



**Environmental  
Protection Agency**

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



\*1PB0003920090327\*

CHAMPAIGN NORTH LEWISBURG WWTP

REYNOLDS, JOSEP | 2009/03/27



State of Ohio Environmental Protection Agency

**Southwest District Office**

401 E. Fifth St.  
Dayton, Ohio 45402

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

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

March 27, 2009

Mayor and Council  
Village of North Lewisburg  
60 East Maple Street  
P.O. Box 243  
North Lewisburg, Ohio 43060

**RE: North Lewisburg WWTP Compliance Evaluation Inspection and Notice of Violation.**

Dear Mayor and Council:

On March 12, 2009 representatives of the Ohio EPA Southwest District office conducted a Compliance Evaluation Inspection (CEI) at the North Lewisburg WWTP, 9984 State Route 245, North Lewisburg. The inspection was conducted as part of the National Pollutant Discharge Elimination System (NPDES) permit compliance review process.

During the compliance review NPDES schedule, limit, and frequency violations were cited. The specific instances of non-compliance are noted.

The inspection report is attached for your review. There are several items that require a response. Please provide a written response by no later than the dates noted.

If you have any questions regarding the report, please feel free to contact Mr. Joe Reynolds at (937) 285 - 6097.

Sincerely,

Martyn Burt, Environmental Supervisor  
Division of Surface Water

cc: Jennifer Ganson, Waste Water Operator  
John Gross, Class III Waste Water Operator



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
1PB00039*FD	OH0023582	3/12/2009	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Village of North Lewisburg WWTP 9984 State Route 245 North Lewisburg, Ohio 43060	9:30 AM	4/1/2008
	Exit Time	Permit Expiration Date
	12:15 PM	3/31/2013
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Jennifer Ganson, Waste Water Operator John Gross, Class III Waste Water Operator	(937) 747 - 2200 (614) 486 - 4383	
Name, Address and Title of Responsible Official	Phone Number	
Mayor and Council Village of North Lewisburg P.O. Box 243 North Lewisburg, Ohio 43060	(937) 747 - 3645	

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

Section D: Summary of Findings (Attach additional sheets if necessary)	
See attached Report.	
Inspector	Reviewer
<i>Joseph Reynolds</i> 3/27/09	<i>Martyn Burt</i> 3/27/09
Joseph Reynolds Division of Surface Water Southwest District Office	Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office

Permit #: 1PB00039\*FD  
 NPDES #: OH0023582

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:**

The only discharge location from the plant is outfall 001.

**Section E: Permit Verification**

- |  |   |
|--|---|
| (a) Any significant violations since the last inspection.....  | Y |
| (b) Permittee is taking actions to resolve violations.....   | Y |
| (c) Permittee has a compliance schedule.....   | Y |
| (d) Compliance schedule contained in <span style="border: 1px solid black; padding: 2px;">NPDES Permit.</span> |   |
| (e) Permittee is meeting compliance schedule.....  | N |

**Comments/Status:**

The village has a phosphorus removal schedule contained in their NPDES permit. The schedule contains a compliance date for development of a preliminary facility plan for stream improvements to address additional loadings. This compliance date (7/1/2008) has not been met.

**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) Operator holds unexpired license of class required by permit..... Y  
Class: II
- (f) Routine and preventative maintenance schedule/performed on time..... Y
- (g) Any major equipment breakdown since last inspection..... N
- (h) Operation and maintenance manual provided and maintained..... Y
- (i) Any plant bypasses since last inspection..... Y
- (j) Regulatory agency notified of bypasses..... Y  
On MORs  and/or Spill Hotline (1-800-282-9378)
- (k) Any hydraulic and/or organic overloads since last inspection..... N

**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 Y
- (k) Are any portions of the sewer system at or near capacity..... Y

Comments/Status:

**Section H: Sludge Management**

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

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**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: )
- (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:**

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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).. Y
  - (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/A
  - (e) Commercial laboratory used..... Y
- Parameters analyzed by commercial lab:

Lab name: Stantec

*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:**

North Lewisburg test for dissolved oxygen, pH, and temperature. All other analysis is sent out to Stantec.

