State of Ohio Environmental Protection Agency

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1PD0001920090116

MIAMI TROY WWTP MILLER, JOSEPH 2009/01/16

State of Ohio Environmental Protection Agency

Southwest District Office

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

January 16, 2009

David Anderson
Director of Public Service and Safety
City of Troy
100 South Market Street
Troy, OH 45373

RE: Compliance Evaluation Inspection (CEI)
NOTICE OF VIOLATION
City of Troy Wastewater Treatment Plant
NPDES Permit 1PD00019*JD/OH0027758
Troy, Miami County

Dear Mr. Anderson,

On January 13, 2009, I conducted a Compliance Evaluation Inspection at the City of Troy wastewater treatment works. This inspection was conducted to determine compliance with the NPDES discharge permit. Tim Snider, WWTP Superintendent, Phil Osting, Assistant WWTP Superintendent, and Mitch Beckner, Pretreatment/Operations Manager, represented the City during the inspection.

Overall the facility was rated as "Satisfactory". Measures have been or are being taken to address reported effluent violations. A detailed inspection report is attached.

Provide a response to the "Item Requiring a Response" section of the inspection report by **February 16, 2009**. If you have any questions, I can be reached at (937) 285-6109 or joe.miller@epa.state.oh.us.

Sincerely,

Joe Miller
Division of Surface Water
Compliance and Enforcement

CC: Tim Snider, WWTP Superintendent

City of Troy WWTP
Compliance Evaluation Inspection
January 13, 2009

Overview

The City of Troy wastewater treatment plant (WWTP) serves an estimated population of 26,000 within the City of Troy and Concord and Staunton Township. Additional customers will be added with the completion of the sanitary sewer collection system and force main from the Village of Casstown. The wastewater treatment train consists of the following: coarse bar screen, screw pumps (four sets of two stage pumps), influent flow metering, fine bar screens, grit removal, equalization basins, primary clarification, aeration, final clarification, return activated sludge, effluent flow metering, ultraviolet disinfection, post aeration, and discharge to the Great Miami River (EWH). Solids processing consists of primary sludge thickening, WAS thickening, and sludge belt press thickening with final disposal at a mixed waste landfill. Synagro, Inc. is contracted to handle sludge disposal for the City of Troy.

The Troy WWTP has an average design flow of 7.0 MGD and a hydraulic capacity of 25 MGD during wet weather events. Average flow from January 2007 to December 2008 was 5.4 MGD. The treatment plant formerly operated in contact stabilization mode, but was changed to operate in a plug flow manner in early 2008. It is believed that this change will result in improved compliance with effluent limitations. There are two – 1 million gallon equalization tanks with the ability to bypass excess flow to the effluent flow meter. The use of this bypass has never been necessary.

Staffing at the Troy WWTP includes 11 employees: 7 class III operators, 2 class II operators, a class I operator, and one unlicensed operator. Preventative and routine maintenance is conducted on a daily, weekly, and monthly basis.

Effluent Violations

During the period from January 2007 to December 2008, effluent violations were reported (attached). Four periods of violations noted in March 2007, May 2007, June 2007, and May 2008, were due to excessive flow resulting from large storm events. The parameters exceeded were total suspended solids (TSS), carbonaceous biochemical oxygen demand 5-day (CBOD5), and Fecal Coliform. Non-compliance notification was provided as required by the NPDES permit for these instances. The operators believe that the change in plant operation mentioned above will prevent these types of violations in the future.

Three oil and grease (O&G) violations were reported during the period of review. The two O&G effluent limitation violations (June 2008 and July 2008) were due to two separate releases at local industries (Peak Foods and Conagra, Inc.). These industries have changed their protocol and implemented measures to prevent future releases. The O&G code violation (August 2008), a reported "AB" code or "Analytical Data Lost", was due to failure to properly handle the sample by Troy's contract laboratory TestAmerica.

A pH violation reported in December 2007 appears to be a result of probe malfunction.

