



MEETING SUMMARY

HANFORD ADVISORY BOARD

River and Plateau Committee

May 21, 2020

Virtual Meeting – GoToMeeting and Teleconference Line

Topics in this Meeting Summary

Opening.....	2
Stabilization of Disposal Structures at Risk of Failure	2
200-BP-5 and 200-PO-1 Groundwater Operable Units Proposed Plan for Interim Action	4
Committee Business and Open Forum.....	5
Attachments	6
Attendees	6

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

Opening

Jan Catrell, Public-at-Large and RAP chair, welcomed meeting participants.

The RAP committee adopted the meeting summaries for October 2019, November 2019, and January 2020 with minor revisions.

Tom Sicilia, Oregon Department of Energy and RAP vice chair, asked to know the status of posting HAB briefings from individual briefings. JoLynn Garcia, DOE, and Jim Lynch, DOE, will look into this.

Stabilization of Disposal Structures at Risk of Failure

Al Farabee, U.S. Department of Energy (DOE), provided an overview of the project and its three major components. Following the partial collapse of Tunnel 1 at the Plutonium Uranium Extraction Plant (PUREX) in 2017, DOE stabilized both PUREX tunnels with grout. It then evaluated 11 additional structures for their potential risk of failure. The three structures identified with the highest priority for stabilization were 216-Z-2 Crib, 241-Z-361 Settling Tank, and 216-Z-9 Crib, which are within the Plutonium Finishing Plant (PFP) demolition work zone. The stabilization work is to be done as a time-critical removal in the fall and winter of 2020 using engineered grout.

An expert panel was convened to consider options for stabilization of PUREX tunnel 2. These options were used as a starting point for stabilization options for the three structures.

Each option was evaluated with respect to protection of human health, allowing for future remedial action, ease of implementation, ease of upkeep, speed of implementation, cost, and chemical compatibility. Consideration was also given to how the work might impact PFP demolition activities, engaging the workforce, and traffic safety related to grout delivery trucks.

The public comment period on this project is open through June 29, 2020. See presentation: [Stabilization of the 216-Z-2 Crib, 216-Z-9 Crib, and 241-Z-361 Settling Tank](#)¹

Regulatory Perspective

Emy Laija, U.S. Environmental Protection Agency (EPA), clarified that EPA does not play an approval role for a removal action. EPA has had some concerns about how this action might impact the remedy selection from 2011. EPA and DOE have had a lot of conversations to ensure that this action will not have a negative impact on the ultimate remedy. Emy also provided RAP with a 2007 video on Z-9:

<https://www.youtube.com/watch?v=FxZz9zVNBjg>

Committee Member Questions (Q), Responses (R), and Comments (C):

Note: This section reflects individual questions, comments, and agency responses.

1

[https://www.hanford.gov/files.cfm/PBC1_REV_1_Stabilization_of_Disposal_Structures_at_Risk_of_Failure_Presentation_FINAL_\(1\).pdf](https://www.hanford.gov/files.cfm/PBC1_REV_1_Stabilization_of_Disposal_Structures_at_Risk_of_Failure_Presentation_FINAL_(1).pdf)

Q: “Have you done any cost analysis of recovering the removal of the grout once you begin final remediation?”

R: “No,”

Q: “Regarding potential chemical incompatibilities in the removal process – what are the statistics and when will they be made public?”

R: “They are complete and usually are not released. They can be made available to the public.” JoLynn Garcia, DOE, will follow up about obtaining copies of the report of the studies.

Q: “I’m trying to get a sense of the bigger picture of the costs, and the thing we keep coming back to with stabilization, it was originally planned to be part of the remediation. Do the costs in the ROD [Record of Decision] include stabilization as part of that action?”

R: “The real answer is we are not there yet.”

C: “The numbers in the ROD are actually lower than the overall cost identified in the work plan. When you get into that work plan, you start to seek out some of the specifics. If you look at the ROD, there’s an entire appendix that is much higher than the work plan. The ROD isn’t the best place to look for those numbers, because we have updated numbers in the work plan, chapter 7 the appendix.”

