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**REMOVAL ACTION 14 CONTAMINATED SOILS
ADJACENT TO THE SEWAGE TREATMENT PLANT
INCINERATOR**

10-08-92

**USEPA/DOE-FN
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LETTER**



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

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OCT 08
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REPLY TO THE ATTENTION OF:

HRE-8J

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

RE: Removal Action 14 Contaminated
Soils Adjacent to the Sewage
Treatment Plant Incinerator

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) letter regarding Removal Action (RA) 14-Contaminated Soils Adjacent to the Sewage Treatment Plant. U.S. EPA approves of U.S. DOE's removal of soil areas contaminated with greater than 300 pCi/g total uranium. However, U.S. EPA has previously approved the RA Work Plan, which called for the removal of soils containing greater than 100 pCi/g total Uranium. Although it is now apparent that the amount of soil contamination containing greater than 100p Ci/g total Uranium is much more extensive than originally anticipated it is not justification for revising the Removal Site Evaluation.

Given the larger volume of soil, which will need to be addressed as part of this Removal Action, U.S. DOE must submit a Work Plan addendum detailing how both the horizontal and vertical extent of soil contamination will be determined. Once this Work Plan has been approved and implemented, and the extent of the soil contamination is better understood, then various options for further action be discussed.

U.S. DOE must submit a Work Plan Addendum for RA 14, to U.S. EPA for review and approval, within ninety (90) days of receipt of this letter.

If you have any questions regarding this matter please contact me at (312) 886-0992.

Sincerely,

James A. Saric
Remedial Project Manager

Enclosure

cc: Graham Mitchell, OEPA-SWDO
Pat Whitfield, U.S. DOE-HQ
Dennis Carr, WMCO

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(SHAH)
PARTIAL ACTION RESPONSE
TO T-1840
(4668)

TECHNICAL REVIEW OF CONTAMINATED SOILS ADJACENT TO THE SEWAGE TREATMENT
PLANT INCINERATOR, REMOVAL ACTION NO. 14, LETTER REPORT

GENERAL TECHNICAL COMMENTS

1. The letter report summarizes the proposed scope of the Option 5 remedial alternative which includes the following: (1) excavation of soils with greater than 300 pCi/g total uranium and (2) additional sampling for on-property and off-property areas. The report does not discuss interim measures for erosion control or controlling potential direct exposure. Because much of the contaminated soils will remain in place until Phase III can be implemented, DOE should consider immediately implementing institutional measures such as fencing and temporarily covering exposed soils.
2. DOE proposes on-property sampling of surface soils and off-site sampling of surface soils from a depth of 0 to 18 inches. On-site samples will be collected from 4-foot deep borings. DOE should provide more detail on the proposed sampling procedures. DOE should clearly indicate whether sampling locations will be random or biased, and whether they will consist of grab or composite samples. EPA suggests that depth-discrete samples be taken in areas exhibiting low, moderate, and high contamination to determine whether there is (1) a relationship between elevated contamination levels at the surface and with depth, and (2) whether contamination is confined to the upper soil horizon.

DOE's proposed approach appears to be too limited to determine the depth of contamination and the volume of soil that will have to be removed. DOE indicated (in the August 19, 1992 meeting) that soils could be analyzed for total uranium with a 6-week turnaround. Considering the extent of contamination, EPA believes that additional subsurface sampling points should be included to identify the depth of contamination and to accurately assess the volume of soil that may require remediation.

3. While DOE's letter indicates that a report will be prepared following the implementation of Phase II activities, DOE does not indicate when Phase II activities will take place or when the report will be submitted. DOE should provide a revised schedule for the Phase II activities and should include a date for the submittal of the Phase III Report.
4. DOE's letter presents a phased approach and states that DOE, U.S. EPA, and OEPA agreed upon this approach in an August 19, 1992 meeting. Although EPA did agree to the removal of soil exceeding 300 pCi/g, EPA did not agree to the proposed scope of the investigation. DOE should qualify the statement appropriately.
5. The letter states that DOE will complete Phase III (submittal of analytical results of additional sampling) by April 30, 1993. The time frame for this report is unacceptable. Waiting six months for data from a time critical removal action is not appropriate when the removal site evaluation (RSE) determined there is an imminent and substantial threat to human health and the environment. Further, DOE's indication that on-site analysis of uranium requires only 6 weeks makes the decision making time-frame too long. DOE should expedite the submittal of the Phase III report.
6. The letter also states that DOE will complete Phase IV (submittal of the Need for Further Action Report) by July 30, 1993. First, it is unacceptable to revise the RSE to determine if additional action is required. The original RSE already determined that the contamination present above 100 pCi/g for total uranium presented an unacceptable risk. DOE has proposed removing soils with greater than 300 pCi/g total uranium, which will leave soil in-place exceeding the original 100 pCi/g action level. Thus, the Phase IV report must identify actions which will control exposure to soils exceeding 100 pCi/g total uranium. Second, it is unacceptable to wait until July 30, 1993 for DOE's proposal for additional action. DOE has already determined that removal and containerizing all soils with total uranium concentration above 100

pCi/ is not a viable alternative. Therefore, DOE should propose other alternatives (eg. capping, stabilization, in-situ solidification) as soon as possible.

7. The sampling plan attached as Enclosure II to DOE's letter should also include field screening method for volatile organic compounds (VOC). Any sample which screens positive should be sent to an off site laboratory for organic analysis.