



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 HANFORD PROJECT OFFICE
712 Swift Boulevard, Suite 5
Richland, Washington 99352

0052496

January 27, 2000

Mr. Glenn Goldberg
Project Manager, Remedial Action Project
U.S. Department of Energy
Richland Operations Office
P.O. Box 550, HO-12
Richland, Washington 99352

RECEIVED
FEB 07 2000

EDMC

Re: Review Comments on the *100 Area Burial Grounds Focused Feasibility Study*,
DOE/RL98-18, Draft C and *Proposed Plan for the 100 Area Burial Grounds Interim*
Remedial Action, DOE/RL-99-59, Draft A

52340

52339

Dear Mr. Goldberg:

The Washington State Department of Ecology (Ecology) and the U.S. Environmental Protection Agency (EPA) have completed review of the *100 Area Burial Grounds Focused Feasibility Study* and the *Proposed Plan for the 100 Area Burial Grounds Interim Remedial Action*. In general, our comments on previous drafts of the feasibility study have been incorporated into the current version. However, we do have concerns regarding the presentation of discounted versus non-discounted (i.e., life-cycle) costs in the documents.

Enclosure 1 details our specific comments on the feasibility study. Enclosure 2 contains comments on the proposed plan.

Please contact Rick Bond, Ecology, at (509) 736-3037 or Dennis Faulk, EPA, (509) 376-8631 at your earliest convenience so we can resolve these issues.

Sincerely,

Rick Bond
Ecology

Dennis Faulk
EPA

Enclosures (2)

cc: Nanci Peters, Yakama Nation
Pat Sobotta, Nez Perce Tribe
J.R. Wilkinson, CTUIR
Administrative Record, all 100 Area Source Units

Enclosure (1): EPA & Ecology Comments on DOE/RL-98-18 Draft C
100 Area Burial Ground Focused Feasibility Study

General Comments

1. The issue regarding how the costs are going to be presented (i.e., discounted vs. non-discounted costs) needs to be resolved before the FFS and the PP are issued. In the current copy of the FFS, the discounted costs are presented, discussed, and used for comparison in Sections 6.0 and 7.0, and only two sentences are inserted in Section 7.0 (bottom of page 7-4) mentioning the non-discounted costs "for information purposes only." The non-discounted costs are one of the essential elements in support of selecting the remove/treat/dispose (RTD) remedial action alternative. The development of these costs and the assumptions that go into them need to be explained and used to support the RTD alternative throughout the document.

As shown in the documents, the RTD alternative can be more or less expensive than the containment alternative, depending on which cost numbers you choose.

2. The tone of both documents in the evaluation of alternatives is biased towards the containment alternative, particularly regarding short-term impacts and implementability.

Specific Comments

1. Page ES-4, Second bullet up from the bottom of the page: Insert "with" between compliance and ARARs.
2. Page ES-5, 2nd and 3rd Bullets: Combine the 2nd and 3rd bullets into one bullet similar to the first bullet on the page which combines the items for which the RTD alternative performed better.
3. Page ES-5, 4th bullet: For the next 8 small burial grounds would read better if it stated for the next 8 medium size burial grounds.
4. Page ES-5, Last line: Insert "," before and after "as necessary."
5. Page 1-4, Last line: This sentence which contains "monitor alternative implementation success ..." is confusing and should be worded better.
6. Page 2-5, First paragraph, first sentence at the top of the page: The part where it says "and the Hanford Future Site Uses Working Group" doesn't fit with the rest of the sentence the way it is currently worded.
7. Page 2-5, Second paragraph, last sentence: Remove the word and from the line "100 Area land and use ROD..."

