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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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March 3, 2009

Mr. Matthew S. McCormick, Assistant Manager
Richland Operations Office
United States Department of Energy
P.O. Box 550, MSIN: A5-11
Richland, Washington 99352

0079750 - Re: Department of Ecology's Comments on *Engineering Evaluation/Cost Analysis for the 200-MG-1 Operable Unit Waste Site, DOE/RL-2008-44, Draft A and Cost Estimate for the 200-MG-1 Operable Unit Engineering Evaluation/Cost Analysis Removal Actions, SGW-38383, Revision 0* 0078777

Dear Mr. McCormick:

The Department of Ecology's comments on the referenced documents are enclosed.
If there are any questions, contact me at 509-372-7921 or Mandy Jones at 509-372-7916.

Sincerely,

John B. Price
Environmental Restoration Project Manager
Nuclear Waste Program

mj/aa
Enclosure

cc w/enc:

Craig Cameron, EPA
Stuart Harris, CTUIR
Gabriel Bohnee, NPT
Russell Jim, YN
Susan Leckband, HAB
Ken Niles, ODOE
Administrative Record: 200 Area
Environmental Portal

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DOCUMENT REVIEW

Document: Engineering Evaluation/Cost Analysis for the 200-MG-1 Operable Unit Waste Sites, DOE/RL-2008-44, Draft A, and Cost Estimate for the 200-MG-1 Operable Unit Engineering Evaluation/Cost Analysis Removal Actions, SGW-38383, Revision 0

Reviewers: Mandy Jones, John Price, Les Fort

Date Comments Provided: February 27, 2009

General Comments on DOE/RL-2008-44, Draft A:

- 1) Ecology agrees with general comments #3, 5, 6, 8, 11, 12, 13, and 17 that the EPA made on MG-2 OU EE/CA (Dated December 8, 2008) and would like to add them to our general comments on the MG-1 EE/CA.

Specific Comments:

- 2) **Page 1-11, 2nd paragraph:** The “6 sites that were not evaluated against the removal action alternative criteria in this EE/CA” are not “addressed by this EE/CA.” DOE can: Evaluate the sites against the criteria, and revise the EE/CA accordingly, or Change the 193 to 187. Change this text according to which option DOE chooses.
- 3) **Page 1-11, 2nd paragraph:** It has come to our attention that DOE would like to add an additional waste site to MG-1, please modify this section as necessary.
- 4) **Page 1-11, 4th paragraph:** This document mentions “shallow contamination” in many locations. Please define what is meant by “shallow contamination.” This language also found on Page 3-1.
- 5) **Page 1-12, 1st paragraph and footnote:** Modify how the text describes the Industrial Exclusive Area. The DOE CLUP plans the land use for the Central Plateau as industrial exclusive for at least the next 50 years. This means the human health exposure scenario can be a DOE-trained worker for 50 years (until 2050), then an industrial worker thereafter. This discussion doesn't occur until section 2.5.2, so “Industrial Exclusive” and the footnote on page 1-12 should be deleted.
- 6) **Page 1-16, Section 1.4.2:** EPA will approve the Removal Action Work Plan SAP (but not the entire RAWP) in accordance with 40 CFR 300.415(b)(4)(ii). Change text to read, “The RAWP SAP will be approved by the Tri-Party agencies.”
- 7) **Page 1-16, Section 1.4.3, 1st sentence:** Clarify which DOE policies are applicable.
- 8) **Page 1-16, Section 1.5, last bullet:** Change “remedy” and “remedies” to “action” and “actions.”

