



**Environmental
Protection Agency**

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



1PK0001120081031

BUTLER

LESOURDSVILLE WATER RECLAMATION
FACILITY

SARLE, EDWARD

2008/10/31

Sewer



State of Ohio Environmental Protection Agency

Southwest District Office

401 East Fifth Street
Dayton, Ohio 45402-2911

TELE: (937) 285-6357 FAX: (937) 285-6249
www.epa.state.oh.us

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

October 29, 2008

Ms. Susan Vance, Director
Butler County Water and Sewer Department
130 High Street
Hamilton, Ohio 45011

Re: Butler County, LeSourdsville WWTP, Compliance Evaluation Inspection

Dear Ms. Vance:

On October 8, 2008, I conducted a Compliance Evaluation Inspection at the Butler County LeSourdsville WWTP (NPDES Permit No. OH0049147; OEPA Permit No. 1PK00011*KD). Representing this facility was Jack Thornsberry, Brian Custer, Todd Madden, Adam Sackenheim, Dick Roemer, Rick Baker, Warren Barns, Butsy Palen and Mike Ramsey. A copy of my inspection report is enclosed.

All areas noted in the inspection report were found to be acceptable. Therefore, a response is not required at this time.

Finally, Butler County is planning on upgrading the WWTP in two phases. Butler County and the Ohio EPA met to discuss the potential upgrade on January 31, 2007. Butler County is planning to bid Phase I in February 2009 and Phase II in 2010. Both projects will be funded by DEFA.

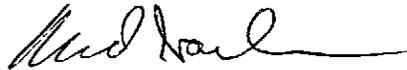
For the proposed Phase II WWTP expansion, please be advised that the Antidegradation Rule is currently being revised to include new phosphorus and nitrogen permit limits. The current draft requires WWTP upgrades such as yours to comply with these limits. In addition, based on having a substantially new treatment plant, the combined 15.0 MGD of average daily flow would also be required to achieve BADCT treatment levels.



Ms. Susan Vance, Director
October 29, 2008
Page 2

If you have any questions or wish to discuss this further, please call me at (937) 285-6096.

Sincerely,

A handwritten signature in black ink, appearing to read "Ned Sarle", with a long horizontal flourish extending to the right.

Ned Sarle
Division of Surface Water
Permits Section

Enclosure

cc: Brian Custer, 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
1PK00011*KD	OH0049147	10/8/2008	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Butler County LeSourdsville WWTP 5260 Hamilton - Middletown Road Hamilton, Ohio 45011	9:20 A.M.	8/1/2003
	Exit Time	Permit Expiration Date
	12:20 P.M.	6/30/2008
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Jack Thornsberry, Operations Manager	(513) 887-3929	
Brian Custer, Field Superintendent	(513) 887-5552	
Todd Madden, Chief Operator	(513) 887-3686	
Adam Sackenheim, Regulator Compliance Manager	(513) 887-5563	
Dick Roemer, Maintenance Supervisor	(513) 887-3686	
Warren Barns, Collation Supervisor	(513) 887-3686	
Rick Baker, Maintenance Operator	(513) 887-3686	
Butsy Palen, Maintenance Lift Stations	(513) 887-3686	
Mike Ramsey, Maintenance Helper	(513) 887-3686	
Name, Address and Title of Responsible Official	Phone Number	
Ms. Susan Vance, Director 130 High Street Hamilton, Ohio 45011	(513) 887-3936	

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
<i>Ned Sarle</i>	<i>Martyn Burt</i>
10/29/08	10/31/08
Date	Date
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
- (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)..... IV
- (e) Operator of Record holds unexpired license of class required by permit..... Y
 Class: IV
- (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..... Y
- (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..... 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 N
- (k) Are any portions of the sewer system at or near capacity..... N

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:

None.

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: 9/1/2008)
- (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
 Daily Weekly monthly other

Comments/Status:

Flow measurement equipment may monitor flows between 0 -32.0 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
 - (b) If alternate analytical procedures are used, proper approval has been obtained..... N
 - (c) Analyses being performed more frequently than required by permit. N
 - (d) If (c) is yes, are results in permittee's self-monitoring report..... N
 - (e) Commercial laboratory used..... N
- Parameters analyzed by commercial lab:

Lab name:

Quality Control/Quality Assurance

- (f) Quality assurance manual provided and maintained..... N
- (g) Satisfactory calibration and maintenance of instruments/equipment. N
- (h) Adequate records maintained..... N
- (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	Outfall signage	Oil sheen	Grease	Turbidity	Visible Foam	Visible Floating Solids	Color	Other
001	n/a	-	-	-	-	-	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) from January 2006 through September 2008 indicated four NPDES Permit violations. These violations are addressed on Attachment I. The September 2008 ammonia violation was due to a power outage during a wind storm. Butler County is considering an additional backup generator to provide sufficient power. At this time, Butler County has adequately addressed these violations. Future violations must continue to be reported as required by the NPDES Permit as detailed in Part III, Section 12 titled "Noncompliance Notification."

The WWTP is designed for an average daily flow of 12.0 MGD and a peak daily flow of 28.0 MGD. The average daily flow reported for this period was 8.34 MGD. The peak daily flow reported on March 14, 2008 was 16.53 MGD.

During many high stream flow events, Butler County reports the effluent discharge volume as "AD". This is due to flows surcharging in the parshall flume. This occurs approximately five to ten times a year. Until this situation is eliminated, Butler County should report the influent flow rate as the WWTP discharge. This information would provide a suitable estimate for the WWTP flow rate.

