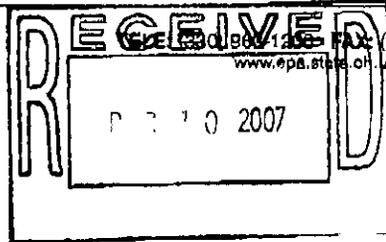




State of Ohio Environmental Protection Agency

## Northeast District Office

2110 East Aurora Rd.  
Twinsburg, Ohio 44087Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director

December 6, 2007

RE: LORAIN COUNTY  
CITY OF AMHERST  
NPDES NO. OH0021628  
OHIO EPA NO. 3PD00001Mayor David Taylor and Council  
City of Amherst  
206 South Main St.  
Amherst, OH 44001

Dear Mayor Taylor and Council:

On November 19, 2007, a Compliance Evaluation Inspection (CEI) was conducted at the City of Amherst wastewater treatment plant (WWTP). Present during the inspection were Messrs. Alan Brailer and Vic Jasinski, representing the City of Amherst, and Mr. Ron Bell and this writer, of Ohio EPA.

The purpose of the inspection was to review the current status of the treatment plant processes; evaluate the facility's compliance with the terms and conditions of its National Pollutant Discharge Elimination System (NPDES) permit; and to discuss the possible upcoming enforcement actions which may be taken as a result of the City's continued significant noncompliance with its NPDES permit.

The last CEI conducted at the Amherst WWTP was on December 12, 2006.

At the time of the November 19<sup>th</sup> inspection, the general operation and maintenance of the plant could be rated as satisfactory. However, based upon Monthly Operating Report (MOR) data and conversations with Messrs. Brailer and Jasinski, the WWTP experiences treatment difficulties during periods of wet weather.

During the inspection, the following observations were made:

- The contents of the Orbal system were a typical medium brown in appearance, with very little foam on the surface of the tank contents.
- The final clarifiers were in use, and contents were a medium gray in color. There was a slight pinfloc rising in the tanks and going over the weirs, and the effluent troughs were clean.
- Two of three Aqua Disk tertiary filters were operating satisfactorily. The third Aqua Disk unit was out of service for filter cloth replacement.
- The Ultra Violet disinfection system was not in use. (Effluent disinfection is not required during the winter months).
- Aerobic sludge digesters and the sludge thickener were in use.
- A backup digester blower was out of service due to a broken shaft.
- At the time of the CEI, the final effluent from the WWTP was causing no visible impact upon the receiving stream, and was free of foam.

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According to analytical data contained in the Monthly Operating Reports submitted to Ohio EPA for the period from June 1, 2005, through November 1, 2007, the following effluent violations were reported:

**City of Amherst WWTP**  
 NPDES Permit No. 3PD00001  
 Effluent Limit Numeric Violations  
 (June 1, 2005 through November 1, 2007)

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
June 2005	Mercury, Total (Low Level)	30D Conc	0.83	1.51	6/1/2005
June 2005	Mercury, Total (Low Level)	30D Qty	0.0000	.00001	6/1/2005
August 2005	Mercury, Total (Low Level)	30D Conc	0.83	1.36	8/1/2005
September 2006	Dissolved Oxygen	1D Conc	6.0	2.4	9/13/2006
October 2006	Total Suspended Solids	7D Qty	153.2	226.462	10/15/2006
October 2006	Dissolved Oxygen	1D Conc	6.0	3.6	10/17/2006
October 2006	Dissolved Oxygen	1D Conc	6.0	5.4	10/27/2006
November 2006	Dissolved Oxygen	1D Conc	6.0	4.	11/30/2006
December 2006	Total Suspended Solids	30D Conc	12	13.9461	12/1/2006
December 2006	Total Suspended Solids	30D Qty	102.2	250.379	12/1/2006
December 2006	Dissolved Oxygen	1D Conc	6.0	3.28	12/1/2006
December 2006	Total Suspended Solids	7D Conc	18	53.2333	12/22/2006
December 2006	Total Suspended Solids	7D Qty	153.2	1003.31	12/22/2006
December 2006	CBOD 5 day	7D Qty	127.6	162.443	12/22/2006
January 2007	Total Suspended Solids	30D Conc	12	12.8	1/1/2007
January 2007	Total Suspended Solids	30D Qty	102.2	367.643	1/1/2007
January 2007	CBOD 5 day	30D Qty	85.1	121.527	1/1/2007
January 2007	Phosphorus, Total (P)	30D Qty	8.5	16.4882	1/1/2007
January 2007	Dissolved Oxygen	1D Conc	6.0	2.7	1/5/2007
January 2007	Total Suspended Solids	7D Conc	18	39.6333	1/15/2007
January 2007	Total Suspended Solids	7D Qty	163.2	1460.05	1/15/2007
January 2007	CBOD 5 day	7D Qty	127.6	370.074	1/15/2007
January 2007	Phosphorus, Total (P)	7D Qty	12.7	50.6811	1/15/2007
March 2007	Dissolved Oxygen	1D Conc	6.0	3.9	3/14/2007
March 2007	Dissolved Oxygen	1D Conc	6.0	4.1	3/15/2007
April 2007	Dissolved Oxygen	1D Conc	6.0	5.2	4/1/2007
April 2007	Dissolved Oxygen	1D Conc	6.0	4.9	4/12/2007
August 2007	Total Suspended Solids	30D Qty	102.2	169.971	8/1/2007
August 2007	Total Suspended Solids	7D Qty	153.2	190.386	8/1/2007
August 2007	Dissolved Oxygen	1D Conc	6.0	5.4	8/7/2007
August 2007	Dissolved Oxygen	1D Conc	6.0	4.8	8/9/2007
August 2007	Total Suspended Solids	7D Qty	153.2	462.204	8/15/2007
August 2007	CBOD 5 day	7D Qty	127.6	161.639	8/15/2007
August 2007	Phosphorus, Total (P)	7D Qty	12.7	16.2636	8/15/2007
August 2007	Dissolved Oxygen	1D Conc	6.0	4.4	8/20/2007
September 2007	Dissolved Oxygen	1D Conc	6.0	5.	9/26/2007

