John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

June 12, 2013

RE: BOARDMAN WWTP
NPDES PERMIT 3PK00002
SFY 2013 CEI
MAHONING COUNTY

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

Ladies and Gentlemen:

On June 4, 2013, this writer conducted a pre-permit inspection of the Boardman Publicly Owned Treatment Works (POTW). The POTW is regulated by National Pollutant Discharge Elimination System (NPDES) Permit No. 3PK00002 for the discharge of treated wastewater to Mill Creek.

The intent of the inspection was to verify information regarding the wastewater plant and to evaluate the current condition of the facilities. Representing the county during the inspection was Guy Maiorana, Superintendent and Certified Operator of the plant. The plant appeared to be well maintained and operated at the time of the inspection.

Observations and Discussions
Following are observations and discussions during the inspection:

1. It appeared that all treatment processes were operational.

2. Both detritus tanks were online at the time of the inspection. Water from the grit washers, filtrate from the filter press and subnate water from the dissolved air floatation unit are returned to the influent wet well for retreatment. Influent samples required by the NPDES Permit include these waste streams in addition to raw wastewater entering the plant.

3. The aeration tanks were all online. Air distribution appeared even across the tanks. The color of the mixed liquor was medium brown indicating a good population of microbes to provide treatment.

4. The clarifiers were all on line. The weirs plates were level and clean. Water discharging from the clarifier was clear and low in turbidity. All drive mechanisms were operational.

5. Chlorination and dechlorination of treated wastewater are operated off of oxidation-reduction potential monitors in the tank.

6. It was understood that the effluent flow meter following disinfection was calibrated on March 11, 2013 to provide accurate flow data.

7. The county disposes of sludge in the Carbon landfill in Poland Twp.

8. The wastewater plant adds ferric chloride and polymer to the waste stream to reduce phosphorus in the treated wastewater. The polymer was found to cause toxicity issues in the effluent. A new polymer addition system was recently installed in order to reduce toxicity. Based on toxicity testing results, the new system appears to have eliminated effluent toxicity at the Boardman POTW. No effluent toxicity has been identified at the plant since August 2011.

9. The effluent discharged to Mill Creek had no apparent visual impact on Mill Creek downstream of the Outfall 001. The stream had the same appearance both upstream and downstream of Outfall 001.

Compliance Evaluation

The compliance record for the Boardman POTW was reviewed as part of this inspection. The period of review was June, 2012 through May 2013. Pages four and five of this report provide a summary of the evaluation. One limit violation of the NPDES Permit and one sanitary sewer overflow were identified throughout the review period.

If you have any questions or comments concerning the enclosed inspection report, please contact me at (330) 963-1251 or e-mail at John.Kwolek@epa.ohio.gov.

Sincerely

John Kwolek
District Engineer
Division of Surface Water
Northeast District Office

JK/cs

NPDES Compliance Inspection Report

SECTION A: NATIONAL DATA SYSTEM CODING				
Permit #	NPDES #	Inspection Type	Inspector	Facility Type
3PK00002	OH0037249	CEI	S	P
Inspection Date	Entry Time	Exit Time	Notice of Violation	Significant Non-Compliance
6/4/2013			No	No

SECTION B: FACILITY DATA	
Name and Location of Facility Inspected	Permit Effective Date
Boardman WWTP	5/1/2009
	Permit Expiration Date
	10/31/2013
Name(s) and Title(s) of On-Site Representatives	Phone Numbers
Guy C. Maiorana, Superintendent	(330) 758-6641
Name and Title of Responsible Official	Phone Number
Guy C. Maiorana, Superintendent	(330) 758-6641

SECTION C: AREAS EVALUATED DURING INSPECTION		
Key: S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated		
S	NPDES Compliance	
S	Operations & Maintenance	
S	Facility Site Review	
N	Collection System	
S	Flow Measurement	
S	Receiving Waters	
N	Laboratory	

