

DRAFT MEETING SUMMARY (v.0)

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HANFORD ADVISORY BOARD

TANK WASTE COMMITTEE

March 13, 2003

Richland, Washington

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

Welcome and Introductions

Doug Huston, committee chair, opened the meeting and welcomed the committee. The committee adopted the January meeting summary.

Technetium (Tc-99) Removal in the Waste Treatment Plant (WTP)

The committee discussed the draft advice written by Doug Huston expressing concern about the Department of Energy-Office of River Protection (DOE-ORP) decision to eliminate Tc-99 removal from the WTP pretreatment process. Several committee members commented that discussing advice seems premature; they would like to see further information presented on Tc-99 focusing on what Tc-99 it is, its status in the groundwater, and the rationale behind DOE-ORP’s decision.

Erik Olds, DOE-ORP, admitted DOE knows they have muddled the process. DOE-ORP intended to have meetings with the Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology) before addressing the committee. DOE-ORP had hoped to have a chance to align with the regulators before coming to the public and so was not prepared to comment to the committee at this meeting.

Regulator Perspective

Suzanne Dahl, Ecology, commented Ecology's concern is that while Tc-99 represents a small component of the waste overall, it is significant as compared to what is disposed of at other waste sites. Also, even two or three thousand years out, the effects of it on the groundwater may just begin to be seen. Ecology has issued a letter to DOE stating their position that Tc-99 should be stored in the geologic repository and not disposed of on site.

Committee Discussion

- Al Boldt commented on the DOE-ORP letter to Ecology. He suggested the board recommend that DOE-ORP take these changes to the Nuclear Regulatory Commission (NRC) for approval, as DOE is not a self-regulating agency.
- Several committee members expressed concern that the acceleration schedule is pushing decision processes and the public is not being involved. The tendency appears to be to forge ahead with decisions without sharing the rationale behind them. The committee would like to hear DOE-ORP's rationale for eliminating Tc-99 removal from the WTP capability. In addition, the committee would like DOE-ORP to present this rationale to the public so that the public can understand the implications of this decision.. The purpose of advice at this stage is to note that information has not been made available by which the public can understand the compelling reasons behind an important decision to change the baseline.
- The committee agreed that Doug Huston, Leon Swenson, and Jeff Luke will work on the draft advice further and circulate it to the committee in the next few days.

Update on the Office of River Protection Operations

Roy Schepens, Manager of DOE-ORP , updated the committee on how work is progressing in the field. The first major milestone for the vitrification plant, placing the first structural steel for the Low Activity Waste (LAW) building, is October 3, 2003. They are forecasting a start date for installation of July of this year and expect to be on track or ahead of schedule. The Environmental Impact Report (EIR) team is on site to follow up on the baseline cost and schedule for the vitrification plant. The team will issue its report next week. DOE-ORP is scheduling a review board meeting and then will request approval from DOE Headquarters (HQ) to go ahead with the full construction of the vitrification plant.

Two tanks, C103 and U111, have been cleared for interim stabilization and two are currently under review for possible interim stabilization, B105 and SX103. A Tri-Party Agreement (TPA) change request has been submitted to Ecology for these tanks to be removed from the consent decree, which would allow them to go into waste retrieval mode. DOE-ORP is ready to remove the rest of the waste, however, they need approval

to begin adding additional water to the tanks. They also need to obtain approval to accelerate the start of waste retrieval by six months. Roy noted that when he first arrived at Hanford, he was told completing a tank closure or reaching an interim stabilization by September 2003 was not achievable.

Roy also noted that DOE-ORP is actively working with CH2Mhill Hanford Group (CHG) on transuranic (TRU) waste retrieval activities.

