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**PLANT 9 AND 2/3 REMOVAL ACTION WORK  
PLANS - INFORMAL DISPUTE RESOLUTION**

**10/25/90**

**DOE-158-91  
DOE-FMPC/USEPA  
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LETTER  
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**Department of Energy**

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OCT 25 1990  
DOE-158-91

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

Dear Ms. McCord:

**PLANT 9 AND 2/3 REMOVAL ACTION WORK PLANS - INFORMAL DISPUTE  
RESOLUTION**

Reference: Letter, Catherine A. McCord to Mr. Andrew Avel,  
"Approval of Plant 9 and 2/3 Work Plans," dated  
October 18, 1990

On October 18, 1990, the United States Department of Energy (U.S. DOE) received the referenced letter for the Plant 9 and 2/3 Removal Action Work Plans from the U.S. EPA. The work plans were approved contingent upon the following modifications as stated by U.S. EPA:

1. The Sampling and Analysis Plan in each of the work plans does not specify the location where samples will be collected. To adequately monitor the reduction of groundwater contamination (both VOC and radionuclide), it is necessary to collect groundwater samples at each collection point in a manner that will provide data which is a representative of the groundwater in that location. The sampling frequency may coincide with the frequency stated in the Sampling and Analysis Plan. After system start-up and verification, a subset of the hazardous substance list (HSL) and total radiological parameters (TRP) may be proposed for U.S. EPA approval. However, the full HSL and TRP must be analyzed annually to ensure that the selection treatment option continues to be adequate.
2. The removal action work plans for Plants 2/3 and 9 discuss the potential treatment of the groundwater if "a mass balance of the HSL/VOC level in the FMPC wastewater discharge to the Great Miami River" determines treatment is not needed. The determination of whether treatment is needed shall be made at the point of collection and not the

final discharge point. Initial samples shall be submitted to U.S. EPA for review. U.S. EPA shall then determine whether water treatment is required.

- 3. To determine the effectiveness of the treatment, samples of the influent and effluent must be collected. The influent samples can be a single composite sample collected from the dedicated header leading from each of the plants to the treatment unit.

The U.S. DOE agrees with the sampling stipulated in item three and will collect influent and effluent samples (both VOC and radionuclide) around the VOC treatment system to ensure the treatment efficiency of the systems. This treatment efficiency sampling shall coincide with the frequency stated in the Sampling and Analysis Plans from the Plant 9 and 2/3 Work Plans. The discussion presented in item two does not need further resolution for this removal action since the U.S. DOE shall provide carbon adsorption treatment for the groundwater extracted from beneath Plant 9 and 2/3. However, the U.S. DOE will require future clarification/guidance concerning HSL/VOC treatment requirements and threshold levels. The U.S. DOE proposes that the carbon adsorption treatment system designed for the Plant 9 and 2/3 removal actions be capable of treating extracted groundwater from beneath all FMPC buildings, if necessary. In accordance with Section IX.C of the 1990 Consent Agreement, engineering design efforts for these system modifications will be initiated within five days of receipt of approval from the U.S. EPA. A more detailed discussion of this proposal shall be presented by the U.S. DOE at the scheduled conference call on October 29, 1990 at 2:00 p.m. EDT.

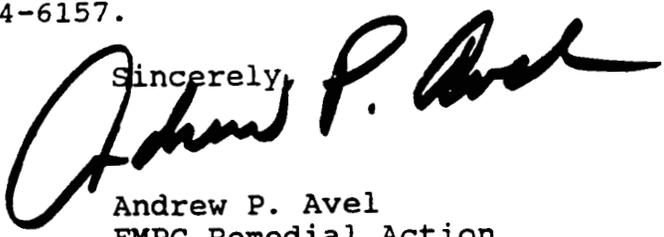
However, the U.S. DOE does not agree with item 1 requirements of the conditional approval. The sampling location proposed by U.S. DOE is described below:

