

6-166-25

1434



P.O. Box 538704 Cincinnati, Ohio 45253-8704 (513) 648-3000

May 13, 1998

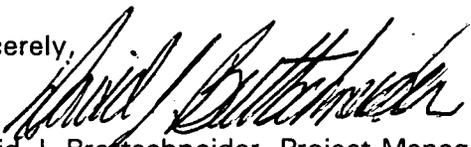
Fernald Environmental Management Project
Letter No. C:SWP(ARWWP):98-0027

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

Dear Mr. Winston:

NONCOMPLIANCE REPORT - APRIL 1998 - NPDES PERMIT NUMBER 11000004*ED -
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

Enclosed is the Noncompliance Report for April 1998. In addition, the April 1998 Discharge
Monitoring reports are enclosed to aid your review. If you have any questions, please
contact Marlene M. Landrum at (513) 648-4197.

Sincerely,

David J. Brettschneider, Project Manager
AWWT & Wastewater Project

MML
Enclosures

- c: S. M. Beckman, Fluor Daniel Fernald, MS 52-3
- D. J. Carr, Fluor Daniel Fernald, MS 52-2
- K. A. Chaney, EM-423,QO
- L. C. Goidell, Fluor Daniel Fernald, MS 65-2
- E. H. Henry, Fluor Daniel Fernald, MS 52-5
- W. A. Hertel, Fluor Daniel Fernald, MS 52-5
- R. J. Janke, DOE-FEMP, MS 45
- F. L. Johnston, Fluor Daniel Fernald, MS 52-2
- J. D. Kappa, DOE-FEMP, MS 45
- M. M. Landrum, Fluor Daniel Fernald, MS 52-5
- C. G. Siefert, Fluor Daniel Fernald, MS 52-2
- E. P. Skintik, DOE-FEMP, MS 45
- T. J. Walsh, Fluor Daniel Fernald, MS 65-2
- AR Coordinator, MS 78
- EDC File No. 52700

000001



NONCOMPLIANCE REPORT
NPDES PERMIT NO. 11000004*ED
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

The following tables describe the April 1998 noncompliance with the discharge limitations specified in the FEMP NPDES Permit. These tables list the affected outfalls, dates of noncompliance, parameter, permit limits, and measured effluent concentrations.

OUTFALL (NAME AND NUMBER): PARSHALL FLUME - 4001

<u>Date</u>	<u>Parameter</u>	<u>Permit Limit</u>	<u>Actual Measurement</u>
April 16, 1998	TSS Concentration	45 mg/l	73 mg/l
April 17, 1998	TSS Concentration	45 mg/l	57 mg/l
April 16, 1998	TSS Mass Loading	473 kg/day	927.6 kg/day
April 17, 1888	TSS Mass Loading	473 kg/day	784.2 kg/day

OUTFALL (NAME AND NUMBER): SPILLWAY TO PADDYS RUN - 4002

<u>Date</u>	<u>Parameter</u>	<u>Permit Limit</u>	<u>Actual Measurement</u>
April 16, 1998	TSS Concentration	50 mg/l	145 mg/l

The TSS violations at the Parshall Flume occurred during a stormwater bypass event. The bypass was necessary to mitigate an overflow of the Stormwater Retention Basin (SWRB) due to heavy sequential rainfall events. The bypass event commenced at 3:15 am on April 16, 1998 and ended at 8:00 pm on April 19, 1998. OEPA was notified of the initiation of the bypass at 8:50 am on April 16, 1998. The noncompliance was discovered on April 21, 1998 and the OEPA was informed of this noncompliance on this same day as required under the terms of the permit.

The noncompliances at the Parshall Flume are directly related to the stormwater bypass event. The TSS concentration for April 16 was 73 mg/l. The discharge of 3,357,000 gallons that day to the Great Miami River from the FEMP resulted in a total mass discharge of 927.7 kg. The TSS concentration for April 17 was 57 mg/l. The discharge of 3,635,000 gallons that day to the Great Miami River from the FEMP resulted in a total mass discharge of 784.2 kg.

The FEMP maintains daily logs recording TSS measurements at various locations on site. Operator logs indicate that all systems were operating normally, and there were no unusual events which contributed to the noncompliance other than the magnitude and intensity of the storm. The assertion that the noncompliances were directly related to the bypass event was made based on the following tabulated TSS measurements which were taken at the Parshall Flume one day prior to and two days following the bypass event.

TSS MEASUREMENTS AT THE PARSHALL FLUME - OUTFALL *4001

<u>Date</u>	<u>TSS Measurement</u>	<u>Total Mass Discharge</u>
April 15, 1998	4.0 mg/l	14.5 kg/day
April 16, 1998	73.0 mg/l	927.6 kg/day
April 17, 1988	57.0 mg/l	784.2 kg/day
April 18, 1998	33.0 mg/l	451.0 kg/day
April 19, 1998	13.2 mg/l	125.5 kg/day
April 20, 1998	10.8 mg/l	75.7 kg/day
April 21, 1998	4.8 mg/l	33.1 kg/day

The TSS violations at the Spillway to Paddys Run occurred during the aforementioned heavy sequential rainfall events. The overflow event began at 4:40 am on April 16, 1998 and ended at 8:30 pm on April 16, 1998. The noncompliance was discovered on May 7, 1998 and the OEPA was informed of this noncompliance on this same day as required under the terms of the permit.

We believe the noncompliance at the SWRB spillway is related to the unusually intense rainfall of 3.4 inches experienced between 10:00 pm on April 15 and 4:00 am on April 16. A review of the operators logs reveal the stormwater bypass event was, as stated previously, initiated at 3:15 am. At this time, the level of stormwater in the SWRB was at 8.5 feet. The basin began to overflow at 4:40 am. The overflow level at the spillway is 11.75 feet. Therefore, the stormwater in the SWRB rose approximately 3.25 feet in 1 hour and 25 minutes. The intensity of this rainfall resulted in a rapid rise in the basin stormwater which did not allow for the necessary settling of solids to occur. The TSS concentration at the spillway on April 16 was 145 mg/l.

The FDF/FEMP will continue to monitor this issue. However, at this time, there are no specific corrective actions identified.