Recovery Plans for Problems at the Waste Treatment Plant (WTP)

Rich Tasetti and Ron Naventi, Bechtel National, Inc.(BNI), addressed the progress made on the recovery plans for problems at the WTP. One of the biggest challenges facing the project is safety, but the message is beginning to be heard that safety is one of the most important issues on site: they have currently worked 8.5 million hours without a lost-time accident. The Integrated Safety Management (ISM) validation team and an independent DOE evaluation team have visited the site and identified areas for improvement. A Dangerous Waste Permit Application has been received for the pre-treatment facility and BNI is ready to start progressing on the backlog of construction work.

One of the major issues encountered was the aggressive schedule developed when the team was first brought together. When it was time to begin the important safety construction work it became apparent that the engineering staff did not have enough time to review plans and keep up with construction. It was necessary to bring in more staff; however, being from diverse business cultures, each person had his own method of working. Near-term corrective actions were implemented to help with these differences. It was also discovered that while the staff were all proficient technically, some were ineffective supervisors, so BNI worked to shift the skill sets around to obtain the most productive work force.

Validation of everything built to date was done to ensure the safety requirements, quality controls, and technical specifications were met. Improvement has been seen over the last several months, but BNI is not ready at this time to remove the near-term corrective actions. An updated forecast for the project schedule and baseline was submitted to DOE-ORP and is currently being reviewed by an independent audit team. BNI has had to delay the schedules for the intermediate milestones, however, they are still looking to deliver the plant before the 2012 TPA deadline. These changes demonstrate the plant will have the capabilities to handle the interim process by 2018 and the High Level Waste (HLW) treatment by 2028. The pre-treatment capacity of two melters will be able to process the same amount of material as the three originally planned for but there will be an empty bay in case a third melter is needed at some point in the future.

Committee Discussion

- Al Boldt asked about the current schedule for hot commissioning. Ron stated the original schedule allotted 37 months for hot commissioning. The ratio for the amount

of time to build versus the time for commissioning was not correct: there was not enough time allotted to build in terms of the engineering needed on the front end, so more time in cold commissioning is necessary.

- Several committee members asked if a third LAW melter needs to be added, would the same issues faced with the addition of a second HLW melter be encountered? Ron replied that would not be the case since the WTP is being built with the capacity for a third melter and no re-design would be necessary. DOE-ORP specified the ventilation and support systems have to be in place for the third LAW melter. It could be added during a regular maintenance or closure. The cost to re-engineer and change the order is more than the cost of just building to be ready for a third melter.
- Doug Huston asked if the revised baseline will still be ready by the end of March. Ron stated it should be ready but still has to be approved by the DOE-HQ.
- Todd Martin asked for a clarification of the number of times ORP has to go to HQ for approval on WTP construction. Greg replied it is a few times: they are approved through April 30 and are trying to get approval beyond that. Todd also asked about the new CHG baseline expected in March. Greg responded it would have modifications driven by initiatives in the Hanford Performance Management Plan.

Update on Tank Retrieval and Closure Environmental Impact Statement (EIS) Scoping Meetings

Mary Beth Burandt, DOE-ORP, gave a brief update on results of the EIS scoping process. The scoping meetings were completed in February and the formal scoping period ended on March 10, 2003. ORP and SAIC, Inc. (the contractor responsible for assembling the EIS data packages) are currently in the process of evaluating the scoping comments in comparison to the Notice of Intent (NOI). ORP is currently working with Ecology to come to agreement on the modeling assumptions for the EIS.

Due to comments received on the scope of the EIS, several changes have been made. These include the addition of a true “no action” alternative. Also, Alternatives 1 and 2 will be combined to represent no vitrification being completed. Alternative 6, which classifies all of the waste as high-level, has some issues to be worked out, most notably what to call residuals that cannot be removed from the tanks. The public also asked to have a clean closure scenario identified. ORP has found this scenario would require the removal of 12 million cubic yards of soil, the equivalent of a football field six to seven miles high. The estimate is that twelve workers would be killed and one worker would dose out every thirty-eight days during the process of digging up the tanks and associated material. ORP would like some feedback on at what point the clean closure analysis should end.