The U.S. DOE has proposed an integrated system of collection and treatment of all perched groundwater beneath FMPC production areas (see enclosure 1) with centralized VOC treatment in Plant 8. The purpose of this integrated system is to provide compatibility with additional perched groundwater extraction wells which may be required in the future. Also, the integrated collection and treatment system is designed to reduce the number of samples which must be analyzed to provide representative data of the groundwater from a specific region and to ensure treatment efficiency. Requiring the collection of groundwater samples at each collection point would reduce the benefits realized by integrating FMPC perched water collection and centralized treatment. The proposed sample locations for the integrated perched groundwater collection and treatment system are shown on enclosure 1. These nine sample locations depicted should provide sufficient data to monitor the reduction of groundwater contamination using the sampling frequency and

analysis presented in the Plant 9 and 2/3 Work Plans. The sample locations depicted before and after the VOC treatment system will provide the required data to determine the removal efficiency of the treatment system. A full HSL and total radiological sample was collected and submitted from each extraction well in July 1990 to determine the initial level of contamination at each well. The results of only five of these samples has been received to date. The semi-volatile analysis holding times were exceeded by the laboratory for eight of these HSL samples collected in July 1990. These wells will be resampled for semi-volatile analysis only in late October 1990. Annual HSL and TRP sampling of each extraction well could be performed as stipulated by U.S. EPA.

A conference call is scheduled for October 29, 1990 at 2:00 p.m. EDT. to present the U.S. DOE proposed resolutions to the specific requirements of modification number 1.

If you have any questions, please contact me at FTS 774-6161 or Carlos J. Fermaintt at FTS 774-6157.