**Section J: Effluent/Receiving Water Observations**

Outfall Number	Oil sheen	Grease	Turbidity	Visible Foam	Visible Solids	Floating	Color	Other
001	none	none	none	none	none		none	NE

**Comments/Status:**

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**Section K: Multimedia Observations**

- (a) Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories..... Y
- (b) Do you notice staining or discoloration of soils, pavement or floors.. Y
- (c) Do you notice distressed (unhealthy, discolored, dead) vegetation.. Y
- (d) Do you see unidentified dark smoke or dust clouds coming from sources other than smokestacks..... Y
- (e) Do you notice any unusual odors or strong chemical smells..... Y
- (f) Do you see any open or unmarked drums, unsecured liquids, or damaged containment facilities..... Y

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:**

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## Inspection Findings

National Pollutant Discharge Elimination System (NPDES) permit number 1PB00039\*FD was issued to the Village of North Lewisburg on March 4, 2008. This permit expires on March 31, 2013.

The village's NPDES permit has a compliance schedule in order to meet new final effluent phosphorus limits. The village has until October 1, 2009 to meet the new limit. Additionally the village was required to submit a preliminary facilities plan to address protection of the use designation for Spain Creek (part of the 208 facilities planning) by no later than July 1, 2008. This schedule date has not been met.

The village continues to seek a legal ruling to get the Village of Woodstock to pay late sewer fees. This case is currently being deliberated in county court. The case has been in litigation for two years.

During the inspection a question was raised concerning the definition of a "Sanitary Sewer Overflow," SSO". The agency has defined an SSO as: "any discharge to waters of the State from a sanitary sewer system through point sources not specified in any NPDES permit, as well as any release of waste water from the sanitary sewer system to public or private property that does not reach waters of the State, such as a release to a land surface or structure that does not reach waters of the State; however provided that waste water backups into buildings that are caused by blockages, flow conditions, or malfunctions in a building lateral, other piping or conveyance system that is owned or operationally controlled by a third party would not constitute a SSO per this definition."

The treatment train consists of a fine screen with conveyor, aerated grit, membrane bioreactor system, and ultra violet disinfection. Sludge is belt pressed and disposed in a sanitary landfill (via dumpster).

The flow equalization lagoon (old treatment system) has not been used since the new plant was placed on line. The inlet is reportedly valved shut. During dry weather waste water plant flows are within 25% of the water plant production flows.

## Inspection Findings (cont.)

In March 2008 the village reported rain induced collection system over flows from two manholes one located on Sycamore Street and one at the corner of East and Erie Street. In order to address the overflows the village is working with the Meadows MHP to eliminate infiltration and inflow in the parks sewer system and subsequently the village's system. Repairs to a manhole by the park eliminated 50,000 gallons of inflow.

A new generator provides back-up power to the plant. The generator can power the entire plant. The generator is run under load every Tuesday.

A new Supervisory Control and Data Acquisition (SCADA) system is used to monitor system functions. As part of this monitoring, the SCADA system will notify plant personnel (phone dial out) of alarm conditions. Currently plant personnel are unable to fully utilize the SCADA system for plant oversight because the plant does not have internet access.

The plant maintenance manual is current to the latest treatment system upgrade. A summary version of the manual is being developed to make it more user friendly.

The village is currently producing a Class B sludge. An aerobic digester is being used to stabilize waste solids. Waste solids are thickened and stored in a holding tank prior to being belt pressed. The pressed solids are conveyed to a 2 cubic yard dumpster for disposal at a solid waste landfill by Allied Waste. The village has 3 to 4 months of solids storage capacity in the thickening / digester tanks.

The sludge press is normally shut down during winter months. Lack of heat in the building will cause freezing if the system is not completely drained after each use.

Other freezing issues at the plant noted during the past winter include: the fine screens had to be covered to prevent freezing, the reactor waste line froze and broke, the grit classifier line froze, the sludge pumps froze, and the air evacuation line on the reactor froze. Heaters, insulation, covers, doors, continuous use (both fine screens are run continuously), and heating tape were used to try and resolve most of these issues.

## Inspection Findings (cont.)

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.

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

In accordance with Part II, item P "outfall signage" of the villages NPDES permit a sign needs to be placed at the final outfall structure.

The village will begin adding alum to the system in June to try and meet new phosphorus limits.

