

FINAL MEETING SUMMARY

**HANFORD ADVISORY BOARD
JOINT TANK WASTE/RIVER AND PLATEAU COMMITTEE MEETING
April 11, 2007
Richland, WA**

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

Welcome and Introductions

Rick Jansons Tank Waste Committee (TWC) Chair, welcomed the committees and introductions were made.

Rick summarized the committee issues and reasons for the joint meeting. He said data indicates there is contamination and it is moving from the tank farms, although the details vary depending on interpretation The River and Plateau (RAP) and Tank Waste committees are both working on the same issues, so this meeting is a chance to share common knowledge and determine a path forward. Jerry Peltier, RAP Committee Chair, added every contractor has some piece of the groundwater system and it is important for both committees to know how this program works.

Introduction of Committee Issues and Sitewide Groundwater Integration Activities

Bob Lober, Department of Energy – Office of River Protection (DOE-ORP), described ORP’s integration efforts as an investigation phase. Integration teams are working on the controversial areas and leveraging off of each others’ characterization studies.

Bob explained that Phase 1 is part of the Tri-Party Agreement (TPA) from 1999 to 2007. U Tank Farm Phase 1 investigated large leaks and invested in science. Some interim measures in Phase 1 involved cutting off water sources, controlling discharges due to pipeline leaks, controlling hydraulics, creating interim barrier to stop technetium from mobilizing, and using monitoring barriers to measure effectiveness and impacts. DOE-ORP is currently in discussions about Phase 2 and determining a holistic approach for

how to support closure and combine resources with DOE-Richland Operations Office (DOE-RL)

Briant Charboneau, DOE-RL, said the Central Plateau waste sites are becoming part of the groundwater plans as a part of the effort to integrate. There was an increase in funds for the groundwater remediation project; \$12 million was added for compliance-related tasks. It will pay for drilling in the Central Plateau to meet milestones, continue pump and treat, and will add a new pump and treat operation that will begin in January.

Briant provided a brief presentation on the Hanford Cleanup Integration and Status of the Groundwater/Vadose Zone. DOE listed 30 different activities in 2006 to accomplish integration. Internally they had different projects and offices involved in groundwater/vadose zone activities. Some has been consolidated and some remains the same. They created an Executive Council with Assistant Managers from DOE-RL and DOE-ORP and others to provide overall direction for integration. There is a core team which includes contractors and DOE program staff to manage the plan of action yearly. There are also sub-teams based on geographical area. These teams are working really well. They can share resources and costs that help everyone work together. Briant provided an example: In the T area a technetium plume with high concentrations was discovered. The team met to discuss how to use a pump and treat method. They developed a plan, the money has been allocated and the system will go into effect later this year.

Bob Lober talked about the High Resolution Resistivity (HRR) tank farm investigation. This was a mutually exclusive project where contractors have agreed to come together and share costs to get work done. They all have some responsibility for the area and it helps to coordinate so they all can be informed. Briant added the individual Integrated Project Teams have authority to complete their work scope; the Executive Council can provide additional authorization as needed. Briant said the soil and groundwater data goes into a central database.

Committee Discussion

- *Are there any studies or conceptual approaches about contamination in the vadose zone?* Bob said they are looking at technology and have developed treatability test plans Briant added they have a commitment to deliver a test plan by the end of this year.
- *Is the contamination in the vadose zone addressed in the Tank Closure & Waste Management Environmental Impact Statement (TC&WM EIS)?* Bob said that he believes they will have to address it but he wasn't positive. Bob added that all of their data has been provided to the contractor to support the EIS process.
- *What risks are being used for the groundwater risk assessment?* Briant said the Groundwater Risk Assessment document is new and he is not familiar with it yet.

They are trying to define risk assessment approaches, but they have a lot of work to do in this area still.