Comments:

Signatures	
J. Kwolek	6/14/13
John Kwolek, Inspector District Engineer Northeast District Office	Date

Compliance Data for Boardman WWTP between 6/1/2012 to 5/31/2013

Summary
Permit Effluent Limit Violations: 1
Permit Effluent Code Violations: 0
Permit Effluent Frequency Violations: 0
Reported SSO Events: 1

Limit Violations

Limit Violations						
Reporting Period	**Station**	**Parameter**	**Limit Type**	**Limit**	**Reported Value**	**Violation Date**
December 2012	001	Phosphorus, Total (P)	7D Qty	29	29.5441	12/8/2012

Overflow Occurrences

Parameter	**Units**	**Date**	**Reported Value**
Overflow Occurrence	No./Month	11/9/2012	1

Overall Summary	
Total Limit Violations	1
Months with Limit Violations	1
Frequency Violations	0
Code Violations	0
Missing DMRs	0
Missing/Upcoming Milestones	4
SSO Events	1
SNC between 11/1/2012 to 4/30/2013	No

Flow Data for Boardman WWTP between 6/1/2012 and 5/31/2013

	Date	Flows (MGD)
Ten Highest Flows	10/30/2012	11.109
	4/11/2013	8.131
	12/10/2012	8.047
	2/27/2013	7.301
	4/12/2013	6.626
	1/11/2013	6.146
	1/12/2013	6.084
	10/29/2012	5.844
	10/31/2012	5.839
	6/1/2012	5.779
Average Flow Rate		3.282

Flows between 6/1/2012 and 5/31/2013	
Percentile	Flow Rate (MGD)
Minimum	1.82
10%	2.3828
20%	2.49
30%	2.6418
40%	2.7772
50%	3.001
60%	3.3752
70%	3.5956
80%	3.8932
90%	4.3252
Maximum	11.109
Design Flow (MGD)	5
% Exceeding Design	5.48%

SECTION D: PERMIT VERIFICATION

(a)	Correct name and mailing address of permittee	Y
(b)	Correct name and location of receiving waters	Y
(c)	Products and production rates conform with permit application	N/A
(d)	Flows and loadings conform with NPDES permit	Y
(e)	Treatment processes are as described in permit application	Y
(f)	New treatment process added since last inspection	N
(g)	Notification given to State of new, different or increased discharges	N/A
(h)	All discharges are permitted	Y
(i)	Number and location of discharge points are as described in permit	Y

Comments:

SECTION E: COMPLIANCE

(a)	Any significant violations since the last inspection	N
(b)	Permittee is taking actions to resolve violations	N/A
(c)	Permittee has a compliance schedule	N/A
(d)	Permittee is meeting compliance schedule	N/a

Comments:

SECTION F: OPERATION AND MAINTENANCE

(a)	Standby power available	Y
	If yes, what type? ***Two Generators***	
(b)	Adequate alarm system available for power or equipment failures	Y
(c)	All treatment units in service other than backup units	Y
(d)	Wastewater Treatment Works classification	IV
(e)	Operator of Record holds unexpired license of class required by Permit	
	Class held: ***IV***	
(f)	Copy of certificate of Operator of Record displayed on-site	N
(g)	Minimum operator staffing requirements fulfilled	Y
(h)	Routine and preventative maintenance scheduled and performed	Y
(i)	Any major equipment breakdown since last inspection	N
(j)	Operation and maintenance manual provided and maintained	Y
(k)	Any plant bypasses since last inspection	N
(l)	Regulatory agency notified of bypasses	N/A
	By MOR ☐ and/or Spill Hotline (1-800-282-9378) ☐	
(m)	Any hydraulic or organic overloads since last inspection	N

Comments:

