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U-007-305.78

**DISAPPROVAL OF THE OU 5 PSP FOR K1 SOIL SAMPLING AND
ANALYSIS**

09/22/1994

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COMMENTS

DOE-FN



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

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REPLY TO THE ATTENTION OF:

SEP 22 1994

Mr. Jack R. Craig
United States Department of Energy
Feed Materials Production Center
P.O. Box 398705
Cincinnati, Ohio 45239-8705

HRE-8J

RE: Disapproval of the OU 5
PSP for K₁ Soil Sampling and
Analysis

Dear Mr. Craig:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the Project Specific Plan (PSP) for Operable Unit (OU) 5 K₁ Soil Sampling and analysis. Although the PSP meets the stated objectives, significant issues exist regarding quality control samples and appropriate analytical support levels.

Therefore, U.S. EPA hereby disapproves the OU 5 PSP pending incorporation of responses to the attached comments into the document. Please contact me at (312) 886-0992 if you have any questions.

Sincerely,

James A. Saric, Remedial Project Manager
Technical Enforcement Section #1
RCRA Enforcement Branch

Enclosure

- cc: Tom Schneider, OEPA-SWDD
- Jack Baublitz, U.S. DOE-HDQ
- Don Ofte, FERMCO
- Jim Theising, FERMCO
- Paul Clay, FERMCO

Ticked (K)
Action response
to R-2030.
(8228)

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Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.0 Page #: 3-3 Line #: NA

Original Specific Comment #: 3

Comment: Table 3-1 lists analytical support levels (ASL) for the various analyses to be performed. The ASL for liquid samples used to determine K_1 is listed as "NA". Appendix A of the PSP indicates that the Fernald Environmental Management Project (FEMP) laboratory will conduct total uranium analyses of the liquid to determine K_1 . Because of the importance of the K_1 data and due to the significant role this data will have in future remedial decisions, total uranium and isotopic uranium analysis should be conducted by an approved off-site laboratory using ASL D.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.0 Page #: 3-3 Line #: NA

Original Specific Comment #: 4

Comment: Table 3-1 lists the number of samples to be collected for each of the various analyses to be performed. Table 3-1 lists a total of 15 samples to be collected from the 0- to 2-inch and 24- to 30-inch intervals will be subject to total uranium analysis. Instead, 15 samples should be analyzed for total uranium from each of the two intervals for a total of 30 samples to be analyzed for total uranium. DOE should revise its technical approach.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.0 Page #: 3-3 Line #: NA

Original Specific Comment #: 5

Comment: Table 3-1 lists ASLs for the various analyses to be performed. This table lists ASL B for total and isotopic uranium analysis for the 0- to 2-inch and 24- to 30-inch sampling intervals as well as for the 0- to 6-, 6- to 12-, 12- to 18-, and 18- to 24-inch sampling intervals. ASL D should be used for samples from these intervals because the data may be used in conjunction with the other data used to support risk assessment and remedial action decisions. In addition, high quality data should be as comparable as possible when being used to formulate conclusions that will have a major impact on remedial action decisions. DOE should revise its technical approach to reflect these changes and should note that the change in ASL from B to D will require that an off-site laboratory conduct the analyses.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.6.1 Page #: 3-7 Line #: NA

Original Specific Comment #: 6

Comment: The PSP states that duplicate analyses will be conducted at a rate of one per 20 samples, or a portion there of. Instead, duplicate sample analyses should be conducted at a rate of one per 10 samples, or a portion

there of. Increasing the rate of duplicate sample analyses is necessary because of the importance of the K₁ determination and the significant role this data will have in future remedial decisions.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.11 Page #: 3-11 Line #: NA
Original Specific Comment #: 7

Comment: This section states that the K₁ analysis will be conducted on site at the FEMP laboratory at ASL B. As stated earlier in specific comments, the K₁ analysis should be conducted at an off-site laboratory at ASL D or higher.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.11 Page #: 3-11 Line #: NA
Original Specific Comment #: 8

Comment: The PSP should include cation exchange capacity (CEC) as an additional analysis for each sample. Information on the CEC for samples may provide useful information when evaluating differences in analytical results from different samples.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.11 Page #: 3-12 Line #: NA
Original Specific Comment #: 9

Comment: The PSP states that quality control (QC) samples such as rinsate, field blank, and duplicate samples will be analyzed for hazardous substance list metals and total uranium. QC samples should be analyzed for the same parameters as the investigative samples. The PSP should be revised to include isotopic uranium and radiological suite analyses.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 4.2 Page #: 4-1 Line #: NA
Original Specific Comment #: 10

Comment: The PSP states that rinsate samples will be collected from decontaminated sampling and homogenization equipment. Rinsate samples should also be collected from decontaminated equipment used to sieve investigative samples.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: Appendix A Page #: NA Line #: NA
Original Specific Comment #: 11

Comment: Appendix A states that the soil sample collected from the tumbler at the end of the second batch test will be split for analysis; however, it does not state what type of analysis will be performed. Appendix A to the PSP should be revised to state why this analysis is being conducted and to specify what analytes are being tested for.