



State of Ohio Environmental Protection Agency

Southwest District Office

401 E. Fifth St.
Dayton, Ohio 45402

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www.epa.state.oh.us

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

December 23, 2008

Mayor and Council
City of Bellefontaine
135 North Detroit Street
Bellefontaine, Ohio 43311

RE: City of Bellefontaine Waste Water Treatment Plant Compliance Evaluation Inspection.

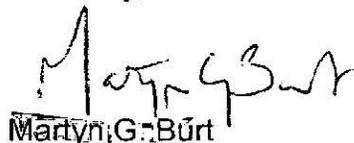
Dear Mayor and Council:

On December 15, 2008 Joe Reynolds conducted a Compliance Evaluation Inspection at the Bellefontaine waste water treatment plant. The inspection was conducted to help determine the compliance status of the plant with respect to the terms and conditions of the National Pollutant Discharge Elimination System (NPDES) permit issued to the city.

The findings from this inspection are included in the attached report. The report contains three items that require a response. Please provide a written response to these items by no later than the dates noted.

If you have any questions regarding the report, you may contact Joe Reynolds at (937) 285-6097.

Sincerely,



Martyn G. Burt
Division of Surface Water

Enclosure

cc: Charles Knotts, WWTP Superintendent
Tim Notestine, City Engineer



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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
1PD00000*MD	OH0024066	12/15/2008	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
City of Bellefontaine WWTP 610 South Troy Street Bellefontaine, Ohio 43311	9:30AM	Oct. 1, 2006
	Exit Time	Permit Expiration Date
	1:00PM	Jan. 31, 2011
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Charles Knotts, WWTP Superintendent Mike Trout, WWTP Chief Operator	(937) 593 - 9095 (937) 593 - 9095	
Name, Address and Title of Responsible Official	Phone Number	
Mayor and Council City of Bellefontaine 135 North Detroit Street Bellefontaine, Ohio 43311	(937) 592 - 4376	

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	N	Laboratory	S	Compliance Schedule
S	Operations & Maintenance	S	Effluent/Receiving Waters	S	Self-Monitoring Program
S	Facility Site Review	S	Sludge Storage/Disposal	N	Other
M	Collection System				

Section D: Summary of Findings (Attach additional sheets if necessary)
See attached report.

Inspector	Reviewer
<i>Joe Reynolds</i> 12/23/08	<i>Martyn Burt</i> 12/23/08
Joe Reynolds Division of Surface Water Southwest District Office	Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office

Permit # : Error! Reference source not found.
NPDES #: Error! Reference source not found.

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)..... NA
- (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..... N
- (g) Notification given to State of new, different or increased discharges..... NA
- (h) All discharges are permitted..... Y
- (i) Number and location of discharge points are as described in permit..... Y

Comments/Status:

All flows that enter the plant must go through full treatment. On rare occasions the influent channel and oxidation ditches have overflowed (hydraulic surge).

Section E: Permit Verification

- (a) Any significant violations since the last inspection..... N
- (b) Permittee is taking actions to resolve violations..... NA
- (c) Permittee has a compliance schedule..... Y
- (d) Compliance schedule contained in
- (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 X 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..... Y
Class: III
- (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..... Y
- (l) Regulatory agency notified of bypasses..... Y
On MORs and/or Spill Hotline (1-800-282-9378)
- (m) Any hydraulic and/or organic overloads since last inspection..... Y

Record Keeping:

- (a) Log book provided..... Y
- (b) Format of log book (i.e. computer log, hard bound book)

Hard bound log book. Need to record times in and out.

- (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)... N
 - 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..... N
(CSO and/or SSO)
- (c) Regulatory agency notified of overflows (SSOs)..... NA
- (d) CSO O&M plan provided and implemented..... NA
- (e) CSOs monitored and reported in accordance with permit..... NA
- (f) Portable pumps used to relieve system..... N
- (g) Lift station alarms provided and maintained..... Y
- (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

Comments/Status:

A portable generator in conjunction with a vac. truck is used to support lift station function. All stations are alarmed with a visual alarm light. A major sewer lining project was completed in November of this year. A main trunk line along Blue Jacket Creek and approximately 28 laterals were lined.

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Section H: Sludge Management

- (a) Sludge management plan (SMP)
Submitted date: Approval #: Not submitted N/A
- (b) Sludge management plan current.....NA
(c) Sludge adequately disposed..... Y
(Method: land application)
(d) If sludge is incinerated, where is ash disposed of
(e) Is sludge disposal contracted..... N
(Name:)
(f) Has amount of sludge generated changed significantly since
last inspection..... N
(g) Adequate sludge storage provided at plant.....Y
(h) Land application sites monitored and inspected per SMP..... Y
(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:

The city produces Class B sludge. Bio solids are aerobically digested before they are treated in a lime stabilization process.

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:)
- (b) Calibration frequency adequate Y
(Date of last calibration Aug. 15, 2008)
(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
XDaily Weekly monthly other

Comments/Status:

Jim Southern, Floyd Brown & Assoc. calibrates equipment and meters annually.

