and CTUIR send a joint letter to the Tri-Parties reiterating the recommendations in the *River Without Waste* report and including references and concerns about the hexavalent chromium and strontium

in the 100 Areas, the carbon tetrachloride in the central plateau and the uranium in the 300 Area. Ms. Knight seconded. Thereafter, Ms. Germond moved to amend the letter to address only the strontium. Her motion to amend failed for lack of a second. Those voting in favor of Mr. Minthorn's motion were: Mr. Minthorn, Mr. Grainey, Ms. Hines, Mr. Lei, Ms. Knight, Mr. Dyer, Mr. Rogelstad, Mr. Clucas, Ms. Jarvis, Ms. Germond, Mr. Van't Hof, and Mr. Woodcock. No one opposed. Motion passed.

Tanks update and M-45 milestone changes

Mr. Huston reintroduced Steve Weigman of DOE; the board met him on the tour. Mr. Weigman drew members' attention to photos included in handouts passed out during the tour. The handouts show the condition of single shell tank (SST) C-106, and diagrams of proposals for removing or encasing some of the tanks. Mr. Weigman explained that the waste remaining in tank C-106 is transuranic and may be high level waste; they are still awaiting lab results. DOE is looking at the cost benefits of removing the last of the waste in C-106, as it requires three separate retrieval operations: pump, then add water, then add oxalic acid. It will take several million dollars and more equipment to get the rest of the waste out of the tank.

Suzanne Dahl of Washington State Ecology (Ecology) questioned Mr. Weigman's comment that the sludge was transuranic. She said that federal statutes provide that if the waste was ever classified as high level waste, it can not then be classified as transuranic. Mr. Weigman conceded that he could not answer her question at this time. The waste has many characteristics of transuranic and DOE would like the option of treating it as transuranic. This is one of the reasons DOE wants authority to reclassify waste.

DOE wants to treat some of the tank sludge with a supplemental technology process – bulk vit - instead of sending it to the waste treatment plant. If they get permission to do so, sludge could be taken care of before the WTP is completed and thus avoid the current down time while waiting for WTP completion. Doing so could mean that the sludge would bypass pretreatment altogether.

Mr. Weigman acknowledged that it is necessary to select different combinations of technology for each tank, based on its contents. For example, four of the C-200 series tanks will be vacuumed, the first attempt at using this technology. In response to questions, he explained that the volatile gasses present in the tanks are a fundamental component of the calculations used to determine the appropriate technology.

Board members expressed concern that DOE was allowing waste to sit in the SSTs waiting for the WTP to be built when some of the SSTs are leaking. Mr. Weigman said DOE is pumping the liquids possible to remove from the SSTs, but DOE can not guarantee that this will stop the tanks from leaking, although he is confident they are not leaking now.

There is an Environmental Impact Statement (EIS) due out in October 2004 that will discuss various end states for closure of the tanks, including clean closure (digging up and hauling the tanks offsite), modified land fill closure, and a no-action alternative. DOE wants to talk to stakeholders before October to understand their positions relative to tank closure. The EIS will look at the tanks system as a whole, and then a closure plan will be developed for each tank individually.

Ms. Dahl explained that the TPA requires that tanks be cleaned up to the limits of available technology, or so that no more than 350 cubic feet of waste remain in the large tanks, 30 cubic feet in the smaller tanks. If either are exceeded, DOE must apply for an "Appendix H" waiver, in accordance with the requirements of the TPA. Ecology will not approve a closure plan on tank C-106 until it is satisfied that the TPA criteria have been met and required procedures and processes are followed.

Mr. Huston introduced Laura Cusack of Ecology. Ms. Cusack explained that recent negotiations concerning TPA milestone M-45 created a new appendix to the TPA called Appendix I. Appendix I creates a number of new TPA primary documents. "Primary documents" generally address a major decision or issue. Primary documents do not require public involvement. Some of these new documents take information that currently exists that requires public involvement and moves that information into a primary document that doesn't. Other Appendix I documents create requirements for new information that was not required before and which staff believes should include public involvement requirements.

