



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

May 3, 2013

RE: CUYAHOGA COUNTY
CITY OF BEDFORD WWTP
COMPLIANCE EVALUATION INSPECTION
NPDES PERMIT NO. OH0024040
OHIO EPA PERMIT NO. 3PD00005

Henry Angelo, City Manager
Bedford City Hall
165 Center Road
Bedford, OH 44146

Dear Mr. Angelo:

On April 3, 2013, this office conducted an inspection of the wastewater treatment plant (WWTP) serving the City of Bedford. The facility was represented by Jason Milani, Superintendent. During the course of the inspection, evaluations were conducted of the treatment processes, effluent discharge quality, laboratory, and biosolids management.

NPDES Permit Status

The NPDES permit for this facility was issued effective on April 1, 2009 and will expire on July 31, 2013. A renewal application was received by Ohio EPA on February 4, 2013; supplemental information was received on May 2, 2013. Information obtained during the inspection will be utilized during the review and issuance of the renewal permit.

Facility Description

The current National Pollutant Discharge Elimination System (NPDES) permit authorizes an average daily discharge of 3.2 MGD from the facility to Wood Creek at river mile 1.27. The current treatment system consists of bar screens and comminutors, grit removal, primary clarification, trickling filters, secondary clarification, rapid sand filtration and UV disinfection. Phosphorus removal is achieved through the addition of ferric chloride. The off-line flow equalization basin is used to divert and store excess wastewater flows during wet weather events.

Sludges from the primary and secondary clarifiers are combined and diverted to a gravity sludge thickener. Thickened sludge is transferred to a primary and secondary digester operated in series. The digested sludge is dewatered in a belt filter press and hauled off-site, i.e. PPG Lime Lakes, for proper disposal.

The facility includes two internal treatment system bypass locations where wastewater can be diverted around required treatment operations: the flow equalization (EQ) basin overflow (Station 602) and diversion around the rapid sand filters at the lift station (Station 603). Please be advised that the diverting or bypassing of wastewater from any portion of the treatment facility is prohibited and must be reported as an unauthorized discharge in accordance with Part III, items 11 and 12, of your NPDES permit. This includes notification by email or telephone and confirmation in writing. Sampling must occur during bypass events.

Inspection Findings/Compliance Status

At the time of the inspection, the following observations and comments were noted:

- Overall, the general operation and maintenance of the treatment plant appeared to be satisfactory. A visual observation of the plant effluent revealed no signs of floating debris, oil & grease, or foam in the discharge.
- It appears that the Outfall 001 sampling location had been moved upstream of the overflow discharge pipe (Station 602) from the EQ basin. Hence, the effluent samples at 001 would **not** be representative of the total plant flow on days that the treatment plant has experienced bypass events. An email subsequently received from Mr. Milani indicated that it has since been placed "at a point where the final effluent sample will also include any bypass from the plant equalization basin."
- The facility had not developed or implemented a Storm Water Pollution Prevention Plan (SWPPP). An **unsigned** copy of the SWPPP, dated May 1, 2013, was received by Ohio EPA on May 2, 2013. Per the requirements of the NPDES permit, the SWPPP must be certified.





Discharge Monitoring Reports

Discharge monitoring reports (DMR), received by Ohio EPA for the past 4.5 years were reviewed and are listed in Attachment A. Additionally, the data for the period, July 2012 – March 2013, was evaluated for compliance with the final effluent limitations and monitoring requirements of the NPDES. Specific violations of the NPDES permit at Outfall 001 are listed in Attachment B; bypasses at Station 602 are listed in Attachment C.

Additionally, the review noted the following:

- Method Detection Limits (MDLs) are still being reported as “0” for the following parameters: Copper, Nickel, Zinc, Lead, Chromium, and Hex. Chromium. The facility **must** immediately resubmit “**corrected**” DMRs with the appropriate laboratory MDLs for the respective parameters.
- Since converting to UV disinfection, the facility no longer performs analyses for residual chlorine. Hence, the data substitution code “**AH**” (denotes sample not taken), not “**AA**” or 0.005 mg/l, should be reported for chlorine. The chlorine testing requirement will be removed from the permit at the time of permit renewal. The facility must revise the DMRs as appropriate and resubmit.

Part III, item 12, of your NPDES permit requires the permittee to provide notification and a letter of explanation outlining the actions taken, or to be taken, to correct all instances of noncompliance. Within 10 days of the date of this letter, please submit a written response to this office addressing all deficiencies cited above.

Please be advised that any violations referenced herein are subject to appropriate enforcement actions pursuant to Chapter 6111 of the Ohio Revised Code. Such actions can result in the imposition of fines of up to \$10,000 per day of violation.

NPDES Permit Renewal Changes

The following changes are expected to be incorporated into the renewal permit:

- The Fecal Coliform water quality standard has been replaced by an Escherichia (E.) coli standard.

- Publicly owned treatment works (POTWs) with a design flow of 1.0 MGD or greater are now required to perform a minimum of one annual Whole Effluent Biological Toxicity (WET) test.
- A monitoring requirement will be added for Total Dissolved Solids.
- Based on the facility's conversion to UV disinfection, the chlorine monitoring requirement will be removed.
- The City will need to perform a comprehensive analysis of all feasible alternatives necessary to eliminate the EQ basin bypass at the treatment plant and any overflows in the collection system.
- The City must develop a permitting/reporting system for satellite communities served by the POTW. The goal of the satellite program is to (1) ensure that the respective collection systems are properly operated and maintained and (2) establish protocols for notifying the POTW and Ohio EPA of any operational issues that result in bypasses and/or overflows in the respective collection systems.