8. Page 2-16, 4th and 5th paragraphs regarding Conditions 4 and 5: Conditions 4 and 5 are not well explained and well written compared to Conditions 1, 2, and 3.
9. Page 3-7, Second bullet under Section 3.5: The term should read inorganic chemicals or metals, instead of organic chemicals.
10. Page 4-2, First paragraph under Section 4.3: Insert the acronym for monitored natural attenuation after it is first used.
11. Page 4-2, Second paragraph under Section 4.3, third sentence: Insert a comma after radionuclides and chemicals.
12. Pages 4-5 and 4-6, and Figure 4-2: The figure doesn't seem to be consistent with the text. The figure is confusing in that the label states that Barrier #1 is 1.2 meters thick and Barrier # 2 is 2.7 meters thick, however, Barrier #2 is shown as being thinner than Barrier #1. Also, the thickness numbers given in cm for each layer don't add up to the total thickness number on the figure.
13. Pages 6-9 and 6-13, and Tables 6-1 and 6-2, Cost issue: All these costs are presented as present worth only. Life cycle costs should also be presented.
14. Tables 6-1 and 6-2: The titles should contain the word "cost", "present worth cost.
15. Page 7-4, Last paragraph: One paragraph on non-discounted costs without any explanation is not sufficient. Again, the cost issue needs to be resolved.
16. Page 7-7, Second paragraph, Section 7.3.1: Again, how costs are presented needs to be resolved. This is the paragraph where it is suggested that a combined remedy of RTD and containment be used based on the size of the burial ground.
17. Appendix E: Cost issue needs to be resolved.

Enclosure (2): EPA & Ecology Comments on DOE/RL-99-59 Draft A
Proposed Plan for the 100 Area Burial Grounds Interim Remedial Action

General Comments

1. The non-discounted costs are included as "For information purposes" as a single sentence with no explanation of assumptions and how they were developed, and no table of the costs for each site. The non-discounted costs are one of the essential elements in support of selecting the remove/treat/dispose (RTD) remedial action alternative. The development of these costs and the assumptions that go into them need to be explained.
2. On Page 20, second paragraph in the first column, the document discusses the "lowest cost alternative" as being a combination of RTD and containment. More thought needs to go into how to, and even whether to, present this alternative. If it is presented, it should not be referred to as the "lowest cost alternative" because it may not be if the costs are not discounted for 1999 dollars. If this alternative is presented, it should be discussed as an alternative in the "Summary of Remedial Alternatives" section and the non-discounted costs should be presented in addition to the discounted costs.

Specific Comments

1. Page 2, right column, 2nd paragraph: This paragraph's statement that no releases have occurred from burial grounds is not verified. Change sentence to read "are expected to have occurred."
2. Page 2, 1st paragraph, site characteristics: provide the conversion of 16 cm to inches. Also, anywhere in the document where metric units are used, please provide English units also. In addition, what is the significance of stating that D-2 and F-5 are within the Wild and Scenic River corridor?
3. Page 10, First sentence at the top of the second column: The 1999 CERCLA interim action ROD is not listed in the "Supporting Documents" section at the end of the PP (page 22).
4. Page 10, First sentence of the first paragraph under the section "Scope and Role of Action" in the second column talks about interim remedial actions for **structures** at the burial grounds. What structures are you referring to?
5. Page 11, Figure 7, caption at the bottom of the figure regarding "100-N Area Interim ROD 9/99 and Pending Interim ROD" is not current. The 100-NR-1/100-NR-2 Interim ROD was signed in 9/99 and calls for RTD at 85 out of an initial 114 soil sites and pump and treat groundwater for a cost of \$50 million. The 100-NR-1 TSD ROD to be signed in January 2000 calls for RTD at 3 TSD soil sites for a cost of \$22 million.
6. Page 12, right column, second paragraph, delete the second sentence.

7. Page 14, Top of the first column, first and second line: It should read is necessary to protect public health, welfare, and the environment from.... Remove "or" from the sentence.
8. Page, 14, right column: delete top paragraph.
9. Page, 17, right column, delete the 3rd paragraph, also in the 4th paragraph delete the last sentence.
10. Page 18: the Evaluation of the nine criteria will need to be revised as per our comments on the FS.
11. Page 20, Top of the first column, first paragraph, last sentence: The non-discounted costs are included as "For information purposes." These costs and the assumptions that go into them need to be explained. See General Comment #1 above.
12. Page 20, First column, second paragraph, last sentence: Need to expand this sentence to say that say that the remaining 16 the burial grounds will be remediated by containment and that the costs presented here are for present value (i.e., discounted costs). See General Comment #2 above.
13. Page 20, delete NEPA evaluation
14. Page 22, Supporting Documents: Need to include the reference to the 1999 ROD as referenced on Page 10. See Specific Comment #1 above. Also delete EPA and Ecology admin record locations.
15. Phone numbers are all incorrect.