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• **APPROVAL OF OU #5 WORK PLAN ADDENDA,
RESPONSE TO COMMENTS**

12/03/92

USEPA/DOE-FN
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LETTER



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

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CHICAGO, IL 60604-3590

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U-007-305.23

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: Approval of OU #5 Work Plan
Addenda, Response to Comments

Dear Mr. Craig:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the Operable Unit (OU) 5 Remedial Investigation (RI)/Feasibility Study (FS) Work Plan Addenda, Response to Comments (RTC). U.S. EPA originally submitted comments on the addenda on June 1, 1992. The RTC were submitted on October 23, 1992.

In several responses the United States Department of Energy (U.S. DOE) stated that based upon existing data no further sampling is necessary. U.S. DOE should be aware that U.S. EPA has not seen this data, and if the data does not adequately support U.S. DOE's conclusions further sampling may be necessary.

The RTC has adequately addressed the majority of U.S. EPA's comments. However, there are a few instances where changes are necessary.

Therefore, U.S. EPA approves the RTC pending incorporation of the attached comments. U.S. DOE must make the appropriate changes to the RTC, incorporate the changes into the work plan, and submit a revised work plan within thirty (30) days of receipt of this letter.

Please contact me at (312) 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

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OPERABLE UNIT 5 REMEDIAL INVESTIGATION AND FEASIBILITY STUDY
REVISED WORK PLAN ADDENDA

All of the U.S. Department of Energy (DOE) responses to U.S. Environmental Protection Agency (EPA) comments are considered acceptable except as noted below.

RESPONSE TO GENERAL TECHNICAL COMMENTS

1. **Original Comment 2:** DOE responded to this original comment by explaining the difference between critical samples and completeness. EPA agrees that the two concepts are different. However, EPA does not agree that the proposed action of footnoting the data quality objective (DQO) tables is sufficient. The approved quality assurance project plan (QAPjP) dated March 1988 requires 90 percent sample completeness for all sampling activities. If DOE now believes that 75 percent completeness is appropriate it should provide its rationale and formally request that the QAPjP be modified.
2. **Original Comment 4:** EPA acknowledges that the approved remedial investigation and feasibility study (RI/FS) QAPjP requires only one rinsate sample per set of 20 samples or fraction thereof and that the QAPjP does not require collection and analysis of duplicate samples for soils or solid matrices. However, EPA believes that collecting and analyzing duplicate samples of soils and solid matrices are sound scientific practice regardless of the requirements in the QAPjP.
3. **Original Comment 6:** The schedule provided in the RI/FS monthly report does not specifically establish schedules for each of the sampling programs included in the work plan addenda. In addition, the schedule lists only start and end dates. A schedule that includes dates and time frames for field activities, laboratory analyses, data validation, and interim reporting should be developed and provided in the revised work plan addenda and updated in the monthly reports.
4. **New Comment:** Review of the data presented for the Plant 1 pad area indicates that a significant data gap exists. The data gap involves the extent of ground-water contamination in the Plant 1 pad area. Although DOE's proposal to conduct two rounds of ground-water sampling and analysis for full hazardous substance list (HSL) parameters, full radiological parameters, and general ground-water quality parameters is acceptable, DOE proposes to sample only four wells in this area. DOE should investigate the extent of ground-water contamination west and southwest (the directions of ground-water flow) of the Plant 1 pad. In addition, DOE should investigate the extent of ground-water contamination north of the Plant 1 pad to determine whether the Plant 1 pad is the source or an upgradient source exists.

RESPONSES TO SPECIFIC TECHNICAL COMMENTS

5. **Original Comment 8:** DOE's response, which proposes conducting two rounds of ground-water sampling and analysis for HSL parameters, full radiological parameters, and general ground-water quality parameters, is acceptable. However, DOE's proposal to sample only four wells is not acceptable for the following three reasons. First, DOE's response states that wells 1337, 1343, and 1347 have been abandoned because of maintenance activities along the west side of the Plant 1 pad. Because the ground-water flow is to the southwest, wells in downgradient of the Plant 1 pad in the area of the abandoned wells (and slightly farther west) are critical in defining the nature and extent of contamination in the Plant 1 pad area. Second, the highest levels of radionuclide contamination in the Plant 1 pad area were found in samples collected from wells 1337 and 1339 along the northern portion of the Plant 1 pad. Ground-water samples should be collected from wells upgradient (north) of the northern portion of the Plant 1 pad to determine the source of the perched ground-water contamination. Third, the ground-water quality data that DOE has collected to date (as presented in the work plan addenda) represents an incomplete data set. The expanded ground-water sampling program should include sampling ground water from all wells in the Plant 1 pad area and analysis for full HSL parameters, full radiological parameters, and general ground-water quality parameters. This sampling program should include wells 1333 through 1350; and replacement wells for wells 1337, 1343, and 1347.
6. **Original Comment 11:** DOE responded to this comment by stating that 10 additional soil samples were collected, that the build-over criterion of 35 picocuries per gram was met, and that additional soil or ground-water sampling in the vicinity of locations 05455 and 05458 is not warranted. This response is not acceptable for two reasons. First, DOE does not provide the location where the 10 additional soil samples were collected or the sample analytical results. Since these samples were analyzed by Westinghouse Environmental Management Company of Ohio as part of its plant maintenance and operation the analytical results may not meet RI/FS requirements for data quality. Second, ground-water contamination in the perched water zone appears to be pervasive in the study area, and soils from locations 05455 and 05458 exhibit the highest total uranium concentrations among those collected in the area. DOE should investigate the level of ground-water contamination in a potential source area.
7. **Original Comment 12:** DOE's response appears to be adequate; however, DOE does not provide information concerning the location of additional wells or the analytical data to support its conclusions in the well 1169 area. DOE should provide this information.
8. **Original Comment 16:** The four hand-auger samples to be collected in the drainage system appear to be adequate to determine whether contaminants are present. However, if contaminants are detected, DOE will need to collect additional samples to determine the extent of contamination.

DOE should consider using a more comprehensive sampling program to avoid the potential need for additional data gathering efforts.

9. Original Comment 20: The intent of EPA's comment was not to replace the selection of soil samples for HSL analysis based on HNu readings with the selection based on screening results from radiation survey meters. EPA intended that samples from areas of high radiological contamination be analyzed for HSL parameters in addition to samples showing elevated readings on the HNu.