If you should have any questions, please contact this office at (330) 963-1196.

Respectfully,



Ermelindo Gomes
Environmental Engineer
Division of Surface Water

EG/cs

Attachments

cc: Jason Milani, Superintendent, City of Bedford (w/attachment)

Attachment A: Bedford WWTP Effluent Data Summary (8/2008- 3/2013)						
Parameter	Season	Units	# Obs.	Percentiles		Data Range
				50 th	95 th	
Outfall 001						
Water Temperature	Annual	C	1704	16	24.6	5-26.6
Dissolved Oxygen	Annual	mg/l	1216	8.4	10.7	5.2-11.8
Total Suspended Solids	Annual	mg/l	672	4	11	1-34
Oil and Grease, Total	Annual	mg/l	16	1.3	1.65	0.2-1.8
Oil and Grease, Hexane Extr Method	Annual	mg/l	96	1.2	2.4	0.2-3.6
Nitrogen, Ammonia (NH3)	Annual	mg/l	660	0.083	0.687	0.001-2.35
Nitrite Plus Nitrate, Total	Annual	mg/l	198	17.5	24.4	6.63-30.6
Phosphorus, Total (P)	Annual	mg/l	672	0.43	0.852	0.135-1.48
Nickel, Total Recoverable	Annual	ug/l	19	0	0	0-0
Strontium, Total Recoverable	Annual	ug/l	16	215	339	0-383
Zinc, Total Recoverable	Annual	ug/l	24	42.5	112	0-296
Cadmium, Total Recoverable	Annual	ug/l	19	0	0	0-0
Lead, Total Recoverable	Annual	ug/l	19	0	0	0-0
Chromium, Total Recoverable	Annual	ug/l	19	0	0	0-0
Copper, Total Recoverable	Annual	ug/l	56	0	25.3	0-36
Chromium, Dissolved Hexavalent	Annual	ug/l	16	0	0	0-0
Fecal Coliform	Annual	#/100 ml	324	118	860	1-2120
Flow Rate	Annual	MGD	1704	2.21	4	1.05-6.95
Chlorine, Total Residual	Annual	mg/l	1040	0	0.005	0-0.005
Mercury, Total (Low Level)	Annual	ng/l	56	3.95	6.58	0.39-8.8
Acute Toxicity, Ceriodaphnia dubia	Annual	TUa	12	0	0	0-0
Chronic Toxicity, Ceriodaphnia dubia	Annual	TUc	12	0	0.562	0-1.25
Acute Toxicity, Pimephales promelas	Annual	TUa	12	0	0.435	0-0.6
Chronic Toxicity, Pimephales promelas	Annual	TUc	12	0	2.3	0-3.4
pH, Maximum	Annual	S.U.	1216	7.3	7.8	6.5-8.2
pH, Minimum	Annual	S.U.	1216	7.1	7.6	6.4-8
CBOD 5 day	Annual	mg/l	666	4	7	1-12

Attachment B: Bedford WWTP Final Effluent Violations Summary (7/2012- 3/2013)						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
July 2012	001	Copper, Total Recovers	30D Conc	16	36.	7/1/2012
July 2012	001	Copper, Total Recovers	1D Conc	25	36.	7/10/2012
August 2012	001	Phosphorus, Total (P)	30D Conc	0.7	.70667	8/1/2012
August 2012	001	Phosphorus, Total (P)	7D Conc	0.7	.89167	8/8/2012
August 2012	001	Phosphorus, Total (P)	7D Conc	0.7	.86833	8/15/2012
August 2012	001	Phosphorus, Total (P)	7D Conc	0.7	.755	8/22/2012
March 2013	001	Copper, Total Recovers	30D Conc	16	19.	3/1/2013

Attachment C: Bedford WWTP Plant Bypasses Summary (7/2012- 3/2013)					
Station	Parameter	Units	Date	Reported Value	A Code
602	Bypass Volume	MGAL	9/4/2012	0.977	
602	Bypass Volume	MGAL	9/5/2012	0.1	
602	Bypass Volume	MGAL	9/7/2012	0.184	
602	Bypass Volume	MGAL	9/8/2012	0.127	
602	Bypass Volume	MGAL	9/22/2012	0.037	
602	Bypass Volume	MGAL	9/26/2012	0.075	
602	Bypass Volume	MGAL	10/28/2012	6.299	
602	Bypass Volume	MGAL	10/29/2012	4.71	
602	Bypass Volume	MGAL	10/30/2012	5.755	
602	Bypass Volume	MGAL	10/31/2012	3.81	
602	Bypass Volume	MGAL	12/17/2012	0.29	
602	Bypass Volume	MGAL	12/18/2012	2.303	
602	Bypass Volume	MGAL	12/19/2012	0.098	
602	Bypass Volume	MGAL	12/20/2012	1.719	
602	Bypass Volume	MGAL	12/21/2012	0.544	
602	Bypass Volume	MGAL	12/22/2012	0.136	
602	Bypass Volume	MGAL	1/11/2013	1.248	
602	Bypass Volume	MGAL	1/12/2013	0.532	
602	Bypass Volume	MGAL	1/13/2013	0.827	
602	Bypass Volume	MGAL	1/14/2013	0.485	
602	Bypass Volume	MGAL	1/30/2013	1.427	
602	Bypass Volume	MGAL	1/31/2013	0.177	
602	Bypass Volume	MGAL	2/26/2013	2.12	
602	Bypass Volume	MGAL	2/27/2013	2.768	
602	Bypass Volume	MGAL	3/11/2013	0.825	
602	Bypass Volume	MGAL	3/12/2013	0.569	