For example, previously, DOE was required to provide a document to Ecology entitled "Tank Retrieval Functions and Requirements." This document has been renamed "Tank Waste Retrieval Work Plan" (Work Plan). The Functions and Requirements document was not required to go out for public comment. The new Work Plan document likewise has no public comment requirements, but staff is concerned because the new Work Plan will contain a new requirement, a pre-retrieval risk assessment that would not have public input. Staff believes the public should have the opportunity to advise DOE whether it agrees with DOE's assessment of the risks for retrieving a tank before the tank is retrieved.

One of the issues in the M45 milestone change package currently out for public comment is Ecology's decision to include a deadline for tank closure, once the closure plan has been approved. Ecology has established a 12-month deadline from approval to closure of the tank. Previously, there was no deadline for getting a tank closed once the closure plan had been approved.

There was much discussion about the board taking a position with regard to the creation of Appendix I. The board shared staff's concern that some information may not be available for public review. It was decided that the board would send a letter to Ecology and DOE about its concerns identifying those items contained in Appendix I that the board believes should continue to require public review.

Ms. Knight moved for the board to direct staff to write the letter about Appendix I to Ecology and DOE. Ms. Germond seconded. Those voting in favor of the motion: Mr. Grainey, Ms. Jarvis, Ms. Knight, Mr. Lei, Mr. Minthorn, Mr. Rogelstad, Ms. Germond, Mr. Clucas, Mr. Woodcock, Ms. Hines. Those abstaining: Mr. Dyer. Motion passed.

Ms. Dahl mentioned that a public comment period was currently open on DOE's request to modify its permit for the vitrification plant to allow two low-level waste melters and two high level waste melters, and to take out the requirement for technetium removal from the pretreatment process. Public comment closes on June 9, 2004.

K-basins/spent fuel project

Mr. Dunning updated the board on the status of the spent fuel removal from the K-basins. Although the project is behind schedule, it is moving forward and progress is occurring. About 83-84% of the spent fuel has been removed. Once that is done, the next big issue is removal of the sludge remaining in the basins.

Mr. Dunning introduced Larry Gadbois, EPA Project Manager for the K-basins. Mr. Gadbois provided some background on the K-basins area. Significant clean up has been conducted, cribs have been removed, cooling basins are removed and excavation of the Mile Long Trench commenced this year. In response to questions, Mr. Gadbois explained that the trench area will be excavated to a depth of fifteen feet, based on the future use scenario. He said typical excavations are to fifteen feet unless an engineered structure is removed. The groundwater in this area has about 8 parts per billion of chromium, which is currently being managed by a pump and treat system.

The sludge remaining in the two basins, K-east and K-west, contains about 95% of the radioactivity in the 100 Area. The fuel in the basins – the basins look like large swimming pools - was stored in canisters, many of which have corroded. The resultant sludge is highly radioactive. In addition, a variety of debris has fallen into the K-East basin. This debris is considered transuranic waste and will ultimately go to WIPP if it can be processed into a form acceptable to WIPP. Such a process will cost in the hundreds of millions of dollars, and is expected to begin in 2007. There is also uranium in the basins, which can create hydrogen gas, creating an explosion potential.

EPA is negotiating with DOE to develop a new schedule for the removal of the sludge. Mr. Gadbois presented a copy of the tentative agreement on these negotiations. The negotiations are required because DOE and its contractor, Fluor Hanford (Fluor), recognized that they were not ready to move ahead. Fluor recently completed their readiness review and DOE began its review of the readiness review on May 18, 2004. Because the project is behind schedule, EPA levied fines against DOE in the amount of \$76,000. Because Fluor had contracted with DOE to do the work, DOE passed the fine to Fluor.

Mr. Gadbois said that EPA recognizes that there is no way to decontaminate the fuel basin, and explained that pouring grout into the basin will allow for shield and contamination control. The basin would then be cut up and disposed into the on-site landfill at Hanford.

Mr. Minthorn pointed out the location of tribal burial ground in the K-area that constrains how surface work could be done near the river. Mr. Minthorn explained that the tribes believe the burial grounds are associated with an archeological site. The tribes are interested in using the cemetery again and are negotiating with DOE about that and about the salmon spawning beds in the river near that area.

Public comment

There was no public comment offered.

The meeting was adjourned at 3:40 p.m.