Mary Beth noted the review of comments is ongoing and other changes may be made.

Regulator Perspective

Suzanne Dahl stated a letter was recently sent to DOE from Ecology with comments on scoping issues. One issue is the removal of the Tc-99 from the vitrification plant processing. If this is going to be addressed, DOE needs to discuss in the EIS both the removal of Tc-99 from the pre-treatment process and it being left in the process. Ecology also finds the fourteen-month EIS schedule to be irresponsible and has asked that DOE consider a more appropriate schedule. Ecology asserts there is a disconnect between the EIS discussion of supplemental technologies and the tests going on which will not be done in time to be included in the EIS. For this reason, Ecology strongly feels any discussion of supplemental technologies must meet State Environmental Protection Act (SEPA) guidelines.

Committee Discussion

- Wade Riggsbee asked if there was any discussion on the separation of retrieval and closure in the EIS. Mary Beth answered that retrieval is covered under the Tank Waste Remediation System (TWRS) EIS and, while there are comments regarding retrieval in this EIS, the main focus is to arrive at a decision on closure.
- Jeff Luke wanted to clarify Suzanne's statement regarding Ecology's letter to ORP. She stated that Ecology feels comfortable the National Environmental Policy Act (NEPA) requirements will fulfill the SEPA requirements for closure, however, they are unsure it will meet the SEPA requirements for the supplemental treatment. Jeff asked if that meant the state would require a separate SEPA EIS. Suzanne responded that work on tank closure TPA milestones could move forward, but for permitting of supplemental technologies, Ecology will have to consider if there is proper SEPA coverage.

Disposition of Transuranic (TRU) Waste in the Tanks

Regulator Perspective

Suzanne spoke about DOE-ORP presentations to Ecology regarding the tanks ORP believes have never been commingled with high-level waste. For these 9 single-shell tanks (SSTs) and 3 double-shell tanks (DSTs), DOE-ORP would like to take the waste out, do some packaging and dewatering, and then send the material to the Waste Isolation Pilot Plant(WIPP). Ecology feels DOE has work to do to convince WIPP the material fits the acceptance criteria. If this works out, however, Ecology feels it could be a win-win for everyone and they will support it. Suzanne added that Ecology does have reservations regarding the use of supplemental technologies. When they committed to consider supplemental technologies, it was for a small portion of the waste. Now it has blossomed to about 70%. Additionally, there is not EIS coverage to move further than the pilot scale testing stage.

Committee Discussion

- Several committee members had concerns over the actual composition of the waste in the tanks. Maynard Plahuta asked how ORP could know stuff wasn't just dumped into these early tanks. He believes the confidence level from a history perspective is pretty low. John Kristofzski, CHG, responded that an extensive effort has been made to collect all records of what went into each tank. This material predated the Plutonium-Uranium Extraction (PUREX) process. Each tank has had core samples taken and the process work done with each tank has been studied. It is not just the characterization that makes it TRU waste; it is also the processing history. A package of data has been put together to meet the information needs of the Land Withdrawal Act, WIPP and the state of New Mexico. One of the criteria for the acceptance of TRU waste is an acceptable knowledge package which shows the waste is actually TRU waste. WIPP, EPA, and the state of New Mexico will audit this package.
- Al Boldt argued this plan actually does not reduce risk but increases it, by treating the material other than through HLW vitrification. Additionally, it would not reduce the volume of waste treated because what will leave the site as TRU waste was originally slated for shipment to Yucca Mountain anyway. John commented that Al was correct in that a portion of the waste was destined for Yucca Mountain along with a portion going to WIPP. He noted, though, that the waste will be shipped earlier than currently planned and that is why this option is being pursued..
- Al also commented this plan would increase the environmental impact due to the need to build additional facilities to process the TRU waste. He also disagrees with the assertion that the material in one of the nine SSTs and the 3 DSTs can be classified as TRU. He would like to see ORP go the NRC for approval, not just say they are in compliance with NRC regulations. Al commented this plan seems like a good idea from a public relations standpoint but does not make much sense from a technical viewpoint, as it will not change the length of the mission as a whole.
- Greg Jones reiterated that ORP must comply with the law and will have to meet WIPP's acceptance criteria. He does not know if the NRC would even be interested and cannot commit that ORP will go to them. Leon Swenson commented the Land Withdrawal Act prescribes a definition of TRU that trumps the DOE definition. The state of New Mexico and the EPA are the agencies that run WIPP; the NRC does not have authority.
- Ken commented it would help to have a rough estimate of how much this would cost to help in determining if it makes sense for taxpayers and if there really is a cost benefit.. From a risk standpoint, if the material really is TRU, it makes the most sense to remove the tanks now versus later. From an intuition standpoint, this plan makes sense but information such as the number of drums, process times, and cost would help put it into the big picture. John responded they are estimating 25,000 drums. The cost estimate found a savings of \$800 million by not processing the material through the WTP.

