



State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Rd.
Twinsburg, Ohio 44087

TELE: (330) 963-1200 FAX: (330) 487-0769
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

August 1, 2008

RE: PUBLIC WASTEWATER
NEW MIDDLETOWN WWTP
NPDES PERMIT NO. 3PH00016
2009 CEI

Board of Mahoning County Commissioners
21 West Boardman Street
Youngstown, OH 44503

Dear Gentlemen:

On July 30, 2008 this writer conducted an unannounced Compliance Evaluation Inspection (CEI) of the New Middletown WWTP. The intent of the inspection was to assess operations and maintenance at the POTW and to review compliance with NPDES Permit No. 3PH00016*ED. Representing the county during the inspection was Guy Maiorana. The condition of the treatment plant was unsatisfactory at the time of the inspection.

Observations:

Following are observations made during the inspection.

- The ventilation system in the grit room has been replaced. If not properly ventilated, the grit building can accumulate unhealthy levels of sewer gas. The new ventilation system will provide a safer and healthier working environment for county employees.
- SBR Control Room: One controller was out of service at the time of the inspection. The controller is for pump No.4. Mr. Maiorana indicated a new controller will be installed within two weeks.
- Mr. Maiorana indicated that Tank No. 4 was out of service for two weeks because of a faulty jet pump. The pump was replaced at the time of the inspection. However, because the tank biology takes time to recover, significant violations continue as a result of the problem. A list of violations is included below.
- The packing for the remaining jet pumps are in need of adjustment or replacement. This should be completed as soon as possible.
- The pump to operate the nonpotable water system was out of service at the time of the inspection. It was the understanding of this writer that the pump would be back in service the next day.
- The plastic troughs for the disinfection system were in need of cleaning. Floating masses of unidentifiable material were observed at the time of the inspection. The troughs should be clean at all times to prevent recontamination of the wastewater prior to discharge.
- The sludge in the aeration tank was black at the time of the inspection. Mr. Maiorana indicated that the air supply to the tank was left off over the previous weekend. The tank was being aerated during the inspection.
- The outfall to the receiving stream was impacted by the treatment plant effluent. Nutrient enrichment of the stream was obvious. The county is scheduled to install phosphorus removal at the plant in an attempt to reduce impacts on the receiving stream. See the discussion regarding the compliance schedule below.

Compliance Evaluation:

The compliance reports for the New Middletown POTW were reviewed for compliance with the NPDES Permit. The period of review was March 2007 through June 2008. Following are violations identified during the assessment.

Limit Violations

Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
March 2007	001	TSS	30D Qty	42	53.5753	3/1/2007
March 2007	001	TSS	7D Qty	62.5	227.161	3/1/2007
May 2007	001	pH	1D Conc	9.0	9.5	5/21/2007
May 2007	001	pH	1D Conc	9.0	9.4	5/22/2007
May 2007	001	pH	1D Conc	9.0	9.4	5/23/2007
May 2007	001	pH	1D Conc	9.0	9.5	5/24/2007
May 2007	001	pH	1D Conc	9.0	9.4	5/25/2007
September 2007	001	Nitrogen, Ammonia	7D Conc	3.0	4.215	9/1/2007
January 2008	002	Nitrogen, Ammonia	30D Conc	3.0	3.444	1/1/2008
January 2008	002	Nitrogen, Ammonia	7D Conc	5.0	8.35	1/1/2008
January 2008	002	Nitrogen, Ammonia	7D Conc	5.0	6.72	1/8/2008
January 2008	002	Nitrogen, Ammonia	30D Qty	6.2	6.24858	1/1/2008
January 2008	002	Nitrogen, Ammonia	7D Qty	10.4	17.1074	1/1/2008
January 2008	002	Nitrogen, Ammonia	7D Qty	10.4	10.9217	1/8/2008
March 2008	002	TSS	7D Qty	62.5	79.4070	3/1/2008
May 2008	002	Nitrogen, Ammonia	30D Conc	2.0	3.5875	5/1/2008
May 2008	002	Nitrogen, Ammonia	7D Conc	3.0	6.37	5/15/2008
May 2008	002	Nitrogen, Ammonia	7D Conc	3.0	6.91	5/22/2008
May 2008	002	Nitrogen, Ammonia	30D Qty	4.2	4.4636	5/1/2008
May 2008	002	Nitrogen, Ammonia	7D Qty	6.2	8.80202	5/15/2008
May 2008	002	Nitrogen, Ammonia	7D Qty	6.2	7.34937	5/22/2008
June 2008	002	Nitrogen, Ammonia	30D Conc	2.0	21.3225	6/1/2008
June 2008	002	Nitrogen, Ammonia	7D Conc	3.0	16.09	6/1/2008
June 2008	002	Nitrogen, Ammonia	7D Conc	3.0	23.1	6/8/2008
June 2008	002	Nitrogen, Ammonia	7D Conc	3.0	27.15	6/15/2008
June 2008	002	Nitrogen, Ammonia	7D Conc	3.0	18.95	6/22/2008
June 2008	002	Nitrogen, Ammonia	30D Qty	4.2	26.2621	6/1/2008
June 2008	002	Nitrogen, Ammonia	7D Qty	6.2	16.3753	6/1/2008
June 2008	002	Nitrogen, Ammonia	7D Qty	6.2	37.6963	6/8/2008
June 2008	002	Nitrogen, Ammonia	7D Qty	6.2	31.7582	6/15/2008
June 2008	002	Nitrogen, Ammonia	7D Qty	6.2	19.2188	6/22/2008

