

Souza



State of Ohio Environmental Protection Agency

Southwest District Office

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Dayton, Ohio 45402-2911

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

August 21, 2007

Mr. Jerome Conley, Mayor
City of Oxford
101 East High Street
Oxford, Ohio 45056-1887

Re: Butler County, Oxford WWTP, Compliance Evaluation Inspection

Dear Mr. Conley:

On August 1, 2007, Jacob Howdyshell, Elizabeth Somogyi and I conducted a Compliance Evaluation Inspection at this facility (NPDES Permit No. OH0026930; OEPA Permit No. 1PD00007*KD). The inspection was also conducted as part of renewing the NPDES Permit. Representing this facility was Jeff Ratliff and Dale Hacker. A copy of my inspection report is enclosed.

The inspection report contains one unsatisfactory area and one marginal area. The Effluent / Receiving Waters section was rated unsatisfactory as a result of the NPDES Permit violations. The Records/Reports section was rated marginal as a result of the failure to report many of the NPDES Permit violations.

The areas noted in the report summary are currently being addressed. Therefore, no response is required at this time.

If you have any questions, please call me at (937) 285-6096.

Sincerely,

~~Ned Sarte~~
Division of Surface Water
Permits Section

Enclosures

cc: Jacob Howdyshell, CO, DSW





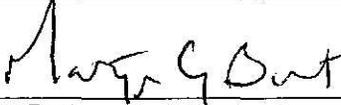
State of Ohio Environmental Protection Agency
Southwest District Office

NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PD00007*KD	OH0026930	8/1/2007	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Oxford WWTP 501 McKee Avenue Oxford, Ohio 45056	9:30 A.M.	3/1/2006
	Exit Time	Permit Expiration Date
	3:50 P.M.	7/31/2007
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Jeff Ratliff, Chief Operator Dale Hacker, Collection Manager	(513) 523-2911 (513) 523-2017	
Name, Address and Title of Responsible Official	Phone Number	
Jerome Conley, Mayor 101 East High Street Oxford, Ohio 45056	(513) 524-5201	

Section C: Areas Evaluated During Inspection					
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)					
S	Permit	S	Flow Measurement	N	Pretreatment
M	Records/Reports	S	Laboratory	S	Compliance Schedule
S	Operations & Maintenance	U	Effluent/Receiving Waters	S	Self-Monitoring Program
S	Facility Site Review	N	Sludge Storage/Disposal	N	Other
S	Collection System				

Section D: Summary of Findings (Attach additional sheets if necessary)	
See Attached Summary of Findings / Comments	
Inspector	Reviewer
 8/21/07	 8/21/07
Ned Sarle Division of Surface Water Southwest District Office	Martyn Burt 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..... N
- (g) Notification given to State of new, different or increased discharges..... N/A
- (h) All discharges are permitted..... Y
- (i) Number and location of discharge points are as described in permit..... Y

Comments/Status:

None.

Section F: Permit Violations / Compliance Schedules

- (a) Any significant violations since the last inspection..... Y
- (b) Permittee is taking actions to resolve violations..... Y
- (c) Permittee has a compliance schedule..... N/A
- (d) Compliance schedule contained in
- (e) Permittee is meeting compliance schedule..... N/A

Comments/Status:

See Attached Summary of Findings / Comments.



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..... 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..... N

Record Keeping:

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

Hard bound book maintained by facility.
- (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)..... N
 - 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: %
- (b) Any collection system overflows since last inspection..... Y
(CSO and/or SSO)
- (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..... 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 Y
- (k) Are any portions of the sewer system at or near capacity..... Y

Comments/Status:

See Attached Summary of Findings / Comments.



Section H: Sludge Management

- (a) Sludge management plan (SMP)
Submitted date: Approval #: Not submitted N/A
- (b) Sludge management plan current..... N/E
- (c) Sludge adequately disposed..... N/E
(Method:)
- (d) If sludge is incinerated, where is ash disposed of
- (e) Is sludge disposal contracted..... N/E
(Name:)
- (f) Has amount of sludge generated changed significantly since
last inspection..... N/E
- (g) Adequate sludge storage provided at plant.....N/E
- (h) Land application sites monitored and inspected per SMP..... N/E
- (i) Records kept in accordance with State and Federal law..... N/E
- (j) Any complaints received in last year regarding sludge..... N/E
- (k) Is sludge adequately processed (digestion, pathogen control)..... N/E

Comments/Status:

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: 1/16/2007)
- (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:

Flow monitoring equipment may measure flows between 0 – 10 MGD.



