



State of Ohio Environmental Protection Agency

Northeast District Office

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

December 15, 2008

RE: PUBLIC WASTEWATER
MEANDER WWTP
NPDES PERMIT NO. 3PK00011
2009 CEI

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

Gentlemen:

On November 13, 2008, this writer conducted an unannounced Compliance Evaluation Inspection (CEI) of the Meander Wastewater Treatment Plant (WWTP). The intent of the inspection was to determine the condition of the treatment plant and to review the compliance record since the previous inspection. Representing the county during the inspection was Joe DeNiro.

Observations

Following are observations made during this inspection.

1. The condition of the treatment system was satisfactory at the time of the inspection. Both treatment stages and clarifiers were on line. Maintenance activities conducted on both stages in 2007 and 2008 were completed. The major activities included grit removal from the oxygen tanks and rebuilding the chain and flight systems.

A pin floc was apparent in effluent from both clarifiers; however, the effluent from the polishing clarifier was free of any pin floc. The effluent from the polishing clarifier was clear and had no color or odor at the time of the inspection.

2. The grit removal system was online at the time of the inspection. A new grit removal system is currently under design. A permit-to-install for a new grit system is tentatively scheduled to be submitted to this office by the end of 2008.
3. The tertiary sand filters were out of service. Mr. DeNiro indicated that anchor bolts used to secure the effluent troughs to the walls of the filters had corroded. The bolts were being replaced. At the time of the inspection, Mr. DeNiro indicated that the repair was to be done no later than November 21, 2008.
4. Because of the time of year, the disinfection system was off line.

5. Mr. DeNiro indicated that the annual preventive maintenance inspection of the oxygen delivery system would be completed before the end of 2008. The procedures are contracted out and include the entire oxygen delivery system inclusive of the media towers. Inspection of the media towers and supports are necessary to prevent interruption of the oxygen delivery to the treatment tanks. Failure of the support structures for the granular media was identified in the past as the cause for ammonia violations.

6. Mr. DeNiro indicated that the County will conduct training for the system-wide computer supported maintenance program before the end of the 2008. It is the understanding of this writer that, among a wide range of capabilities, the program is intended to record preventive maintenance activities and provide records regarding routine maintenance for all treatment systems operated by the County. It is anticipated by this writer, that the County will be implementing the maintenance system no later than March 2009.

Compliance Review

A review of the compliance record for the Meander WWTP was made for the months covering December 2007 through October 2008. Following is a list of permit limit violations identified for the review period.

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
December 2007	Nitrogen, Ammonia (NH3)	30D Conc	5.0	8.28667	12/1/2007
December 2007	Nitrogen, Ammonia (NH3)	7D Conc	7.5	9.19	12/1/2007
December 2007	Nitrogen, Ammonia (NH3)	30D Qty	75.7	162.266	12/1/2007
December 2007	Nitrogen, Ammonia (NH3)	7D Qty	113.6	175.030	12/1/2007
December 2007	Nitrogen, Ammonia (NH3)	7D Conc	7.5	8.20333	12/8/2007
December 2007	Nitrogen, Ammonia (NH3)	7D Qty	113.6	195.128	12/8/2007
December 2007	Nitrogen, Ammonia (NH3)	7D Qty	113.6	140.446	12/15/2007
December 2007	Nitrogen, Ammonia (NH3)	7D Conc	7.5	8.6	12/22/2007
December 2007	Nitrogen, Ammonia (NH3)	7D Qty	113.6	138.459	12/22/2007
January 2008	Nitrogen, Ammonia (NH3)	30D Conc	5.0	10.4316	1/1/2008
January 2008	Nitrogen, Ammonia (NH3)	30D Qty	75.7	149.963	1/1/2008
January 2008	Nitrogen, Ammonia (NH3)	7D Conc	7.5	11.5	1/8/2008
January 2008	Nitrogen, Ammonia (NH3)	7D Qty	113.6	180.786	1/8/2008
January 2008	Nitrogen, Ammonia (NH3)	7D Conc	7.5	9.59667	1/15/2008
January 2008	Nitrogen, Ammonia (NH3)	7D Qty	113.6	147.157	1/15/2008
January 2008	Nitrogen, Ammonia (NH3)	7D Conc	7.5	13.63	1/22/2008
January 2008	Nitrogen, Ammonia (NH3)	7D Qty	113.6	171.465	1/22/2008
February 2008	Nitrogen, Ammonia (NH3)	30D Conc	5.0	7.13538	2/1/2008

