



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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May 16, 2008

Briant L. Charboneau
Richland Operations Office
United States Department of Energy
P.O. Box 550, MSIN: A6-33
Richland, Washington 99352

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EDMC

Re: Comments on the Deep Vadose Zone Treatability Test Plan for
the Hanford Central Plateau

Dear Mr. Charboneau:

The Department of Ecology reviewed the Deep Vadose Zone Treatability Test Plan for the Hanford Central Plateau (DOE/RL-2007-56, Revision 0). Ecology's comments are provided below. We request that the United States Department of Energy (USDOE) complete several items (a. – i.) within 60 days.

This test plan includes plans for two specific tests. It also proposes to document USDOE's "strategy to evaluate specific vadose zone remediation technologies for technetium-99 and uranium."

This test plan doesn't achieve that purpose because it inadequately identifies "likely response scenarios and potentially applicable technologies" – 40 CFR 300.430(b) (3).

Hanford vadose zone contamination has a large and complex scope. USDOE has specific responsibilities as the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) lead agency. One of those responsibilities is to develop and evaluate technological alternatives that "reflect the scope and complexity of the remedial actions under consideration" – 40 CFR 300.430(e)(1). The table found in Test Plan Appendix B is a generic "Remediation Technologies Listing" (e.g., "No Action"), and provides no indication of which ones are potentially applicable to the Hanford vadose zone. Ecology requests USDOE to submit an updated Appendix B to:

- a. Identify technologies potentially applicable to the Hanford vadose zone.
- b. Identify which of the potentially applicable technologies requires treatability testing at Hanford.
- c. Identify USDOE's schedule for testing other technologies, in addition to the two previously described in the test plan.

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The Hanford Facility Federal Agreement and Consent Order (HFFACO) requires USDOE to identify to Ecology and the U.S. Environmental Protection Agency (EPA), its multi-year funding requirements. This plan is an inadequate basis for USDOE to identify its multi-year funding requirements for treatability testing. Ecology requests USDOE to:

- d. Identify multi-year funding requirements for all required treatability testing.

The test plan was submitted pursuant to HFFACO interim milestone M-15-50. The purpose of this milestone was to ensure adequate progress towards completion of the major milestone M-15-00c, "COMPLETE ALL 200 AREA NON-TANK FARM OPERABLE UNIT SITE INVESTIGATIONS UNDER APPROVED WORK PLAN SCHEDULES THROUGH SUBMITTAL OF FEASIBILITY STUDY REPORTS AND A RECOMMENDED REMEDY(IES)." The test plan acknowledges that testing of two technologies will not allow USDOE to make adequate progress towards M-15-00c. The HFFACO obligates USDOE to submit to Ecology and EPA its detailed near-term schedules. Ecology requests that USDOE:

- e. Identify a detailed schedule for all required treatability testing.
- f. Update the Figure 6-1 schedule to show the concurrent testing of multiple technologies.

The test plan includes an extended (7-year) schedule for testing two specific technologies. This extended schedule is inconsistent with typical treatability studies, which are normally done on an expedited schedule. Ecology requests that USDOE:

- g. Identify an accelerated schedule for testing of the two technologies in Appendix D and E.

The test plan states that thorough characterization (using traditional sampling and analysis) of the vadose zone in the 200 Area is "cost-prohibitive." Ecology reminds USDOE of its lead agency responsibility to "develop sampling and analysis plans that shall provide a process for obtaining data of sufficient quality and quantity to satisfy data needs" – 40 CFR 300.430(b) (8). Further, the NCP requires that "Development of alternatives shall be fully integrated with the site characterization activities of the remedial investigation" – 40 CFR 300.430(e) (1). To the extent that USDOE considers current characterization technologies are too expensive, Ecology requests that USDOE initiate efforts to both reduce the unit costs of currently used characterization technologies, and develop alternative characterization technologies. Ecology requests that USDOE:

- h. Identify a "roadmap" for reducing characterization costs and developing alternative characterization technologies.

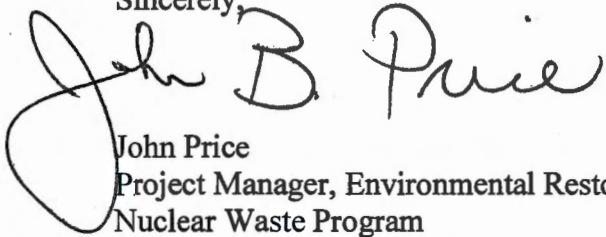
The lack of emphasis on uranium problems at the B/BX/BY tank farm is inconsistent with the programmatic goals described in the National Contingency Plan, 40 CFR 300.430(a)(ii)(C): "Site-specific data needs, the evaluation of alternatives, and the documentation of the selected remedy should reflect the scope and complexity of the site problems being addressed." Ecology, USDOE, EPA, the Nez Perce Tribe, and others have identified the uranium problems at the B/BX/BY tank farm as a significant part of the scope of Hanford vadose zone problems. The test plan lacks content specific to the B/BXBY uranium plume. Ecology requests that USDOE:


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- i. Identify a more detailed schedule that demonstrates testing of alternatives for the B/BX/BY uranium plume, and supports submittal of the M-015-42E feasibility study (12/31/2011). This schedule may be the same as item (g) above.

If you have any questions, contact John Price at 509-372-7921 or Dib Goswami at 509-372-7902.

Sincerely,


John Price
Project Manager, Environmental Restoration
Nuclear Waste Program


Dib Goswami
Lead Program Hydrogeologist
Nuclear Waste Program

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- cc: Craig Cameron, EPA
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Administrative Record: 200 Area/Groundwater
Environmental Portal

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