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**TRANSMITTAL OF RESPONSES TO OHIO EPA COMMENTS ON THE
CONDITIONALLY APPROVED SOUTH PLUME PUMP TEST WORK PLAN,
REVISION 2**

06/03/93

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DOE-FN EPAS
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RESPONSES

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Department of Energy
Fernald Environmental Management Project
P.O. Box 398705
Cincinnati, Ohio 45239-8705
(513) 738-6357

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DOE-2016-93

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 EPA COMMENTS ON THE CONDITIONALLY APPROVED SOUTH PLUME PUMP TEST WORK PLAN, REVISION 2

- References:
- 1) Letter, G. E. Mitchell to J. R. Craig, "Ohio EPA Comments on the South Plume Pump Test Work Plan," dated April 30, 1993.
 - 2) Letter, T. J. Rowland to J. A. Saric and G. E. Mitchell, "Transmittal of the South Plume Groundwater Recovery System Pump Test Work Plan," dated April 19, 1993.

This letter transmits the Department of Energy's (DOE's) responses to Ohio Environmental Protection Agency (OEPA) comments (Reference 1) on the South Plume Groundwater Recovery System Pump test Work Plan, Revision 2 (Reference 2). Please note that provisions are already in place which address your concerns. Therefore, per your direction in Reference 1, the work plan will not be revised to incorporate these responses.

If you or your staff have any questions, please contact Pete J. Yerace at (513) 648-3161.

Sincerely,

for Johnny Rensing

Jack R. Craig
Assistant Manager
for Environmental Restoration

FN:Yerace

Attachment: As Stated

cc w/att:

A. Bomberger, FERMCO
D. Brettschneider, FERMCO
K. Nickel, DOE-FN

RESPONSES TO OHIO EPA COMMENTS
SOUTH PLUME PUMP TEST WORK PLAN
May 1993

Comment 1

Will a backup power supply be on-site, ready for use in case of failure of the primary system?

Response: Yes, there will be two generators with associated electrical switch gear provided at the test well location.

Action: No additional unplanned action required.

Comment 2

Will there be a backup flow-meter available in case the primary flow meter becomes clogged or fails for some other reason?

Response: A back-up mechanical flow meter has been installed approximately 20 yards upstream from the primary flow meter. A correlation of the two flow meters will be made as the test proceeds. In the event that the primary meter fails to function properly, the back-up flow meter will be used to continue the test.

Action: No additional unplanned action required.

Comment 3

Does the flow-meter include an instantaneous flow rate indicator, or is it simply a totalizing flow-meter?

Response: The primary and backup flow-meters can measure both instantaneous and total flow.

Action: No additional unplanned action required.

Comment 4

If there is a significant discrepancy between flow-meter and orifice weir readings, how will it be resolved.

Response: The orifice weir was required as a backup indication for flow which was originally to be directed to the Storm Water Retention Basin. Since the new South Plume Force Main line and associated venturi meter (see comment response 1), the oxygen aeration system, and the new outfall line will be operational prior to the pump test, the test pump discharge will be routed directly to the Great Miami River. With this setup, a backup flow-meter already exists, and the requirement for the orifice weir has been deleted. Both flow-meters will be calibrated prior to the pump test and their performance will be compared at intervals during the pump test. It is not anticipated that a significant discrepancy will occur if it is not evident during the shakedown period.

Action: No additional unplanned action required.

Comment 5

The background, control well (2015) may be close enough to the pump well to incur drawdown. Are there more distant wells to be monitored using a continuous recorder or data logger?

Response: Based on previous pump tests in the area and analysis of the aquifer, it is not anticipated that well 2015 will experience significant drawdown during the constant rate test. Although it was not discussed in the pump test work plan, an additional well sentinel (data logger) has been installed in monitoring well 2385, which is located further north of the test site.

Action: No additional unplanned action required.

Comment 6

How will chart recorder data be converted to time-drawdown or time-head data? Why not use transducers and data loggers rather than chart recorders?

Response: There are four monitoring wells designated as primary wells which will have float recorders installed on them. These wells are sufficiently remote from the piezometers that it is not practical to use transducers to monitor them. Data from the chart recorder will be read manually and transferred into time-drawdown data.

Action: No additional unplanned action required.

Comment 7

Well drilling activities should not take place during the test in areas that may incur drawdown.

Response: There will be drilling activities occurring during the pump test. However, these drilling activities will be performed using cable tool drilling methods, and should not affect the aquifer or the performance of the pump test.

Action: No additional unplanned action required.

Comment 8

Are industrial supply wells along Paddy's Run Road still being pumped? If so, how will their pumping activities be monitored during the test?

Response: The industrial supply wells closest to the well field that are of any significance are the Albright & Wilson Americas (AWA) wells. These wells have been shut down with the implementation of the RA #3 Part 1 removal action alternate water supply. A telephone call will be made to AWA to discuss the importance of them not operating the old wells during the pump test. The Delta Steel well (monitoring well 2061), located north of the test well, is only an approximately 50 gpm well which runs intermittently. Its continued operation during the pump test is not deemed significant. The Rutgers/Neese well is located approximately 2,600 ft. from the test well which is outside

the radius of influence of the pump test, and also being downgradient will be less of an impact. Also, we have been told that the well is no longer used.

Action: No additional unplanned action required.

Comment 9

When will the extraction well be developed? At what rate? For how long?

Response: The extraction well (3927) will be developed prior to the pump test. Well development will be conducted by pumping the test well at a rate equal to or slightly greater than the maximum anticipated pumping rate and using the pump to surge the water column in the well. The surging is accomplished by not installing a check valve in the pump discharge during the development. The test pump is then started and stopped to cause a drop in the water level in the well and subsequent rapid rise when the pump is stopped. The amount of surging required is field determined and continues until the discharge is clear of fines and sediment. The well is considered developed when the discharge contains less than 2 ppm of sand by weight using a sand cone or other method.

Action: No additional unplanned action required.

Comment 10

Will the transducer manufacturer's representative perform calibration checks on the transducers before the test begins?

Response: Yes.

Action: No additional unplanned action required.

Comment 11

Can the data logger that is downloaded every 24 hours be provided on disk to OEPA representatives in minutes-head or minutes-drawdown format during the course of the test?

Response: Data generated during the pump test will be provided as it becomes available and can be assembled, in a timely manner, not to interfere with the actual conduct of the test. Personnel monitoring the conduct of the pump test are welcome in the test area and the pump test office in the ERA Alpha Building. PARSONS, FERMC0, or DOE, as appropriate, will provide any additionally requested information on any aspect of the pump test. It is intended that the data logger will be downloaded to the computer terminal every 24 hours during the pump test. A magnetic disk copy of this file will also be made available.

Action: No additional unplanned action required.