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Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
February 2008	Nitrogen, Ammonia (NH3	30D Qty	75.7	129.794	2/1/2008
February 2008	Nitrogen, Ammonia (NH3	7D Qty	113.6	140.188	2/1/2008
February 2008	Nitrogen, Ammonia (NH3	7D Conc	7.5	8.36667	2/8/2008
February 2008	Nitrogen, Ammonia (NH3	7D Qty	113.6	138.844	2/8/2008
February 2008	Nitrogen, Ammonia (NH3	7D Conc	7.5	8.06333	2/15/2008
February 2008	Nitrogen, Ammonia (NH3	7D Qty	113.6	168.734	2/15/2008
March 2008	Nitrogen, Ammonia (NH3	30D Conc	5.0	7.16538	3/1/2008
March 2008	Nitrogen, Ammonia (NH3	30D Qty	75.7	146.677	3/1/2008
March 2008	Nitrogen, Ammonia (NH3	7D Conc	7.5	7.80333	3/8/2008
March 2008	Nitrogen, Ammonia (NH3	7D Qty	113.6	139.377	3/8/2008
March 2008	Nitrogen, Ammonia (NH3	7D Conc	7.5	8.24333	3/15/2008
March 2008	Nitrogen, Ammonia (NH3	7D Qty	113.6	196.822	3/15/2008
March 2008	Nitrogen, Ammonia (NH3	7D Conc	7.5	8.40333	3/22/2008
March 2008	Nitrogen, Ammonia (NH3	7D Qty	113.6	155.371	3/22/2008
April 2008	Nitrogen, Ammonia (NH3	30D Conc	5.0	6.34667	4/1/2008
April 2008	Nitrogen, Ammonia (NH3	7D Conc	7.5	7.74667	4/1/2008
April 2008	Nitrogen, Ammonia (NH3	30D Qty	75.7	100.715	4/1/2008
April 2008	Nitrogen, Ammonia (NH3	7D Qty	113.6	141.869	4/1/2008
April 2008	Nitrogen, Ammonia (NH3	7D Conc	7.5	8.51	4/8/2008
April 2008	Nitrogen, Ammonia (NH3	7D Qty	113.6	127.486	4/8/2008
May 2008	Nitrogen, Ammonia (NH3	30D Conc	2.1	11.1016	5/1/2008
May 2008	Nitrogen, Ammonia (NH3	7D Conc	3.15	9.66667	5/1/2008
May 2008	Nitrogen, Ammonia (NH3	30D Qty	31.8	166.181	5/1/2008
May 2008	Nitrogen, Ammonia (NH3	7D Qty	47.7	155.535	5/1/2008
May 2008	Nitrogen, Ammonia (NH3	7D Conc	3.15	8.17333	5/8/2008
May 2008	Nitrogen, Ammonia (NH3	7D Qty	47.7	135.081	5/8/2008
May 2008	Nitrogen, Ammonia (NH3	7D Conc	3.15	11.9666	5/15/2008
May 2008	Nitrogen, Ammonia (NH3	7D Qty	47.7	176.569	5/15/2008
May 2008	Nitrogen, Ammonia (NH3	7D Conc	3.15	14.6	5/22/2008
May 2008	Nitrogen, Ammonia (NH3	7D Qty	47.7	197.539	5/22/2008
June 2008	Nitrogen, Ammonia (NH3	30D Conc	2.1	19.7833	6/1/2008
June 2008	Nitrogen, Ammonia (NH3	7D Conc	3.15	13.9666	6/1/2008
June 2008	Nitrogen, Ammonia (NH3	30D Qty	31.8	254.251	6/1/2008
June 2008	Nitrogen, Ammonia (NH3	7D Qty	47.7	190.939	6/1/2008
June 2008	Cyanide, Free	30D Conc	0.012	.035	6/1/2008
June 2008	Cyanide, Free	30D Qty	0.18	.43227	6/1/2008
June 2008	Nitrogen, Ammonia (NH3	7D Conc	3.15	14.2	6/8/2008
June 2008	Nitrogen, Ammonia (NH3	7D Qty	47.7	182.041	6/8/2008
June 2008	Nitrogen, Ammonia (NH3	7D Conc	3.15	29.7	6/15/2008
June 2008	Nitrogen, Ammonia (NH3	7D Qty	47.7	359.069	6/15/2008
June 2008	Nitrogen, Ammonia (NH3	7D Conc	3.15	21.2666	6/22/2008