SECTION G: RECORD KEEPING

a) Log book provided ..... N
b) Format of log book (i.e. computer log, hard bound book) *Computer*
c) Log book(s) kept onsite in an area protected from weather ..... N/A
d) Log book contains the following:
   i) Identification of treatment works .....
   ii) Date/times of arrival/departure for Operator of Record and any other operator required by OAC 3745-7 .....
   iii) Daily record of operation and maintenance activities (including preventative maintenance, repairs and request for repairs) .....
   iv) Laboratory results (unless documented on bench sheets) .....
   v) Identification of person making log entries .....
e) Has the Operator of Record submitted written notification to the permittee, Ohio EPA and any applicable local environmental agencies when a collection system overflow, treatment plant bypass or effluent limit violation has occurred? ..... N/A

Comments:

Maintenance log is included in the daily log sheets and on the computer system

SECTION H: COLLECTION SYSTEM

a) Percent combined system: 0%
b) Any collection system overflows since last inspection ..... N
   CSO ☐ SSO ☐
c) Regulatory agency notified of overflows ..... N/A
d) CSO O&M plan provided and implemented. ..... N/A
e) CSOs monitored and reported in accordance with permit ..... N/A
f) Portable pumps are used to relieve system ..... N/A
g) Lift station alarms provided and maintained ..... Y
h) Lift stations equipped with permanent standby power or equivalent ..... Y
i) Is there an inflow/infiltration problem (separate sewer system), or were there any major repairs to collection system since last inspection ..... Y
j) Any complaints received since last inspection of basement flooding ..... N
k) Are any portions of the sewer system at or near capacity ..... N/E
l) Are operations changed during high-flow events? ..... N/E

Comments:

SECTION I: SLUDGE MANAGEMENT

a) Sludge management plan (SMP) last audited by Ohio EPA:
Audit Date: ***9/23/2009***

b) Sludge adequately disposed ..... Y
Method: ***LANDFILL***

c) If sludge is incinerated, where is ash disposed of ..... N/A

d) Is sludge disposal contracted ..... N
Name:

e) Has amount of sludge generated changed significantly ..... N

f) Adequate sludge storage provided at plant ..... N

g) Records kept in accordance with State and Federal law ..... N/E

h) Any complaints received last year regarding sludge ..... N

i) Is sludge adequately processed (digestion, pathogen control) ..... Y

Comments:

SECTION J: SELF-MONITORING PROGRAM

a) Primary flow measuring device operated and maintained .....
Type of device: ***PARSHALL FLUME*** Device location: ***EFFLUENT***

b) Calibration frequency adequate .....
Date of last calibration: ***3/11/2013***

c) Secondary instruments operated and maintained ..... N/A

d) Flow measurements equipment adequate to handle full range of flows ..... Y

e) Actual flow discharged is measured ..... Y

f) Flow measuring equipment inspection frequency ***DAILY***

g) Sampling location(s) are as specified by permit ..... Y

h) Parameters and sampling frequency agree with permit ..... Y

i) Monitoring records (i.e., flow, pH, DO) maintained for a minimum of three years including all original strip chart recordings (i.e. continuous monitoring instrumentation, calibration and maintenance records) ..... Y

Comments:

SECTION K: Laboratory

a) EPA applicable analytical testing procedures used (40 CFR 136.3) ..... N/E
b) If alternate procedures are used, are they properly approved?..... N/E
c) Analysis performed more frequency ..... N/E
If yes, are results recorded in permittee's report? .....
d) Commercial laboratory used: N/A
Name:
Parameters analyzed:
e) Quality assurance manual provided and maintained ..... N/E
f) Calibration and maintenance of instruments is satisfactory? ..... N/E
g) Results of last U.S. EPA quality assurance ..... N/E
Date:

Comments:

SECTION L: EFFLUENT/RECEIVING WATER OBSERVATIONS

Outfall Number	Outfall sign in place	Oil Sheen	Grease	Turbidity	Foam	Solids	Color	Other
001	Y	N	N	Clear	N	N	N	

Comments: