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FLUOR

January 17, 2002

Fernald Environmental Management Project
Letter No. C: ARP(ARWWP):2002-0002

Mr. Thomas A. Winston, District Chief
Ohio Environmental Protection Agency
Southwest District Office
401 East Fifth Street
Dayton, Ohio 45402-2911

Dear Mr. Winston:

NONCOMPLIANCE REPORT – DECEMBER 2001 - NPDES PERMIT NUMBER 1IO00004*FD FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)

Enclosed is the December 2001 Noncompliance Report. If you have any questions, please contact Mr. Frank Johnston at (513) 648-5294.

Sincerely,

David J. Brettschneider
Project Manager

DJB:FLJ
Enclosure

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File Record Subject NPDES Permit
Project Number 52700

NONCOMPLIANCE REPORT
NPDES PERMIT NO. 1IO00004*FD
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

The following table describes the December 2001 noncompliances with the discharge limitations specified in the FEMP NPDES Permit. This table lists the affected outfall, dates of the noncompliance, parameter, permit limits, and measured effluent concentrations.

PARSHALL FLUME – OUTFALL *4001			
DATE	PARAMETER	PERMIT LIMIT	ACTUAL MEASUREMENT
December 14, 2001	CBOD – 5 day	14 mg/l	26.3 mg/l
December 14, 2001	CBOD – 5 day	315 kg/day	447.0 kg/day
SEWAGE TREATMENT PLANT EFFLUENT – OUTFALL *4601			
December 17, 2001	Total Suspended Solids (TSS)	40 mg/l	50.4 mg/l
December	TSS Monthly Average Concentration	20 mg/l	26.8 mg/l

An investigation into the two noncompliances for CBOD at Outfall 4001 has revealed no definitive cause.

The Sewage Treatment Plant (STP) is the primary source of CBOD, however its flow relative to the overall discharges at Outfall 4001is typically about one-percent (approximately 1.1 percent on the day in question). The CBOD at the STP was slightly elevated on December 14 (21.6 mg/l) but not nearly high enough to result in the concentration observed at Outfall 4001.

Effluents combining at Outfall 4001 on December 14 included:

- Treated groundwater from the Advanced Wastewater Treatment (AWWT) Facility 1800 system
- Untreated groundwater in accordance with the FEMP Operations and Maintenance Master Plan relative to groundwater remediation
- Treated storm water from the AWWT Facility 700 system
- Treated wastewater from the AWWT Facility 400 system
- Treated groundwater from the South Plume Interim Treatment system
- Treated groundwater from the Interim Advanced Wastewater Treatment system
- Treated effluent from the STP

All systems were operational and no treatment system upsets or bypasses occurred. Other than the STP effluent, the other sources of wastewater combining at Outfall 4001 are not significant sources of CBOD. Since the effective date of the current NPDES Permit (March 1, 2000) there has been only one detection, covering 172 samples, for CBOD at Outfall 4001 prior to the December 14 result (2.8 mg/l on November 19, 2001). This result can only be considered anomalous.

The noncompliances at the sewage treatment plant were for one daily maximum noncompliance for TSS, which contributed to a monthly average noncompliance for TSS concentration. Problems with effluent TSS levels historically appear to be temperature related and exacerbated by excessive infiltration/inflow (I/I) during wet weather. Indeed, it appears that excessive I/I had a direct bearing on effluent TSS on December 17.

The FEMP recorded 0.41 inches of rainfall on December 14 and 1.01 inches and 1.86 inches of rainfall on December 16 and December 17 respectively. This rainfall resulted in elevated TSS measurements of 22.4 mg/l, 50.4 mg/l and 38 mg/l on December 14, 17 and 19 respectively. These elevated TSS measurements resulted in the monthly average noncompliance for TSS. The heavy rainfall experienced on December 17 had a direct influence on the TSS daily maximum noncompliance on December 17.

The FEMP will continue to monitor the performance of the STP relative to TSS and will make the appropriate adjustments as conditions warrant. The FEMP has been investigating potential sources of inflow into the sanitary sewer system with the hopes of eliminating any obvious sources.