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April 24, 2019 19-NWP-076

Michael W. Cline, Director, Soil and Groundwater Division
Richland Operations Office
United States Department of Energy
PO Box 450, MSIN: H6-60
Richland, Washington 99352

Re: Draft *Technology Evaluation and Treatability Studies Assessment for the Hanford Central Plateau Deep Vadose Zone*, DOE/RL-2017-58, Draft A

References: See page 3

Dear Michael W. Cline:

The *Technology Evaluation and Treatability Studies Assessment for the Hanford Central Plateau Deep Vadose Zone*, (DOE/RL-2017-58) does not satisfy requirements of the *National Contingency Plan* (40 CFR 300.430), nor the approved *Remedial Investigation/Feasibility Study and RCRA Facility Investigation/Corrective Measures Study Work Plan for the 200-DV-1 Operable Unit* (DOE/RL-2011-102, Revision 0).

In order to comply with those requirements, the Department of Ecology (Ecology) requests that you submit a draft change to the work plan schedule (DOE/RL-2017-58, Figure 6-1), in accordance with the change procedures in the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement), Section 9.3, "Document Revisions."

Ecology disagrees with the United States Department of Energy's (USDOE) conclusion (p. 5-12) that "no additional field studies are recommended at this time."

Ecology requests that the update to the schedule identify those additional laboratory studies that USDOE proposes, followed by the revised dates to "Initiate Additional Treatability Test **Field Work**" (emphasis added).

1. <u>Technology Evaluation does not meet the expectation for treatment</u>

   40 CFR 300.430(a)(1)(iii)(A); "EPA expects to use treatment to address the principal threats posed by a site, wherever practicable. Principal threats for which treatment is most likely to be appropriate include liquids, areas contaminated with high concentrations of toxic compounds, and highly mobile materials."

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DOE/RL-2017-58 does not identify in-site treatment technologies that are ready to be evaluated in a Feasibility Study. We note in particular that almost all technologies in Table 5-2 are marked red because "effectiveness and/or implementability is low." For example, Ecology disagrees with the low ranking for:

- Soil flushing in areas where we can take advantage of the existing 200 West (200-ZP-1 Operable Unit) Pump & Treat System.
- Soil desiccation, where preliminary tests at the 200-BC-1 Operable Unit (BC Cribs & Trenches) showed promising results.

Ecology requests that USDOE plan and schedule field tests for these two technologies, and allow contingency for a third field test based on the additional laboratory tests recommended by USDOE.

2. Technology Evaluation does not meet the expectation for innovative technologies

40 CFR 300.430(a)(1)(iii)(E); "EPA expects to consider using innovative technology when such technology offers the potential for comparable or superior treatment performance or implementability, fewer or lesser adverse impacts than other available approaches, or lower costs for similar levels of performance than demonstrated technologies."

DOE/RL-2017-58 includes the statement (p. 4-3):

> "Promising innovative technologies that are not mature enough to be developed within the timeframe needed for inclusion in the 200-DV-1 FS/CMS evaluations may still warrant consideration for other long-term technology development initiatives associated with the Hanford Site.'"

In response to the statement:

- USDOE should identify promising innovative technologies that are not mature, and should propose additional laboratory as well as field studies for those technologies.
- If the development of those technologies extend beyond the timeframe defined by the M-15-110b Milestone, then USDOE should propose a Tri-Party Agreement extension to allow adequate time to bring the technologies to maturity.
- Ecology is not aware of "other long-term technology development initiatives associated with the Hanford Site" and requests that USDOE identify those other initiatives.

3. Technology Evaluation does not match approved work plan schedule

Figure 6-1 is the schedule in the approved work plan. One line item in the schedule is "Initiate Additional Treatability Test **Field Work**" (emphasis added). A footnote in the table stipulates, "DOE may elect **(with agency approval)** to not implement additional treatability studies if the evaluation above demonstrates they are not necessary" (emphasis added). Ecology does not grant agency approval to forgo the Additional Treatability Test Field Work.

Ecology requests USDOE schedule a meeting to present a draft modification to Figure 6-1. In addition, Ecology would like to discuss with USDOE responses to letters on this same matter received from the Nez Perce Tribe (Reference 1) and the Oregon Department of Energy (Reference 2). Ecology believes many of the points made in the letters are worth our consideration.

If you have any questions, please contact me at dib.goswami@ecy.wa.gov or (509) 372-7902.

Sincerely,

Dib Goswami
200-DV-1 Project Manager
Nuclear Waste Program

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References:

1. Nez Perce Tribe letter, dated March 8, 2019, "Technology Evaluation and Treatability Studies Assessment for the Hanford Central Plateau Deep Vadose Zone, DOE/RL-2017-58 Draft A"
2. Oregon Department of Energy Letter, dated April 2, 2019, to William F. Hamel, USDOE-RL, from Ken Niles, Oregon Department of Energy

cc electronic:

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Environmental Portal
Hanford Facility Operating Record
MSA Correspondence Control
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Hanford Administrative Record
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