

Sewage



**Environmental
Protection Agency**

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Koreski, Director

June 11, 2010

Mr. Robert Leventry
Butler County Water and Sewer Department
130 Hugh Street
Hamilton, Ohio 45011

Re: Butler County, Upper Mill Creek WWTP, Compliance Evaluation Inspection

Dear Mr. Leventry:

On June 9, 2010, I conducted a Compliance Evaluation Inspection at the Upper Mill Creek WWTP (NPDES Permit No. OH0072087; OEPA Permit No. 1PK00016*KD). Representing this facility was Jack Thornsberry, Brian Custer, Dave Wilson, Warren Barns, Buggy Phalen and Rick Baker. A copy of my inspection report is enclosed.

All area evaluated in the inspection report were found to be acceptable. 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

Enclosure

ec: Brian Custer, Butler County Water and Sewer Department
Dave Wilson, Butler County Water and Sewer Department



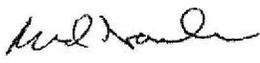
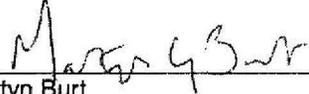
State of Ohio Environmental Protection Agency
Southwest District Office

NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PK00016*KD	OH0072087	6/9/2010	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Butler County Upper Mill Creek WWTP 6055 Centre Park Drive West Chester, OH 45069	9:15 A.M.	8/1/2008
	Exit Time	Permit Expiration Date
	12:00 A.M.	7/31/2012
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Jack Thornsberry, Division Head of Operations	(513) 887-3929	
Brain Custer, Field Superintendent	(513) 887-5552	
Dave Wilson, Chief Operator	(513) 785-5280	
Warren Barns, Collection Supervisor	(513) 887-3686	
Bugsy Phalen, Maintenance 1	(513) 887-3686	
Rick Baker, Maintenance Operator	(513) 887-3686	
Name, Address and Title of Responsible Official	Phone Number	
Robert Leventry, Director 130 High Street Hamilton, Ohio 45011	(513) 887-5616	

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
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
6/11/10 Date	6/11/10 Date

Permit #: 1PK00016*KD

NPDES #: OH0072087

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) Flows and loadings conform with NPDES permit..... | Y |
| (c) Treatment processes are as described in permit application... | Y |
| (d) All discharges are permitted..... | Y |
| (e) Number and location of discharge points are as described
in permit..... | Y |
| (f) Storm water discharges properly permitted..... | Y |

Comments/Status:

None.

Section F: Compliance

- | | |
|---|---|
| (a) Any significant violations since the last inspection..... | N |
| (b) Appropriate Non-compliance notification of violations..... | Y |
| (c) Permittee is taking actions to resolve violations..... | Y |
| (d) Permittee has a compliance schedule..... | Y |
| (e) Compliance schedule contained in...NPDES Permit Compliance Schedule | |
| (f) Permittee is in compliance with schedule..... | Y |
| (g) Has biomonitoring shown toxicity in discharge since last inspection | N |

Comments/Status:

None.

Section G: Operation & Maintenance

Treatment Works:

Treatment facility properly operated and maintained

(a) Standby power available.....generator or dual feed Y

i. What does the back-up power source operate.....

The back-up power will operate the whole treatment plant.

ii. How often is the generator tested under load.....

Weekly.

(b) Which components have an alarm system available for power or equipment failures.....

All critical components have an alarm system. The treatment plant operations are also monitored during periods not normally staffed via a SCADA system monitored at the LeSourdsville WWTP.

(c) All treatment units in service other than backup units..... Y

(d) What method is used for scheduling routine & preventative maintenance (calendar, software, etc.).....

Computer system.

(e) Any major equipment breakdown since last inspection..... N

(f) Operation and maintenance manual provided and maintained..... Y

(g) Any plant bypasses since last inspection..... N

(h) Any plant upsets since last inspection..... N

Comments/Status:

None.

Section G: Operation & Maintenance con't

Record Keeping/Operator of Record:

- (a) Wastewater Treatment Works classification (OAC 3745-7)..... IV
- (b) Operator of Record holds unexpired license of class required by Permit..... Y
- (c) Copy of certificate of Operator of Record displayed on-site..... Y
- (d) Has the Operator of Record submitted an ORC Notification form. Y
- (e) Minimum operator staffing requirements fulfilled (OAC 3745-7).... N/A
- (f) If a Staffing Reduction plan has been approved, are the stipulations of the plan being met..... N/A
- (g) Operator of Record log book provided..... Y
- (h) Format of log book (e.g. computer log, hard bound book)

Hard bound book.
- (i) Log book kept onsite (in an area protected from weather)..... Y
- (j) 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 operator and maintenance activities (including preventative maintenance, repairs and request for repairs, process control test results, etc.)..... Y
 - iv. Laboratory results (unless documented on bench sheets)... Y
 - v. Identification of person making entries..... Y
- (k) Has the Operator of Record submitted written notifications 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

Comments/Status:

None.