Collection System

Troy's wastewater collection system includes 122 miles of maintained sewer lines and eight lift/pump stations (six maintained by Troy staff). Lift/pump stations are planned to be incorporated into a SCADA (system control and data acquisition) system installation in 2009. Additional details regarding the collection system was unavailable at the time of inspection, as a representative of the sewer maintenance staff was not present.

Sanitary Sewer Overflows

Sanitary sewer overflows (SSOs) occurred at the Dorset Road lift station in March 2007 and March 2008. These overflows are suspected to be due to excessive infiltration and inflow (I/I) in this area. Twenty manholes in the Dorset subdivision were pressure lined in late 2008. Another SSO was reported in June 2008 in conjunction with the Peak Foods O&G release and subsequent sewer blockage.

Item Requiring a Response

I/I Program – Please provide an overview of the infiltration and inflow reduction program and annual budgeting of this program. Provide a listing of targeted priority areas and estimated schedules for correction/improvement.

City of Troy WWTP Effluent Limitation Violations January 2007 to December 2008

Reporting Period	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
March 2007	00530	Total Suspended Solids	30D Conc	27	31.0952	3/1/2007
March 2007	00530	Total Suspended Solids	30D Qty	715	1026.87	3/1/2007
March 2007	80082	CBOD 5 day	30D Conc	14	30.4166	3/1/2007
March 2007	80082	CBOD 5 day	7D Conc	21	28.3333	3/1/2007
March 2007	80082	CBOD 5 day	30D Qty	371	1088.20	3/1/2007
March 2007	80082	CBOD 5 day	7D Qty	556	895.414	3/1/2007
March 2007	00530	Total Suspended Solids	7D Conc	40	48.4	3/8/2007
March 2007	00530	Total Suspended Solids	7D Qty	1060	1210.77	3/8/2007
March 2007	80082	CBOD 5 day	7D Conc	21	22.	3/8/2007
March 2007	80082	CBOD 5 day	7D Qty	556	561.754	3/8/2007
March 2007	00530	Total Suspended Solids	7D Conc	40	55.8	3/15/2007
March 2007	00530	Total Suspended Solids	7D Qty	1060	2215.35	3/15/2007
March 2007	80082	CBOD 5 day	7D Conc	21	64.6666	3/15/2007
March 2007	80082	CBOD 5 day	7D Qty	556	2641.64	3/15/2007
May 2007	00530	Total Suspended Solids	30D Conc	27	36.0454	5/1/2007
May 2007	00530	Total Suspended Solids	7D Conc	40	51.4	5/15/2007
May 2007	00530	Total Suspended Solids	7D Conc	40	79.	5/22/2007
May 2007	00530	Total Suspended Solids	7D Qty	1060	1345.08	5/22/2007
May 2007	80082	CBOD 5 day	7D Conc	21	35.5	5/22/2007
May 2007	80082	CBOD 5 day	7D Qty	556	648.614	5/22/2007
June 2007	00530	Total Suspended Solids	30D Conc	27	40.55	6/1/2007
June 2007	00530	Total Suspended Solids	7D Conc	40	127.2	6/1/2007
June 2007	00530	Total Suspended Solids	7D Qty	1060	2149.78	6/1/2007
June 2007	80082	CBOD 5 day	30D Conc	14	16.25	6/1/2007
June 2007	80082	CBOD 5 day	7D Conc	21	38.6666	6/1/2007
June 2007	80082	CBOD 5 day	7D Qty	556	657.227	6/1/2007
December 2007	61941	pH, Maximum	1D Conc	9.0	9.14	12/14/2007
March 2008	80082	CBOD 5 day	30D Qty	371	564.430	3/1/2008
March 2008	00530	Total Suspended Solids	7D Qty	1060	1717.49	3/15/2008
March 2008	80082	CBOD 5 day	7D Qty	556	1229.23	3/15/2008
June 2008	00560	Oil and Grease, Total	1D Conc	10	35.9	6/25/2008
July 2008	00560	Oil and Grease, Total	1D Conc	10	155.	7/16/2008

City of Troy WWTP Effluent Code Violations January 2007 to December 2008

Reporting Period	Reporting Code	Parameter	Reported Value	Violation Date
May 2007	31616	Fecal Coliform	AK	5/24/2007
August 2008	00560	Oil and Grease, Total	AB	8/20/2008

