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TRANSMITTAL OF RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE CONDITIONALLY APPROVED PART 5 WORK PLAN, TRANSMITTAL OF THE REVISED PART 5 WORK PLAN AND A REVISED SOIL VAPOR SAMPLING PROCEDURE

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LETTER**



Department of Energy
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DEC 14 1992
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Mr. James A. Saric, Remedial Project Director
U.S. Environmental Protection Agency
Region V - 5HRE-8J
77 W. Jackson Boulevard
Chicago, Illinois 60604-3590

Mr. Graham E. Mitchell, Project Manager
Ohio Environmental Protection Agency
40 South Main Street
Dayton, Ohio 45402-2086

Dear Mr. Saric and Mr. Mitchell:

TRANSMITTAL OF RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE CONDITIONALLY APPROVED PART 5 WORK PLAN, TRANSMITTAL OF THE REVISED PART 5 WORK PLAN AND A REVISED SOIL VAPOR SAMPLING PROCEDURE

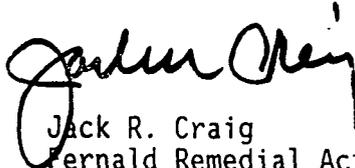
- References:
- 1) Letter, G. E. Mitchell to J. R. Craig, "Ohio EPA Comments on the South Plume Part 5 Work Plan," dated September 14, 1992
 - 2) Letter, J. A. Saric to J. R. Craig, "Responses to Comments on the Removal Action 3 - Part 5 Work Plan," dated September 25, 1992

This letter transmits the Department of Energy's (DOE) responses (Enclosure 1) to Ohio Environmental Protection Agency (OEPA) comments (Reference 1) on the conditionally approved Work Plan for Part 5, a revision 2 of the Part 5 Work Plan (Enclosure 2), and a revised Soil Vapor Sampling Procedure (Enclosure 3). Also enclosed is an Operating and Service Manual for the Portable Organic Vapor Analyzer (OVA) model OVA-128 (Enclosure 4) as requested by OEPA. In Reference 2, the United States Environmental Protection Agency (U.S. EPA) approved the previous responses to their comments and, therefore, no further responses to comments were required.

Note that as only two pages of the Part 5 Work Plan (Enclosure 2) required revision, only those pages are included for your review. Revised text is shown highlighted, and deleted text is shown struck-out to facilitate review. All highlighting and striking out will be removed upon U.S. EPA and OEPA review of the responses to comments.

If you or your staff have any questions or require further information, please contact Peter Yerace at 513-738-6178.

Sincerely,



Jack R. Craig
Fernald Remedial Action
Project Manager

FN:Yerace

Enclosures: As stated

cc w/enc.:

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1. **Commenting Organization: Ohio EPA** **Commentor: G. Mitchell**
Page # 7 **Section # 5.2.1** **Paragraph # 1**

Comment: Groundwater samples should be analyzed for volatile organic compounds (VOCs) and uranium. The presence/extent of VOCs from the Paddy's Run Road Site (PRRS) is a major issue concerning the treatability of the groundwater. Sampling the monitoring wells for VOCs will provide valuable information concerning the potential impact of these VOCs.

Response: The DOE agrees that the presence/extent of VOCs from the Paddy's Run Road Site (PRRS) is a major issue concerning the treatability of groundwater for the South Plume Removal Action. The extraction wells are being situated upgradient of the organic contamination to address the concern. Data made available at the PRRS public meeting conducted by the Ohio EPA on March 31, 1992, revealed the approximate nature and extent of the PRRS groundwater contamination plumes. This data made it possible to predict with some accuracy which wells and borings in the August 1992 Part 5 Work Plan would encounter PRRS contamination. The data also verified that the new location of the extraction wells is upgradient of the contamination.

