

Meeting Notes

Annual Meeting Between the U.S. Department of Energy, Office of River Protection (ORP) and the State of Washington, Department of Ecology (Ecology) to Discuss Interim Measures Completed in Fiscal Year 2012 and Planned for Fiscal Year 2013

Meeting Date: Thursday June 21, 2012

Location: Ecology, Conference Rm. 3B

Purpose: Fulfill Hanford Federal Facility and Consent Order commitment M-045-56, "to meet yearly...for the establishment of Additional Agreement Interim Measures."

Attendees: Jeff Lyon (Ecology), Joe Caggiano (Ecology), Mike Barnes (Ecology), Jeff Ayres (Ecology), Michelle Hendrickson (Ecology), Joni Grindstaff (ORP), Mark Triplett (PNNL), Susan Eberlein (Washington River Protection Solutions – WRPS), Dan Parker (WRPS), Dan Glaser (WRPS)

The following topics were discussed:

Actions Completed in FY2012:

No new activities were undertaken in FY2012 due to budgetary constraints.

Actions Ongoing in FY2012:

Interim measures maintenance plan: The Interim Measures Maintenance Plan (WRPS-00900388, Rev. 2, previously provided to Ecology) was discussed.

- The Interim Measures Maintenance Plan addresses inspection of drywells to ensure caps are in place and intact.
- The Interim Measures Maintenance Plan addresses inspection of berming/run off collection areas and culverts to (quoted from the Plan):
 1. *Confirm their ability to divert water runoff without failure.*
 2. *Verify that there are no obvious voids, animal burrows, or low spots.*
 3. *Confirm of adequate rock/gravel surface rather than dirt.*
 4. *Verify culverts are free of large cracks, washouts, missing sections, and to ensure pipe lap joints are not obviously inadequate [bent or torn lap seams].*
 5. *Confirm that discharge areas are not filled in with sand, nor has (sic) substantial erosion*
- Several questions required additional information:
 - Has there been any change identified for the labeling of drywells, based on an earlier incident where the wrong drywell was logged?
 - **Action:** Provide update on the incident regarding logging of the wrong drywell, and any planned action.



- Are there any criteria for the inspection of berms, beyond those described in the Interim Measures Maintenance Plan (cited above)?
 - **Action:** Determine if any additional criteria are used for drywell inspections, including an inspection sheet or checklist.
- Are curbs and gutters covered in the annual inspection, as well as berms?
 - **Action:** Determine if curbs and gutter are included in the annual inspection as well as berms.
- **Action:** Provide a copy of the 2011 berm inspection report.
- The group discussed the historic cutting and capping of water lines running into tank farms, and other water line testing.
- A question was raised on how active water lines are tested for leaks, and what the response is if lines are identified to be leaking.
 - **Action:** Provide information on testing and leak detection in active water lines, including criteria used to identify deviations from normal water usage that may trigger action. If necessary, facilitate a discussion between Ecology and the site water purveyor to address additional questions.

Ongoing monitoring and maintenance of interim surface barriers: The maintenance and monitoring of the interim surface barriers at 241-T and 241-TY farms were discussed.

- An evaluation of the barrier monitoring data was documented as a technical basis for changing the frequency with which the automated data recording is performed. Ecology is currently reviewing the draft document.
- A proposed change to the previous barrier monitoring plan, based on the above technical basis, was developed. Ecology is currently reviewing the proposed changes.
- **Action:** Complete review of technical basis and proposed changes to barrier monitoring plan.
- **Action:** Based on Ecology's review comments, finalize documents and develop TPA change notice for the barrier monitoring plan.)
- Some of the seams of the T farm interim surface barrier had been identified as needing repair – the question was raised regarding whether the repair had been completed.
 - **Action:** Determine if the repair of the T barrier seams has been completed.
- The possibility of integrating the barrier maintenance plan with the other interim measures maintenance plan was discussed. Since different functional organizations are responsible for performing the different types of inspections and repairs, it was suggested that combining the plans would not increase the effectiveness.

