

**FINAL MEETING SUMMARY**

**HANFORD ADVISORY BOARD  
RIVER AND PLATEAU COMMITTEE**

*April 14, 2015  
Richland, WA*

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*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**

Pam Larsen, River and Plateau Committee (RAP) chair, welcomed the committee and introductions were made. The committee adopted the March 2015 RAP meeting summary.

Ryan Orth, EnviroIssues, reminded TWC members that the Hanford Advisory Board’s (HAB or Board) Budgets and Contracts Committee (BCC) encouraged HAB members to attend the upcoming U.S. Department of Energy (DOE) public budget workshop on April 28. Ryan noted that BCC leadership would be gathering feedback on the proposed Fiscal Year (FY) 2017 budget, and that the committee would work in May to craft budget advice for presentation at the June 2015 Board meeting.

*Announcements<sup>1</sup>*

Madeleine Brown, Washington Department of Ecology, noted that there will be an upcoming public comment period concerning the clean closure plan for an unused gravel pad at the Waste Receiving and Processing Facility. The comment period is anticipated to begin sometime in May 2015. Madeline noted that this comment period is tied to a Class III Permit Modification encompassing 14 unused areas at the Facility.

The RAP committee also recognized the successful adoption of Hanford Advisory Board Advice #283, Central Plateau Inner Area Guidelines, which received consensus at the April 2015 Board meeting. Pam

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**Attachment 1:** Transcribed flipchart notes

congratulated topic issue managers for their successful management of the complex topic. Kris Skopeck, U.S. Department of Energy – Richland Operations Office (DOE-RL), noted that DOE-RL appreciated the Board’s input and that the agency was working to review all past advice that the Board referenced in Advice #283.

Pam also noted that the U.S. Environmental Protection Agency (EPA) headquarters recently granted a waiver that will allow the U.S. Department of Energy (DOE) to macroencapsulate select large and complex hazardous waste in-trench at the Environmental Restoration Disposal Facility (ERDF). The Board recommended this treatment approach in HAB Advice #281 (adopted in November 2014). Pam noted that on-site workers have provided thanks to the Board for its continued interest in worker and environmental safety.

## **River Corridor Progress**

### *Agency Presentation*

Mark French, DOE-RL, provided RAP with an update on remediation work occurring in the River Corridor. Mark noted the following key points in his presentation <sup>2</sup>:

- Much of the work in the River Corridor will be completed in the coming years. Remediation efforts in the 100 Area are finishing up, and, with the exception of the 324 Building, Washington Closure Hanford (WCH) has completed all of their decommissioning, deactivating, decontaminating, and demolishing work. Over the past 20 years, DOE has transported over 2,300 tons of spent fuel from the River Corridor to the Central Plateau. Of the 1,329 waste sites within the River Corridor, 1,170 have been remediated, and over 8 billion gallons of groundwater have been treated through pump-and-treat efforts.
- In early 2014, the Plutonium Cycle Test Reactor and the 340 Vault were both excavated from the 300 Area and transported to ERDF. Both of these removals were highly complex effort. Backfill at the 340 Vault site is scheduled to finish in April 2015.
- In the 100-D Area, borehole data revealed a slow-release form of chromium in groundwater sediments. To mitigate this contamination, remediation efforts removed an additional ten feet of soil below the saturated zone. These efforts significantly reduced remaining chromium contamination. This will also lessen the amount of time that 100-D Area pump and treat operations will need to function.
- In the 100-N Area, nearly all waste sites have been remediated in the past seven years. The shoreline was re-contoured to make it appear more natural, and this work required extensive collaboration with the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, and other agencies.

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**Attachment 2:** River Corridor Update (DOE-RL presentation)

