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Mr. Douglas R. Sherwood
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U.S. Environmental Protection Agency
712 Swift Boulevard, Suite 5
Richland, Washington 99352-0539

SEP 13 1999

Mr. E. R. Skinnarland
200 Area Section Manager
Nuclear Waste Program
State of Washington
Department of Ecology
1315 West 4th Avenue
Kennewick, Washington 99336-6018



Dear Messrs. Sherwood and Skinnarland:

200-BP-1 PROTOTYPE BARRIER TREATABILITY TEST REPORT, DOE/RL-99-11, REV. 0

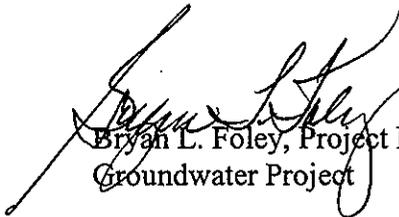
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Please find attached a copy of the subject document (Attachment 1) for your use and information. The report summarizes the results of four years of monitoring and testing of the prototype Hanford Barrier constructed over the 216-B-57 Crib in the 200 East Area. Comments received from the U.S. Environmental Protection Agency on Draft A of the report have been dispositioned (Attachment 2) and incorporated accordingly.

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If you want to discuss this matter further or require additional information, please contact me at 376-7087.

Sincerely,


Bryan L. Foley, Project Manager
Groundwater Project

GWP:BLF

Attachments: As stated

cc: w/attachs:
J. W. Donnelly, Ecology
L. C. Treichel, EM-442

cc: w/o attachs:
B. H. Ford, BHI
D. A. Faulk, EPA
C. D. Wittreich, CHI

INTRODUCTION

The U.S. Environmental Protection Agency (EPA) has completed the review of the 200-BP-1 Prototype Barrier Treatability Test Report (DOE/RL-99-11, Draft A) date June of 1999. The following comments are based on a review of that document.

GENERAL COMMENTS

In general, the report is a well-thought out compilation of the information gained from the performance testing of the Hanford Barrier over the past four years. The data provided will be useful in remedial decisions for waste sites located at Hartford and other arid environments. The EPA supports the continued long term monitoring of the Hanford Barrier as well as asphalt durability and subsidence effect testing. As stated in Section 4, further examination of material sources for cover use on the Hanford Site must be completed to minimize cultural and environmental/ecological impacts from borrow sources. The EPA anticipates continued involvement with the Department of Energy, the Department of Ecology and the Tribes and trusties to resolve these issues.

Response: Comments noted.

SPECIFIC COMMENTS

Executive Summary, Page ES-1, First Paragraph. In general, the primary objective of the test was to document constructability, construction costs, and performance on a waste site. It is not specific for the 200-BP-1 operable unit but rather in support of the barrier program.

Response: The objective of the treatability test was 200-BP-1 specific, as well as being applicable to the Hanford site-wide barrier program consistent with the "Treatability Test Plan for the 200-BP-1 Prototype Surface Barrier, DOE/RL-93-27, Rev. 0". No change.

Executive Summary, Page ES-1, Third Paragraph. The report should provide the information from the treatability test and any recommendations for future testing needed for the barrier. The report should not provide recommendations for remediation of the operable unit.

Response: The treatability test was performed in support of the 200-BP-1 cleanup process. As a result, RL believes that path forward recommendations for remediating the 200-BP-1 waste sites are appropriate. The sentence will be modified to clarify that "future monitoring" recommendations are also provided.

Introduction, Page 1- I, Third Sentence. The text should state that the selection of a surface barrier is the proposed remedial alternative, not the preferred remedial alternative.

Response: The sentence will be modified to add "proposed" before "remedial alternative".

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Section 1.1, Page 1-1, Second Paragraph, Second Sentence. The text states that the information may be used in support of remedy selection for waste sites in the 200 Areas. This should be expanded to include the Hanford Site as well as other sites of a similar arid climate.

Response: The sentence will be modified by replacing "in the 200 Areas" with "on the Hanford Site".

Section 1.1, Page 1-1, Second Paragraph, Third Sentence. Change "though" to "through."

Response: The sentence will be corrected accordingly.

Section 1.3.1, page 1-4, Last Paragraph. It would be valuable to add a discussion of the other barrier program testing within the DOE Complex (e.g., Sandia National Labs testing of cover designs).

Response: RL is willing to consider this issue separately under an overall barrier remediation strategy for the Hanford Site, if appropriate. For this report, DOE complex-wide barrier testing is considered beyond the scope of the document. No change.

Section 2.0, Page 2-1, Second Paragraph, Third Sentence. The design life is also supported by the previous testing completed as part of the Barrier Program.

Response: The sentence will be modified by adding "and previous longevity evaluations completed as part of the barrier development program (see Section 1.3.1)".

Section 2.2.2.1.1, Page 2-10, First Sentence. The meaning of the last part of this sentence is unclear.

Response: The sentence is not germane and will be deleted.

Section 2.2.2.1.2, Page 2-16, Sixth Paragraph, First Sentence. Change "water" to "wind."

Response: The sentence will be corrected accordingly.

Section 3.2.1.3.5, Page 3-25, Second Paragraph, Third Sentence. This sentence states that under elevated conditions of runoff, both side slope configurations produced the same drainage. The information provided on page 3-17 shows that, under irrigated treatment, the gravel slope drained consistently less than the riprap slope. The inconsistency should be addressed.

Response: The sentence on page 3-25 will be clarified to indicate that both configurations generally produced similar amounts of drainage. The first sentence in the first full paragraph on page 3-17 will be revised as follows: "Except for the winter of 1997-1998, the amount of drainage from the irrigated gravel slope was similar to that of the irrigated riprap slope."

Section 4.0, Page 4-1, Third Bullet. The "RCRA low-permeability soil criterion" of 10^{-7} is a recommended maximum.

Response: The sentence will be clarified accordingly.

Section 4-0, Page 4-3, First Paragraph. The operable unit specific recommendations specifying the selection of the Hanford Barrier as the final remedy for 216-B-57 and adoption of a surface barrier using the graded approach for the BY cribs should be removed from this section. The intent of this report is to provide information concerning barriers to be used in the selection of remedies for other waste sites.

Response: See dispositions to comments on Executive Summary, Page ES-1, First Paragraph and Third Paragraph.

Section 4-0, Page 4-5, First Bullet, Second Paragraph, Fourth Sentence. The "RCRA low-permeability soil criterion" of 10^{-7} is a recommended maximum. Site specific data must be used to assure that the permeability of the cover is less than or equal to the permeability of a liner system (if used) or the natural subsoils.

Response: The sentence will be clarified that the RCRA low-permeability soil criterion of 10^{-7} is a recommended maximum.

Section 4-0, Page 4-7, Second Bullet. A further effort should be made to evaluate data from other DOE Sites, particularly the testing by Sandia National Laboratories in Albuquerque, New Mexico. The tests by Sandia include several cover designs for arid environments.

Response: See disposition to comment on Section 1.3.1.