OhioEPA
State of Ohio Environmental Protection Agency

Southeast District Office

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

December 8, 2009

Re: Belmont County
Fox Shannon WWTP
Self-Monitoring Report Violations
Ohio EPA Permit No. OPG00063*DD
NPDES Permit No. OH0107956
Correspondence (PWW)

Belmont County Commissioners
Belmont County Courthouse
101 W. Main Street
St. Clairsville, Ohio 43950

Dear Commissioners:

On June 8, 2009, Joann Montgomery and I, of Ohio EPA's Division of Surface Water, performed a compliance evaluation inspection (CEI) at the Fox Shannon Wastewater Treatment Plant. Bill Timko, plant operator, represented the Belmont County Sanitary Sewer District (BCSSD) during the inspection.

The purpose of the inspection was to determine the facility's compliance status with the terms and conditions of the NPDES permit, Federal Number OH0107956, State Number 0PG00063*DD. Wastewater samples were collected. A copy of the sampling results and the inspection report form is attached.

Based on the evaluation of the facility, the Fox-Shannon Wastewater Treatment Plant (WWTP) was found to be in **non-compliance** with the permit on the day of the inspection due to missed NPDES permit compliance schedule milestones and effluent violations.

The following comments/problems were noted as a result of the inspection and review of the records:

1. The NPDES renewed permit became effective on September 1, 2008. The permit contained several errors, which will be corrected. The ammonia summer and winter limits were switched in the final table for outfall 001. This has been corrected. The final table for outfall 001 also contained the wrong mercury parameter and will be revised to the correct low-level mercury parameter in the near future.

2. Low-level mercury sampling is required for outfall 001 once a quarter for the interim table (9/1/08-9/1/09). We have received 1 sample so far. Have additional samples been taken? If yes, provide the results.

3. The NPDES permit contains several compliance schedules with which Fox Shannon WWTP has not yet complied. See the attached pages from the permit for reference. The items include: failure to submit a Permit to Install application for installation of a

flow paced effluent flow sampler; failure to install a turbidity meter on the final effluent; and failure to submit a plan for Inflow and Infiltration (I/I) control specifically addressing problems at Pine Lake Estates Mobile Home Park and the Morristown sewer system. This is a violation of your NPDES permit, Part (1)(C). Provide a status report of when these items will be achieved, and an explanation of why they are behind schedule.

4. Fox Shannon has routinely violated ammonia limits over the last few years during the Jamboree in the Hills Festival, due to receipt of septage from the festival. Violation of the ammonia limit occurred again in 2009, during the weeks of 7/15 and 7/22, and the monthly average. These violations are completely preventable by ceasing the disposal of septage at this wastewater treatment plant.

5. As stated in the last inspection report, the effluent flow meter must be calibrated annually. The last time the meter was calibrated was 2007. This is a violation of your NPDES permit Part III, item 3, for failure to operate and maintain the treatment works. Provide a date by when this will be done.

6. The lab must have a Quality Control/Quality Assurance Manual for laboratory procedures. Provide a date when this will be done.

7. If you have preliminary plans for your plant upgrade, we would like to review them and meet with you to discuss the plan.

Ohio EPA believes it is necessary to schedule a meeting with the BCSSD Director, the operator and a county commissioner at the Fox Shannon WWTP in January 2010, to discuss the facility's non-compliance status. Please call me to arrange a date and time for the meeting.

Please respond to comments 2 through 7 within 30 days of receipt of this notice. If there are any questions, please contact me at (740) 380-5284.