Permit # : Error! Reference source not found.
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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)... NE
 - (b) If alternate analytical procedures are used, proper approval has been obtained..... NE
 - (c) Analyses being performed more frequently than required by permit. NE
 - (d) If (c) is yes, are results in permittee's self-monitoring report..... NE
 - (e) Commercial laboratory used..... NE
- Parameters analyzed by commercial lab:

Lab name:

Quality Control/Quality Assurance

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

Date:

Comments/Status:

Permit # : Error! Reference source not found.
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Section J: Effluent/Receiving Water Observations

Outfall Number	Outfall sign in place?	Oil sheen	Grease	Turbidity	Foam	Solids	Color	Other
001	NE	None	None	None	Slight, white	None	None	NE

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

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

- (1) What is the cause of the condition?
- (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?

Comments/Status:

The water supply line to the chemical feed building was leaking. Water had ponded in the yard near the leak.

Inspection Findings

National Pollutant Discharge Elimination System (NPDES) permit number 1PD00000*MD was issued to the City of Bellefontaine on June 26, 2006. This permit expires on January 31, 2011.

The city's NPDES permit has a compliance schedule in order to meet a new final effluent limit for mercury (12 ng/l monthly average). The city has until November 1, 2010 to meet the new limit. If the city determines there are issues that will impact their ability to meet the limit then the city has until October 1, 2009 to request a schedule modification or a variance from the final effluent schedule / limit.

The treatment train consist of an automatic bar screen, grit removal, scum removal, activated sludge aeration (oxidation ditches), secondary clarification, and chlorination / dechlorination.

In April, 2008 the city performed a flow study of the collection system to identify infiltration and inflow sources. The system was divided into five major trunk lines. In follow-up to this work the city lined 8213' of the main interceptor along Blue Jacket Creek. Additionally, 26 Lateral sewers were lined.

A high water alarm located on the influent is used to notify plant staff of storm conditions. When flows reach 50% of peak design (13 MGD) the aerators are placed on 4 hour cycles. Above 50 % one aerator in each ditch is shut down. At peak flows the aerators are shut down. After the plant is upgraded the peak flow will be expanded to 16 MGD.

The city is currently planning for a plant expansion. This expansion would include the addition of fine screens, modification of the oxidation ditch weirs to allow for isolation of the ditches, addition of a third clarifier (total clarification capacity 15.75 MGD), switch from chlorine to UV disinfection (15.75 MGD), modify decant system for aerated sludge holding, and upgrade aerated sludge diffusers. The new waste water treatment plant design flow would be 4.339 MGD.

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Inspection Findings (cont.)

Plant maintenance is scheduled and tracked through an automated program. Work orders are generated as part of the program. Typically 700 to 800 work orders are generated per year.

An operations log as required per Ohio Administrative Code 3745-7-09 "Recordkeeping requirements and responsibilities of a certified operator" is being kept at the plant. As part of the reporting requirements the date and times of arrival and departure for the operator of record and any other operator required by the rule must be maintained in the log. Time cards do not fulfill this requirement.

In accordance with Ohio Revised Code 3745-7-02, "Certified Operator Required" written notification as to the Operator of Record in charge of the Bellefontaine waste water treatment plant will need to be provided.

One of four oxidation ditch aerators was replaced this spring after it experienced a bearing failure. Additionally, a drive motor on one of the clarifiers was replaced. An additional motor was ordered for the second clarifier. This motor will be installed some time in the spring. The existing motor in this clarifier will be used as a back-up.

As part of the city's industrial over sight ATC Automotive was asked to reduce the amount of inert glass solids being discharged to the collection system. A cloth filter was installed and this material is currently being recycled.

All of the bio solids produced by the city are currently being field applied. The city recently added an additional 80 acres to their field inventory. Most of the material is handled by city staff. A contract hauler is used to transport solids to the furthest fields. Soil pH is the limiting factor in the solids application rate.

At the time of the inspection the sludge storage facilities were almost empty. The three drying beds were empty. A fourth bed is used to dry vac. truck solids.

Between March, 2006 and the present the city reported the following final effluent numeric violations: (2) chlorine residual, (2) suspended solids, and (1) ammonia.

Facility Inspection

The influent sampler is located ahead of the preliminary treatment system. Samples are flow proportioned off the effluent flow meter.

The preliminary treatment system includes an automatic bar screen and grit removal system (screw conveyor). A rotary screen is used to remove scum from the internal treatment systems.

Secondary treatment is provided by two oxidation ditches. Each ditch has two aerators. The mixed liquor was dark brown. A moderate amount of foam was on the surface.

Both final clarifiers were on line. The final effluent from both tanks was clear. Some grease particles were noted in front of the skimmer arm.

The chemical feed system to the chlorine contact tank was shut down. During winter this tank serves as a flow through tank. The final effluent was clear.

Final effluent flows are measured after the chlorine contact tank. Flows are recorded through a parshall flume with transducer.

The final treatment system in the train is a dechlorination flash mix tank. This also is a flow through tank during winter season.

Final effluent samples are collected prior to discharging to Possum Run Creek. A wireless remote is used to communicate with the final effluent flow meter in order to collect flow proportioned samples.

The final effluent to Possum Run Creek was clear. A minor amount of white foam was noted at the outfall.

Items requiring a response

A letter signed by the Operator of Record which includes the operator's name, classification, and certification number must be submitted to this office by no later than January 19, 2009.

In accordance with Ohio Administrative Code 3745-7-09 "Recordkeeping requirements and responsibilities of a certified operator" the operators log must include the date and times of arrival and departure for the operator of record and any other operator required by the rule. Written verification as to this practice must be provided to this office by January 19, 2009.

A summary report detailing the infiltration and inflow work (sewers Televised, smoke tested, replaced, lined, etc) completed to date must be submitted to this office by January 19, 2009.