Sincerely,  


Andrew P. Avel  
FMPC Remedial Action  
Project Director

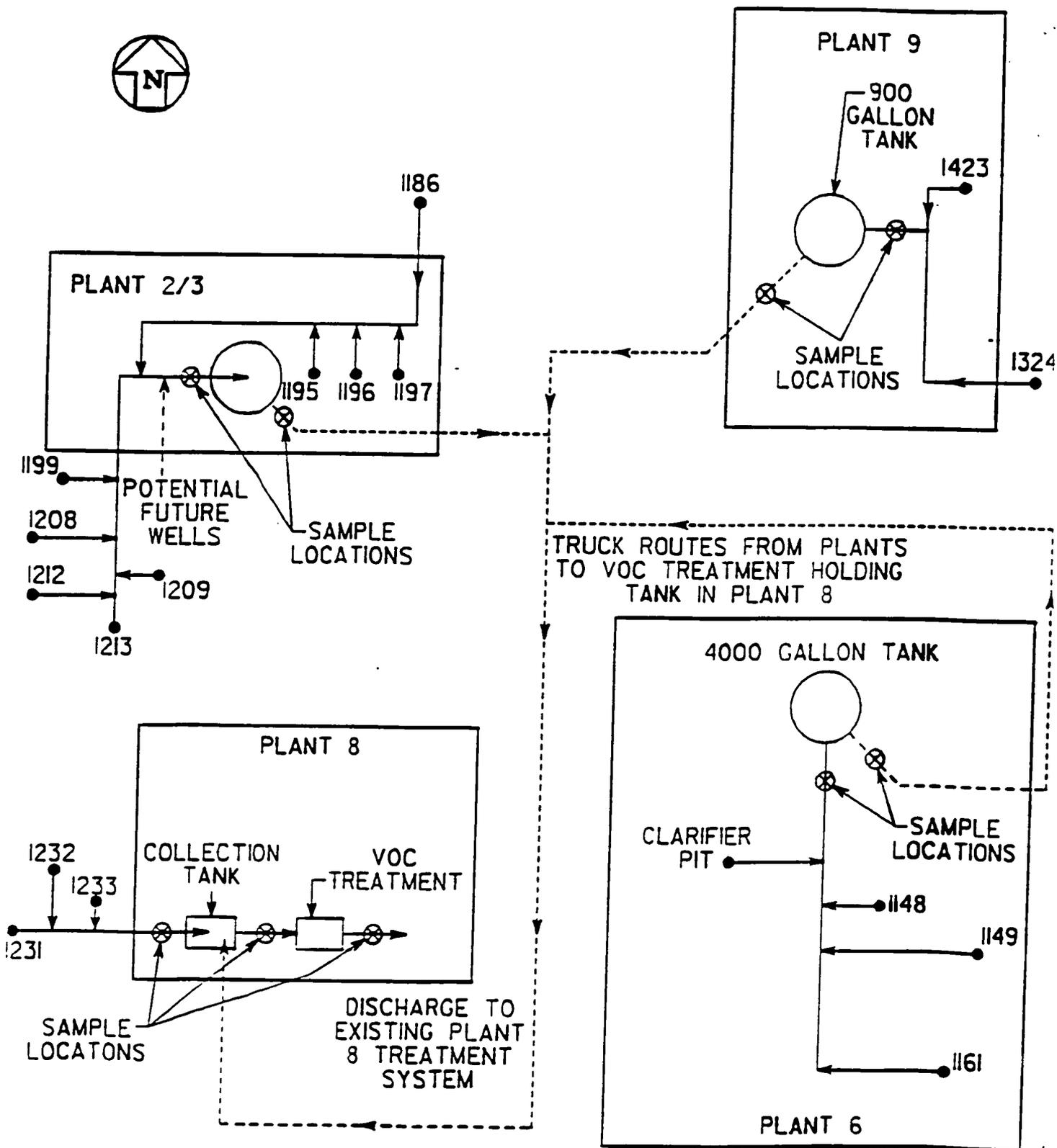
DP-84:Fermaintt

Enclosure: As stated

cc w/encl.:

- R. P. Whitfield, EM-40, FORS
- E. G. Feldt, EH-232, FORS
- R. B. Allen, EM-432, GTN
- G. E. Mitchell, OEPA-Dayton
- P. Q. Andrews, USEPA-V
- D. A. Kee, USEPA-V
- K. J. Pierard, USEPA-V
- D. A. Ullrich, USEPA-V
- E. Schuessler, PRC
- R. E. Owens, ODH-Columbus
- W. H. Britton, WMCO

# INTEGRATION OF REMAINING GROUNDWATER WELLS INTO PLANT 6 REMOVAL ACTION



DESCRIPTION OF PROPOSED INTEGRATION OF  
GROUNDWATER WELLS WITH PLANT 6 REMOVAL ACTION

Plant 6

The waters removed from Borings 1161, 1149, 1148, and the clarifier pit will be pumped into a common header to a 4000 gallon tank in the northeast corner of Plant 6. A sampling port will be installed in the common header prior to the discharge into the 4000 gallon tank. Approximately 65 to 100 gallons per day are expected to be pumped to the 4000 gallon tank. The Plant 6 waters will remain in the 4000 gallon tank until they are pumped (once a week) into a dedicated transfer vehicle (truck) to be transported to the Plant 8 treatment holding tank. A sampling port will also be installed on the discharge piping from the 4000 gallon tank to the transfer vehicle (truck).

Plant 9

The waters removed from Borings 1324 and 1423 will be pumped into a common header to a tank in Plant 9. A sampling port will be installed in the common header prior to discharging to the tank. The Plant 9 waters will remain in the tank until they are pumped into a dedicated transfer vehicle (truck) to be transported to the Plant 8 treatment holding tank. A sampling port will also be installed on the discharge piping from the tank to the transfer vehicle (truck).

Plant 2/3

The waters removed from Borings 1186, 1197, 1196, 1195, 1199, 1208, 1209, 1212, 1213, and any future wells will be pumped to a holding tank in Plant 2/3 via a common header. A sampling port will be installed in the common header prior to discharging to the vertical tank. The Plant 2/3 waters will remain in the tank until they are pumped into a dedicated transfer vehicle (truck) to be transported to the Plant 8 treatment holding tank. A sampling port will also be installed on the discharge piping from the vertical tank to the transfer vehicle (truck).

Plant 8

Waters from Borings 1231, 1232, and 1233 will be pumped directly (via a common header) to the Plant 8 treatment holding tank due to their close proximity to Plant 8. A sampling port will be installed prior to discharge into the holding tank. The holding tank will be used as a batch collection tank for the VOC treatment system. Waters from Plants 6, 9, 2/3, and 8 will be collected in this holding tank prior to VOC treatment. A sampling port will be installed in the piping from the holding tank to the VOC treatment system. It is anticipated that the VOC treatment system shall consist of a prefiltration step to remove suspended solids followed by two 55 gallon carbon adsorption drums plumbed in series. A sampling port shall be installed at the discharge of the secondary carbon unit to ensure that the VOC treatment has effectively treated all the waters extracted from beneath FMPC buildings. The waters will be discharged to the existing Plant 8 treatment system after VOC treatment and eventually, on to the general sump.

If your staff has any questions, please ask them to contact Carlos J. Fermaintt at extension 6157.

Sincerely,



Gerald W. Westerbeck  
FMPC Site Manager

Enclosure: As stated

cc w/encl.:

- S. W. Coyle, WMCO
- D. J. Carr, WMCO
- R. S. Shirley, WMCO
- R. D. Warner, LWA
- S. H. Wolinsky, ASI
- AR File - S. Peterma