

**Environmental
Protection Agency**

**Governor
Lt. Governor
Director**

October 4, 2011

RE: LORAIN COUNTY
CITY OF AMHERST WWTP
COMPLIANCE ENFORCEMENT INSPECTION
NPDES # 3PD00001

City of Amherst
Attn: Mayor David Taylor and Council
206 South Main St.
Amherst, OH 44001

Dear Mayor Taylor and Council:

On September 20, 2011, a meeting was held followed by an inspection that was conducted at the City of Amherst Wastewater Treatment Plant (WWTP). Present for the meeting and inspection were: Messrs. Alan Brailer and Vic Jasinski, representing the City of Amherst; Mr. John Sabo, of the Lorain County Health Department; and this writer, of the Ohio EPA.

The purpose of the meeting was to discuss the National Pollutant Discharge Elimination System (NPDES) permit to discharge compliance status of the City of Amherst WWTP. Following the meeting, a Compliance Evaluation Inspection (CEI) was conducted on the Amherst WWTP, to assess the current operational status of the WWTP. The last CEI conducted at the Amherst WWTP was on January 4, 2011.

At the time of the September 20th WWTP inspection, the following observations were made:

- The Orbal system contents were medium brown and well aerated. The tank contents exhibited very little foam on the surface.
- One (1) of the two (2) final clarifiers was in use, and its contents were medium gray. Sludge scraping mechanisms were operating, and the effluent troughs were clean and free of solids. The second final clarifier was in standby mode, and is put online when flows to the WWTP exceed 5 MGD.
- Two (2) of three (3) Aqua Disk tertiary filters were online and operating satisfactorily. Aqua Disk # 3 has been offline approximately three (3) months for refinishing of the interior.
- The Ultra Violet disinfection system was in use and operating satisfactorily.
- One (1) aerobic sludge digester and the sludge thickener were in use.
- Final effluent from the WWTP was visually clear, with no visible impact on the receiving stream.

According to analytical data contained in the electronic Discharge Monitoring Reports (eDMRs) submitted to the Ohio EPA for the period from January 1, 2011, through September 15, 2011, the following effluent numeric violations were reported:

City of Amherst WWTP
 NPDES Permit No. 3PD00001
 Effluent Limit Numeric Violations
 (Jan. 1, 2011 through Sept. 15, 2011)

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
February 2011	Total Suspended Solids	30D Conc	12	13.1666	2/1/2011
February 2011	Total Suspended Solids	30D Qty	102.2	472.752	2/1/2011
February 2011	CBOD 5 day	30D Qty	85.1	149.906	2/1/2011
February 2011	Phosphorus, Total (P)	30D Qty	8.5	23.2700	2/1/2011
February 2011	Total Suspended Solids	7D Qty	153.2	405.199	2/15/2011
February 2011	Phosphorus, Total (P)	7D Qty	12.7	18.7938	2/15/2011
February 2011	Total Suspended Solids	7D Conc	18	31.6666	2/22/2011
February 2011	Total Suspended Solids	7D Qty	153.2	1433.99	2/22/2011
February 2011	CBOD 5 day	7D Qty	127.6	498.287	2/22/2011
February 2011	Phosphorus, Total (P)	7D Qty	12.7	65.8674	2/22/2011
April 2011	Phosphorus, Total (P)	30D Qty	8.5	9.14031	4/1/2011
April 2011	Phosphorus, Total (P)	7D Qty	12.7	16.3740	4/1/2011
April 2011	Total Suspended Solids	7D Qty	153.2	265.593	4/22/2011
April 2011	CBOD 5 day	7D Qty	127.6	198.872	4/22/2011
July 2011	Dissolved Oxygen	1D Conc	6.0	3.9	7/23/2011

During the September 20th meeting the following items were discussed:

- 1) Remaining construction which was part of the siphon overflow elimination project, which included cured-in-place pipe lining, manhole rehabilitation, and manhole restoration, has been completed. Landscaping in the area is all that remains.
- 2) During the last inspection a new vault which was constructed at the headworks of the WWTP, as part of the siphon project, was observed to need a sign on the opening leading to the vault, stating 'Confined Space: Do Not Enter' (Permit Required). Since then, the Confined Space notification sign has been erected, as well as 'Confined Space' signs in a few other areas within the WWTP.
- 3) The Amherst WWTP Class B sludge is land applied by Midwest Compost in northwest Ohio counties. Midwest Compost has the contract through 2011.
- 4) The sludge filter press is operated approximately one and one-half (1 ½) days per week, generating approximately 25,000-gal./week of 6% solids sludge.
- 5) Screenings and grit removed at the WWTP (approx. 2 c.y. / wk.) are hauled and disposed of at the Republic Landfill in Lorain County.
- 6) Average daily flow to the WWTP is approximately 2.0 MGD. During high flow periods, 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. When diverted, the flow is sampled and reported as STA 602 on the monthly eDMR.