Q: “To ensure appropriate treatment for the remedy, why not sample now?”

R: “The sampling you are referring to, we have done previously. We did two core drills. That allowed us to calculate the revision changes chemically at each level. The reason we are doing this is to solve a near-term safety issue. “

Q: “You don’t know the integrity on the bottom of the tank. You have to assume that will add pressure to the bottom of the tank, until 2030?”

R: “The average density of the sludge is less than the density of the grout. The sole reason is not remediation but to fill on top of the sludge in case the roof does collapse because of the failure point located on the bottom of the wall.”

Q: “If sludge is not going to be mixed with the grout, I wonder what would prevent us from sampling and characterizing before grout?”

R: “Time, budget and safety. There would be additional risk performing sampling of this tank. The current risk is what we are dealing with in simple terms.”

Q: “Can we get the referenced Z-361 documents added to the public website ASAP per the prior question about documents on the compatibility of grout with wastes at all sites? We need to have this information on the public website, not just in copies distributed to us. Thankfully, DOE extended the comment period. If it closed tomorrow, we’d have just learned of documents and had not time to review additional documents or digest what we’ve learned before submitting comments.”

R: JoLynn Garcia, DOE, will look into this.

The Issue Manager Team will continue its work on the draft advice incorporating ideas and suggestions from this discussion.

200-BP-5 and 200-PO-1 Groundwater Operable Units Proposed Plan for Interim Action

Naomi Jaschke, DOE; Kim Welsch, Washington State Department of Ecology (Ecology); and Craig Cameron, EPA, provided an overview of the Proposed Plan. The key goals are to manage Hanford site groundwater and vadose zone contamination are to protect the Columbia River and groundwater from further contamination, follow our cleanup decision process, and to restore groundwater to its greatest beneficial use.

Actions already taken include stopping discharge of unpermitted liquid effluents, remediation of waste sites near the river to reduce potential future groundwater contamination and containment of groundwater plumes through remedial actions such as pump-and-treat.

The reason for the development of an Interim ROD is that groundwater remedial investigations are complete, but source investigations to are not. The final ROD will be developed after source areas are fully evaluated.

The interim remedial action is intended to remove targeted contaminants of concern from specific groundwater plumes to prevent further migration and to bring them within drinking water standards. The targeted remediation areas are the B Complex plume, C Farm and A/AX Farm plume, and Gable Gap plume. The Contaminants of Concerns are uranium and technetium. Co-contaminants may be captured along with the COCs. Groundwater monitoring will continue using existing sampling and analysis plans.

Three alternatives were analyzed, one of which was a No Action Alternative used for comparison purposes. The other two alternatives were based on groundwater pump and treat methods, plus institutional controls, for the remediation areas. Alternative 2 included the plumes at B Complex, C Farm, and A/AX Farm. Alternative 3 included those areas plus the plume at Gable Gap. The preferred alternative is Alternative 2. The final design details for monitoring well location will be in the remedial design/remedial action work plan following completion of the Interim ROD.

See presentation: [200-BP-5 and 200-PO-1 Groundwater Operable Units Proposed Plan for Interim Action](#)²

Regulatory Perspective

Craig Cameron, EPA, explained that EPA is supportive of this project. It has been involved since early on, including developing the Proposed Plan and briefing multiple levels of management in the Tri-Party Agreement (TPA) agencies. The Proposed Plan is a good step to address some plumes that have started to migrate.

Committee Member Questions (Q), Responses (R), and Comments (C):

² https://www.hanford.gov/files.cfm/PBC2_FINAL_R4_BP5PO1_IROD_PP_Presentation.pdf

Note: This section reflects individual questions, comments, and agency responses.

Q: “I had this mental picture prior to seeing this plan that the soil underneath C Farm was fundamentally dry, and nothing was moving through it. But, after reading the document, I have a totally different picture. Is there anything you can offer us about your ideas where this flow is coming from?”

R: “The contamination is from C Farm and slowly trickles down. We have no current discharges.”

Q: “I hear that you are concentrating on Gable Gap, which is not Gable Pond, and I wonder if you have any information that can help me to understand. Seems what I have heard about Gable Pond. Is there was going to be cap on Gable Pond? Am I correct about that, and if so what’s the concern?”

