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**MAJOR POINTS AND ISSUES RESULTING FROM
THE APRIL 10, 1991 MEETING**

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**DOE/EPA
DOE-1186-91**

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LETTER



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APR 22 1991
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Ms. Catherine A. McCord
Remedial Project Manager
U. S. Environmental Protection Agency
Region V - 5HR-12
230 South Dearborn Street
Chicago, IL 60604

Mr. Graham E. Mitchell, DOE Coordinator
Ohio Environmental Protection Agency
40 South Main Street
Dayton, OH 45402

Dear Ms. McCord and Mr. Mitchell:

MAJOR POINTS AND ISSUES RESULTING FROM THE APRIL 10, 1991 MEETING

Enclosed for your review are the major points and issues, which were discussed during the April 10, 1991 meeting in Chicago. Included in the enclosure are action items, which will be discussed during the May 3, 1991 meeting.

Please review the package and indicate your concurrence with the enclosed material, by returning the enclosed concurrence sheet to me. If you have any points of clarification or additional information you feel must be included, please annotate the concurrence page and provide your comments on a separate sheet of paper. Your comments will be made a part of the permanent record.

If you have any questions, please contact Randi Allen at (513) 738-6158 (FTS 774-6158) or me at (513) 738-6159 (FTS 774-6159).

Sincerely,

Jack R. Craig
Fernald Remedial Action
Project Director

FSO:Allen

Enclosures: As stated

APR 24 1991

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cc w/encls.:

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MAJOR POINTS OF DISCUSSION AND ISSUES RESULTING FROM THE
APRIL 10, 1991 MEETING

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I have reviewed the enclosed material and concur with all discussion points and resulting action items.

Catherine A. McCord
U. S. EPA - Region V
Remedial Project Manager

Date

Graham E. Mitchell
Ohio EPA
DOE Coordinator

Date

MEETING BETWEEN DOE/U.S. EPA/STATE OF OHIO
MAJOR POINTS OF DISCUSSION AND ISSUES

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April 10, 1991

Discussion:

- o The draft logic diagram for the K-65 Removal and Sampling Actions was presented to U. S. EPA and Ohio EPA. Several changes to the original schedule were highlighted and are as follows:
 - Radon Treatment System (RTS) modification would be made prior to sampling. The reason that the RTS modification was rescheduled was the associated down time with the current RTS configuration, which would be nine (9) days if a leak developed in the RTS shielding structure housing the carbon filters, moisture absorbent canister, and blower. The new RTS configuration would have the blower outside of the shielding structure and allow tightening of the seals of the blower if a leak develops. (Because the blower is the only moving part of the RTS system, leaks tend to occur at either the boot couplings or the blower packing glands). The piping of the RTS would not be replaced, saving two weeks of schedule. The piping joints would be recaulked and monitored prior to system startup; in addition, replacement piping would be on-site in the event a leak developed in a pipe during operation.
 - The slant boring activity falls on the critical path because the crane is required for demobilization. DOE will investigate the possibility of accelerating this event.
 - The content mapping activity of the two silos are not shown as parallel events on the revised schedule. Although the RTS could draw down the radon concentration on Silos 1 and 2 simultaneously, performing mapping on one silo while simultaneously sampling the other silo requires coordination of two crews in a limited space with crane operations over one area. DOE will investigate the possibility of performing these activities in parallel; however the safety and health of employees remains an issue of paramount concern.
 - All field events lie on the critical path. The two major assumptions concerning these activities were addressed, specifically the crews would be on seven-day work weeks and every day would be favorable working day (i.e., no rain and ambient radon concentrations within DOE guidelines). DOE emphasized that these were conservative assumptions considering the past field experience and likelihood of bad weather. U. S. EPA recognized that these conditions could delay field activities but stressed that future meetings would be the forum at which the impact of these delays could be addressed.

- o At the request of the Steering Committee, WMCO and Sandia personnel attended the meeting and presented the results of their respective reviews on the K-65 Silos. The results of the two studies were as follows:
 - Sandia Structural Analysis of K-65 Silos: The Sandia review focused on the structural integrity of the silos and the independent structural analyses performed by Camargo and Bechtel. The major results of this report are: (1) the impact of a seismic event was not adequately addressed in the previous K-65 Silos structural analyses; (2) the K-65 residues may not be compatible with the bentonite to be applied if it is acidic (this item was resolved because the K-65 residues were neutralized prior to introduction into the silos, a fact that was not available to the Sandia reviewers due to the report time constraints); (3) hydrogen gas theoretically could be generated from the K-65 residues due to radiolysis; and, (4) a tight structure should be erected over the K-65 Silos to mitigate impacts of external weathering.
 - Westinghouse Review of K-65 Silos and Potential for Hydrogen Generation in the Waste: The Westinghouse review (done by GOCO Nuclear Safety & Environmental Oversight Committee) investigated two aspects of the K-65 Silos: (1) the existing condition of the silos and the appropriateness of planned actions; and (2) the potential for hydrogen generation as a result of radiolysis in the K-65 residues. First, on the existing condition of the K-65 Silos, the group concluded that the bentonite cover would mitigate radon emissions but further recommended that the removal of the K-65 residues from the silos be considered. The option presented in the Westinghouse report was to place the K-65 residues in a tight container, such as a double-lined steel tank. The second report investigated the possible generation of hydrogen in the K-65 residues due to radiolysis. The generation of hydrogen gas was estimated to be approximately 2,000 liters per year, which would constitute less than 0.2 percent of the dome volume above the K-65 residues. DOE committed to further analyze the potential impact of this estimated generation of hydrogen.
- o U. S. EPA expressed a strong interest to further investigate the erection of a tight containment structure over the K-65 Silos and to investigate removing the contents of the K-65 Silos prior to the final remedy as part of a removal action. DOE emphasized that these types of activities are best investigated as part of the ongoing RI/FS process and must be carefully considered as they could impact the schedules and the final remedial action.

- o DOE and WMCO emphasized that the previously-discussed procurement difficulties (lead time to obtain parts, supplies, and equipment) have been addressed, and are not a problem internal to WMCO purchasing procedures. If parts are available, they can be obtained quickly. In addition, WMCO indicated that Mr. Bogar, a senior WMCO executive, has been assigned primary responsibility for the K-65 Sampling and Removal Action. Mr. Bogar will ensure that procurement for these activities is assigned the top priority.
- o DOE, as lead agency, strongly recommended that U.S. EPA and Ohio EPA become more active as consultants and participants in the establishment of revised, achievable schedules. This includes the development and recognition of major assumptions and issues, which have a major bearing on this long-range schedule. Although U.S. EPA and Ohio EPA agreed that these efforts would be beneficial, U.S. EPA indicated that they had not officially agreed that the current schedules should be renegotiated.

Next Steps

- o DOE will investigate the possibility of over pressurizing the RTS prior to modification to test for leaks in the lines while the system is in closed loop configuration. In addition, DOE will test the system following modification while it is in its closed loop configuration. The test procedures for these operations will be provided to U. S. EPA and Ohio EPA.
- o DOE will review the past environmental monitoring records to determine whether there was ever recorded a radon concentration of 3.0 pCi/L above background at the site boundary. U. S. EPA indicated that environmental monitoring data from 1987 may have indicated that this condition was observed.
- o DOE will develop a contingency plan in case the bentonite cover applied to the K-65 residues is observed to dry out. This contingency plan will be provided to U. S. EPA and Ohio EPA.
- o DOE will investigate the possibility of accelerating the removal and possible treatment of the K-65 residues. This will include investigating a tight containment structure installation over the K-65 Silos.
- o DOE will investigate the possibility of installing radon detectors in the yards of individuals most subject to exposure to identify possible above background concentrations of radon.
- o DOE and the State of Ohio will determine the prospects of performing an emergency exercise for the site.
- o DOE will provide status of activities underway, which will determine the practicality of on-site disposal of the K-65 residues.

- o DOE will analyze the potential impact of hydrogen generation in the K-65 residues and determine whether the hydrogen may have a deleterious effect on the bentonite cover.
- o DOE will provide a proposal for establishing revised, achievable RI/FS schedules by June 1, 1991. This proposal will include major assumptions and issues, which will be used as a basis for establishment of revised RI/FS schedules. DOE, U. S. EPA, and Ohio EPA agreed that interaction is necessary between these agencies prior to June 1, 1991, to develop the major assumptions required to develop the new schedules; however, U. S. EPA would not commit to participating until the schedules were officially being renegotiated. Thus, the June 1, 1991 date becomes tentative at best.