- 7) As required in the new NPDES Permit, a sign is being erected at WWTP outfall, containing pertinent information pertaining to the outfall, and whom to contact for questions regarding the water quality being discharged. The sign is on order and is to be placed by the end of October 2011.
- 8) Conventional pollutants are analyzed at the WWTP lab, while heavy metals samples are sent to Jones and Henry labs for analysis. Bioassays are sent to Enviro Science for analysis.
- 9) DMRQA Study No. 31 (August 2011) unknown sample analyses were run by the WWTP lab, and all results were acceptable.
- 10) There are six (6) full time employees, working eight (8) hour shifts, seven (7) days per week. An auto dialer will alert personnel of any problems at the WWTP when the plant is unmanned.

NPDES permit compliance related items discussed with Messers. Brailer and Jasinski include the following:

- 1) A list of effluent violations for the Amherst WWTP was presented for discussion. The effluent numeric violations were acknowledged by Mr. Brailer as being, for the most part, correct.
- 2) The most recent improvements made at the Amherst WWTP. Also discussed was the fact that the Amherst WWTP is subject to Inflow and/or Infiltration (I/I) during periods of heavy precipitation.
- 3) Recent improvements made in the City's sanitary sewer collection system. System improvements include previous NPDES permit-required elimination of system overflows at the Cooper Foster pump station, as well as the Siphon Chamber under Beaver Creek.
- 4) Operation and treatment capabilities of the current Orbal Process the City constructed several years ago, in an effort to comply with NPDES permitted effluent limits.

Based upon data submitted to the Ohio EPA by the City for the Amherst WWTP, the facility is considered to be in Significant Non-Compliance (SNC) for total suspended solids and CBOD₅. The attached document details the parameters in SNC for the last six (6) month period (February 2011 through July 2011).

LORAIN COUNTY
CITY OF AMHERST WWTP
OCTOBER 4, 2011
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Mr. Brailer was informed that wastewater treatment plants which are in SNC with their NPDES permit effluent limits must be returned to compliance in a timely manner.

The means by which an entity in SNC is brought back into compliance, and kept in compliance, is through a Compliance and Enforcement Plan developed by the District Office with jurisdiction over that entity.

SNC is defined by the USEPA as a 40% exceedance of specific conventional pollutant limits (1.4 x parameter effluent limit), or a 20% exceedance of toxic pollutant limits (1.2 x parameter effluent limit), at a given discharge point for any two (2) or more months, during any two (2) consecutive quarter period reviewed.

- a) Conventional pollutants include: BOD/CBOD; total suspended solids; nutrients such as nitrogen (ammonia) and phosphorus; oil & grease.
- b) Toxic pollutants include: total chlorine residual; heavy metals; cyanide.

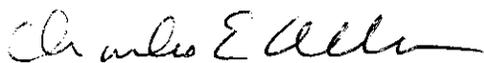
This correspondence shall serve as the initial step in the development and implementation of a plan to bring your facility back into compliance with your NPDES permit.

You are directed to contact this office within 14 days of the receipt of this letter to set up a meeting at the Ohio EPA's Northeast District Office. The purpose of the meeting will be to discuss the facility's NPDES permit violations and the actions you have taken or intend to take to come into compliance with the facility's NPDES permit effluent limits. Results of the compliance meeting may require additional enforcement actions be taken by the Ohio EPA should compliance not be attained.

The City of Amherst should continue with 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

Enclosure

CA/cs

cc: Alan Brailer, Amherst WWTP
John Sabo, LCHD

AMHERST WPCC NPDES PERMIT NO. 3PD00001

Get Detail
for Selected
Permit

Facilities in Significant Non-Compliance **

Period: Feb-11 Jul-11

Permit #	Facility Name	Major	Station Code	Param Code	Parameter Name	Max % Exceed	# Months Signif Exceed (1)**	# Months Exceed (2)**
3PD00001	Amherst WPCC	M	1	00530	Total Suspended Solids	836	2	2
3PD00001	Amherst WPCC	M	1	80082	CBOD 5 day	290.5	2	2

Facility	Report Period	Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
Amherst WPCC	Jul 2011	001	00300	Dissolved Oxygen	1D Conc	6.0	3.9	7/23/2011
Amherst WPCC	Feb 2011	001	00530	Total Suspended Solids	30D Conc	12	13.1666	2/1/2011
Amherst WPCC	Feb 2011	001	00530	Total Suspended Solids	30D Qty	102.2	472.752	2/1/2011
Amherst WPCC	Feb 2011	001	00530	Total Suspended Solids	7D Qty	153.2	405.199	2/15/2011
Amherst WPCC	Feb 2011	001	00530	Total Suspended Solids	7D Conc	18	31.6666	2/22/2011
Amherst WPCC	Feb 2011	001	00530	Total Suspended Solids	7D Qty	153.2	1433.99	2/22/2011
Amherst WPCC	Apr 2011	001	00530	Total Suspended Solids	7D Qty	153.2	265.593	4/22/2011
Amherst WPCC	Feb 2011	001	00665	Phosphorus, Total (P)	30D Qty	8.5	23.2700	2/1/2011
Amherst WPCC	Feb 2011	001	00665	Phosphorus, Total (P)	7D Qty	12.7	18.7938	2/15/2011
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