Section G: Operation & Maintenance con't

Collection System:

- (a) Are there pump stations in the collection system..... Y
 - i. How many publicly-owned pump stations equipped with permanent standby power or equivalent.....12
 - ii. How many pump stations have telemetered alarms.....12
 - iii. How many pump stations have operable alarms.....12

- (b) Any chronic collection system overflows since last inspection..... N
- (c) Regulatory agency notified of all overflows..... Y
- (d) Are there CSOs in the collection system..... N/A
if so, what is the LTCP status.....
- (e) How are CSOs monitored (chalk, block, level sensor, etc.).....
- (f) Portable pumps available for collection system maintenance..... Y
- (g) RDII Program established and active..... Y
- (h) Any WIB complaint received since last inspection..... Y
- (i) Is there a WIB response plan..... Y
- (j) Is any portion of the collection system at or near dry weather capacity..... N

Comments/Status:

See Attached Summary of Findings / Comments.

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Section H: Sludge Management

(a) Method of Sludge Disposal...

Land Application

Haul to Another NPDES Permittee

Haul to a Mixed Solid Waste Landfill

*if one of the selected methods is land application, complete applicable charts.

Class A - Exception Quality Sewage Sludge (monitoring station 584)

Pathogen Reduction Alternative	84370 Vector Attraction Reduction Options							
	Option 1 -38% Volatile Solids Reduction	Option 2 -Anaerobic Bench Scale Analysis	Option 3 - Aerobic Bench Scale Analysis	Option 4 - Specific Oxygen Uptake Rate	Option 5 - Aerobic Time and Temperature	Option 6 - Alkali Addition	Option 7 - >75% Percent Solids without Unstabilized Solids	Option 8 - >75% Percent Solids with Unstabilized Solids
Alternative 1 - Time and Temperature Regime (84369)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - High pH and High Temperature (84369)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 3 - Other Processes (84369)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 4 - Unknown Processes (84369)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Composting (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Heat Drying (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Heat Treatment (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Thermophilic Aerobic Digestion (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Beta Ray Irradiation (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Gamma ray Irradiation (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Pasteurization (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 6 - Approved Equivalent Process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Class B Sewage Sludge (monitoring station 581)

Pathogen Reduction Alternative	84370 Vector Attraction Reduction Options									
	Option 1 -38% Volatile Solids Reduction	Option 2 -Anaerobic Bench Scale Analysis	Option 3 - Aerobic Bench Scale Analysis	Option 4 - Specific Oxygen Uptake Rate	Option 5 - Aerobic Time and Temperature	Option 6 - Alkali Addition	Option 7 - >75% Percent Solids without Unstabilized	Option 8 - >75% Percent Solids with Unstabilized	Option 9 - Land Injection	Option 10 - Immediate Incorporation
Alternative 1 - Geometric Mean of Seven Fecal Samples (84369)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - Aerobic Digestion (46396)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - Air Drying (46396)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - Anaerobic Digestion (46396)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - Composting (46396)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - Lime Treatment (46396)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 3 - Approved Equivalent Process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (b) Has amount of sludge generated changed significantly since the last inspection..... N
- (c) How much sludge storage is provided at the plant.....
- (d) Records kept in accordance with State and Federal law (5 years according to OAC 3745-40-06)..... Y
- (e) Any complaints received in last year regarding sludge..... N
- (f) 5/8" screen at headworks for facilities that land apply sludge..... N/A
- (g) Are sludge application sites inspected to verify compliance with NPDES permit..... N/A
- (h) Is a contractor used for sludge disposal..... N
 If so, what is the name of the contractor.....

Comments/Status:

See Attached Summary of Findings / Comments.

Section I: Self-Monitoring Program

Flow Measurement:

- (a) Primary/Secondary flow measuring devices (e.g. weir with ultrasonic level sensor):

Parshal flume and radar.

- (b) Flow meter calibrated annually Y
(Date of last calibration: 7/1/2009)
- (c) 24-hour recording instruments operated and maintained..... Y
- (d) Flow measurement equipment adequate to handle full range of flows..... Y
- (e) All discharged flow is measured..... Y

Comments/Status:

Flow may be monitored between 0 - 60 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
(see GLC page)
- (d) 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

Comments/Status:

None.