A strategy was adopted using the PRRS data (Figure 2 of the Work Plan) to eliminate mandatory testing of VOCs in areas where VOC contamination was not indicated. However, to be on the conservative side, VOC samples were taken on the south row of the Phase I hydropunching in the aluvium area. In addition, wells and hydropunching located in areas where organic contamination was not expected, were field screened using an HNu meter as the work plan states. If a sustained reading of >5ppm for at least 10 seconds, the plan called for the collection of a VOC sample.

Action: No action required.

2. **Commenting Organization: Ohio EPA** **Commentor: G. Mitchell**
Page # 8 **Section #5.2.2** **Paragraph # 4**

Comment: All hydropunch samples should be analyzed for uranium and VOCs. See comment # 1.

Response: All hydropunch samples were tested for uranium. See response to comment # 1 for VOC samples.

Action: No action required.

3. **Commenting Organization: Ohio EPA** **Commentor: G. Mitchell**
Page # 9 **Section # 5.2.3** **Paragraph # 2**
- Comment:** Monitoring wells should be sampled after they have been properly developed.
- Response:** From Section 5.2.3, page 9, para 2: "*Each of the 12 new monitoring wells will be sampled for full radiological parameters, VOC, and general groundwater parameters at two different times: first, when the well is developed, and second, about two months later*".
- Action:** No action required.
4. **Commenting Organization: Ohio EPA** **Commentor: G. Mitchell**
Page # 9 **Section # 5.2.5** **Paragraph # 1**
- Comment:** The FEMP must maintain the Great Miami River discharge within the NPDES permit limits. As such, FEMP is responsible for determining the potential impact of the PRRS plumes on the ground water interceptor system.
- Response:** The South Plume Groundwater Recovery System - Design, Monitoring and Evaluation Program Plan (DMEPP) - defines a monitoring and system evaluation program. One of the objectives of this program (described in detail in Appendix B to the DMEPP) is to determine if PRRS plumes are being drawn toward the recovery wells. Based upon the findings of the monitoring and data evaluation, corrective action will be taken to prevent capture of the PRRS plumes. In addition, samples will be taken at the NPDES effluent line to confirm that permit limits are not exceeded. If samples show exceedances, appropriate corrective action will be taken.
- Action:** No action required.
5. **Commenting Organization: Ohio EPA** **Commentor: G. Mitchell**
Page # 10 **Section # 5.2.5** **Paragraph # 2**
- Comment:** While soil vapor studies can potentially indicate the presence of VOCs in the ground water, there is not always a direct correlation. Soil gas should be treated only as a preliminary screening tool to be used to locate hydropunch, piezometer, or monitoring well locations.
- Response:** The soil gas procedure will only be used as a screening tool to determine if additional hydropunches, piezometers, or monitoring wells are needed. The need for additional field work and/or installations such as hydropunches, piezometers, or monitoring wells will be evaluated and

based upon additional organic plume characterization as this relates to FEMP remediation activities.

Action: The work plan, Section 5.2.5, page 10, paragraph 3, will be revised to reflect that a soil vapor study is only a preliminary screening tool, and will not be used to determine the extent of the plume in question.

6. **Commenting Organization: Ohio EPA** **Commentor: G. Mitchell**
Page # 12 **Section # 6.3** **Paragraph #**

Comment: The number and locations of piezometers should be updated to include Ohio EPA's comments on the pump test work plan.

Response: As noted in our response to Ohio EPA's comments on the DMEPP, DOE considers the currently planned piezometer locations satisfy Ohio EPA's concerns for measuring water levels at two orthogonal directions. As defined in Appendix A to the DMEPP, the pump test includes provision for a total of five piezometer locations in three orthogonal directions (see Figure 2-3 in Appendix A of the DMEPP).

Action: No action required.

7. **Commenting Organization: Ohio EPA** **Commentor: G. Mitchell**
Page # Enclosure 4 **Section # 6.7** **Paragraph # 1**

Comment: The Photovac Tip listed here as the "portable organic vapor detector" which will be used for the soil gas study is not a Foxboro 126 Organic Vapor Analyzer. Section 5.2.5, page 10, para 3 states that a Foxboro 126 OVA will be used for the soil gas study.