For January 2006 through August 2008, several overflows were reported for the sewage collection system. These overflows are noted on Attachment II. Butler County reported these overflows as required by the NPDES Permit as detailed in Part III, Section 11 titled "Unauthorized Discharges." For the bypasses due to rain events, Butler County should provide the rainfall amounts, durations, and estimate of storm return frequencies. Three of these overflows happened in March 2008 when a significant rain event occurred. The other overflows were not the result of rain events.

Butler County owns and operates approximately 700 miles of sanitary sewers. The sanitary sewers are cleaned approximately once every five years. Visual inspections of the sanitary sewers are also occurring approximately once every ten years. Last year, Butler County cleaned 800,000 feet of sanitary sewers. Butler County also visually inspected 600,000 feet of sanitary sewers. Significant sources of infiltration and inflow (I / I) continued to be eliminated as they are found. Sanitary sewers are being replaced in problematic areas to further control I / I. Butler County has an effective sanitary sewer operation and maintenance program.

For January 2006 through August 2008, a number of overflows were reported at the WWTP. These overflows are noted on Attachment III. Butler County reported these overflows as required by the NPDES Permit as detailed in Part III, Section 11 titled "Unauthorized Discharges." The cascade aerator overflows occur when stream flows in the Great Miami River are high. Butler County is considering addressing this situation by raising the cascade aeration tank walls. The WWTP influent manholes are also bypassed during storm events. Butler County should provide an estimate of these bypass volumes.

NPDES Permit #: OH0043147
OEPA Permit #: 1PK00011*KD

To address the WWTP deficiencies including the influent manhole bypasses, Butler County is planning on a two phase WWTP upgrade. Butler County and the Ohio EPA meet to discuss this potential upgrade on January 31, 2007. Butler County proposes that the Phase I improvements will include a new septic receiving station, a vector truck dump station, new secondary clarifier baffles, new secondary clarifier skimmers, a new centrifuge sludge press, and raising the cascade aeration tank walls. Butler County is planning on bidding this project in February 2009. Butler County proposes that the Phase II improvements will include increasing the WWTP design flow rate from 12.0 to 15.0 MGD, increasing the WWTP influent pump station to a peak flow rate of 70.0 MGD, converting the existing oxidation ditches to flow equalization basins, constructing additional pretreatment units, and constructing a new biological treatment system. Butler County is planning on bidding this project in 2010. Both projects will be funded by DEFA.

For the proposed Phase II WWTP expansion, please be advised that the Antidegradation Rule is currently being revised to include new phosphorus and nitrogen limits. The current draft requires WWTP upgrades such as yours to comply with these limits. In addition, based on the proposed upgrade, the combined 15.0 MGD of average daily flow would be required to achieve BADCT treatment levels.

Recently, an alternative analysis for phosphorus was found to be acceptable. Butler County has just started using this new test procedure.

The oxidation ditch surface aerator number three fell off its shafted on May 12, 2008. Butler County was able to repair this aerator on May 27, 2008. However, as part of this repair, an overflow was reported at the North Main Street pump station.

In the past, sludge from the LeSourdsville WWTP was land applied, land filled or hauled to the MSD incinerator. As of September 2007, Butler County has decided to discontinue the land application program. The reduction of the sludge detention times has resulted in power savings of \$10,000 a month. Butler County still wishes to maintain the land application option to provide operational flexibility.

Butler County is continuing their work on a master plan for the LeSourdsville collection area. Once completed, a copy of this report will be provided to the Ohio EPA.

Attachment I
Effluent Limit Violations for January 2006 through September 2008

Reporting Period	Parameter	Limit Type	Units	Permit Limit	Reported Value
October 2006	Oil and Grease	Daily	mg/l	10	91
January 2007	DO	Daily	mg/l	5.5	5.2
March 2008	DO	Daily	mg/l	5.5	5.1
September 2008	Ammonia	Weekly	mg/l	5.25	7.62

NPDES Permit #: OH0049147
OEPA Permit #: 1PK00011*KD

Attachment II

Sanitary Sewer Overflows

January 2006 through August 2008

<u>Date</u>	<u>Location</u>	<u>Quantity</u>	<u>Cause</u>
2/3-6/2006	6303 Lakewood Drive	unknown	Air Release Valve & operator error
10/6/2006	6475 LeSoudsville-West Chester Rd.	2200	blockage
3/19/2008	6797 LeSourdsville-West Chester Rd.	7000	Rainfall
3/19-20/2008	SR 4 and LeSourdsville-West Chester Rd.	2,821,000	Rainfall
3/19/2008	3791 SR 63	212,000	Rainfall
5/22/2008	975 North Main St. Pump Station	unknown	Aerator repair
8/19/2008	6849 Netherland Drive	7000	Line break

Attachment III

Wastewater Treatment Plant Overflows

January 2006 through August 2008

<u>Date</u>	<u>Location</u>	<u>Quantity</u>	<u>Cause</u>
3/12-13/2006	WWTP manhole	unknown	2 year rain event
3/12/2006	cascade aerator	unknown	Stream flooding
4/8/2006	Digester	unknown	Froth overflowed tank wall
1/15/2007	WWTP manholes	unknown	1 year rain event
1/15-16/2007	cascade aerator	unknown	Stream flooding
2/25/2007	WWTP manholes	unknown	4 month rain event
3/2/2007	cascade aerator	unknown	Stream flooding
2/6/2008	WWTP manholes	unknown	1 year rain event
2/6/2008	cascade aerator	unknown	Stream flooding
3/4-5/2008	WWTP manholes	unknown	Rainfall
3/4-5/2008	cascade aerator	unknown	Stream flooding
3/18-20/2008	cascade aerator	unknown	Stream flooding
3/18-20/2008	WWTP manholes	unknown	10 year rain event
5/16/2008	WWTP manholes	unknown	Rainfall
6/4-5/2008	cascade aerator	unknown	Stream flooding