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

Laboratory:

General

- (a) Does the Quality Assurance Manual contain written Standard Operating Procedures (SOP's) for all analysis performed onsite..... N/E
- (b) Do SOP's include the following if applicable..... N/E
 - Title
 - Scope and Application
 - Summary
 - Sample Handling and Preservation
 - Interferences
 - Apparatus and Materials
 - Reagents
 - Procedure
 - Calculations
 - Quality Control
 - Maintenance
 - Corrective Action
 - Reference (Parent Method)

Note: Standard Methods 1020A establishes that "Quality assurance (QA) is the definitive program for laboratory operation that specifies the measure required to produce defensible data of known precision and accuracy. Standard operating procedures are to be used in the laboratory in sufficient detail that a competent analyst unfamiliar with the method can conduct a reliable review and/or obtain acceptable results." SOPs should be developed for each analytical procedure.

- (c) EPA approved analytical testing procedures used (40 CFR 136.3).. N/E
- (d) If alternate analytical procedures are used, proper approval has been obtained..... N/E
- (e) Analyses being performed more frequently than required by permit. N/E
- (f) If (e) is yes, are results in permittee's self-monitoring report..... N/E
- (g) Satisfactory calibration and maintenance of instruments/equipment. N/E (see score from GLC page)
- (h) Commercial laboratory used..... N/E
Parameters analyzed by commercial lab:

Lab name:

Discharge Monitoring Report Quality Assurance (DMRQA)

- (a) Participation in latest USEPA quality assurance performance sampling..... N/E
Date:
- (b) Were any parameters "Unsatisfactory" N/E
- (c) Reasons for "Unsatisfactory" parameters.....

Comments/Status:

Laboratory facilities are maintained at the LeSourdsville WWTP.

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Section J: Effluent/Receiving Water Observations

Outfall # 001

Outfall Description: Effluent pipe

Receiving Stream: East Fork Mill Creek

Receiving Stream Description: No adverse impacts were noted.

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.

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Summary of Findings / Comments

The WWTP consists of a bar rack, vortex grit tank, anaerobic selector tank, anoxic tank, oxidation ditch, secondary clarifier, ultraviolet disinfection and cascade aeration. A flow equalization tank is also provided. Waste activated sludge is immediately pressed using a centrifuge sludge press and then hauled from the site. In 2009, 154.48 dry tons were hauled to the Rumpke Landfill, and 1823.33 dry tons were hauled to the MSD Mill Creek WWTP incinerator.

For June 2009 through April 2010, one overflow was reported from the sewage collection system. This overflow occurred on June 26, 2009 at the Windisch Road manhole. Twenty-three thousand gallons were reported as being bypassed. The cause of this overflow is a combination of a power outage and high flows. Future overflows must continue to be reported as required by the NPDES Permit as detailed in Part II, Section R.

Butler County owns and operates a total of approximately 700 miles of sanitary sewers. Twelve pump stations are also provided for the sewage collection system tributary to the Upper Mill Creek WWTP. The sanitary sewers are cleaned approximately once every five years. Visual inspections of the sanitary sewers are also occurring approximately once every ten years. In 2009, approximately 700,000 feet of sanitary sewers were cleaned. Visually inspections were also conducted for approximately 400,000 feet of sanitary sewers. Sanitary sewer manholes are repaired when found to be deficient. Significant sources of infiltration and inflow (I / I) continued to be eliminated as they are found. Sanitary sewers are being replaced or slip lined in problematic areas to further control I / I. The sanitary sewer is also being repaired using a spot liner system. This repair process is an effective way to control small sources of I / I. Eleven water in the basement events (WIBs) were reported in 2009. To address most of these WIBs, infiltration and Inflow sources downstream of the Schul Estates and Ryan Acres were addressed. Butler County has an effective sanitary sewer operation and maintenance program.

For June 2009 through April 2010, WWTP overflows were not reported. Future overflows must continue to be reported as required by the NPDES Permit as detailed in Part III, Section 11 titled "Unauthorized Discharges."

A review of the Monthly Operating Reports (MORs) for June 2009 through April 2010 indicated one NPDES Permit violations. A weekly TSS concentration violation was reported for February 2010. This violation has been adequately addressed. Future violations must continue to be reported as required by the NPDES Permit as detailed in Part III, Section 12 titled "Noncompliance Notifications."

The WWTP is designed for an average daily flow of 16.0 MGD and a peak daily flow of 40.0 MGD. A review of the MORs for this period also indicated that the average daily flow was 8.20 MGD. The peak daily flow was 15.71 MGD.

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Butler County has a compliance schedule for complying with annual load limits for phosphorus and Nitrate + Nitrite. On July 29, 2009, a status report was submitted as required by the NPDES Permit. For 2009, the WWTP effluent results indicate compliance with the proposed Nitrate + Nitrite limit. These results also indicate that additional work will be required to comply with the proposed phosphorus limit.