

Oregon Hanford Cleanup Board

Best Western Plus Hood River Inn

Hood River, Oregon

Monday, March 11, 2019

Members In Attendance:

Ted Taylor, Chair
Dan Solitz, Vice-Chair
Lori Brogoitti
Jürgen Hess
Steve March
John Howieson
Erica Elliott
Tom Roberts
Kristen McNall
Justin Iverson, Oregon Water Resources
Ken Niles, Oregon Dept. of Energy

ODOE Staff:

Mark Reese
Tom Sicilia
Sara Lovtang
Jeff Burright

Tri-Party Agencies:

Brian Vance, U.S. DOE Richland Operations Office/ Office of River Protection
Rich Buel, U.S. DOE Richland Operations Office
Bill Hamel, U.S. DOE Richland Operations Office
Ben Harp, U.S. DOE Office of River Protection
JoLynn Garcia, U.S. DOE Office of River Protection
Jennifer Copeland, CH2M Plateau Remediation
Alex Smith, Washington Dept. of Ecology
John Price, Washington Dept. of Ecology
Dib Goswami, Washington Dept. of Ecology

Public

Sharon Monteiro
Marylou Schnoes
George Knox

Link to meeting materials:

<https://www.oregon.gov/energy/safety-resiliency/Pages/OHCB-Meetings.aspx>

Administrative

Chair Ted Taylor opened the meeting at 1 p.m.

After introductions, the minutes from the November 2018 meeting were approved.

Link to opening of meeting: [Board opening and discussion](#)

Review of Activities / Events since July Meeting

Ken Niles, ODOE, gave the Board a review of Hanford-related activities since the last meeting that would not otherwise be covered in the invited presentations. He highlighted new cost estimates from the 2019 Hanford Lifecycle Scope, Schedule and Cost Report, which indicate remaining Hanford cleanup costs of between \$323 and \$677 billion, with cleanup continuing through 2078 to 2102. He noted a concern about comments from DOE Headquarters that included the conclusion that “a new approach” is needed for the mission at Hanford, and “the implications are clear.”

Ken briefly reviewed the conclusions and recommendations of two Government Accountability Office reports and on-going work by a National Academies of Sciences Committee, exploring potential methods of treatment for supplemental low-activity waste.

Ken noted that the Hanford Advisory Board has not met since September of last year, as the December meeting was cancelled due to government agencies being closed to honor former President George H.W. Bush, and the February meeting cancelled due to bad weather.

Ken also summarized legislation that has been introduced in the Oregon Legislature to create an Oregon Climate Authority; to dissolve the Oregon Department of Energy; to initially move most Energy Department functions to the Climate Authority; and the creation of a task force to study whether certain programs – such as the Hanford program – should stay within the Climate Authority or move to another agency.

[Review of Activities](#)¹

Public Comment Opportunity

Chair Taylor offered the public an opportunity to make comments or ask questions. There were none.

¹ <https://soundcloud.com/odoe/oregon-hanford-cleanup-board-3-11-2019#t=7:02>

One DOE Manager Update

Brian Vance, U.S. Department of Energy, explained his new role as manager of both the Richland Office and the Office of River Protection.

[DOE update / focus moving forward²](#)

Brian said Hanford is at a point where both offices will need to coordinate closely as tank waste treatment is now just a few short years from beginning.

Brian said “this affects all aspects of site operations,” but added that “they are not going to take funding away from other projects that are ongoing now.”

Brian listed four short-term priorities:

- Transition to operations to support Direct-Feed Low Activity Waste (DF-LAW) treatment
- Constructive stakeholder engagement
- Holding contractors accountable both for their performance and for ethical behavior
- Being a high-performing team

Brian said that DOE has to work closely with its regulators, with stakeholders, and with tribal governments. Brian added that “DOE needs to be as transparent as we can.”

Brian said DOE has an on-going constructive dialogue with Ecology. They meet with each other weekly.

DOE-ORP Update

Ben Harp, U.S. DOE Office of River Protection

Ben provided the Board with an update from ORP, focusing in large part on progress towards Direct-Feed Low-Activity Waste (DF-LAW).

Ben explained the status of the various elements needed to successfully begin treating some tank waste within the next few years, including the turnover of 132 of 178 DF-LAW systems from construction to startup.

Ben also provided an update on work being done in the A and AX tank farms to prepare for the next round of single-shell tank waste retrieval.

² <https://soundcloud.com/odoe/oregon-hanford-cleanup-board-3-11-2019#t=34:59>

He also talked about the Test Bed Initiative, which is intended to treat 2,000 gallons of waste from tank SY-101 through removal of most of the radioactivity, then grouting the remaining waste stream, which will then be disposed at a commercial burial site in Texas.