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).. N/E
 - (b) If alternate analytical procedures are used, proper approval has been obtained..... N/E
 - (c) Analyses being performed more frequently than required by permit. N/E
 - (d) If (c) is yes, are results in permittee's self-monitoring report..... N/E
 - (e) Commercial laboratory used..... N/E
- Parameters analyzed by commercial lab:

Lab name:

Quality Control/Quality Assurance

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

Comments/Status:

None.



Section J: Effluent/Receiving Water Observations

Outfall Number	Oil sheen	Grease	Turbidity	Visible Foam	Visible Floating Solids	Color	Other
001	-	-	-	-	-	clear	

Comments/Status:

None.

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:

None.



NPDES Permit #: OH0026930
OEPA Permit #: 1PD00007*KD

Summary of Findings / Comments

A review of the Monthly Operating Reports (MORs) for December 2005 through June 2007 indicated numerous NPDES Permit violations. These violations are listed on Attachment I. The City of Oxford (Oxford) failed to report many of these violations in accordance to the NPDES Permit. These violations have been adequately addressed at this time. Oxford must report all future violations as required by the NPDES Permit as detailed in Part III.12 titled "Noncompliance Notification."

A review of the MORs for March 2006 through June 2007 indicated an average daily flow of 2.56 MGD and a peak daily flow of 7.9954 MGD. The treatment system is designed for an average daily flow of 4.2 MGD and a peak daily flow of 8.0 MGD. The peak influent pumping capacity is designed for 15.0 MGD.

Four WWTP bypasses were reported for December 2005 through June 2007. Two WWTP bypasses of 0.347 and 0.389 MGD were reported on August 7 and 8, 2006. These bypasses were due to problems with the influent pump station control system. The secondary wet well overflowed on November 20, 2006 due to foam interference with the level sensors. The primary clarifier splitter box overflowed on February 25, 2007 due to a rain event. These bypasses were correctly reported in accordance to the NPDES Permit as detailed in Part III, Section 12 titled "Unauthorized Discharges." However, the August 7 and 8, 2006 bypasses were incorrectly reported at station 602. Bypasses from station 602 should only be reported for discharges from the flow equalization basins prior to combining with the WWTP effluent.

The Oxford WWTP has a constructed bypass. This bypass was designed to be sampled with the WWTP effluent. However, problems were discovered with the effluent sampling manhole. Equipment is scheduled to be installed this fall that will allow the combined discharge to be sampled. Until this construction is completed, the WWTP bypasses must be sampled for TSS and CBOD5. The sampling results must be reported in writing to the Ohio EPA, Southwest District Office.

Bypasses from the WWTP flow equalization basins have been noted in the past. However, WWTP bypasses from the flow equalization basins have not been reported for December 2005 through June 2007. To address several WWTP hydraulic bottlenecks, a submitted Permit to Install application was approved on December 8, 2006. The proposed upgrades included improvements to the primary clarifiers, aeration equipment and secondary clarifier splitter box. A new gravity belt thickener was also approved. Construction has now started on these improvements.

The aeration system consisted of two redwood slat trickling filters followed by two aeration tanks. Submersed jet aeration equipment is used for the aeration tanks. The jet aeration equipment is being replaced with surface disk aerators. Each aeration tank must be taken off line to replace this equipment and will reduce the available treatment. The two existing trickling filters will remain in operation during this construction. The



NPDES Permit #: OH0026930
OEPA Permit #: 1PD00007*KD

Ohio EPA is concerned that this construction will impact the WWTP compliance. The construction company is working 24 hours a day, 5 days a week to quickly complete this work. The new aeration equipment construction should be completed in November 2007.