- *When the \$12 million was identified for the groundwater remediation, how flexible was the program to put that money to use?* Briant said initially it was tied to remediation issues, but they are working to utilize those funds on those areas that were already in the plan. With that amount of money, 75 % goes to fixed costs. It is that extra 10-15% that can have a huge impact. It will probably increase the effective work by 30%. The budget next year calls for an additional \$30 million.
- *What are the fixed costs?* Briant said that it depends how you define them. Essential services like monitoring and pump and treat are ongoing and have to keep running. Those two alone cost over \$32 million. Project management, fees to contractors, and shared site services (all projects get charged a certain percent for services) add up to more than half of the total budget.
- *If technology cannot be applied in one year, how are you justifying spending on technology in future years?* Briant said he did not take credit for any work that the DOE Office of Science conducted. He assumed that he had to do all of that work out of his budget. They've been working on baselines that projects can work toward and an auditor can validate. Their estimate assumes very robust pump and treat methods. The risk is that you have to have a certain confidence level in the estimate: it assumes limits on the scope of the project.
- *As you go through these integrated teams developing new technology, how does the money get dispersed? Are there funds for one group to develop technology, or does each one develop technology independently?* Briant explained every project should have money set aside for developing new technology. The new technology can help pull work ahead of deadlines. Even when they complete their current groundwater goals, they anticipate continuing to spend money on technology so they can clean to a higher degree in the future.
- *Existing contractors aren't sharing details with contractors that are bidding that are not already working here because they are not required to. How do we build trust?* Pam Larsen said she appreciates the collaborative approach but is nervous about the contract re-competes. Briant said they get challenged on their acquisition regularly, but he has a tremendous amount of staff to gather the right documents and release the information that needs to be available.
- *What's the division of responsibilities in the groundwater program between Pacific Northwest National Laboratory (PNNL), CH2MHill Hanford Group (CHG), and Fluor Hanford (FH)?* Briant said this fiscal year they took a major step towards integrating activities. DOE-RL groundwater activities went to FH. When they transferred responsibility they had to allow a new contractor to decide the best fit for managing how much money/support they needed to accomplish milestones. Briant said one of the things they have put on the committees for this year was a

groundwater management plan. They have updated that to include vadose zone and integrated activities. They would like to have the HAB review it and comment on the integration activities.

- *Could you provide the results for the 100D Area with regard to the Chromium plume?* Briant said concentrations were found up high in the 100 D Area. The high concentration was at a loading station near the rails; it could have been from flushing rails or transferring. They are removing piping from that area in a quarter mile so they can look for staining in the sediment.
- *Have you checked the subsurface below the 300 Area uranium facility?* Briant said he can not speak to that specifically, but he knows there was a regulatory agreement about a known leak and how much of the soil they would remove. This facility was built on a burial ground so DOE is responsible for digging out only to certain level and another agency would be responsible for the remaining part. Briant said he believes they are treating it like any other waste site; in active waste sites it does not make sense to address the contamination until the building is removed.
- *Studies in the 1960's gave detailed information on chemical movement in the vadose zone that will affect the groundwater.* Briant noted all groundwater contamination came from liquid discharges that went through the vadose zone. Anything that continues to contaminate the aquifer they will treat with a pump and treat that won't shut down until they find the source. Vince Panesko said that various waste streams were put into the ground until the plutonium reached 10% of the groundwater standards. When a crib reached 10%, another one was built. Each one of them reached groundwater. Vince clarified that some plutonium went through the vadose zone and some is still there. Briant said he is not aware of that operation.

Groundwater Values Flowchart

The group discussed a flow chart on HAB groundwater values that RAP has been working on.

Briant said he looked at early draft, and these are marked improvements. The values DOE generally agrees with are the ones set forward here. They put a lot of value in the CERCLA process. Briant said he will provide the HAB with the groundwater management plan, and he thinks some of this could be incorporated in it. They have started to put the nine CERCLA decision criteria into their guidance documents.

Committee Discussion

- Maynard Plahuta asked if the flow chart should say it is only for Hanford- generated plumes.