Reporting Violations

Reporting Period	Station	Parameter	Sample Frequency	Expected	Reported	Violation Date
March 2007	001	Cyanide, Free	1/Quarter	1	0	03/01/2007
March 2007	001	Mercury, Total (Low Le	1/Quarter	1	0	03/01/2007
May 2007	001	Nitrite Plus Nitrate,	1/Month	1	0	05/01/2007
June 2007	001	Fecal Coliform	2/Week	2	1	06/01/2007
June 2007	001	Cyanide, Free	1/Quarter	1	0	06/01/2007
June 2007	001	Mercury, Total (Low Le	1/Quarter	1	0	06/01/2007
June 2007	001	Fecal Coliform	2/Week	2	0	06/08/2007
June 2007	001	Fecal Coliform	2/Week	2	0	06/15/2007
June 2007	001	Fecal Coliform	2/Week	2	0	06/22/2007
August 2007	001	Cyanide, Free	1/Quarter	1	0	08/01/2007
August 2007	001	Mercury, Total (Low Le	1/Quarter	1	0	08/01/2007
December 2007	001	Cyanide, Free	1/Quarter	1	0	12/01/2007
December 2007	001	Mercury, Total (Low Le	1/Quarter	1	0	12/01/2007
March 2008	002	Cyanide, Free	1/Quarter	1	0	03/01/2008
March 2008	002	Mercury, Total (Low Le	1/Quarter	1	0	03/01/2008

The limit violations for ammonia in May and June may be a result of Tank No. 4 being out of service. The causes of the ammonia violations in January are unknown. Be advised that such violations of the NPDES Permit constitute violations of Ohio Revised Code 6111.07 and are subject to enforcement action.

The reporting violations noted above were discussed with Mr. Maiorana. He indicated he would check the compliance reports to see if the parameters were actually submitted as required by the NPDES Permit. If the information is available but not submitted, Mr. Maiorana was going to determine if revised reports could be submitted to Ohio EPA.

Disinfection System Bypass:

The disinfection system bypass is still in place. Be advised that because the pipe bypasses the permitted Outfall 001, the bypass is considered an unpermitted outfall. As a result, use of the bypass constitutes a violation of ORC 6111.04. The bypass must be either eliminated or diverted through the final sampling station. A response must be provided to this office identifying actions that will be taken to eliminate the unpermitted outfall and a schedule for diverting the bypass through the final sampling outfall.

Equalization Tank Overflow

The equalization tank overflow does flow through Outfall 001. However, in past inspections it was reported that the county does not collect samples when the overflow has activated. As a reminder, any time the equalization tank overflow is activated, the county should collect composite effluent samples even if the equalization tank overflows on a day that samples are not normally collected. In addition, the date and time duration of the overflow should be recorded.

Board of Mahoning County Commissioners
New Middletown WWTP
August 1, 2008
Page 4

NPDES Permit Compliance Schedule:

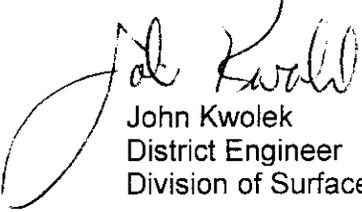
The NPDES Permit includes a compliance schedule for the installation of a phosphorus removal system at the POTW. As noted above, the receiving stream was visually impacted by nutrients in the plant effluent. Removal of phosphorus was specified by the Little Beaver Creek Total Maximum Daily Load (TMDL) study in order to eliminate impacts on the stream from nutrient enrichment.

It was my understanding from Mr. Maiorana that the permit-to-install application for the phosphorus removal system is to be submitted to this office in the next two weeks. Be advised that the PTI application must specify the level of treatment achievable by the proposed system, it must be stamped and signed by a Professional Engineer who certifies that the system is reasonably capable of compliance with the final permit limit for phosphorus (0.5 mg/l), and it must propose a treatment option that is reasonably capable of compliance with the final limit. Such a treatment system should consist of chemical addition including polymer addition, tertiary filters, and possibly increased sludge holding capacity. Be advised that final date for compliance is October 1, 2008.

The county has missed interim compliance dates established in the New Middletown NPDES Permit. Be advised that the county must submit notification of missed schedule events per Part III, D of the NPDES Permit.

You may contact this writer at (330) 963-1251 to discuss any questions you may have.

Respectfully,



John Kwolek
District Engineer
Division of Surface Water

JK/mt

cc: Joe Warino, P.E., Mahoning Co. Sanitary Engineer
Guy Maiorana, Campbell POTW