Ohio EPA's experience with the TIP shows that [it] is unreliable and, therefore, unsuitable for use in the soil vapor study. Information on the Foxboro 126 OVA should be sent to Ohio EPA for review before it can be considered for the project.

Response: A typographical error was contained in the submitted work plan in regard to the OVA model number. The correct model number for the Foxboro OVA to be potentially utilized is the Foxboro 128.

For further information about the OVA, Ohio EPA is referred to the USEPA publication, EPA/540/P-87/001 (OSWER Directive 9355.1-14) December 1987, titled "A Compendium of Superfund Field Operations Methods," Section 15.3, pp.15-30 to 15-38. Other sources for further

information about the Foxboro OVA 128 include: Analabs, A Unit of Foxboro Analytical, "OPERATING AND SERVICE MANUAL for CENTURY SYSTEMS, Portable Organic Vapor Analyzer (OVA) Model OVA-128 and Optional Accessories, REVISION C," (no date) and U.S. Environmental Protection Agency, Environmental Response Team, training manual, "Air Surveillance for Hazardous Materials," (1988).

Action: The work plan, section 5.2.5, page 10, paragraph 3, number 126 will be changed to 128. The Foxboro OVA 128 will be used for the soil gas survey. An Operating and Service Manual for the Foxboro OVA 128 is provided in a separate enclosure.

8. **Commenting Organization: Ohio EPA** **Commentor: G. Mitchell**
Page # Enclosure 4 **Section # 6.7** **Paragraph # 5**

Comment: The FEMP cannot simply use any meter that they wish for the study. Different organic vapor meters have different properties. The exact make and model should be agreed upon prior to the study.

Response: See response to Original Comment #7.

Action: The Soil Vapor Sampling procedure will be revised to specify that the Foxboro OVA 128 will be used for the soil gas survey, and how the surveyed work will be performed.

9. **Commenting Organization: Ohio EPA** **Commentor: G. Mitchell**
Page # Enclosure 4 **Section # 6.7** **Paragraph # 5**

Comment: The organic vapor meter should be calibrated in the field every time the meter is shut off, when the atmospheric conditions change (temp, humidity, etc...), and periodically as the equipment is used in order to compensate for power drain and dirt build-up on the lamp. This means that the field crew will need to have the calibration kit, will have to know how to use it, and will have to use it several times during the day. Calibration records should be taken in the field by the field crew every time the organic vapor meter is calibrated. All details, including, but not limited to, temperature, time, span (or equivalent), weather conditions, and condition of the meter should be recorded.

Response: The organic vapor analyzer will be calibrated each time it is turned off, when the atmospheric conditions have changed, and periodically through out the day. The field crew will be thoroughly trained on the use and calibration techniques of the organic vapor analyzer before entering the field. The field crews will be supplied with all necessary calibration

equipment. A complete calibration record will be maintained and documented. It will include: temperature, relative humidity, general weather conditions, equipment condition, results of calibration action, and the time of calibration.

DOE has performed an investigation and comparisons of the use of an HNu Photoionization Detector or an OVA in the performance of field work associated with soil vapor surveys. Our investigative research has shown that both instruments have their capabilities and limitations when used in the field. Ohio EPA is again referred to the previously cited USEPA publication, "A Compendium of Superfund Field Operations Methods" for a discussion of both the HNu Photoionization Detector and Foxboro OVA.

Due to the anticipated problems identified in published literature about the field use of these instruments, DOE proposes to use the Foxboro OVA only under ambient conditions of temperatures greater than 40 degrees fahrenheit and relative humidity less than 95 percent. When ambient conditions of temperature and relative humidity are not within the specific range, the soil vapor survey will not be performed.

Action:

The Soil Vapor Sampling Procedure will be revised to address the stated changes in instrumentation used for the soil vapor survey and the specified range of ambient condition under which the soil vapor survey will be performed.