- Todd asked how this TRU relates to the Hanford picture as a whole in terms of use of resources for TRU packaging. John answered they are having a dialogue with other on- and off-site entities to develop the most cost effective option. This may involve having equipment transferred from Rocky Flats or having Fluor do the packaging in their facility. There has been a great deal of discussion but no decision has been reached. Todd emphasized that he doesn't necessarily care about the numbers, as long as getting this waste out of the tanks doesn't take resources away from the WTP.
- In terms of the advice, Greg said what ORP wants to know is if the Board will support the evaluation of determining if some of the waste can be shipped from Hanford a decade sooner than originally planned. Pam will work with Al and Ken on redrafting the advice and making it more specific to address Al's concerns.

Status of Supplemental Technologies

Eric Olds told the committee ORP has no new additional information since the last update.

Committee Business

The committee reviewed the work plan and several new issues were identified for inclusion in the plan:

- o Technetium-99
- o Risk-Based End-States
- o Transuranic Waste

The issue managers will develop changes to the workplan so Lynn can update it. .

The revised ORP baseline is slated for release on March 31st. ORP has reacted favorably to the suggestion of a joint Tank Waste and Budgets and Contracts committee presentation on the baseline.

Handouts

- Tank Waste Committee Meeting Agenda, March 13, 2003
- Tank Closure EIS, Mary Beth Burandt, March 13, 2003
- Project Challenges, Ron Naventi, March 13, 2003
- WTP Construction Site February 2003, Ron Naventi, March 13, 2003
- Retrieval, Treatment, and Disposal of Tank Waste and The Closure of Single-Shell Tanks, Roy Schepens, February 20, 2003
- Draft Advice on Technetium Pretreatment, Doug Huston, March 13, 2003
- Comments Regarding the Tc-99 Issue, Harold Heacock, March 11, 2003

Attendees

HAB Members and Alternates

Allyn Boldt	Jim Curdy	Todd Martin
Ken Bracken	Doug Huston	Maynard Plahuta
Pam Brown	Dave Johnson	Wade Riggsbee
Shelley Cimon	Sandra Lilligren	David Rowland
Al Conklin	Jeff Luke	Leon Swenson

Others

Yvonne Sherman, DOE-RL	Suzanne Dahl, Ecology	Suzanne Heaston, BNI
Mary Beth Burandt, DOE-ORP	Jeff Lyon, Ecology	Ron Naventi, BNI
Greg Jones, DOE-ORP		Rich Tasetti, BNI
Billie Mauss, DOE-ORP		John Kristofzski, CH2MHill
Erik Olds, DOE-ORP		Liana Herron, EnviroIssues
Woody Russell, DOE-ORP		Lynn Lefkoff, EnviroIssues
		Barb Wise, Fluor Inc.
		Sharon Braswell, Nuvotec Inc.
		John Stang, TC-Herald
		Gail Laws, WDOH