Sincerely,

Ms. Abbot Stevenson
Environmental Engineer
Permits and Enforcement Section
Division of Surface Water

AS/dh

Enclosure

c: Mark Esposito, Director, Belmont County Sanitary Sewer District (w/enclosure)
c: AS file

NPDES
Compliance Inspection Report

A. NATIONAL DATA SYSTEM CODING

Permit No.	NPDES No.	Date	Inspection Type	Inspector	Facility Type
0PG00063*DD	OH0107956	June 8, 2009	S	S	1

B. FACILITY DATA

Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Fox Shannon WWTP 68750 Hammond Road St. Clairsville, Ohio 43950	11:45 a.m.	September 1, 2008
	Exit Time	**Permit Expiration Date**
	1:15 p.m.	August 31, 2013

Name(s) and Title(s) of On-Site Representative(s)	Phone Number(s)
Bill Timko, Operator	(740) 695-6669
Name, Address and Title of Responsible Official	**Phone Number**
Mark Esposito, Director Belmont County Sanitary Sewer District P.O. Box 457 St. Clairsville, Ohio 43950	(740) 695-3144

C. AREAS EVALUATED DURING INSPECTION

S	Permit	U	Flow Measurement	N	Pretreatment
S	Records/Reports	S	Laboratory	U	Compliance Schedules
M	Operations & Maintenance	S	Effluent/Receiving Waters	U	Self-Monitoring Program
S	Facility Site Review	S	Sludge Storage/Disposal	--	Other
M	Collection System				

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated; N/A = Not Applicable)

D. SUMMARY OF FINDINGS/COMMENTS (attach additional sheets if necessary)

See attached letter.

1. Collection System – system has significant Inflow & Infiltration (I/I).
2. Flow Measurement – meter must be calibrated annually.
3. Compliance Schedules – facility has not met any of the 3 compliance schedule items.

Abbot Stevenson, Inspector, Ohio EPA, Southeast District Office — Date 12/7/09

Timothy M. Campbell, Reviewer, Ohio EPA, Southeast District Office — Date 12/8/09

Sections E through K: Complete on all inspections as appropriate (N/A = Not Applicable N/E = Not Evaluated)

E. PERMIT VERIFICATION

Inspection Observations Verify the Permit	Yes	No	N/A	N/E
a. Correct name and mailing address of permittee	X			
b. Correct name and location of receiving waters	X			
c. Product(s) and production rates conform with permit application (industries)	X			
d. Flows and loadings conform with NPDES permit	X			
e. Treatment processes are as described in permit application/briefing memo	X			
f. New treatment process(es) added since last inspection		X		
g. Notification given to state of new, different, or increased discharges			X	
h. All discharges are permitted	X			
i. Number and location of discharge points are as described in permit	X			

F. COMPLIANCE SCHEDULES/VIOLATIONS

	Yes	No	N/A	N/E
a. Any significant violations since the last inspection	X			
b. Permittee is taking actions to resolve violations	X			
c. Permittee has compliance schedule	X			
d. Compliance schedule contained in: NPDES Permit	X			
e. Permittee is meeting compliance schedule		X		

Comments: a. & b. - Facility violated ammonia during the week after the Jamboree in the Hills because of septage dumping. Facility stopped haulers from dumping.

G. OPERATION AND MAINTENANCE

Treatment Facility Properly Operated and Maintained	Yes	No	N/A	N/E
a. Standby power available: Generator: X Dual Feed: ____	X			
b. Adequate alarm system available for power or equipment failures	X			
c. All treatment units in service other than backup units	X			
d. Sufficient operating staff provided: No. of shifts: 2 Days/Week: 7	X			
e. Operator holds unexpired license of class required by permit Class: 3	X			
f. Routine and preventive maintenance schedule/performed on time	X			
g. Any major equipment breakdown since last inspection		X		
h. Operation and maintenance manual provided and maintained	X			
i. Any plant bypasses since last inspection		X		
j. Regulatory agency notified of bypasses: ____ on MORS ____ 800 No.				
k. Any hydraulic and/or organic overloads experienced since last inspection	X			

Comments: j. – Facility reports collection system bypasses. No plant bypasses have occurred.