- 9) **Page 1-18, Section 1.5.3:** Change “remedy” and “remedies” to “action” and “actions.”
- 10) **Page 2-2, Section 2.1.4, 2nd sentence:** This sentence states “...because the 200-MG-1 OU waste sites do not have the potential to impact groundwater or the deep vadose zone.” Can you really make this statement? Please provide justification for this statement.
- 11) **Page 2-15, Section 2.4.2, 3rd paragraph:** Define what the biological concentration guides are and cite a reference. Then add to the reference section.
- 12) **Page 2-19, Section 2.6:** Clarify that we are not only mitigating the threat of release, but also mitigating past releases.
- 13) **Page 3-1, Section 3-1:** The text “above the appropriate land-use criteria” needs to be modified as it is incorrect. The text as written says that a concentration will be compared to a land use criteria. A land use criteria is a descriptive term and is not a concentration. The text should convey that a concentration will be compared to different concentrations, depending on location.
- 14) **Page 3-2, Section 3.2:** Modify how the text describes the Industrial Exclusive Area. The DOE CLUP plans the land use for the Central Plateau as industrial exclusive for at least the next 50 years. This means the human health exposure scenario can be a DOE-trained worker for 50 years (until 2050), then an industrial worker thereafter.
- 15) **Page 3-2, 3rd paragraph:** Sentence states, “...encountered with deeper contamination...” Please clarify what is meant by “deeper.”
- 16) **Page 4-1, Section 4.2, bullets:** Include the Institutional Controls portion of this alternative in these bullets.
- 17) **Page 4-2, Section 4.3:** It may be acceptable to use direct radiological surveys without physical sampling and analysis, but only if there are discrete measurements taken that can be used to meet the MTCA three-part test. Ecology plans to evaluate the applicability of this language further when the RA work plan is completed.
- 18) **Page 4-2, Section 4.4, 3rd bullet:** Provide your basis for determining that the RTD alternative is not cost prohibitive.
- 19) **Page 4-3, Section 4.4, second to last paragraph:** Replace this paragraph with the following sentence, “Depth of excavation will be determined by On Scene Coordinator (OSC) in consultation with Ecology. In any event, extent of excavation will be consistent with the anticipated remedial action to the extent practicable.”
- 20) **Page 5-1, Table 5-1:** We suggest changing the table to show that there are subsets of “Effectiveness” the table as written makes it look like there are eight criteria, not three.
- 21) **Page 5-2, Section 5.1.1, NA, 3rd sentence:** The sentence reads, “Secondly, assuming that COPC concentrations exist above their PRCLs...” This seems contradictory to the

two base assumptions identified in the last paragraph of section 5.0, Analysis of Alternatives. Please adjust this language appropriately.

- 22) **Page 5-3, Section 5.1.1.2, 3rd sentence:** Change this sentence to read: "The MESC/IC/MNA alternative is protective, but unnecessary because no contamination above the PRCL is present." This language would be in more agreement with your two base assumptions.
- 23) **Page 5-9, Section 5.1.5.2, 4th sentence:** Please clarify when RTD would be used if contaminant levels are below PRCLs. It would be beneficial to state that RTD would not be an appropriate alternative in this situation.

General Comments on SGW-38383, Rev. 0

- 1) Document SGW-38383 has different cost estimate numbers than those in DOE/RL-2008-44. It appears to be different because of truncation and rounding off. Is this assumption correct?
- 2) Provide the basis behind all costs associated with the Environmental Restoration Disposal Facility (ERDF) disposal costs. A table or some basis for volume or mass needs to be provided. Different units are used throughout the document. Having a referenced table of fees would be beneficial.
- 3) The cost of borrow material – soil augmentation and backfill are not clearly identified nor shown. Please provide where appropriate.
- 4) SGW-38383 should be appended to DOE/RL-2008-44.
- 5) It is stated that "costs are rational, not absolute." An appropriate accuracy of -30% to +50% would indicate that only two significant figures would provide reasonableness for evaluation. Providing cost estimates to 8 and 9 significant figures gives the perception of precision. It is recommended to correct estimate to an appropriate number of significant figures that reflect the specified accuracy.
- 6) Provide the basis for the assumed number of samples per site.
- 7) Provide the basis for the crew "production rate."
- 8) Provide the basis for sample costs.
- 9) **Page 3-2:** Re-assess the assumption about using area costs for small sites. A better method might be to provide a correlation to a correction factor or some other form of cost adjustment in the cost estimate for small waste site remediation.
- 10) **Page 3-3:** Provide a basis for the planning costs (e.g., experience based on 2007 actual, etc.).