Actions Proposed for FY2013:

TPA Change Package M-45-12-04 added a milestone to provide a work plan to address surface geophysical exploration (SGE) in U farm in support of potential future barriers or other interim measures, direct push characterization in TX farm in support of potential future barriers or other interim measures, and performance of desiccation/contamination

removal proof of principle field testing at SX farm. Summary of plans for these activities were discussed:

SGE in U farm will employ the 10 deep electrodes that were previously placed there. More information will be provided in the upcoming work plan.

Direct push in TX farm will employ approximately 12 locations to provide information on the general boundary of sub-surface plumes. Each location will include a logging hole and a sampling hole, with an average of 3 samples in each sampling hole. As with previous direct push campaigns for potential barrier site characterization, samples will be analyzed for technetium, nitrates, and moisture content on a "quick-turnaround" basis (approximately 2 weeks). Additional analysis will occur as specified in the Sampling and Analysis Plan (to be developed).

Desiccation/contaminant removal testing at SX farm was discussed:

- The test concept will build on observations by the Plateau Remediation Contractor that under certain circumstances, flowing air through the vadose zone can remove both moisture and contaminants.
- Soil characterization at SX farm has indicated a moist, high ⁹⁹Tc and nitrate plume approximately 125 feet below ground surface on the west side of the farm.
- Initial lab scale testing and modeling at PNNL will help define field test parameters.
- The direct push unit will be used to place multiple narrow boreholes, screened in the region of known contamination (just outside the farm fenceline).
- The test will be designed to evaluate several approaches; pulling vacuum, forcing air, different velocities, etc. are all under consideration.
- Field set up and equipment construction will occur in FY2013. Field testing will occur in FY2014.
- More detail will be provided in the upcoming work plan.

It was noted that the approach being evaluated at SX farm is probably not applicable to C farm.

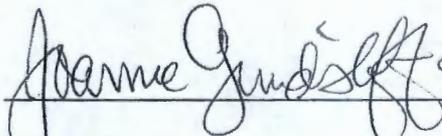
It was noted that TPA Change Package M-45-12-04 does not delete the construction of future interim barriers, but postpones the construction as described in the M-45-92 Milestone. Barriers serve several purposes, including preventing liquid intrusion into structures as well limiting moisture to act as a driving force for contaminant migration. It is estimated by Tank Farm Contractor personnel and reported in the 2/13/2007 T-106 Interim Surface Barrier/State of Washington ST-4511 Miscellaneous Streams Water Quality Discharge Permit Meeting Minutes that all twelve tank farms receive/generate a total of approximately 10 to 50 million gallons of water from precipitation a year.

It was concluded that this meeting had completed milestone M-045-56 for 2012, and had provided an effective forum to discuss progress and consider new idea.

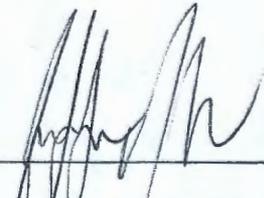
Action Items:

- Provide update on the incident regarding logging of the wrong drywell, and any planned action. (Eberlein)
- Determine if any additional criteria are used for drywell inspections, including an inspection sheet or checklist. (Eberlein)
- Determine if curbs and gutter are included in the annual inspection as well as berms. (Eberlein)
- Provide a copy of the 2011 berm inspection report (Eberlein).
- Provide information on testing and leak detection in active water lines, including criteria used to identify deviations from normal water usage that may trigger action. (Eberlein)
- If necessary, facilitate a discussion between Ecology and the site water purveyor to address additional questions. (Kemp)
- Complete review of technical basis and proposed changes to barrier monitoring plan. (Ecology)
- Based on Ecology's review comments, finalize documents and develop TPA change notice for the barrier monitoring plan. (WRPS/ORP)
- Determine if the repair of the T barrier seams has been completed. (Eberlein)

Concurrence:

 8-14-12

J. F. Grindstaff, ORP Date

 8-13-12

J. J. Lyon, Ecology Date