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**DISAPPROVAL OF REMOVAL ACTION 24 PILOT
PLANT SUMP**

08-21-92

USEPA/DOE-FN

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LETTER



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REPLY TO THE ATTENTION OF:

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 Removal Action 24
Pilot Plant Sump

Dear Mr. Craig:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the United States Department of Energy's (U.S. DOE) Removal Action 24 Pilot Plant Sump Work Plan.

U.S. EPA hereby disapproves the Work Plan pending incorporation of the enclosed comments.

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
Dennis Carr, WMCO

(SHAH)
PARTIAL ACTION
RESPONSE TO
DOE-2198-92
(4721)

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AUG 27 1992

PILOT PLANT SUMP
REMOVAL ACTION NO. 24 WORK PLAN
TECHNICAL COMMENTS

GENERAL COMMENTS

- 1) The removal action (RA) work plan includes provisions for sampling to support health and safety and to ensure compliance with applicable or relevant and appropriate requirements (ARAR). However, the references to numbers and types of sample analyses are vague. Also, analytical support levels (ASL) are referenced only by level (A, B, C, or D); the specific analytical methods, analytical parameters, and method detection limits are not provided.

The U.S. Department of Energy (DOE) should supply specific information on numbers of samples, required analytical parameters, and analytical methods (broken down by ASL and the corresponding method). DOE should/must also provide sample-specific information with regard to containerization; sample volume; sample preservation and holding times; and required quality control sampling, including preparation of field duplicates, blank samples, and matrix spike duplicates.

- 2) The sampling activity protocols are vague. For example, according to DOE, four samples will be collected from four equally spaced locations around the sump; these samples will be collected from a depth of 0 to 12 feet and analyzed in 1-foot segments. The RA work plan should indicate how samples will be collected, and how many samples will be analyzed for each segment. The current approach suggests that up to 12 segments may be analyzed for each sampling point. If field screening will be used to limit the number of analyses, the decision criteria should be discussed and the minimum number of samples identified.

AUG 27 1992

SPECIFIC COMMENTS

1. **Section 6.1.2, Page 6-4, Paragraph 2.** The first sentence says that "the number of each type of sample is discussed in Section 3.0, Sampling Procedures." The correct reference is Section 6.2. However, Section 6.2 does not specify the number and type of each sample to be collected; it provides only a summary of the sampling procedures. Another section should be added that identifies the numbers of samples, types of samples, analytical parameters, and analytical methods.
2. **Section 6.2.2, Page 6-6, Paragraph 3.** The text indicates that samples will undergo Level D analysis. DOE should specify the associated analytical parameters, analytical methods, and method detection limits.
3. **Section 6.2.2, Page 6-7, Paragraph 1.** As discussed in General Comment 2, DOE should specify how sampling of the perimeter of the sump pit will be conducted. The sampling protocol should be identified along with the anticipated number and type of samples, analytical parameters, and analytical methods.
4. **Section 6.2.2, Page 6-7, Paragraph 2.** The text indicates that samples will undergo Level C analysis for the target analytes. Table 6-2 indicates the analytical methods, but it is not possible to identify the difference between Level C and Level D analyses. The parameters and methods associated with Level C and Level D ASLs should be clearly identified.
5. **Section 6.3, Page 6-8, Paragraph 1.** The text references Table 6-2, but neither the text nor Table 6-2 sufficiently identifies the required analyses. For example, only one analytical method is cited for lead, yet the text identifies both ASL C and D analyses for lead. The number and types of samples to be collected should be identified by task and medium; at a minimum, the associated ASL and analytical method should be identified. Method detection limits should also be provided, perhaps in an attachment.

General Comments

The information given throughout this workplan provides only a brief outline of the radiologic control measures which will be taken to assure worker exposures are maintained as low as reasonable achievable. In order for an accurate determination to be made of how well exposures will be controlled, more information should be provided. The workplan should include specific radiation protection measures for the entire sump removal sequence. Specific details should include time intervals between radiation surveys and the monitoring instrumentation and methods which will be used.

The attached Health and Safety Plan lists continuous air monitoring equipment for identifying airborne particulate material however, specific methods and procedures should be cited to assess the effectiveness of the respiratory protection program. Derived air concentrations should be provided and be directly applicable to this removal action.

Specific Comments

1. Section 2.0 Page 2-7 para 2

Based on the information provided there is sufficient justification for the removal of this sump. However, there is insufficient information presented to justify not removing the inlet piping. Consideration should be given to removing the inlet piping, or justify why this removal will wait for the pilot plant demolition.

2. Section 2.1 Page 2-7 para 1

More detail needs to be provided on the nature of by-products from past operations known to have occurred at the pilot plant in order to provide an accurate assessment of the sump contents, and the extent of contamination released to the environment. Justification should then be provided for the choice of contaminants of concern.

3. Section 2.1 Page 2-8 para 2

The logic behind the sample selection methodology for soil and water samples should be articulated.

4. Section 2.3 Page 2-9 para 1

A copy of (SOP) 20-C-916 should be appended to this document and its provisions summarized for clarity.

5. Section 3.3.2 page 3-2 para 1

The definitive design documents should be reviewed along with this removal action workplan to provide a accurate assessment of removal strategies.

6. Section 4.2 Page 4-7 para 3

This section indicates that there may be other sources that drain into the temporary sump. If there are other potential pathways for environmental contamination this should be articulated.

7. Section 5.0 Page 5-1 para 2

The text that states "Existing samples of the soils in the area indicate acceptable levels of both hazardous materials and radioactivity." Clarify what these acceptable levels are and how they are being applied.

8. Section 5.3 Page 5-2 para 2

The provisions of Removal Action No. 12 - Safe Shutdown Procedures and Protocols, should be summarized for clarity.

A estimated volume of sump waste should be indicated.

9. Section 5.5.4 Page 5-8 para 1-3

The provisions of Removal Actions 17 & 9 should be summarized for clarity.

10. Section 6.2.2 Page 6-7 para 3

Soil background levels should be provided to clarify the radiological and chemical screening criteria.

11. Attachment 2 page 1-6

Section 2.1 provides a summary of the perched water monitoring wells that soil samples were collected from. Wells 1252, 1253, 1411, and 1504 are identified as part of the soil sampling scheme. Attachment 2 provides radiologic subsurface soil data for wells 1250, 1253, 1246, and 1411. It is unclear as to what wells subsurface soil samples were actually taken from. No data is provided for wells 1252 and 1504. Data are provided for wells 1250 and 1246, however, these wells were not part of the stated sampling scheme. Clarify.

Also, the depths at which soils samples were taken and the radiologic parameters that soils were analyzed for seem to vary between each well. Justification should be provided to clarify these inconsistencies.

12. Attachment 3 Page 1-3

Radiologic data is not provided for perched water. Clarify if the perched water was analyzed for radiologic constituents.