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Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
June 2008	Nitrogen, Ammonia (NH3)	7D Qty	47.7	284.955	6/22/2008
July 2008	Nitrogen, Ammonia (NH3)	30D Conc	2.1	12.9241	7/1/2008
July 2008	Nitrogen, Ammonia (NH3)	7D Conc	3.15	14.1666	7/1/2008
July 2008	Nitrogen, Ammonia (NH3)	30D Qty	31.8	180.015	7/1/2008
July 2008	Nitrogen, Ammonia (NH3)	7D Qty	47.7	187.834	7/1/2008
July 2008	Nitrogen, Ammonia (NH3)	7D Conc	3.15	9.35	7/8/2008
July 2008	Nitrogen, Ammonia (NH3)	7D Qty	47.7	158.483	7/8/2008
July 2008	Nitrogen, Ammonia (NH3)	7D Conc	3.15	14.5666	7/15/2008
July 2008	Nitrogen, Ammonia (NH3)	7D Qty	47.7	182.571	7/15/2008
July 2008	Nitrogen, Ammonia (NH3)	7D Conc	3.15	13.6133	7/22/2008
July 2008	Nitrogen, Ammonia (NH3)	7D Qty	47.7	191.170	7/22/2008
August 2008	Nitrogen, Ammonia (NH3)	30D Conc	2.1	12.0133	8/1/2008
August 2008	Nitrogen, Ammonia (NH3)	7D Conc	3.15	17.5	8/1/2008
August 2008	Nitrogen, Ammonia (NH3)	30D Qty	31.8	132.937	8/1/2008
August 2008	Nitrogen, Ammonia (NH3)	7D Qty	47.7	187.017	8/1/2008
August 2008	Nitrogen, Ammonia (NH3)	7D Conc	3.15	10.9533	8/8/2008
August 2008	Nitrogen, Ammonia (NH3)	7D Qty	47.7	128.712	8/8/2008
August 2008	Nitrogen, Ammonia (NH3)	7D Conc	3.15	11.0433	8/15/2008
August 2008	Nitrogen, Ammonia (NH3)	7D Qty	47.7	122.169	8/15/2008
August 2008	Nitrogen, Ammonia (NH3)	7D Conc	3.15	8.55667	8/22/2008
August 2008	Nitrogen, Ammonia (NH3)	7D Qty	47.7	93.8511	8/22/2008
August 2008	Fecal Coliform	7D Conc	2000	7121.02	8/22/2008
September 2008	Nitrogen, Ammonia (NH3)	30D Conc	2.1	3.27538	9/1/2008
September 2008	Nitrogen, Ammonia (NH3)	7D Conc	3.15	12.7333	9/1/2008
September 2008	Nitrogen, Ammonia (NH3)	30D Qty	31.8	37.3628	9/1/2008
September 2008	Nitrogen, Ammonia (NH3)	7D Qty	47.7	140.705	9/1/2008

It is understood that the ammonia violations are the result of maintenance activities which included cleaning grit from the Stage I and Stage II oxygen tanks and rebuilding the flight and chain systems in both the Stage I and Stage II clarifiers. As each stage was taken out of service to perform the needed maintenance, the reduction in treatment volume inhibited the nitrification process. As a result, ammonia violations are evident during the time that full operations were interrupted. It was the understanding of this writer that the second oxygenation stage was placed into service on July 29, 2008. Efforts by the treatment plant personnel were successful at returning the plant to full compliance by the beginning of September. No violations were recorded for October 2008. Be advised, however, that violations of the NPDES Permit are considered violations of Ohio Revised Code 6111.07 and are subject to enforcement action.

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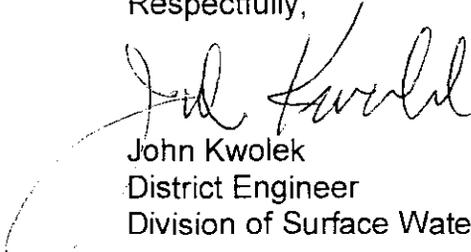
Consent Order

On October 22, 2008, Mahoning County and Ohio EPA entered into a consent agreement for the Meander, Boardman and Campbell WWTPs. Following are the items in the consent agreement that pertain to the Meander WWTP.

- *Section V, Item 6* enjoins the County to permanently comply with the terms and conditions of NPDES Permit No. 3PK00011.
- *Section VI, Item 7* requires the County to evaluate the grit removal system. As indicated, the County has committed to replacing the existing grit removal system.
- *Section VI, Item 8* requires the County to complete all work to rehabilitate Stage II aeration tanks and clarifiers. As indicated above, the County has completed the required actions.
- *Section 9, Item 17* requires the County to submit all Monthly Operating Reports (MORs) electronically to Ohio EPA. The County has adopted this method of monthly reporting. Therefore, this item is completed.

You may contact this office at (330) 963-1251 to discuss any questions you may have regarding this letter or the October 22, 2008 Consent Order.

Respectfully,



John Kwolek
District Engineer
Division of Surface Water

JK/mt

cc: Joseph Warino, County Sanitary Engineer
Joe DeNiro, Meander POTW

File: Public/Mahoning County/Meander WWTP/Permit and Compliance