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OU #4: K-65 SILO RESIDUE SAMPLING AND ANALYSIS PLAN

7-1-91

USEPA/DOE
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LETTER

[redacted]

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

1743

July 1, 1991

REPLY TO ATTENTION OF:

5HR-12

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

RE: OU #4: K-65 Silo Residue
Sampling and Analysis Plan

Dear Mr. Craig:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the Operable Unit #4 revised K-65 Silo Residue Sampling and Analysis Plan received by U.S. EPA on June 3, 1991.

U.S. EPA hereby disapproves the Plan. The deficiencies are attached.

Please contact me at (312/FTS) 886-0992 if you have any questions.

Sincerely,

James A. Saric
Remedial Project manager

Enclosure

cc: Graham Mitchell, OEPA-SWDO
Pat Whitfield, U.S. DOE-HDQ

(callr.)
action
response
to U-1484
(3085)

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UNITED STATES DEPARTMENT OF ENERGY
FEED MATERIAL PRODUCTION CENTER
RESIDUE SAMPLING FOR K-65 SILOS SAMPLING AND ANALYSIS PLAN
Dated May 28, 1991
Reviewed by:
United States Environmental Protection Agency Region V
Radiation Section

SPECIFIC COMMENTS

1. Section 2.3, Page 21 paragraph 1
It is stated in this section that each sample will be analysized for radiological parameters. A listing of the actual radionuclides to be analyzed for in the text would be helpful. In table 2-1 it lists the determination of number of samples for radionuclides using method SW-846. It should be specified whether these are the radionuclides that will be analyzed for, or if additional radionuclides will be included in the analysis.

2. Section 3.3, page 29, second bullet
It is cited that there will be visual inspection, video recording and radiological scanning of cores according to DWP-002. The type of radiological scanning needs to be clarified as to the sensitivity of the scanning through the lexan and the percentage of possible false negatives that may be acquired by use of the method chosen.

1. Section 2.0, page 12: This section does not adequately explain why Silo 3 will not be resampled. PRC is not recommending that Silo 3 be resampled, but rather that DOE provide an explanation that is supported by the data collected to date.

2. Section 2.1, page 12: The text states that the 1989 EP toxicity data was used in determining the sample size per EPA document SW 846. This statement is not accurate, neither tables 2-1 through 2-3, or the following discussion on recommended number of sample (Section 2.2), use the 1989 EP toxicity data.

3. Section 2.2, page 14: The discussion on statistical determination of the number of samples to be collected is inappropriately applied to the situation. Second, assuming the observed mean concentration is equal to 50 percent of the regulatory threshold (RT) biases the statistical determination. Because of these two point, the discussion on the statistical determination of the number of samples does not add much useful information.

4. Section 2.2, page 14: The statement in the last paragraph discussing the collection of 8 samples from two cores from each silo for a total of 18 samples (16 investigative samples and 2 QC samples) is not consistent with either Figures 2-1 and 2-2 or Table 2-4. The text should be revised to indicate that 12 samples, from three cores, from each of the two silos, for a total of 24 investigative samples will be collected for chemical and radiological analysis.

5. Section 2.3, page 21: The text should be revised to state that a total of 24 investigative samples will be collected for chemical and radiological analysis.

6. Section 2.3, page 22: Samples for HSL inorganic and radiological analysis should be shipped as they become available and not wait until the end of the project.

7. Section 3.7.1, page 36: The proposed phasing of TCLP analysis will not be adequate to meet the holding times for the TCLP analysis (28 days to extraction and 7 days to analysis). It is recommended that these samples be analyzed as they are collected so that data of acceptable quality is obtained.