Between January, 2008 and February, 2009 the village reported the following final effluent numeric violations: (2) dissolved oxygen, and (19) ammonia. During this same time period the following frequency violations were reported: (1) copper, (1) phosphorus, (1) mercury, (7) fecal coliform, (7) ammonia, (12) CBOD5, (12) suspended solids, and (2) nitrate / nitrite.

## Facility Inspection

Influent flows pass through the preliminary treatment system before being pumped to the swing basin. The swing basin also receives return flows from the filters. This tank is where most of the biological activities occur. Additionally the wasting line is located in this tank.

The membrane reactor tank is set on the following cycle: 10 minutes filter time (produce permeate), 2 minutes rest time (air scour), and 20 minutes cycle time (no permeate produced).

A solids concentration of 18,000 mg/l was being maintained within the system at the time of the inspection (no solids were removed over winter). The manufacturer recommended solids concentrations is approximately 10,000 mg/l.

## Facility Inspection (cont.)

Waste solids are passed through a thickener tank (this tank also uses filters to thicken). The solids are stored in a holding tank prior to being sent to the belt filter press.

Because the system uses filters for separation (larger solids concentration are maintained) they do not have the typical clear zones as part of the solids separation systems.

The Ultraviolet disinfection system at the plant has not been used during disinfection season (May through October) because the village currently meets final effluent bacteria limits without using it. This raised a question concerning the need to use the system to address other pathogens in the waste stream that are not normally monitored (assumed luxury kill). Currently the United States Geological Service (USGS) is conducting studies of this issue. Two contacts for these studies are USGS rep. Donna Francy [dfrancy@usgs.gov](mailto:dfrancy@usgs.gov) and C T Consultants rep. Terry Gellner [tgellner@ctconsultants.com](mailto:tgellner@ctconsultants.com). Until the results of these studies are completed and a determination has been made as to the need to disinfect effluent from MBR treatment systems, the approved disinfection system at the plant must be used during disinfection season to ensure complete treatment is being provided.

Flows are measured using an ultrasonic sensor and weir. Grab samples are collected at the post aeration tank. The post aeration system has not been run because the plant currently meets dissolved oxygen limits without it.

The final effluent to Spain Creek was clear. Minor white foam was noted. There were no solids deposits noted downstream of the outfall.

## Items requiring a response

1. Preliminary 208 facilities planning as required by the NPDES permit compliance schedule must be completed as soon as possible. A schedule for completion of this work must be submitted to this office by no later than April 27, 2009.
2. An update on the status of the village's legal efforts to recover sewer fees from the Village of Woodstock must be submitted to this office by no later than April 27, 2009.

## Items requiring a response (cont.)

3. A brief summary of the infiltration and inflow work completed to date must be submitted to this office. The summary should include work completed, estimated I/I removal volumes, and a bypass status (eliminated or remains) for any / all system bypass locations. This summary must be submitted by no later than May 29, 2009.
4. In order to support the SCADA operations oversight system the agency recommends that the village establish an internet connection at the treatment plant. This will allow plant and village personnel to monitor plant status from remote locations. Please provide a written response by no later than April 27, 2009 detailing the village's position / plans with respect to establishment of this level of oversight.
5. In order to provide more flexibility in terms of winter operations of the press building the agency recommends that the village establish better thermal controls (insulation and /or heating) in the building. Please provide a written response by no later than April 27, 2009 detailing the village's position / plans with respect to installation of additional thermal controls.
6. A summary report detailing the various freezing problems encountered at the plant over the past winter must be provided. The report must detail actions planned or taken to eliminate these problems in the future. This report must be submitted by no later than May 29, 2009.
7. In accordance with Ohio Revised Code 3745-7-02, "Certified Operator Required" written notification as to the Operator of Record in charge of the North Lewisburg waste water treatment plant must be submitted to this office by no later than April 27, 2009.
8. In accordance with Part II, item P "outfall signage" of the villages NPDES permit a sign needs to be placed at the final outfall structure. A schedule for completion of this work must be submitted to this office by no later than April 27, 2009.

## Items requiring a response (cont.)

9. The treatment system electrical control panels are all housed in the treatment plant office / control / lab building. A large amount of heat is generated by these panels. The buildings heating system is not used most of the time due to the amount of heat being generated. In order to protect the electrical components (especially during the summer months when heat dissipation is more difficult) the agency recommends establishing positive control systems (air conditioning, ventilation, etc.) within this building. Please provide a written response by no later than April 27, 2009 detailing the village's position / plans with respect to establishment of these controls.





