



Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352
JUL 25 2002

0057766

02-ERD-0104

Mr. David R. Einan
Acting Hanford Project Manager
U.S. Environmental Protection Agency
712 Swift Boulevard, Suite 5
Richland, Washington 99352

RECEIVED
JUL 30 2002
EDMC

Dear Mr. Einan:

**STABILIZATION PLAN FOR LEAD AND BARIUM CONTAMINATED SOILS FROM
300-FF-1**

- References: (1) RL ltr. to J. A. Hedges, Ecology, and D. R. Sherwood, EPA,
From A. C. Tortoso "Transmittal of Treatment Plan for Chromium
Contaminated Resins, RFS-ERDF-008," dtd. April 25, 2002
- (2) RL ltr. to D. R. Sherwood, EPA, from O. C. Robertson
"Stabilization Plan for 300 Area Lead Contaminated Soil,
RFS- ERDF-007, Rev. 0," dtd. February 8, 1999.

This letter will serve to modify and clarify the approved stabilization plan (reference 1) in order to apply the previously developed stabilization plan for the 300 Area to both lead and barium contaminated soils currently stockpiled and being excavated in the 618-4 and 618-5 burial ground.

Stabilization of lead contaminated soils with Toxicity Characteristic Leachate Procedure (TCLP) analysis between 5 and 18.9 mg/l, the TCLP concentrations of the soils used in the bench scale test for the previous 300 Area stabilization campaign, will utilize the same reagent mixture and mix times used in that campaign. Any soils that are encountered with higher TCLPs will be discussed with the U.S. Environmental Protection Agency (EPA) to determine if additional bench scale testing is needed. Additionally, any soil containing pieces of lead debris and slag will be treated in accordance with Section 3.5.2 of the Remedial Design Report/Remedial Action Work Plan for the 300 Area, DOE/RL-2001-47; Rev. 0.

Barium contaminated soil in the existing stockpile will be sampled and analyzed for total barium. If greater than 20X the Land Disposal Restriction (LDR) limit, it will also receive TCLP analysis. If the TCLP is greater than the LDR limit, a bench scale test will be conducted to determine the reagent mixture necessary to successfully treat the soil. If the soil is below the LDR limit, either by total barium or by TCLP, it will be treated using the same reagent mix used for the lead contaminated soils.

Newly excavated soil contaminated by barium, or any other Resource Conservation and Recovery Act (RCRA) metals, will only be subject to treatment if the total concentrations exceed 20X the LDR limits and a subsequent TCLP analysis confirms LDR limits have been exceeded. In such cases a bench scale test will be performed and a treatment plan will be prepared and submitted for EPA approval. On a case-by-case basis, with EPA concurrence, comparable tests and treatment plans for similarly contaminated soils will be used.

At the Contractor's option, the barium, lead, and other RCRA metals-contaminated soils that require treatment may be intermingled for treatment, using the higher of the tested reagent mixes for the combined stream. Temporary staging in stockpiles may take place, contingent on the completion of the appropriate Amended Record of Decision (ROD) revision documentation, over inactive portions of the Environmental Restoration Disposal Facility (ERDF) trench (i.e. the 35- or 70-foot levels). Alternatively, waste to be treated may be staged prior to treatment at the ERDF in soil bags or other containers.

The basis for this course of action is:

- The prescribed treatment for both lead and barium contaminated soil is stabilization with cement or flyash. Other RCRA metals encountered must be treatable with cement or flyash to be included.
- Treatment plan for chromium-contaminated resins (reference 2) establishes the use of a single bench scale test for continuous treatment of media contaminated below the level of that which was tested.
- Intermixing of lead and barium contaminated soils will maintain treatment effectiveness while possibly saving cost and improve system efficiency.

JUL 25 2002

Mr. David R. Einar
02-ERD-0104

-3-

Slight modifications to the stabilization plan for 300 Area Lead contaminated soil (reference 1) allowed by this letter include:

- Use of a different mix box(s). All performance parameters for the box will be met in the new box (es).
- The original plan specified only 42 containers of waste to be treated. This modification will allow treatment of all soils with TCLPs lower than that used for bench scale testing.
- 300 Area personnel instead of ERDF personnel may perform bench scale testing.

The ROD of October 1997 allows for treatment of waste to take place at the ERDF. The amended ROD states, "Treatment determinations would still be documented as part of the remedy selection process for the operable unit..." The original 300 Area lead soil treatment plan constituted the documentation of the remedy selection and was approved by the EPA. Since this letter modifies the treatment plan it must receive EPA's concurrence.

If you have any questions, please contact me, or you may contact Owen Robertson, Project Lead, of my staff, at (509) 373-6295.

Sincerely,



Kevin D. Bazzell, Acting Director
Environmental Restoration Division

ERD:OCR

cc: M. Goldstein, EPA
Administrative Record (300 Area)

Concurrence:


Michael Goldstein, EPA 300 Area Project Manager