Collection System		Yes	No	N/A	N/E
a.	Percent combined system: 0 %	X			
b.	Any collection system overflows since last inspection: CSO ____ SSO: X	X			
c.	Regulatory agency notified of overflow (SSOs)	X			
d.	CSO O and M plan provided and implemented			X	
e.	CSOs monitored and reported in accordance with permit				
f.	Portable pumps used to relieve system		X		
g.	Lift station alarm systems provided and maintained	X			
h.	Are lift stations equipped with permanent standby power or equivalent	X			
i.	Is there an inflow/infiltration problem (separate sewer system), or were there any major repairs to collection system since last inspection	X			
j.	Any complaints received since last inspection of basement flooding		X		
k.	Are any portions of the sewer system at or near capacity		X		

H. SLUDGE MANAGEMENT

		Yes	No	N/A	N/E
a.	Sludge adequately disposed (Method: Land application)				
b.	If sludge is incinerated, where is ash disposed of?	X			
c.	Is sludge disposal contracted (Name: Synagro)			X	
d.	Has amount of sludge generated changed significantly since last inspection	X			
e.	Adequate sludge storage provided at facility		X		
f.	Land application sites monitored and inspected per state rules				X
g.	Records kept in accordance with state rules				X
h.	Any complaints received in last year regarding sludge		X		X
i.	Is sludge adequately processed (digestion, dewatering, pathogen control) in accordance with Ohio EPA rules				X

Comments: g., h., i., and k. – This facility will have the sludge program inspected by Jacob Howdyshell, Ohio EPA, Biosolids Coordinator, in the future.

I. SELF-MONITORING PROGRAM

Part 1 – Flow Measurement		Yes	No	N/A	N/E
a.	Primary flow measuring device properly operated & maintained. Type of device: ____ ultrasonic & parshall flume ____ calculated from influent ____ weir X other ____ ultrasonic & weir specify: magmeter in effluent line	X			
b.	Calibration frequency adequate (date of last calibration: 8/8/07)		X		
c.	Secondary instruments (totalizers, recorders, etc.) properly operated and maintained	X			
d.	Flow measurement equipment adequate to handle expected ranges of flows	X			
e.	Actual flow discharged is measured	X			
f.	Flow measuring equipment inspection frequency: X Daily ____ Weekly ____ Monthly ____ Other				

Comments: b. – Flow meter should be calibrated annually.

Part 2 – Sampling	Yes	No	N/A	N/E
a. Sampling location(s) are as specified by permit		X		
b. Parameters and sampling frequency agree with permit		X		
c. Permittee uses required sampling method	X			
d. Sample collection procedures are adequate	X			
i. Samples refrigerated during compositing	X			
ii. Proper preservation techniques used	X			
Conform with 40 CFR 136.3	X			
e. Monitoring records (e.g., flow, pH, D.O., etc.) maintained for a minimum of three years including all original strip chart recordings (e.g., continuous monitoring instrumentation, calibration, and maintenance records)	X			
f. Adequate records maintained of sampling date, time, exact location, etc.	X			

Comments: a. – Samples are to be taken after the effluent EQ tank per compliance schedule in Part 1,C.
b. – Turbidity is not being monitored.

Part 3 – Laboratory, General	Yes	No	N/A	N/E
a. EPA approved analytical testing procedures used (40 CFR 136.3)	X			
b. If alternate analytical procedures are used, proper approval has been obtained			X	
c. Analyses being performed more frequently than required by permit		X		
d. If (c) is yes, are results reported in permittee's self-monitoring report			X	
e. Commercial laboratory used: 1. Parameters analyzed by commercial lab: metals, sludge, O&G hardness 2. Lab name: TCCI	X			

Part 3 – Laboratory, Quality Control/Quality Assurance	Yes	No	N/A	N/E
f. Quality assurance manual provided and maintained		X		
g. Satisfactory calibration and maintenance of instruments and equipment	X			
h. Adequate records maintained	X			
i. Results of latest U.S. EPA quality assurance performance sampling program: Date: N/A ____ Satisfactory ____ Marginal ____ Unsatisfactory				

Comments: f. – A QA/QC manual should be created and updated as necessary.

