



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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July 9, 2010

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EDMC

Ms. Amy Legare, Chair
National Remedy Review Board
U.S Environmental Protection Agency
1200 Pennsylvania Ave NW MC5204P
Washington, DC 20460

Re: Department of Ecology (Ecology) Evaluation of the Feasibility Study for 200-PW-1/3/6 Hanford Site, Benton County, Washington, Operable Units (OU)

Reference: *Feasibility Study for the Plutonium/Organic-Rich Process Condensate/Process Waste Group Operable Unit: Includes the 200-PW-1, 200-PW-3, and 200-PW-6 Operable Units, DOE/RL-2007-27, Draft B* 0080863

Dear Ms. Legare:

Ecology evaluated the Feasibility Study for the 200-PW-1/3/6 OUs. Ecology's primary concern regarding remedy selection is the degree to which individual waste management units in 200-PW-1/3/6 have been characterized. Ecology weighed our concern against the following considerations:

- Ecology appreciates the substantial difficulty involved in drilling and sampling at these waste management units, considering the site-specific hazards of both radiation safety and nuclear safety.
- We commend the superior technical achievement of drilling the 216-Z-9 slant borehole.
- Ecology appreciates the considerable expense involved in drilling and sampling these waste management units.

Ecology understands the United States Department of Energy's (USDOE) desire to balance the difficulty and expense of characterization versus the value of the resulting data for making remedy decisions. However, Ecology disagrees with USDOE's apparent choice to mitigate the characterization difficulty and expense with a "correlation" of geologic strata to the nature and extent of contamination.

- Ecology acknowledges that a relationship between strata and contamination is possible and even likely.
- In this case, USDOE has not presented sufficient data to validate either that such a relationship exists, or to provide confidence in the degree of correlation.

Therefore, Ecology expects the feasibility study to include an explicit acknowledgement of the large uncertainty in the nature and extent of contamination, and the implications that uncertainty brings to the remedy decisions. Based on the relatively high degree of uncertainty, Ecology requests a bias towards a more robust remedy.

200-PW-1
200-PW-3
200-PW-6

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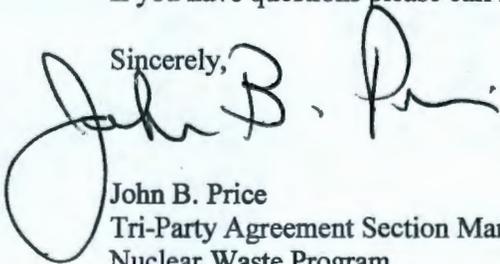
Ecology concludes that a more robust remedy offers the opportunity for more adequate data collection during implementation of the remedy. Ecology believes that a remedy selection can be made based on available data, with the commitment to the more robust remedy and additional data collection. On this basis, Ecology recommends selection of remedial alternative 3c. The 3c alternative includes soil vapor extraction for 10 years, removes a significant portion of the plutonium contamination, backfill to grade with evapotranspiration barrier, and institutional controls for 1000 years.

Ecology administers a federally authorized state hazardous waste program, including corrective action components. Ecology compared the Feasibility Study for the 200-PW-1/3/6 OU to Ecology's corrective action requirements. Ecology concludes that the selection of Alternative 3c is the best alternative for all potential contaminants within the remove-treat-dispose footprint and carbon tetrachloride contamination removal. Ecology can only support the 3c remedy as an interim action as this remedy does not explicitly address all contaminants of concern.

Two other major contaminants found at the OU are nitrate and radioactive technetium 99, as identified in DOE/RL-2007-27, draft B (Reference). The proposed remedy does not explicitly address these contaminants, and they are present at depths greater than the effective depth of any of the proposed alternatives. Remove-treat-dispose would be effective for the mass of these contaminants within the excavation footprint. However, even if in-process sampling helped characterize the extent of contamination beyond the excavation footprint, it may be impracticable to expand the excavation to address these particular contaminants.

If you have questions please call me at 509-372-7921 or Brenda Jentzen at 509-372-7912.

Sincerely,



John B. Price
Tri-Party Agreement Section Manager
Nuclear Waste Program

bj/dbm

cc:	Dave Bartus, EPA	Russell Jim, YN
	Emerald Laija, EPA	Susan Leckband, HAB
	Briant Charboneau, USDOE	Ken Niles, ODOE
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