[ORP update](#)³

Ecology Presentation on High-Level Waste Issues

[Ecology update](#)⁴

Alex Smith, Washington Department of Ecology, provided the Board with a presentation that focused on historical and current plans for dealing with Hanford's tank waste.

She said the fundamental plan for dealing with Hanford's tank waste was forged in the mid-1990s, when DOE and the Nuclear Regulatory Commission agreed to a plan in which key radionuclides are removed from the low-activity waste stream, which, after vitrification, could then be disposed of in near-surface disposal at Hanford. Washington agreed, so long as these conditions were met and the waste was vitrified.

Alex said with 90 percent of the tank waste volume staying at Hanford, and the waste burden Hanford already has, that the LAW needs to be in the best possible form – glass – so that it will not add to the existing risk burden.

Alex said DOE's recent interpretation of the definition of high-level waste threatens this plan; gives DOE broad discretion to determine how dangerous a waste is; cuts the NRC, states, tribes and the public out of meaningful opportunities to comment on or impact DOE waste treatment and disposal decisions; and could result in DOE departures from existing legal agreements.

Alex summarized by saying that Washington supports more cost-effective solutions to high-level waste treatment and disposal, but not at the expense of long-term protection of human health and the environment.

DOE -RL Update

[RL update](#)⁵

³ <https://soundcloud.com/odoe/oregon-hanford-cleanup-board-3-11-2019#t=1:04:05>

⁴ <https://soundcloud.com/odoe/oregon-hanford-cleanup-board-3-11-2019#t=2:06:37>

⁵ <https://soundcloud.com/odoe/oregon-hanford-cleanup-board-3-11-2019#t=2:34:54>

Bill Hamel, U.S. Department of Energy, Richland Office, provided the Board with an update on the current cleanup activities for RL.

Bill said that the K-West Reactor Basin sludge removal project is moving forward. Everything has to be done remotely with specialized equipment, and it has to be done underwater for shielding. It is challenging work to move the sludge from the six containers that it is contained in to a specially designed cask. Nine containers of an estimated 22 have so far been transported for storage in T Plant. The goal is to be completed by this September.

The work at the Plutonium Finishing Plant is going to start again soon in what Bill described as “low risk demolition activities.” Bill said there were many lessons learned during the shutdown from the 2017 contamination incidents and subsequent corrective actions. High-risk demolition work should resume this spring or summer.

Crews have installed the first remote excavator in the 324 Building. Most of the focus so far has been developing the tools and procedures in the facility mock up, before they begin excavation of highly contaminated soil beneath one of the building’s hot cells.

Bill said that the PUREX Tunnel 2 stabilization project is going well. Grouting of the 1,688 foot long tunnel is 80% complete. They expect to be done by mid-April.

Bill then took some time to discuss the mission essential infrastructure issues at the Hanford site. Bill concluded his update by explaining the budget appropriations by control point to the Board as well as the status of new contracts.

Public Comment / Adjourn for the Day

Chair Taylor offered the public an opportunity to comment or ask questions.

Sharon Monteiro asked about alternatives to grouting and leaving the tanks in place.

Chair Taylor adjourned the meeting for the day at 5:15 p.m.

Tuesday, March 12, 2019

Members In Attendance:

Ted Taylor, Chair
Dan Solitz, Vice-Chair
Lori Brogoitti
Jurgen Hess
Steve March
John Howieson
Erica Elliott
Tom Roberts
Kristen McNall
Justin Iverson, Oregon Water Resources Dept.
Ken Niles, Oregon Dept. of Energy

ODOE Staff:

Mark Reese
Tom Sicilia
Sara Lovtang
Jeff Burright

Tri-Party Agencies:

John Price, Washington Dept. of Ecology
Dib Goswami, Washington Dept. Of Ecology

Public

Sharon Monteiro
Mary Lou Schones

Administrative

Chair Taylor opened the meeting at 9 a.m.

Link to opening of meeting: [Board opening and discussion](#)

Public Comments / Questions Opportunity

Sharon Monteiro addressed the Board to remind everyone that eight years ago the meltdown at the Fukushima Nuclear Power Plant occurred, and it is still affecting the Pacific Northwest.