- To combat deep petroleum contamination in the 100-N Area, remediation efforts involve pumping air and nitrogen into the groundwater to encourage bioremediation. This strategy is working very well.
- Backfill at the C-7 Waste Site incorporated recontouring and boulder placement in order to give the area a more natural appearance. This strategy requires less backfill and produces a more desirable result. Natural recontouring will be incorporated into the remediation of the 100-D, 100-H, and 100-N Areas.
- Disposal efforts at ERDF are expected to scale down to single-ramp operations by 2016; however, the facility is still expected to accept over 1 million tons of waste in calendar year 2015.
- Trench remediation at the 618-10 Burial Grounds is expected to finish this coming summer. DOE-RL is currently working out a plan to deal with some problematic waste that was discovered in the trench, and the agency is working with contractors to create a new process for remediating concrete drums. These remediated drums should ship to ERDF later this year.
- DOE-RL will retrieve 80 of the 94 Vertical Pipe Units (VPU) at the 618-10 Burial Grounds using an overcasing and the auger method. WCH will finalize placement of the overcasings in April 2015; a drill rig will then mix the VPUs into the soil. The resulting mix will be grouted and sent to ERDF (if it meets waste acceptance criteria) or shipped to the Central Waste Complex for storage.
- At the K-East Reactor, DOE-RL will conduct soil-sampling efforts at two sites. The borehole closest to the reactor is expected to display higher levels on contamination, while the second, more distant borehole will be used as a mock-up site. Both boreholes will extend downward for approximately 25 feet. DOE-RL expects sampling at both of these sites to be completed in 2015.
- At K-West, sludge removal will likely begin by 2018. The annex that will house equipment to support sludge removal was completed in fall 2014, and the accessory systems within the annex will be completed in 2015. Equipment for sludge removal will follow. Testing for sludge removal is ongoing at the Maintenance and Storage Facility. Sludge will suctioned out of containers and then sent to T Plant for storage.
- Groundwater pump-and-treat facilities are doing an excellent job of containing plumes. In 2014, these facilities treated approximately 2 billion gallons of groundwater.

### *Regulator Perspectives*

Nina Menard, Ecology, recognized that Ecology is the lead regulator for both the 100-D and the 100-N areas. Nina stated that Ecology is very pleased with the 100-D deep dig, and she recognized that the effort has significantly reduced the site's chromium load. At the 100-N Area, Nina recognized that that additional 900 feet of permeable reactive barrier (PRB) is an important project and that Ecology was hopeful that the cultural review process could move forward.

## *Committee Questions and Responses*<sup>1</sup>

*Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments.*

Q. What are the largest challenges that remain for River Corridor cleanup?

*R. [DOE-RL] Securing funding is always a challenge. The President's Budget for FY 2016 includes a significant reduction in funding for the River Corridor, and DOE-RL is currently waiting to see what Congress will appropriate.*

Q. In the 300 Area, was the 350 building removed?

*R. [DOE-RL] The 350 building is a PNNL facility. It will likely remain in operation for approximately ten years.*

C. The chromium remediation in the 100-D Area is an incredible story. DOE should share this example with the public to demonstrate the good work that is occurring at the site.

Q. How soon will ERDF begin in-trench macroencapsulation?

*R. [DOE-RL] WCH is currently working on the proposed plan for the Record of Decision amendment, and there will need to be a public comment period. It will likely be a few months before any practices are implemented. The recently-granted EPA waiver is very positive for work at ERDF, and in-trench strategies will be more protective of both workers and the environment.*

Q. Will the sampling borehole at the K-East Reactor slant underneath the structure, or will it extend straight downward?

*R. [DOE-RL] The borehole will extend straight down. The storage basin at the site was the major source of contamination.*

Q. Why was the decision made to not drill a slanted borehole at K-East?

*R. The major concern at the site is strontium contamination. The boreholes will work to characterize contamination that could potentially affect groundwater. The vertical borehole near the reactor will better serve this purpose.*

Q. How will sludge be transported away from K-Basin?

*R. [DOE-RL] The sludge will be placed inside of a container, and that container will then be placed inside of another container for transport.*

Q. How many remaining facilities at the K-West Reactor will go to supporting the sludge removal effort? Is there funding available to take the rest of those buildings down?

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**Attachment 1:** Transcribed flipchart notes

*R. [DOE-RL] Several of the facilities near K-West will support the sludge removal effort. Currently, there is not dedicated funding to support remediation at K-West aside from sludge removal.*

Q. Is there any use for the K-West sludge removal annex after the sludge is removed?

*R. [DOE-RL] No, the accessory facilities are only planned to be used for sludge removal. The basin is very contaminated, and specialized, dedicated facilities are needed to accomplish removal and transport work safely and effectively.*

Q. What is the status of the additional 900 feet of PRB at N Area?

*R. [DOE-RL] The additional 900 feet is codified in work plans. The next step in this process is the ongoing cultural review.*

Q. Is the apatite for the PRB on site?

*R. [DOE-RL] It arrived at Hanford last year, but the agency was unable to inject it into the PRB at that time.*

Q. Will all of the VPU overcasings at 618-10 be in the ground by the end of 2015?

*R. [DOE-RL] Overcasings will be placed on 80 of the 94 VPUs at 618-10; all of those should be in place by mid-April 2015. The additional 14 VPUs will not receive overcasings.*

Q. At 618-10, DOE-RL identified some burial grounds that abutted the VPUs. Will those burial grounds be able to be remediated now that the overcasings have been placed?