OhioEPA

State of Ohio Environmental Protection Agency
Southwest District Office

NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PD00019*KD	OH0027758	01/13/09	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
City of Troy WWTP 1400 Dye Mill Road Troy, OH 45373	9:05 AM	September 1, 2006
	Exit Time	Permit Expiration Date
	11:45 AM	January 31, 2011
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Timothy Snider, WWTP Superintendent	937-339-1410	
Phil Osting, WWTP Assistant Superintendent	937-339-1410	
Mitch Beckner, Pretreatment/Operations Mgr.	937-339-1410	
Thomas Funderburg, Asst. Dir. Of Public Service & Safety	937-339-7639	
Name, Address and Title of Responsible Official	Phone Number	
Mayor and Council City of Troy 110 South Market Street Troy, OH 45373	937-339-1221	

Section C: Areas Evaluated During Inspection
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

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

Section D: Summary of Findings (Attach additional sheets if necessary)

Inspector	Reviewer
Joe Miller 1/16/09 Date	Martyn Burt 1/16/09 Date
Division of Surface Water Southwest District Office	Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office

Sections E thru K: Complete on all inspections as appropriate
Y – Yes, N – No, N/A – Not Applicable, N/E – Not Evaluated

Section E: Permit Verification

Inspection observations verify the permit

(a) Correct name and mailing address of permittee	Y
(b) Correct name and location of receiving waters	Y
(c) Product(s) and production rates conform with permit application (Industries)	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(es) added since last inspection	Y
(g) Notification given to State of new, different or increased discharges	Y
(h) All discharges are permitted	Y
(i) Number and location of discharge points are as described in permit	Y

Comments/Status:

Average flow 5.4 MGD (1/07-12/08); Design Flow 7.0 MGD
Upstream sampling location is the State Route 41 bridge
Downstream sampling location is the Tipp-Elizabeth Road bridge

Section F: Violations and Compliance Schedule

(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) Compliance schedule contained in	NPDES permit
(e) Permittee is meeting compliance schedule	Y

Comments/Status:

Section G: Operation & Maintenance

Treatment Works:

Treatment facility properly operated and maintained

(a)	Standby power available.....generator ☒ or dual feed ☐.....	Y
(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 (OAC 3745-7).....	III
(e)	Operator of Record holds unexpired license of class required by permit..... Class: III	Y
(f)	Copy of certificate of Operator of Record displayed on-site.....	Y
(g)	Minimum operator staffing requirements fulfilled (OAC 3745-7)...	Y
(h)	Routine and preventative maintenance scheduled/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..... On eDMR ☒ and/or Spill Hotline (1-800-282-9378) ☐	Y
(m)	Any hydraulic and/or organic overloads since last inspection.....	N

Record Keeping:

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

Section G: Operation & Maintenance (con't)

Collection System:

(a)	Percent combined system: 0 %	
(b)	Any collection system overflows since last inspection (CSO ☐ and/or SSO ☒)	Y
(c)	Regulatory agency notified of overflows (SSOs)	Y
(d)	CSO O&M plan provided and implemented	N/A
(e)	CSOs monitored and reported in accordance with permit	N/A
(f)	Portable pumps used to relieve system	Y
(g)	Lift station alarms provided and maintained	N
(h)	Are 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

Comments/Status:

Sanitary sewer overflows (SSOs) were reported on 3/19/08, 3/20/08, and 6/4/08. The March overflow was due to excessive rainfall in the Dorset Road residential plat which overwhelmed the lift station. Manholes in plat have been lined since the incident. The SSO in June was due to an oil and grease release from Peak foods and subsequent heavy rainfall. Peak Foods has taken measures to prevent future incidents.

Lift stations are not currently alarmed. A SCADA system is planned to be installed and implemented in 2009 for plant operations and collection system lift stations. There are six lift stations in the collection system. In emergency pumping situations, three lift stations would be operated with a portable generator and three would be operated with a portable pump.

Tom Parsons is the Collection System Maintenance Foreman.