J. EFFLUENT/RECEIVING WATER OBSERVATIONS

Outfall #	Oil Sheen	Grease	Turbidity	Visible Foam	Visible Float Solids	Color
001	None	None	None	None	Slight	Green-brown

K. MULTIMEDIA OBSERVATIONS

		Yes	No	N/A	N/E
a.	Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories		X		
b.	Do you notice staining or discoloration of soils, pavement, or floors		X		
c.	Do you notice distressed (unhealthy, discolored, dead) vegetation		X		
d.	Do you see unidentified dark smoke or dustclouds coming from sources		X		
e.	Do you notice any unusual odors or strong chemical smells		X		
f.	Do you see any open or unmarked drums, unsecured liquids, or damaged containment facilities				

If any of the above are observed, ask the following questions:

1. What is the cause of the conditions?
2. Is the observed condition or source a waste product?
3. Where is the suspected contaminant normally disposed?
4. Is this disposal permitted?
5. How long has the condition existed and when did it begin?

L. SAMPLING PROCEDURES (FOR CSI'S)

__X__ Grab samples obtained
__X__ Composite obtained
_____ Compositing frequency: 180 ml/15 min. Preservation: H_2SO_4, HNO_3, ice, NaOH
_____ Flow proportioned sample obtained
__X__ Automatic sampler used
__X__ Sample split with permittee
__X__ Chain of custody employed
_____ Sample obtained from facility sampling device
__X__ Sample refrigerated during compositing: __X__ Yes _____ No
__X__ Sample representative of volume and nature of discharge: _____

TABLE I

OHIO EPA FIELD DATA

FACILITY: Fox Shannon WWTP, Belmont County

DATES SAMPLED: June 8 & 9, 2009

Station	Date	Time	Parameter	Units	Value	Permit Limits
001	6/8	1145	pH	S.U.	6.85	6.5-9.0
			Temperature	°C	20.50	-
			Dissolved oxygen	mg/l	6.83	6.0 min.
			Conductivity	umhos/cm	833	-
001	6/9	1030	pH	S.U.	7.12	6.5-9.0
			Temperature	°C	20.97	-
			Dissolved oxygen	mg/l	6.22	6.0 min.
			Conductivity	umhos/cm	824	-

TABLE II

COMPLIANCE SAMPLING DATA

FACILITY: Fox Shannon WWTP, Belmont County

DATES SAMPLED: June 8-9, 2009

				OHIO EPA		ENTITY		PERMIT LIMITS	
STATION	T*	PARAMETER	UNITS	CONC.	(KG/D) LOAD.	CONC.	(KG/D) LOAD.	CONC.	(KG/D) LOAD.
001	C	Susp. solids	mg/l	<5	ND	3	4.1	18	51.1
	C	$CBOD_5$	mg/l	<2.0	ND	-	-	15	42.6
	G	Cyanide, free	ug/l	<5	-	-	-	-	-
	C	Ammonia	mg/l	0.626	0.86	0.72	0.99	4.45	12.6
	C	Nitrate-nitrite	mg/l	1.09	-	-	-	-	-
	G	Oil & Grease	mg/l	<2.0	-	-	-	10 max.	-
	G	Fecal coli.	#/100 ml	710	-	-	-	2,000	-
	C	Hardness, tot.	mg/l	150	-	-	-	-	-
	C	Nickel, tot.	ug/l	<2	-	-	-	-	-
	C	Silver, tot.	ug/l	<10	-	-	-	-	-
	C	Cadmium, tot.	ug.l	<0.2	-	-	-	-	-
	C	Lead, tot.	ug/l	<2.0	-	-	-	-	-
	C	Chromium, tot.	ug/l	<2.0	-	-	-	-	-
	C	Mercury, tot.	ug/l	<0.2	-	-	-	-	-
	C	Zinc, tot.	ug/l	35	-	-	-	-	-
	G	Chrom. hex.	ug/l	<10	-	-	-	-	-
		Flow, tot.	MGD			0.365			