M-091 Change Package

[M-091 Change Package](#)⁶

⁶ <https://soundcloud.com/odoe/oregon-hanford-cleanup-board-3-12-19-day-2#t=0:23>

John Price, Washington Department of Ecology, explained that one of the biggest remaining projects at Hanford is the retrieval, treatment, packaging, characterization, and shipping of transuranic waste off site for disposal. John said there is a considerable amount of transuranic waste yet to be dealt with:

- 12,000 containers – mostly 55 gallon drums – stored below ground in Hanford burial grounds
- 10,250 containers stored at the Central Waste Complex
- 136 large boxes stored on outside pads at the Central Waste Complex
- High-dose waste stored in various containers, underground in alpha caissons, and in storage casks

John said as yet, Hanford does not have facilities or capabilities of dealing with what is called remote-handled transuranic waste. This waste has high levels of penetrating radiation and must be dealt with in shielded facilities.

John said managing this waste – most of which falls under the M-091 milestone of the Tri-Party Agreement, will cost more than \$100 million annually beginning in the 2020s and continuing through 2050. Shipments of transuranic waste from Hanford to the Waste Isolation Pilot Plant are not expected to resume until 2028.

2019 Hanford Lifecycle Scope, Schedule, and Cost Report

Jeff Burright, Oregon Department of Energy, provided a detailed briefing on the 2019 Hanford Lifecycle Scope, Schedule and Cost Report.

[Jeff Burright](#)⁷

In February 2019, DOE released their first annual lifecycle report in three years, providing an estimate of the time and cost required to complete the Hanford cleanup mission.

This year's report shows a significantly higher total than the last report, ranging from \$323 billion to \$677 billion and extending to the end of this century and beyond. Jeff provided the Board a deeper look into this lifecycle report's methodology and findings and placed it in context with several other recent sources of sobering news and analyses that challenge the current cleanup path.

Following the presentation, the Board discussed lingering questions and the implications for cleanup represented by the lifecycle report.

It was suggested that perhaps ODOE could prepare a presentation for a future Board meeting to discuss "what's at stake" for Oregon if the cleanup were to change course, including detailed aspects of risk from multiple angles.

⁷ <https://soundcloud.com/odoe/oregon-hanford-cleanup-board-3-12-19-day-2#t=0:23>

Ken Niles responded that he would discuss the proposal with his staff and see what could be accommodated, but that such information would be difficult to report with a responsible degree of certainty.

Deep Vadose Zone contamination

Dib Goswami, Washington Department of Ecology, gave the Board an overview of the Deep Vadose Zone contamination on the Hanford Site.

Dib Goswami⁸

Dib explained what the deep vadose zone regions of interest are around the Hanford site and why groundwater remediation is important. The vadose zone is the unsaturated soil column between the ground surface and the water table. The “deep” vadose zone is the soil column more than 80 to 120 feet below the surface.

Dib said that there are more than 3,500 locations where waste was spilled, leaked, or intentionally disposed of by directly pouring it to the ground. More than 1,500 of those sites are on the Central Plateau.

Dib said there are multiple contaminants and co-mingled plumes. There is limited data in some cases and it is costly to characterize the vadose zone. Plus, there are a limited number of technologies to implement.

Dib said that the general conclusion by national experts is that the vadose zone contamination must be successfully remediated, or it will continue to re-contaminate the groundwater.

Dib encouraged the Board to continue to take an interest in the groundwater cleanup activities and to communicate to DOE that deep vadose zone cleanup is a priority.

Groundwater modeling

Tom Sicilia, Oregon Department of Energy

Tom presented the Board with an introduction to modeling and the complexities that go in to creating a groundwater model.

The presentation touched upon the different types of models; estimating parameters; and calibration.

Tom Sicilia⁹

Board Business

The Board set its next meeting for July 15 and 16, possibly in Troutdale.

⁸ <https://soundcloud.com/odoe/oregon-hanford-cleanup-board-3-12-19-day-2#t=1:58:00>

⁹ <https://soundcloud.com/odoe/oregon-hanford-cleanup-board-3-12-19-day-2#t=3:09:00>

Public Comment / Adjourn

The public was afforded an opportunity to make comments.

Sharon Monteiro said she lived during the Hanford operational period when single-pass reactor cooling led contaminants to reach the river and coastal estuaries. She said that the citizens of Oregon are depending on the Board to “hold the line” on the Hanford mission of cleanup, regardless of temporary political inconvenience.

She further inquired what studies have been done on the impacts to Columbia River silt from deposition of plutonium.

Marylou Schnoes from the League of Women Voters stated that it is not this Board’s duty to preemptively cut out cleanup activities. It is the Board’s obligation to represent the public and support the best cleanup possible. She stated that the Board should make the people who want to cut the cleanup scope and/or budget to justify doing less.

The meeting was adjourned at 1:25 p.m.

DRAFT