Section H: Sludge Management

(a) Sludge management plan (SMP)
Submitted date: Approval #: Not submitted ☐ N/A ☒

(b) Sludge management plan current..... Y
(c) Sludge adequately disposed..... Y
(Method: Landfill, Jay Co., Indiana)
(d) If sludge is incinerated, where is ash disposed of
(e) Is sludge disposal contracted..... Y
(Name: Synagro, Inc.)
(f) Has amount of sludge generated changed significantly since last inspection..... Y
(g) Adequate sludge storage provided at plant.....Y
(h) Land application sites monitored and inspected per SMP..... N/A
(i) Records kept in accordance with State and Federal law..... Y
(j) Any complaints received in last year regarding sludge..... N
(k) Is sludge adequately processed (digestion, pathogen control)..... Y

Comments/Status:

Past practice of land application has been discontinued. Odor controls installed on sludge handling equipment (both sludge aeration tank and belt press processing). Belt press operating at time of inspection.

Section I: Self-Monitoring Program

Flow Measurement:

(a) Primary flow measuring device operated and maintained..... Y
Type of device: Ultrasonic & Parshall flume ☒ Ultrasonic & Weir ☐ Weir ☐
Calculated from influent ☐ Other ☒(Specify: Magmeter)

(b) Calibration frequency adequate ..... Y
(Date of last calibration: flow data continually evaluated)
(c) Secondary instruments operated and maintained.....Y
(d) Flow measurement equipment adequate to handle full range of flows..... Y
(e) Actual flow discharged is measured..... Y
(f) Flow measuring equipment inspection frequency
☒Daily ☐Weekly ☐monthly ☐other

Comments/Status:

Effluent flow measured by magmeter. Influent measured using parshall flume and ultrasonic flow meter.

Section I: Self-Monitoring Program (con't)

Sampling:

(a) Sampling location(s) are as specified by permit..... Y
(b) Parameters and sampling frequency agree with permit..... Y
(c) Permittee uses required sampling method..... Y
(d) Sample collection procedures are adequate..... Y
  (i) Samples refrigerated during compositing..... Y
  (ii) Proper preservation techniques used..... Y
  (iii) Containers and sample holding times prior to analysis conform with 40 CFR 136.3..... Y
(e) 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
(f) Adequate records maintained of sampling date, time, location, etc.. Y

Laboratory:

General
(a) EPA approved analytical testing procedures used (40 CFR 136.3).. Y
(b) If alternate analytical procedures are used, proper approval has been obtained..... N/A
(c) Analyses being performed more frequently than required by permit. Y
(d) If (c) is yes, are results in permittee's self-monitoring report..... Y
(e) Commercial laboratory used..... Y
Parameters analyzed by commercial lab: TKN, O&G, metals, nitrite-nitrate, total phosphorus, mercury

Lab name: Test America; Ginisko (mercury)

Quality Control/Quality Assurance
(f) Quality assurance manual provided and maintained..... Y
(g) Satisfactory calibration and maintenance of instruments/equipment. Y
(h) Adequate records maintained..... Y
(i) Results of latest USEPA quality assurance performance sampling program: ☒ Satisfactory ☐ Marginal ☐ Unsatisfactory
Date:

Comments/Status:

Laboratory Performance Audit Inspeciton by Tutu Rosanwo of OEPA/DES on November 6, 2007. Her recommendations have been implemented in the laboratory.

Section J: Effluent/Receiving Water Observations

Outfall Number	Outfall sign in place?	Oil sheen	Grease	Turbidity	Foam	Solids	Color	Other
001	Not in permit							

Comments/Status:

Section K: Multimedia Observations

(a) Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories..... N
(b) Do you notice staining or discoloration of soils, pavement or floors.. N
(c) Do you notice distressed (unhealthy, discolored, dead) vegetation.. N
(d) Do you see unidentified dark smoke or dust clouds coming from sources other than smokestacks..... N
(e) Do you notice any unusual odors or strong chemical smells..... N
(f) Do you see any open or unmarked drums, unsecured liquids, or damaged containment facilities..... N

Comments/Status: