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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 Korleski, Director

June 2, 2009

Ms. Prue Dana, Mayor
City of Oxford
101 East High Street
Oxford, Ohio 45056-1887

Re: Butler County, Oxford WWTP, Compliance Evaluation Inspection

Dear Ms. Dana:

On May 20, 2009, I conducted a Compliance Evaluation Inspection at this facility (NPDES Permit No. OH0026930; OEPA Permit No. 1PD00007*KD and 1PD00007*LD). Representing this facility was Jeff Ratliff, Dale Hacker and Dave Barrett. A copy of my inspection report is enclosed.

The inspection report contains one unsatisfactory area. The Effluent / Receiving Waters section was rated unsatisfactory as a result 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 Sarle
Division of Surface Water
Permits Section

Enclosures

ec: Douglas Elliott, City of Oxford
Jeff Ratliff, City of Oxford







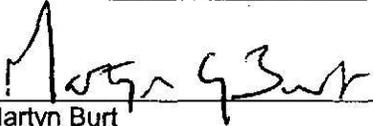
State of Ohio Environmental Protection Agency
Southwest District Office

NPDES Compliance Inspection Report

| Section A: National Data System Coding | | | | | |
|--|-----------|----------------|-----------------|-----------|---------------|
| Permit # | NPDES# | Month/Day/Year | Inspection Type | Inspector | Facility Type |
| 1PD00007*LD | OH0026930 | 5/20/2009 | 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 | 9:25 A.M. | 7/1/2008 |
| | Exit Time | Permit Expiration Date |
| | 1:00 P.M. | 6/30/2013 |
| Name(s) and Title(s) of On-Site Representatives | Phone Number(s) | |
| Jeff Ratliff, Chief Operator | (513) 523-2911 | |
| Dale Hacker, Collection Manager | (513) 523-2017 | |
| David Barrett, Laboratory Technician | (513) 523-2911 | |
| Name, Address and Title of Responsible Official | Phone Number | |
| Prue Dana, 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 |
| S | Records/Reports | S | Laboratory | S | Compliance Schedule |
| S | Operations & Maintenance | U | Effluent/Receiving Waters | S | Self-Monitoring Program |
| S | Facility Site Review | S | 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 |
|  Ned Sarle Division of Surface Water Southwest District Office |  Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office |
| Date 6/26/09 | Date 6/24/09 |

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/A |
| (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 <input type="text"/> | |
| (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)... N/A
- (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 book. |
|------------------|
- (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..... N
(CSO and/or SSO)
- (c) Regulatory agency notified of overflows (SSOs)..... N/A
- (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:

The collection system has one pump station. This pump station has a backup generator and provision for a bypass pump. The alarm system consists of a telemeter system that calls in emergencies.

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
- (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: Metals, Oil & Grease, Cr+6, Cn and TKN (Advance Analytics); Sludge (ANL); and Biomonitoring (Great Lakes Environmental Center). Lab name: See above.

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:

None.

Section H: Sludge Management

- (a) Sludge management plan (SMP)
Submitted date: Approval #: Not submitted N/A
- (b) Sludge management plan current..... N/A
- (c) Sludge adequately disposed..... Y
(Method: Land application and landfilled)
- (d) If sludge is incinerated, where is ash disposed of
- (e) Is sludge disposal contracted..... Y
(Name: Synagro)
- (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:

See Attached Summary of Findings / Comments.

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: 1/20/2009)
- (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 measurement equipment may monitor flows between 0-10 MGD.

Section J: Effluent/Receiving Water Observations

| Outfall Number | Outfall signage | Oil sheen | Grease | Turbidity | Visible Foam | Visible Floating Solids | Color | Other |
|----------------|-----------------|-----------|--------|-----------|--------------|-------------------------|-------|-------|
| 001 | Yes | - | - | - | - | - | 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.

Summary of Findings / Comments

A review of the Monthly Operating Reports (MORs) for July 2007 through March 2009 indicated numerous NPDES Permit violations. These violations are listed on Attachment I. The March 2008 violations were due to a 25 year rain event. The February 2009 violations were due to problems with the sludge return and with the sludge belt filter press. Solids handling have been an issue at the WWTP. Action should be taken as soon as possible to address this deficiency. The City of Oxford (Oxford) has reported these violations in accordance to the NPDES Permit. Future violations must continue to be reported as required by the NPDES Permit as detailed in Part III.12 titled "Noncompliance Notification."

A review of the MORs for July 2008 through March 2009 indicated an average daily flow of 1.92 MGD and a peak daily flow of 5.79 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.

Three internal WWTP bypasses were reported for July 2007 through March 2009. These were reported at station 602. Bypasses were reported on March 5, 19, and 20, 2008. The bypassed volumes were 0.5746, 3.6601, and 0.2036 MGD. These bypasses were the result of two separate rain events.

The aeration tank diversion box bypassed 200 gallons on February 5, 2008 due to grease at the biocell pit bar rack. The secondary pump station biocell pit bypassed 12,500 gallons on September 5, 2008 due to circuit breaker tripping. Finally, the secondary wet well bypassed 857,000 gallons on April 3, 2009 due to a power outage. These bypasses were reported in accordance to the NPDES Permit as detailed in Part III, Section 12 titled "Unauthorized Discharges."

The Oxford WWTP has a constructed internal bypass. In the last inspection, problems were noted with sampling this bypass with the treated effluent. In December 2007, Oxford installed a new sampler at the sampling manhole. The bypassed wastewater is now sampled with the WWTP discharge.

To address several WWTP hydraulic bottlenecks, a Permit to Install application was approved on December 8, 2006. The upgrades included improvements to the primary clarifiers, aeration equipment and secondary clarifier splitter box. A new gravity belt thickener was also approved. Construction of these improvements has now been completed.

For August 2007 through March 2009, no sewage collection system bypasses were reported. Future bypasses must be reported as required by the NPDES Permit.

An annual report addressing SSOs and water-in-basement incidents (WIBs) is required to be submitted by March 31 of each year. This NPDES Permit requirement is

NPDES Permit #: OHC_6930
OEPA Permit #: 1PD00007*LD

addressed in Part II, Section H titled "Sanitary Sewer Overflow Reporting Requirements." For the 2007 and 2008 annual reports, only two WIBs were reported for 2007 and no WIBs were reported for 2008. One SSO was reported on July 10, 2007. This event was addressed in the last inspection report.

A hydraulic bottleneck has been noted in the past at 325 West High Street. Oxford is planning to correct this by this July. 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 PTI for the sewer extension to eliminate this situation has been approved. Construction is pending obtaining the necessary project funding. Oxford should proceed with these sewer projects as soon as possible.

The Days MHP sanitary sewer has also been noted as a significant source of infiltration and inflow (I/I). As resources allow, Oxford intends to reduce this I/I.

Grease has been noted in the past as an issue for the sewage collection system. 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. A fats, oils and grease program will also be included in these regulations. Oxford should update these regulations as soon as possible.

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.

Oxford maintains approximately 69 miles of sewers. In 2008, Oxford cleaned and video 10.9 miles of the sanitary sewer. Spot repairs are completed at the same time. At this rate, the sanitary sewers will be cleaned once every 7 years.

In 2007, Oxford land applied 226.31 dry tons of sludge. In 2008, Oxford land filled 186.93 dry tons of sludge due to high molybdenum levels. Oxford should identify and eliminate the source of this molybdenum as soon as possible.

In September 2008, an area wide wind storm knocked out power to the WWTP for three days. During this period, the backup generator was used. No NPDES Permit violations or sewage bypasses were reported during this period.

Attachment I

NPDES Permit Violations for July 2007 through March 2009

| Reporting Period | Parameter | Limit Type | Units | Permit Limit | Reported Value |
|------------------|-----------|------------|--------|--------------|----------------|
| March 2008 | TSS | Monthly | mg/l | 30 | 75 |
| March 2008 | TSS | Weekly | mg/l | 45 | 154 |
| March 2008 | TSS | Monthly | kg/day | 478 | 1694 |
| March 2008 | TSS | Weekly | kg/day | 716 | 3416 |
| March 2008 | CBOD5 | Weekly | mg/l | 40 | 44 |
| March 2008 | CBOD5 | Monthly | kg/day | 398 | 476 |
| March 2008 | CBOD5 | Weekly | kg/day | 637 | 971 |
| March 2008 | TSS | Weekly | mg/l | 45 | 68 |
| March 2008 | TSS | Weekly | kg/day | 716 | 1295 |
| March 2008 | TSS | Weekly | mg/l | 45 | 85 |
| March 2008 | TSS | Weekly | kg/day | 716 | 2262 |
| March 2008 | CBOD5 | Weekly | kg/day | 637 | 710 |
| November 2008 | TSS | Weekly | mg/l | 45 | 74 |
| December 2008 | Ammonia | Weekly | mg/l | 4.4 | 4.6 |
| February 2009 | TSS | Monthly | mg/l | 30 | 80 |
| February 2009 | TSS | Weekly | mg/l | 45 | 122 |
| February 2009 | TSS | Monthly | kg/day | 478 | 1072 |
| February 2009 | TSS | Weekly | kg/day | 716 | 1364 |
| February 2009 | CBOD5 | Weekly | mg/l | 40 | 40 |
| February 2009 | TSS | Weekly | mg/l | 45 | 73 |
| February 2009 | TSS | Weekly | kg/day | 716 | 1309 |
| February 2009 | TSS | Weekly | mg/l | 45 | 122 |
| February 2009 | TSS | Weekly | kg/day | 716 | 1598 |