

1218

R-009-208.10

**RESPONSE TO OEPA'S COMMENTS WORKPLAN
FOR THE SOUTH GROUNDWATER
CONTAMINATION PLUME REMOVAL ACTION
PART 2 - PUMPING AND DISCHARGE SYSTEM
PART 3 - INTERIM**

XX/XX/XX

DOE-FMPC/OEPA

9

ENCLOSURE

OU5

WORKPLAN FOR THE SOUTH GROUNDWATER CONTAMINATION PLUME REMOVAL ACTION
PART 2 - PUMPING AND DISCHARGE SYSTEM
PART 3 - INTERIM ADVANCED WASTEWATER TREATMENT SYSTEM

General Comments

1. Comment:

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.

Response:

As stated in the previous issue of the Work Plan in Attachment IV, and in keeping with the intent of CERCLA to meet the substantive requirements of permits, the DOE will report the major changes outlined in this Removal Action in its monthly NPDES report submittal.

In addition to the monitoring points (003 and 607) and associated parameters discussed in the previous Work Plan submitted, the DOE will add one additional monitoring point (608) and several additional monitoring parameters (dissolved oxygen and iron to 003) as discussed with OEPA at the meeting held at the OEPA Southwest district office on February 8, 1991. This will total three new monitoring points as shown in Figure 7 of the Work Plan and include the NPDES parameters listed in Table 1 of the Work Plan. The DOE will complete the forms for modification to the NPDES permit obtained from OEPA at the February 8, 1991, meeting. The forms will be transmitted separately from this response to comments. OEPA may process the forms in a manner as they deem appropriate. However, the DOE will not hold up progress on this Removal Action as the efforts described are deemed to meet the substantive requirements required by CERCLA.

Action:

The DOE will submit the application for modification of the NPDES permit under separate cover.

2. Comment:

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.

Response:

Agreed.

Action:

The figures have been redesignated to prevent misplacement in the Work Plan. Also, Figures 4 through 7 and Table 1 of the Work Plan and III-2 and III-4 of the Health and Safety Plan have been added to support the text, to include the replacement of the existing outfall pipeline (see the Response to Comment No. 4), and in Response to Comment No. 9.

3. Comment:

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).

Response:

An archeological survey will be performed prior to any drilling or pipeline installation or building construction.

Action:

The survey will be mentioned in Section 3.1. (a) Project Planning of the Work Plan, but not presented in the Work Plan's Removal Action Schedule. The survey will be presented in the detailed Level IV schedule which will be provided to EPA following approval of the Work Plan. The survey will be conducted under the Part 2 work.

4. Comment:

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.

Response:

Because of the decision to replace the existing outfall pipeline, discharge from the South Plume Removal Action will now occur at a new tie-in manhole near manhole 176 instead of manhole 177. Engineering design of the new manhole near manhole 176 and the groundwater discharge force main will incorporate energy dissipation methods to ensure protection from erosion. Enlargement of the groundwater discharge pipeline prior to entry into the new manhole is one method being investigated to dissipate flow kinetic energy.

Action:

No change to the Work Plan is required. A figure has been added to the Work Plan showing the new outfall pipeline.

WORK PLAN COMMENTS1. Comment:

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.

Response:

The DOE's intention in this Removal Action is to address the plume of uranium with concentrations at or above 30 ug/l. The location of the uranium plume, as defined by the 30 ug/l concentration agreed to in the EE/CA, is by best current information, east of the plume associated with industrial users B and C. Therefore, potassium 40 is not expected to be collected by the South Plume recovery wells.

However, potassium 40 will be one of the parameters added to the list of constituents to be monitored in the additional monitoring wells located west of the recovery wells. These monitoring wells will provide early warning of any contaminant migration from industrial users B and C (also see the Response to Comment No. 5). Potassium 40 will also be monitored at the discharge of the farthest west recovery well in the wellfield. This will not be included in the Work Plan but will be included in the subsequent Operations and Maintenance (O&M) manual which will be submitted for OEPA and USEPA review.

Action:

No change to the Work Plan is required. However, monitoring for Potassium 40 will be added to the O&M manual as described above.

2. Comment:

Page 4-2.3 - Add Ohio EPA and describe role as DOE has done in previous work plans.

Response:

The Ohio Environmental Protection Agency (OEPA) provides guidance and participates in the development and review of the EE/CA and Work Plan.

Action:

The Work Plan has been modified to include the role of OEPA.

3. Comment:

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.

