



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

July 22, 2013

RE: MAHONING COUNTY
BERLIN TWP.
MILL CREEK REC, AREA
NPDES PERMIT NO 3PN00000

NOTICE OF VIOLATION

Ms. Rene' Berberich
USACOE, Mill Creek Rec. Area
7400 Bedell Road
Berlin Center, OH 44401

Ms. Berberich:

On June 18, 2013, this writer conducted an inspection of the wastewater treatment plant for the Mill Creek Recreational Area. Representing the facility during the inspection were you, Waylon Reigle and Randy Fabrizio. The intent of the inspection was to evaluate the condition of the treatment system. The compliance record was also reviewed as part of this inspection. Following are observations during the inspection.

1. The system includes four blowers to supply air to the system and to operate air lift pumps. It was understood that the system can currently operate with one blower operating; but, with the rapid sand filters ready to be put online, a second blower may be necessary.
2. The content of the aeration tank had good color and mixing. The Mixed Liquor Suspended Solids (MLSS) and the return sludge was medium brown. A sample of the mixed liquor was taken out of the aeration tank and permitted to settle during the inspection. The sludge was observed to have good settling qualities and the supernatant above the sludge was relatively clear. It appears that the operational practices used to maintain the MLSS system, such as return rates and wasting schedules, have been successful at achieving healthy mixed liquor.
3. The influent trough of the clarifier was free of scum and debris. The surface of the clarifier was relatively free of floating scum and sludge. Any floating material was being collected by the scum return system and returned back to the aeration tank. The effluent trough was free of scum and sludge. It was understood that the clarifier hopper and the weirs are brushed clean each day to minimize floating sludge on the surface of the clarifier.

4. The treatment train currently includes no tertiary treatment. The rapid sand filters have been inoperable for several years. However, the rapid sand filters were being refurbished at the time of this inspection. All pumps, piping and electrical appurtenances were replaced during the project. The tanks associated with the rapid sand filters were stripped and painted with a special paint in preparation for installing all new equipment. It was estimated that the rapid sand filters will be operational within 30 - 45 days from the inspection.
5. Liquid chlorine and dechlorination chemicals are used for wastewater disinfection. Sodium hypochlorite and sodium metabisulfite are added to the treated wastewater using metering pumps prior to discharge.
6. A Parshall Flume with an ultrasonic unit is used to monitor influent flow.
7. It was understood that liquid sludge is hauled from the treatment system when necessary. Morris Drain service is used to haul the sludge to the Struthers publicly owned treatment works (POTW) for processing and disposal.
8. Final discharge is to Berlin Lake through a submerged pipe. The final discharge location can only be observed when the lake levels are significantly reduced.

A review of the compliance record for Mill Creek Recreational Area was completed for the period covering June 2012 through May 2013. Pages four and five of this report include the results of the compliance review. The installation of the rapid sand filters should address the Total Suspended Solids (TSS) violations; however, ammonia and bacteria issues still need to be addressed long-term. Be advised that violations of the National Pollutant Discharge Elimination System (NPDES) Permit constitute violations of Ohio Revised Code 6111.07 and are subject to enforcement action.

If you have any questions or comments concerning the enclosed inspection report, please contact this office at (330)963-1251 or at john.kwolek@epa.state.oh.us.

Respectfully,



John Kwolek
District Engineer
Northeast District Office

JK/cs

cc: John Lubonovic, Mahoning County Department of Health

NPDES Compliance Inspection Report

SECTION A: NATIONAL DATA SYSTEM CODING				
Permit #	NPDES #	Inspection Type	Inspector	Facility Type
3PN00000	OH0023671	CEI	S	P
Inspection Date	Entry Time	Exit Time	Notice of Violation	Significant Non-Compliance
6/18/2013			Yes	No

SECTION B: FACILITY DATA	
Name and Location of Facility Inspected	Permit Effective Date
US Army Corps of Engineers - Berlin Lake	9/1/2011
	Permit Expiration Date
	8/31/2016
Name(s) and Title(s) of On-Site Representatives	Phone Numbers
Rene' Berberich, Waylon Reigle and Randy Fabrizio	
Name and Title of Responsible Official	Phone Number
Waylon Reigle, Maintenance Mechanic Leader	(330) 547-3781

SECTION C: AREAS EVALUATED DURING INSPECTION		
Key: S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated		
U	NPDES Compliance	Violations for TSS, NH3 and bacteria need to be addressed by the entity.
S	Operations & Maintenance	
S	Facility Site Review	
N	Collection System	
S	Flow Measurement	
N	Receiving Waters	
N	Laboratory	

Comments:

Signatures	
John Kwolek, Inspector District Engineer Division of Surface Water Northeast District Office	Date

Compliance Data for US Army Corps of Engineers - Berlin Lake between 6/1/2012 to 6/1/2013

Summary

Permit Effluent Limit Violations: 22
 Permit Effluent Code Violations: 0
 Permit Effluent Frequency Violations: 0
 Compliance Schedule Milestones Not Entered: 0

