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R-009-207.15

**OHIO EPA COMMENTS WORK PLAN FOR THE
SOUTH GROUNDWATER CONTAMINATION
PLUME REMOVAL ACTION PART 2 AND PART 3**

01/18/91

OEPA/DOE-FMPC

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LETTER

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State of Ohio Environmental Protection Agency

Southwest District Office

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January 18, 1991

Mr. Andrew P. Avel
U.S. DOE FMPC
P.O. Box 398705
Cincinnati, Ohio 45239

Dear Mr. Avel:

Ohio EPA staff has reviewed the Work Plan for the South Groundwater Contamination Plume Removal Action-Part 1 and Part 2 and comments are attached. It appears that many of the details such as performance objectives will be in the Operations and Maintenance Manual. Ohio EPA and GEO Trans staff will need to review this manual as soon as possible. Please let us know when this manual will be available.

If you have any questions about the attached comments, please contact me.

Sincerely,

Graham E. Mitchell
DOE Coordinator

GEM/cjs

cc: Tom Winston, Chief, SWDO
Jack VanKley, Ohio Attorney General's Office
Catherine McCord, USEPA
Robert Owen, ODH
Lisa August, GEO-Trans

E-1418

ATTACHMENT**OHIO EPA COMMENTS****WORK PLAN FOR THE SOUTH GROUNDWATER
CONTAMINATION PLUME REMOVAL ACTION
PART 2 AND PART 3****GENERAL COMMENTS**

1. Although it should not hold up progress on this removal action, DOE should submit an application for modification of DOE's NPDES permit to reflect the major changes outlined in this removal action work plan.
2. In order to avoid the misplacement of figures within the text during transmittal, DOE should label figures which exist as part of an attachment as such (ie. "Figure 1 of Attachment III, Location of Safety Hazards"). This action will allow figures to be replaced if accidentally shuffled.
3. The final EE/CA for the South Plume discussed the need for an archeological survey to "be performed in the recovery-well area prior to any drilling" (page 5-18, fourth full paragraph). The work plan does not refer to this survey in any section. The survey should at least be discussed in the text and presented in the Removal Action Schedules (Attachment I).
4. Measures should be taken to ensure that erosion of the FMPC outfall pipeline does not occur as a result of the groundwater pipeline discharge in the area of manhole 177.

WORK PLAN COMMENTS

1. Page 2-2.1, (second paragraph)- The paragraph should indicated that potassium 40 has been found above background concentrations in the South Plume area. This contaminant has been associated with industries B and C.
2. Page 4-2.3- Add Ohio EPA and describe role as DOE has done in previous work plans.
3. Page 8-3.2, (first paragraph)- DOE should begin now to acquire access and get additional data needed to determine final extraction and monitoring well locations for this removal action.
4. Page 8-3.2, (second paragraph)- The Operations and maintenance Manual should be submitted to Ohio EPA for review and comment. When does DOE expect to have a draft manual ready for review? This manual should address the following concerns:

9. Page 11 5.2-Section-Due to the complexity of the wastewater system, the proposed changes, and the multiple monitoring locations, DOE needs to include a flow diagram of the wastewater system proposed in this section of the work plan. The diagram should also detail the wastewater discharge monitoring locations. The text in turn can detail which parameters will be sampled at the individual monitoring points. This diagram will allow the reader to more readily understand the complicated flow paths described in this section and discern the appropriateness of the proposed monitoring locations.
10. Attachment II, Section 1.0, Page 1-Thorium and Radium are not considered in the build-over criteria presented here. These contaminants maybe encountered during construction activities near the production area. Other radiological contaminants should be considered when determining build-over criteria. This removal action may impair the implementation of final remediation if a final cleanup level of less than 35pCi/gm of total uranium is determined and a structure vital to the removal action is placed over soils above the final remediation cleanup level.
11. Attachment II, Section 1.0, Page 1 (third paragraph)- DOE should provide justification for analyzing only 10% of the post-construction sampling locations for full HSL analysis. This seems to be a rather insignificant sampling effort and probably does not provide a representative view.
12. Attachment III, Section 12.5 Page 27 (first full paragraph)-The text should cite Figures 2A and 2B instead of Figure 2, since two figures actually are presented. This will avoid confusion on the part of the reader as to the relationship of the two figures.
13. Attachment III, Figure 1-A more specific title for Figure 1 should be provided (such as "Excavation Safety Hazard Location").
14. Attachment IV, Page 1, Required Permits-In the final EE/CA for the South Plume, it is stated that "a Corps of Engineer permit would be required for the stream crossing" (page 5-18, third full paragraph) associated with the preferred alternative. The COE permit was not included in the permits required section of this work plan. DOE needs to provide justification for the omission of this permit.

- A. Based on field data and modeling analysis, performance objectives should be determined for the removal system. These objectives (which are not discussed in the Work Plan) should include specification of desired hydraulic gradients, necessary drawdowns, and chemical concentration criteria that can be measured to assess whether or not the system is functioning adequately.
 - B. The design of the monitoring system, therefore, including the locations of monitoring wells and frequency and types of measurements to be made, depends on specification of the performance objectives and must be sufficient to permit performance assessment.
 - C. Intensive measurements made during system start-up will provide valuable hydraulic data which can be used to refine the groundwater model and optimize system operation. Detailed plans for start-up monitoring and/or pilot hydraulic tests should be prepared based on modeling analysis.
 - D. Changes in the hydraulic head field induced by recovery well operation and the cessation of pumping of nearby industrial wells may result in undesired migration of chemicals from the Paddys Run Road site. Specific monitoring should be planned and implemented to evaluate this potential; and contingency plans should be developed to control undesired chemical migration.
5. Page 9-4.0 (a)-Additional monitoring wells for the area west of the recovery wells should be considered to provide early warning of contaminant migration from Industries B and C.
 6. Page 9-4.0 (a)-Historic water levels should be referred to when selecting the screen interval for additional monitoring wells (Section 4.0).
 7. Page 10-4.0 (d)-This section should state that the uranium removal capability will exceed the amount contributed by other removal actions. This is consistent with the dispute settlement and the way the action is described on Page 3 of the Permit Information Summary.
 8. Section 5.1, Page 11, (first paragraph)- This section should detail the parameters for which the new monitoring wells and the recovery wells will be sampled. The sampling frequency for these wells should also be included.