Response:

The Removal Action Schedules (Attachment I of the Work Plan) have been revised to include the steps involved for the determination of the well field location.

Action:

The Removal Action Schedules have been revised accordingly.

4. Comment:

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:

- 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.

Response:

A draft of the portion of the Operations and Maintenance manual for the Part 2 well field operation will be made available to OEPA and USEPA by September 1, 1991.

Action:

The preparation of the Operations and Maintenance manual and subsequent review has been added to the Removal Action schedule (see Attachment I of the Work Plan).

5. Comment:

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.

Response:

Agreed. In addition to monitoring wells located up-gradient and down-gradient of the recovery wells, monitoring wells will also be located between the recovery well field and the contaminant plume presently under investigation in the Paddys Run Road Site Remedial Investigation/Feasibility Study (PRRS RI/FS) for industrial users B and C. The purpose of these additional monitoring wells is to detect any migration of the PRRS plume toward the recovery wells and prevent impact to the Part 2 operation. The final number and location of the monitoring wells will be determined by June 1, 1991, and submitted to OEPA and U.S. EPA for review and comment (see the Removal Action schedule in Attachment I of the Work Plan). These monitoring wells will be coordinated with the PRRS RI/FS.

Action:

The Removal Action schedules have been modified where appropriate to reflect this response.

6. Comment:

Page 9-4.0 (a) - Historic water levels should be referred to when selecting the screen interval for additional monitoring wells (Section 4.0).

Response:

The screen interval for the additional monitoring wells will be determined by investigating the past groundwater elevations recorded from existing piezometric wells located within the vicinity.

Action:

The Work Plan has been modified where appropriate.

7. Comment:

Page 10-4.0 [e - Installation of the 150 gpm IAWWT] - 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.

Response:

The IAWWT will have the capability of removing a quantity of uranium so that there will be a decrease in uranium loading to the Great Miami River even with the increased uranium loading expected from the implementation of Part 2 pumping and other Removal Actions.

Action:

This section has been revised to reflect this response.

8. Comment:

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.

Response:

The Operations and Maintenance manual will detail the parameters and frequency for which the monitoring and recovery wells will be analyzed.

Action:

The Work Plan will be modified to reflect this response.

9. Comment:

Section 5.2, Page 11 - 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.

Response:

1218

Agreed.

Action:

An existing FMPC wastewater flow diagram has been included in the Work Plan upon which the impacts of Part 2 and Part 3 of the South Groundwater Contamination Plume Removal Action will be delineated. This "interim" flow diagram will show existing and proposed monitoring points. A table will be included in the Work Plan listing the parameters for both existing monitoring points adjacent to or affected by the Removal Action and for the proposed monitoring points.

10. Comment:

Attachment II, Section 1.0, Page 1 - Thorium and Radium are not considered in the build-over criteria presented here. These contaminants may be 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 35 pCi/gm of total uranium is determined and a structure vital to the removal action is placed over soils above the final remediation cleanup level.

Response:

The build over criteria has been reevaluated and determined not to be applicable for this Removal Action. The position that has been adopted is that since remediation efforts can still be performed around the pipeline with minimal disturbance, no build over criteria is necessary. In addition, past historical data has identified minimal radiological or HSL concern in this area.

Action:

A revised Sampling and Analysis Plan has been provided in Attachment II of the Work Plan which reflects this position.

11. Comment:

Attachment II, Section 1.0, Page I (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.

Response:

No post-construction sampling is proposed to support this Removal Action.

Action:

The Sampling and Analysis Plan as provided in Attachment II of the Work Plan has been modified accordingly.

12. Comment:

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.

Response:

Agreed

Action:

The text in the Work Plan has been modified accordingly.

13. Comment:

Attachment III, Figure 1-A more specific title for Figure 1 should be provided (such as "Excavation Safety Hazard Location").

Response:

The intent of Figure III-1 (Figure 1 in the original submittal), is to show both underground utilities and overhead hazards (overhead utilities) that will be encountered in both well and pipeline installation. The suggested title implies that the figure would only show underground safety hazards that will be encountered during excavation.

Action:

No change to the Work Plan is required.

14. Comment:

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.

1218

Response:

Because the existing outfall pipeline will be replaced and the existing roadway embankment across the Storm Sewer Outfall Ditch, including the two existing 66 inch diameter underlying culverts, will be reconstructed, the COE will only need to be notified per the requirements of 33 CFR Part 330.

Action:

No change to the Work Plan is required.