*R. [DOE-RL] That may be possible, and the agency is currently looking into the potential remediation of these drums further.*

Q. When would it be timely for DOE-RL to provide the Board with an update on the removal of sludge from K-Basin?

*R. [DOE-RL] A Board update on sludge removal efforts would be timely in 2017.*

The committee thanked Mark for the detailed update. RAP members noted that they would continue to track ongoing cleanup efforts in the River Corridor and work with DOE to follow up as appropriate. The committee also discussed the potential for adding several identified topics, such as sludge removal at K-Basin, to the HAB's FY 2016 Work Plan.

### **Committee Business**

RAP members reminded DOE that the Board is interested in receiving Draft A versions of proposed plans in the future. Kris reminded the committee that Draft A documents are pre-decisional. The committee recognized that the Board has reviewed Draft A plans in the past, and there is strong HAB interest in

continuing with these early input opportunities in the future. Most immediately, the committee recognized that the Board would be interested in receiving Draft A of the 100 D/H Proposed Plan.

*6-Month RAP Accomplishments and Preparation for the 2015 HAB Leadership Workshop*<sup>13</sup>

RAP members reviewed the 2015 HAB Work Plan and detailed Board work and accomplishments for each of the RAP-lead topics. Board leadership will discuss midyear accomplishments at the upcoming 2015 HAB Leadership Workshop.

Also in preparation for the upcoming 2015 HAB Leadership Workshop, committee members identified potential additions to the HAB's 2016 Work Plan. Potential Work Plan topic additions include:

- K-Basin sludge removal
- Uranium entraining and separation equipment (200 Area pump and treat facilities)
- Contract updates between DOE and Hanford Site contractors
- The Area Management Plan
- ERDF
- Waste Isolation Pilot Plant (WIPP) regulatory update and resulting impacts on Hanford Site waste disposal

*RAP 3-Month Work Plan*<sup>4</sup>

The RAP committee requested an in-person meeting in May 2015 that will tentatively include the following topics:

- Discuss RAP input and concerns for the FY 2017 budget (following DOE's April 28th public budget workshop)
- Receive a progress update on the 242-Z facility (the McCluskey Room) at the Plutonium Finishing Plant
- Receive an update on 200 Area groundwater remediation efforts, including the PRB
- Receive an update on WIPP from HAB leadership following the U.S. Department of Energy Office of Environmental Management Site Specific Advisory Board Chairs' Meeting (joint w/ TWC)
- Receive a debrief of the HAB's 2015 Leadership Workshop

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**Attachment 3:** Hanford Advisory Board Fiscal Year 2015 Work Plan – Facilitator Notes on Midyear Status for RAP-lead Topics (4/10/2015)

**Attachment 4:** RAP Committee 3-Month Work Plan

In June 2015, RAP plans to tentatively discuss Central Plateau Work Plans and uranium entrainment and removal in the 200 Area.

Other topics that the committee agreed to follow up on in the coming quarters include the Central Plateau Inner Area Guidelines (issue managers agreed to check with DOE, EPA, and Ecology to conceptualize next steps), macroencapsulation implementation at ERDF, and cesium/strontium storage at the Waste Encapsulation and Storage Facility.

**Attachments**

**Attachment 1:** Transcribed flipchart notes

**Attachment 2:** River Corridor Update (DOE-RL presentation)

**Attachment 3:** Hanford Advisory Board Fiscal Year 2015 Work Plan – Facilitator Notes on Midyear Status for RAP-lead Topics (4/10/2015)

**Attachment 4:** RAP Committee 3-Month Work Plan

## Attendees

Board members and alternates:

|               |                     |             |
|---------------|---------------------|-------------|
| Jan Catrell   | Pam Larsen          | Bob Suyama  |
| Shelley Cimon | Liz Mattson (phone) | Art Tackett |
| Gary Garnant  | Richard Smith       |             |

Others:

|                      |                          |                               |
|----------------------|--------------------------|-------------------------------|
| Mark French, DOE-RL  | Madeleine Brown, Ecology | Ryan Orth, EnviroIssues       |
| John Neath, DOE-RL   | Nina Menard, Ecology     | Brett Watson, EnviroIssues    |
| Kris Skopeck, DOE-RL | Tom Rodgers, WDOH        | Jen Copeland, MSA             |
|                      |                          | Mike Truex, PNNL              |
|                      |                          | Kelsey Bondelid, SN3          |
|                      |                          | Annette Cary, Tri-City Herald |
|                      |                          | Peter Bengtson, WCH           |