Three sewage collection system bypasses were reported for December 2005 through July 2007. A bypass at 201 East Chestnut Street was reported on May 22, 2007 due to a grease blockage. Another bypass at West Chestnut Street was reported on June 24, 2006. ODOT was replacing the bridge at this location. Wastewater was pumped around this construction. The force main failed and resulted in this bypass. The final bypass at Locust Street and High Street was reported on July 10, 2007. This bypass was due to an ODOT contractor damaging a sanitary sewer even though the city had clearly marked it. Problems were noted with the ODOT contractors doing this work with minimal cares about any resulting sewage bypasses. Oxford may want to contact other communities to see how they deal with ODOT on similar projects. Future bypasses must continue to be reported as required by the NPDES Permit as detailed in Part III.11 titled "Unauthorized Discharges."

Past inspections have noted hydraulic issues at 325 West High Street. Oxford continues sewer work upstream and downstream of this location. Replacing the 10" sewer with a new 12" sewer at this location was being considered. Oxford has decided not to replace this sewer since bypasses have not continued. Replacing the sanitary sewers in the Days MHP is now being considered. This MHP has contributed significant I/I to the sewage collection system. Replacing the sanitary sewer on Chestnut Street is also being considered. This sanitary sewer goes from a 12" to 8" to 6" to 8" to 12" pipe. This obvious bottleneck is also in need of being replaced. The Ohio EPA encourages Oxford to proceed with any and all of these sewer projects.

Grease has been noted as an issue for the sewage collection system. This conclusion is supported by the sewage bypass reported on May 22, 2007 due to a grease blockage. The Oxford water and sewer ordinance dates to 1963 and is in need of being updated. Oxford is in the process of updating these regulations, and they should be implemented later this fall or winter. A fats, oils and grease program will also be included in these regulations.

The waste activated sludge is currently co-settled in the primary clarifiers. This process adds unnecessary additional hydraulic and organic WWTP loadings. Providing a separate solids handling facility would eliminate these WWTP loadings and would improve treatment.

The NPDES Permit requires the influent composite sample be flow proportioned. The influent sampler is currently time based. This does not comply with the NPDES Permit. A flow based composite sampler must be provided as soon as possible.



NPDES Permit #: OH0026930
OEPA Permit #: 1PD00007*KD

On December 1, 2006, Ohio Administrative Code Chapter 3745-07 became effective. This law addresses the WWTP operator certification requirements. As currently required by the NPDES Permit, this law will require the WWTP be supervised by a Class III operator. Mr. Jeff Ratliff is a Class III operator. Ohio Administrative Code Chapter 3745-07-04(C)(2)(c) will require that a Class II operator serve as a backup operator to Mr. Ratliff. The current backup operators are Class I operators. Ohio Administrative Code Chapter 3745-07-09(A)(3)(e) requires maintenance requests be documented. Currently, these repair requests are provided verbally to the maintenance staff. Verbal requests would not be a suitable form of documentation. These verbal requests should be noted in the operator logs, the maintenance logs or other written documents. Copies of these rules are attached for your information.



Attachment I

NPDES Permit Violations for December 2005 through June 2007

Reporting Period	Parameter	Limit Type	Units	Permit Limit	Reported Value
March 2006	TSS	Weekly	mg/l	45	55
March 2006	TSS	Weekly	kg/day	716	1213
May 2006	TSS	Weekly	mg/l	33	47
May 2006	TSS	Weekly	kg/day	525	720
August 2006	Ammonia	Weekly	mg/l	1.2	1.7
September 2006	Ammonia	Monthly	mg/l	0.8	2.4
September 2006	Ammonia	Monthly	kg/day	13	27
September 2006	Ammonia	Weekly	mg/l	1.2	1.3
September 2006	Ammonia	Weekly	mg/l	1.2	4.3
September 2006	Ammonia	Weekly	kg/day	19	58
September 2006	Ammonia	Weekly	mg/l	1.2	3.0
September 2006	Ammonia	Weekly	kg/day	19	29
December 2006	Ammonia	Weekly	mg/l	4.4	4.5
February 2007	Ammonia	Weekly	mg/l	4.4	6.3
February 2007	TSS	Weekly	mg/l	45	75
February 2007	TSS	Weekly	kg/day	716	1292
April 2007	Ammonia	Monthly	mg/l	2.2	4.1
April 2007	Ammonia	Monthly	kg/day	35	44
April 2007	Ammonia	Weekly	mg/l	3.3	8.3
April 2007	Ammonia	Weekly	kg/day	52	92
April 2007	Ammonia	Weekly	mg/l	3.3	4.0
May 2007	Ammonia	Weekly	mg/l	3.3	4.6