- The committees discussed the first two diamonds on the flow chart, 1a and 1b. Shelley Cimon suggested the order be changed and have 1b first, then 2 then 1a. Maynard added if a mitigation action could be taken immediately, it should be. 1a shouldn't be limited to the risk.
- Rick suggested rather than number of years, they should say "which is considered to be prior to contact with groundwater." Briant noted if you say within two decades and it doesn't get done then the agency could just forget about it. Pam pointed out it will be different for each contaminant. Rick then suggested it say the time frame should be decided with stakeholder feedback. Maynard said most activities had a timeframe set at 50 years, but if you could get to it sooner then you should. Rick said if we knew the contaminant would be reaching groundwater before X amount of years, then that would make X a reasonable time. Maynard reiterated he doesn't think a time period should be used at all and the group should go back to highest and most beneficial use. Donna Morgans offered this wording: Reasonable timeframe based on the contaminant of concern. Some contaminants you have a good idea about how long it will take, others you do not.
- Larry Lockrem asked if the TPA defines time periods. If it does, the flow chart could say, "as defined in the Model Toxics Control Act (MTCA)" or some other regulation. Rob Davis said he has reviewed past advice and it says it should be commensurate with risk. Rob suggested this wording: a reasonable timeframe commensurate with risk. The group liked this suggestion.
- The group then moved on to discuss the format of the flowchart and the list of values. Ken Gasper said the HAB's bias for Remove, Treat and Dispose (RTD) is not on here and should be.
- EnviroIssues graphic designers will work on the next iteration of the flow chart for the next RAP meeting in May.

Next Steps

Where do we go from here? Did today help give a bigger picture? Do we need to keep talking? Or is there something specifically we need to address?

Rob said the committees need to integrate their groundwater work if they expect DOE to integrate. Rick suggested the committees have a joint meeting every six months to keep people updated. Jerry added there should be an effort to coordinate and have groundwater presentations at joint meetings only and not at each individual committee. At the very least, we should make sure each committee is notified so people can go to the presentations if they are put in one committee or the other.

Rob said it disturbed him that DOE does not think there is plutonium in the vadose zone. Donna said that she does not think they analyzed the groundwater data for plutonium.

Dirk Dunning explained that there are many cases where they used DQOs to go look for it; RAP should focus on that in the next meeting. Larry said that the annual reports used to report plutonium; he offered to go back and look.

Committee Business

- Pam announced TPA negotiations start at the end of the month.
- Rick asked if the TWC still wants a presentation on steam reforming. Pam and others agreed that they do, and Pam said she ran into someone who can talk to the group about steam reforming. She will work on setting something up. Rob said that he would like to learn about Yucca Mountain. He also said the committee needs a single shell tank flow update.
- Larry asked for information about technology review presentations that are open to the public so Board members can go to those meetings.

Handouts

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

- Hanford Cleanup Integration, Environmental Management, April 2007.
- HAB Groundwater Flow Chart and Values, HAB committee members, April 2007.
- Groundwater Plume Remediation

Attendees

HAB Members and Alternates

Allyn Boldt	Rick Jansons	Donna Morgans
Shelley Cimon	Susan Kreid	Jerry Peltier
Rob Davis	Pam Larsen	Maynard Plahuta
Dirk Dunning (by phone)	Susan Leckband	Dick Smith
Ken Gasper	Larry Lockrem	
Harold Heacock	Jerri Main	

Others

Lori Gamache, DOE-ORP	Rick Bond, Ecology	Lynn Lefkoff, EnviroIssues
Bob Lober, DOE-ORP	Tom Post, EPA	Cathy McCague, EnviroIssues
Erik Olds, DOE-ORP		Emily Neff, EnviroIssues
Briant Charboneau, DOE-RL		Janice Williams, FH
Karen Lutz, DOE-RL		Mark Triplett, PNNL
		Mike Priddy, WADOH