



0051439

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 HANFORD PROJECT OFFICE
712 SWIFT BOULEVARD, SUITE 5
RICHLAND, WASHINGTON 99352

July 14, 1999

Brian L. Foley
Department of Energy
P.O. Box 550, MSN H0-12
Richland, WA 99352



Re: 200-BP-1 Prototype Barrier Treatability Test Report, DOE/RL-99-11

Dear Mr. Foley

The U.S. Environmental Protection Agency has completed the review of the *200-BP-1 Prototype Barrier Treatability Test Report*, DOE/RL-99-11, Draft A dated June 1999. An electronic version of the comment will be provided to the Department of Energy.

51420

If you have any questions, please contact our office at 376-6865.

Sincerely

Pamela S. Innis
EPA Project Manager
Barrier Program

Attachment

cc: 200-BP-1 Administrative Record
J.W. Donnelly, Ecology

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 Hanford 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 trustees to resolve these issues.

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.

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.

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

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.

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

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).

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.

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

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

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.

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

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.

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.

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.