Limit Violations						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
July 2012	001	Total Suspended Solids	7D Conc	18.0	81.6	7/1/2012
July 2012	001	Total Suspended Solids	7D Qty	2.05	5.55941	7/1/2012
July 2012	001	Total Suspended Solids	30D Conc	12.0	27.65	7/1/2012
July 2012	001	Total Suspended Solids	30D Qty	1.37	1.71016	7/1/2012
July 2012	001	CBOD 5 day	7D Conc	15.0	16.4	7/1/2012
July 2012	001	CBOD 5 day	30D Conc	10.0	11.35	7/1/2012
July 2012	001	Nitrogen, Ammonia (NH3	7D Conc	3.0	29.8	7/1/2012
July 2012	001	Nitrogen, Ammonia (NH3	7D Qty	0.341	2.03027	7/1/2012
July 2012	001	Nitrogen, Ammonia (NH3	30D Conc	2.0	8.57533	7/1/2012
July 2012	001	Nitrogen, Ammonia (NH3	30D Qty	0.228	.57224	7/1/2012
July 2012	001	Fecal Coliform	30D Conc	1000	1084.84	7/1/2012
July 2012	001	Nitrogen, Ammonia (NH3	7D Conc	3.0	14.9633	7/8/2012
July 2012	001	Nitrogen, Ammonia (NH3	7D Qty	0.341	1.00025	7/8/2012
July 2012	001	Fecal Coliform	7D Conc	2000	6100.	7/15/2012
August 2012	001	Fecal Coliform	30D Conc	1000	1699.78	8/1/2012
August 2012	001	Fecal Coliform	7D Conc	2000	3492.84	8/15/2012
Sept 2012	001	Total Suspended Solids	30D Conc	12.0	18.	9/1/2012
Sept 2012	001	Total Suspended Solids	7D Conc	18.0	23.	9/8/2012
May 2013	001	Total Suspended Solids	30D Conc	12.0	23.8	5/1/2013
May 2013	001	Nitrogen, Ammonia (NH3	30D Conc	2.0	3.12	5/1/2013
May 2013	001	Total Suspended Solids	7D Conc	18.0	23.8	5/22/2013
May 2013	001	Nitrogen, Ammonia (NH3	7D Conc	3.0	3.12	5/22/2013

Compliance Summary for US Army Corps of Engineers - Berlin Lake

Pollutant	# of Months with Violations	Total Violations	Concen. Violations	Load Violations	Sampling Frequency
Total Suspended Solids	3	8	6	2	1/Week
CBOD 5 day	1	2	2	0	1/Week
Nitrogen, Ammonia (NH3)	2	8	5	3	Not Found
Fecal Coliform	2	4	4	0	Not Found

Overall Summary	
Total Limit Violations	22
Months with Limit Violations	4
Frequency Violations	0
Code Violations	0
Missing DMRs	0
Missing/Upcoming Milestones	0
SSO Events	0
SNC between 12/1/2012 to 5/31/2013	No

Flows between 6/1/2012 and 5/31/2013	
Percentile	Flow Rate (MGD)
Minimum	0.005
10%	0.011
20%	0.012
30%	0.012
40%	0.013
50%	0.014
60%	0.0158
70%	0.017
80%	0.019
90%	0.021
Maximum	20

Design Flow (MGD)	0.03
% Exceeding Design	2.63%

SECTION D: PERMIT VERIFICATION

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

Comments:

SECTION E: COMPLIANCE

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

Comments:

SECTION F: OPERATION AND MAINTENANCE

- (a) Standby power available
If yes, what type?
- (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 1
- (e) Operator of Record holds unexpired license of class required by Permit
Class held: 4
- (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..... Y
- (j) Operation and maintenance manual provided and maintained N/E
- (k) Any plant bypasses since last inspection..... N/E
- (l) Regulatory agency notified of bypasses
By MOR and/or Spill Hotline (1-800-282-9378)
- (m) Any hydraulic or organic overloads since last inspection N

Comments: **Rapid sand filters out of service by being upgraded at the time of the inspection.**

SECTION G: SLUDGE MANAGEMENT

- a) Sludge management plan (SMP) last audited by Ohio EPA:
 Audit Date:
- b) Sludge adequately disposed Y
 Method: Struthers POTW
- c) If sludge is incinerated, where is ash disposed of..... N/A
- d) Is sludge disposal contracted Y
 Name: Morris Drain
- e) Has amount of sludge generated changed significantly..... N
- f) Adequate sludge storage provided at plant Y
- 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

SECTION H: SELF-MONITORING PROGRAM

- a) Primary flow measuring device operated and maintained..... Y
 Type of device: Parshall Flume Device location: Influent
- b) Secondary instruments operated and maintained..... N
- c) Flow measurements equipment adequate to handle full range of flows Y
- d) Actual flow discharged is measured N
- e) Sampling location(s) are as specified by permit..... Y
- f) Parameters and sampling frequency agree with permit..... Y
- g) 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

SECTION I: 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/A
- c) Analysis performed more frequency N
 If yes, are results recorded in permittee's report?
- d) Commercial laboratory used:
 Name: Was Cardinal Labs. Was changing at time of the inspection.
- e) Quality assurance manual provided and maintained N
- f) Calibration and maintenance of instruments is satisfactory? N/E
- g) Results of last U.S. EPA quality assurance N
 Date:

SECTION J: EFFLUENT/RECEIVING WATER OBSERVATIONS

Outfall Number	Outfall sign in place	Oil Sheen	Grease	Turbidity	Foam	Solids	Color	Other

Comments: *Not observed. Discharge of off-shore of the lake.*