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R-002-205.1

PERCHED GROUNDWATER REMOVAL ACTION PLANT 8 TREATMENT SYSTEM

08/13/91

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DOE-FSO/EPA
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LETTER
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Department of Energy
Fernald Site Office
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AUG 13 1991
DOE-1887-91

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:

PERCHED GROUNDWATER REMOVAL ACTION PLANT 8 TREATMENT SYSTEM

This letter transmits for your review and approval the proposed Sampling Plan for the Perched Groundwater Removal Action at the FMPC. Since the VOC Treatment System was revised from the original Work Plan to facilitate a "batch" operation, a new Sampling and Analysis Plan is proposed. This proposed sampling strategy will provide a more effective approach for characterizing the effectiveness of the Treatment System in addition to future characterization of the perched groundwater. It is estimated that the clarifier pit in Plant 6 contains over 20,000 gallons of perched groundwater. This level of accumulated water in the clarifier pit must first be reduced prior to normal operation of the Plant 6 extraction systems. Therefore, the initial batches of perched groundwater collected at Plant 6 will consist primarily of the water collected in the clarifier pit. For this reason, the influent and effluent from the Plant 8 Treatment System will be sampled for the first two batches of perched water processed. Since the influent to treatment is initially to remain homogeneous from the clarifier pit, no further influent sampling will be collected until the level in the clarifier pit reaches 3 inches. The following proposed Sampling Plan, listed in Table 1 (enclosed), will be implemented after the clarifier pit is de-watered to a level of 3 inches above the pit floor in compliance with the RI/FS QAPP.

The influent and effluent sampling will characterize the treatment efficiency of the VOC Treatment System, while the extraction well sampling will provide a method of monitoring the effectiveness of the Removal Action.

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The initial batch of VOC treated water will be held in an 8,000 gallon holding tank in Plant 8 until sample results are obtained. Once these initial sample results are obtained and indicate that the treatment system is effectively removing the VOCs, subsequent batches will be processed through the treatment system prior to receipt of sample results, as described in Table 1. Additional sampling will be performed by Westinghouse Environmental Management Company of Ohio (WEMCO) for each batch at the carbon adsorption units to determine when the carbon units should be replaced.

If there are any questions, please contact Robert J. Janke at (513) 738-6883 or FTS 774-6883.

Sincerely,

Jack R. Craig
Fernald Remedial Action
Project Manager

FSO:Janke

Enclosure: As stated

cc w/encl.:

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[redacted]

TABLE 1: PERCHED GROUNDWA[redacted]

INFLUENT FROM VOC TREATMENT SYSTEM

2042

SAMPLE EVENT	DESCRIPTION	ANALYSIS
1	First **batch of collected groundwater from Plant 6	Full HSL/TRP
2	Second batch of collected groundwater from Plant 6	Full HSL/TRP
3	When the clarifier pit water level reaches 3 inches this sample will be collected from the corresponding batch	Full HSL/TRP
4,5,6	Next sequential batches	Full HSL/TRP
7,8	Every third sequential batch	Full HSL/TRP
9,10	Every sixth sequential batch	Full HSL/TRP
11-Project Completion	Every tenth sequential batch. This could reflect a "short list"	Shorten HSL/TRP

EFFLUENT FROM VOC TREATMENT SYSTEM

1-10	Every batch	Full HSL/TRP
11-Project Completion	Every batch	Shorten HSL/TRP List

AT EACH EXTRACTION POINT

1-Project Completion	Sample from each extraction point collected yearly	Full HSL/TRP*

* If yearly well samples indicate additional contaminants they will be added to the effluent sampling shorten list.

** Batch defined as 5,200 gallons, which is the operational capacity of the Plant 8 VOC Batch Holding Tank.