*SAMPLE TYPE: G=grab; C=composite ND=Below detection limits, therefore no loadings were calculated

PERMIT EFFECTIVE DATE = 9/1/08

Part I, C - Schedule of Compliance

1. SAMPLING STATION FOR FINAL OUTFALL 001

a. Within 3 Months of the effective date of this permit, the entity shall submit Permit to Install Application for the installation of a flow paced effluent flow sampler to be located such that the samples taken are truly representative of the flow discharged. (Event Code 1299)

b. Within 6 Months of the effective date of this permit, the entity shall complete installation of the composte sampler required by Part (I)(C)(1)(a) above. (Event Code 04599)

2. TURBIDITY SAMPLER

a. Within 6 months of the effective date of this permit, the entity shall install and have operational a continuous turbidity meter on the final effluent after the effluent equaliztion tank. (Event Code 4599)

2. INFILTRATION/INFLOW CONTROL PLAN:

The permittee shall develop and implement a plan to control infiltration and inflow (I/I) to the separate sewer system. The plan shall be submitted to the Ohio EPA Southeast District Office within 12 Months of the effective date of this permit and shall describe the permittee's program for preventing infiltration/inflow related effluent limit violations, and all unauthorized discharges of wastewater, including overflows and bypasses due to excessive infiltration/inflow. (Event Code 11599)

a. The plan shall include:

i. An ongoing program to identify and remove sources of infiltration and inflow. The program shall include the necessary funding level and the source(s) of funding.

ii. An inflow identification and control program that focuses on the disconnection and redirection of illegal sump pumps and roof down spouts. Priority should be given to removal of public and private inflow sources that are upstream from, and potentially contribute to, known areas of sewer system backups and/or overflows.

iii. An educational public outreach program for all aspects of I/I control, particularly private inflow.

iv. A schedule containing deadlines when certain identified I/I investigation and removal projects will be completed.

b. Collection System Reporting Requirements:

i. All sanitary sewer overflows, including manhole overflows and sewage backing up into basements, shall be reported to Ohio EPA in accordance with Part III of this permit.

ii. A summary report of all actions taken to minimize I/I during the previous calendar year shall be submitted to the Ohio EPA Southeast District Office annually, by January 15 each year. The summary report shall, at a minimum, include:

- A map and a description of inspection and maintenance activities conducted and corrective actions taken during the previous year.
- Expenditures for any infiltration/inflow related maintenance activities and corrective actions taken during the previous year.
- A map with areas identified for I/I-related investigation/action in the coming year.
- A calculation of the annual average I/I, the maximum month I/I for the reporting year.

c. Pine Lake Estates Sewer System

i. Within 3 months from the effective date of this permit, the entity shall begin an investigation of excessive inflow and infiltration problems in the Pine Lake Estates area sewer system. This includes requiring private owners of collection systems tributary to the Pine Lake pump station to perform I/I investigations (including, but not limited to smoke testing, sewer dyeing, and, if necessary, sewer video recording). (Event Code 11599)

ii. Within 6 months from the effective date of this permit, the entity shall complete investigation of excessive inflow and infiltration problems in the Pine Lake Estates area sewer system and submit a report summarizing the findings of the investigation and including a schedule of neccessary work to be performed to eliminate identified sources of I/I. The report shall also include the results of the investigation of the private sewer systems tributary to the Pine Lake pump station and a schedule of necessary work to be performed to eliminate identified sources of I/I. (Event Code 11599)

iii. Within 12 months from the effective date of this permit, the entity shall complete all construction identified in the schedule of necessary work to be performed contained in the I/I investigation report. The facility must require the owners of any private sewer systems tributary to the Pine Lake pump station to complete all construction identified in the schedule of necessary work to be performed contained in the I/I investigation report. (Event Code 4599)

d. Morristown Sewer System

Within 12 months from the effective date of this permit, the entity shall eliminate excessive inflow and infiltration tributary to the Morristown pump station. (Event Code 5599)