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During the inspection the following items were discussed:

- 1) There are 6 full-time employees, working 8 hour shifts, 7 days per week. An auto dialer will alert personnel of any problems at the WWTP when the plant is unmanned.
- 2) The Amherst WWTP generates a Class B sludge, approximately 6% solids content, which is land applied by Mid Ohio Sludge Management Company in northwest Ohio counties. Mid Ohio was recently awarded a new 2 year contract (2008 – 2010) for the job.
- 3) Approximately 25,000 gallon/week of 6% sludge is generated off of the sludge filter press. The filter press is operated approximately 1½ days per week.
- 4) Screenings and grit removed at the WWTP are hauled and disposed of at the Allied Waste landfill in Lorain County (approximately 2 c.y. / wk.).
- 5) Average daily flow to the WWTP is approximately 1.5 MGD. In high flow situations (rain events), flows do exceed 12 MGD. At approximately 7.5 MGD the excess flow is diverted around the Orbal process, directly to the final clarifiers. This diversion is done to protect the integrity of the Orbal process, and allow a quicker return to normal treatment when high influent flows subside.
- 6) Conventional pollutants are analyzed at the WWTP lab, while heavy metals samples are sent to Jones & Henry labs for analysis. Bioassays are sent to Enviro Science for analysis.
- 7) DMRQA Study 27 unknown sample analyses were run by the WWTP lab, and all results were satisfactory except for CBOD. Retests were needed for CBOD, and retest results for CBOD subsequently came back acceptable.
- 8) This past summer (2007) an odor neutralizer spray system was installed in the aerobic digester / sludge thickener area.
- 9) The City has been actively studying portions of the sanitary sewer system where Inflow / Infiltration (I/I) is known or suspected. Areas of particular concern were the Cooper Foster Pump Station; the Martin West Pump Station; and the Siphon Chamber under Beaver Creek. Smoke testing and flow monitoring were a part of the study.
- 10) The City's consulting engineers, Arcadis, will be summarizing results of monitoring / testing which have recently been conducted to assess the impact of storm water on the sanitary sewers.
- 11) The possible construction of an equalization basin, to be used for storage of excessive flow received at the WWTP during high flow rain events, has been discussed by the City and their consultants.

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- 12) The Amherst WWTP has had 3 violations of the NPDES permitted effluent limits for mercury this past year. (Two 30-day average concentration limits, one 30-day average loading limit).
- 13) Approximately 7 white pine trees and 24 shrubs, which were planted as part of the stream bank restoration Supplemental Environmental Project (SEP), did not survive this past summer, and were replaced.
- 14) Based upon the WWTP's continued Significant Non-Compliance (SNC) with NPDES permit effluent limits and Compliance Schedule Conditions, an enforcement referral is required to be made by this office. The enforcement referral will be completed and forwarded to the Enforcement Section in Columbus, who will then contact the City of Amherst to discuss/negotiate a resolution to the SNC matter.

The City of Amherst needs to continue the implementation of positive steps which enable the WWTP to consistently meet its NPDES permit limits.

If there are any questions or comments regarding the contents of the report or this letter, please contact this office.

Respectfully,



Charles E. Allen  
Environmental Engineer  
Division of Surface Water

CEA/mt

cc: Ohio EPA, DSW Enforcement Section, CO