R: “It [the Gable Pond cap] doesn’t have to do with this effort.”

Q: “Are we going to treat other contaminants? The presentation and COCs focus on uranium and technetium-99. What about cyanide, nitrates, and iodine plumes?”

R: “In the Proposed Plan, Figure 4 shows the co-contaminants in the plume.”

Q: “Can someone explain how an Interim ROD (IROD) is different from a ROD and how the process works once an IROD is in place? Do we go through the Proposed Plan public comment process again for a Final ROD? Do you know the timelines on it?”

R: “Just to clarify, the Interim Record of Decision is to be temporary. [The timelines] depend on the schedule of other operable units to get a grip on what the flex might be, and getting a cumulative impact tool, and then we can formulate a plan for the remedial action. It is a little bit up in the air still, maybe a few years from now.”

Q: “What type of effect does this action have on the tritium and iodine that are not going to be treated?”

R: “As far as tritium, there is not a technology to treat that. We wait for it to degrade, and iodine, we do not have a technology on site to treat the iodine.”

Q: “How do you tell when the interim is done?”

R: “It is to reach drinking water standards - 10 years.”

C: “How does groundwater monitoring fit into the future of the Hanford Site? Let’s include this in the request for the COTA [Committee of the Whole].

C: “I am incredibly impressed with how the presentations went and the fact that the Department of Energy and agencies have been here to support us to work in these odd circumstances. This is so much appreciated, and I want to say thank you from the whole board and knowing that you all are working from home and really appreciate it.”

The committee did not decide on additional work on this topic to be undertaken immediately.

Committee Business and Open Forum

Topics identified and requested for the next RAP meeting:

- Briefing on the Composite Analysis
- Gable Pond
- 324 Building update
- Waste Encapsulation and Storage Facility (WESF) budget issues
- Status update on the Canyons
- Integrated Disposal Facility (IDF) update
- Environmental Restoration Disposal Facility (ERDF)
- Review of the RAP workplan

RAP would like a committee call on June 10 to cover two topics:

1. Approval of the draft advice on Aging Structures Stabilization to be considered by the full Board at the June HAB meeting
2. Work on the RAP work plan in preparation for the annual HAB work plan meeting.

The facilitation team will send the work plan to the committee for that call.

The HAB hopes to have its yearly work plan meeting for Fiscal Year 2021 (FY 2021) sometime in July, hopefully in person. DOE is working through updates to the FY 2021 work plan now.

The Issue Manager team for Aging Structures Stabilization wants to have a call around June 3.

Attachments

Attachment 1: Stabilization of the 216-Z-2 Crib, 216-Z-9 Crib, and 241-Z-361 Settling Tank

Attachment 2: 200-BP-5 and 200-PO-1 Groundwater Operable Units Proposed Plan for Interim Action

Attendees

Board Members and Alternates:

Jan Catrell, Member	Susan Leckband, Member	Gerry Pollet, Alternate
Shelley Cimon, Member	Liz Mattson, Member	Tom Sicilia, Alternate
Rob Davis, Member	Vince Panesko Alternate	Marissa Merker, Alternate
Pam Larsen, Member		

Others:

Kate Amrhein, DOE	Yvonne Levardi, DOE	Moses Jaraysi, CHPRC
Jason Capron, DOE	Jim Lynch, DOE	Lindsay Strasser, North Wind

Christopher Cearlock, DOE	Linda Maiden, DOE	Ashley Herring, Facilitation Team, ProSidian
Michael Cline, DOE	Deborah Singleton DOE	Jasmine Martinez, Facilitation Team, ProSidian
Al Farabee, DOE	Ryan Miller, Ecology	Ruth Nicholson, Facilitator, ProSidian
JoLynn Garcia, DOE	Kim Welsch, Ecology	Andre LaBonty, CHPRC
James Hanson, DOE	Ginger Wireman, Ecology	
Theresa Howell, DOE	Craig Cameron, EPA	
Naomi Jaschke, DOE	Emerald Laija, EPA	