Environmental  
Protection Agency

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



\*1PB0003920100301\*

CHAMPAIGN NORTH LEWISBURG WWTP

REYNOLDS, JOSEP 2010/03/01



**Environmental  
Protection Agency**

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

March 1, 2010

Mayor and Council  
Village of North Lewisburg  
9984 State Route 245  
North Lewisburg, Ohio 43060

**RE: Village of North Lewisburg Waste Water Treatment Plant / NPDES Permit  
Compliance Schedule Notice of Violation.**

Dear Mayor and Council:

Ohio EPA has reviewed your Electronic Discharge Monitoring Reports (EDMR's) for the period of January 1, 2009 through December 31, 2009. Our review indicates violations of your National Pollutant Discharge Elimination System (NPDES) permit (1PZ00023 / OH0108944). The specific instances of non-compliance are as follows:

<b>Date</b>	<b>Station</b>	<b>Parameter</b>	<b>Limit</b>	<b>Reported</b>
1/1/2009	001	Ammonia	0.7 mg/l	7.6 mg/l
1/1/2009	001	Ammonia	1.1 mg/l	14.2 mg/l
1/1/2009	001	Ammonia	1.1 kg/day	2.8 kg/day
1/1/2009	001	Ammonia	1.8 kg/day	3.6 kg/day
1/8/2009	001	Ammonia	1.1 mg/l	15.8 mg/l
1/8/2009	001	Ammonia	1.8 kg/day	7.4 kg/day
8/13/2009	001	Diss. Oxy.	7.0 mg/l	6.4 mg/l
8/14/2009	001	Diss. Oxy.	7.0 mg/l	6.2 mg/l
8/20/2009	001	Diss. Oxy.	7.0 mg/l	6.4 mg/l
9/3/2009	001	Diss. Oxy.	7.0 mg/l	6.7 mg/l
9/8/2009	001	Diss. Oxy.	7.0 mg/l	6.4 mg/l
10/1/2009	001	Phosphorus	0.6 mg/l	1.9 mg/l
10/1/2009	001	Phosphorus	0.9 mg/l	1.8 mg/l
10/8/2009	001	Phosphorus	0.9 mg/l	1.4 mg/l
10/15/2009	001	Phosphorus	0.9 mg/l	2.7 mg/l
10/22/2009	001	Phosphorus	0.9 mg/l	1.8 mg/l
11/1/2009	001	Phosphorus	0.6 mg/l	1.5 mg/l
11/1/2009	001	Phosphorus	0.9 mg/l	2.4 mg/l
11/8/2009	001	Phosphorus	0.9 mg/l	1.7 mg/l

Mayor and Council  
March 1, 2010  
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Date	Station	Parameter	Limit	Reported
11/15/2009	001	Phosphorus	0.9 mg/l	1.1 mg/l
11/22/2009	001	Ammonia	1.1 mg/l	1.2 mg/l
11/22/2009	001	Phosphorus	0.9 mg/l	0.94 mg/l
12/2/2009	001	Diss. Oxy.	7.0 mg/l	5.3 mg/l
12/7/2009	001	Diss. Oxy.	7.0 mg/l	6.4 mg/l

In addition to the final effluent limits violations noted above the Village is in non-compliance with their NPDES permit compliance schedule Part 1, C "Schedule of Compliance". Specifically, the Village has failed to comply with Item (A)(2), compliance with final effluent phosphorus limits and items (B)(1) and (B)(2), delineation of groundwater recharge to Spain Creek.

These violations have placed the Village in significant noncompliance with their NPDES permit. A written response detailing the actions being taken or proposed to eliminate and prevent further violations must be submitted to this office as soon as possible, but no later than April 12, 2010.

Finally, I understand treatment plant oversight is currently under the direct supervision of R.D. Zandy, Consulting Engineers. The attached operator of Record form must be completed by the waste water operator (at least a Class II certified operator) in responsible charge of day to day operations of the plant. If you have any questions, please call me at (937) 285 - 6097.

Sincerely,



Joseph Reynolds  
Division of Surface Water

cc: Andy Yoder, Village Administrator