



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

September 29, 2009

Mayor and Council  
Village of Rushsylvania  
P.O. Box 204  
Rushsylvania, Ohio 43347

**RE: Village of Rushsylvania WWTP Compliance Evaluation Inspection / Notice of Violation.**

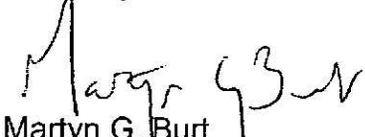
Dear Mayor and Council:

On September 22, 2009, Joe Reynolds conducted a Compliance Evaluation Inspection at the Rushsylvania waste water treatment plant, 235 East Mill Street. The inspection was conducted as part of a compliance review for the plant with respect to the terms and conditions of the National Pollutant Discharge Elimination System (NPDES) permit.

The findings from this inspection are included in the attached report. The report contains several items that require a response. Please provide a written response to these items by no later than the dates noted.

If you have any questions regarding the report, you may contact Joe Reynolds at (937) 285-6097.

Sincerely,

  
Martyn G. Burt  
Division of Surface Water

Enclosure

cc: Dave Wilson, Operator of Record





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
1PB00025	OH0020575	9/22/2009	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Village of Rushsylvania WWTP 235 East Mill Street Rushsylvania, Ohio 43347	9:30AM	7/1/2007
	Exit Time	Permit Expiration Date
	12:50PM	6/30/2012
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Dave Wilson, Operator of Record	(937) 935 - 1356	
Name, Address and Title of Responsible Official	Phone Number	
Mayor and Council Village of Rushsylvania P.O. Box 204 Rushsylvania, Ohio 43347		

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	N	Laboratory	N	Compliance Schedule
M	Operations & Maintenance	S	Effluent/Receiving Waters	M	Self-Monitoring Program
S	Facility Site Review	S	Sludge Storage/Disposal	N	Other
M	Collection System				

Section D: Summary of Findings (Attach additional sheets if necessary)	
See attached report.	
Inspector	Reviewer
Joseph Reynolds Division of Surface Water Southwest District Office	Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office
Date	Date
	9/30/09



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..... Y
- (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:

**Section E: Permit Verification**

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

Comments/Status:



**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.. N
- (c) All treatment units in service other than backup units..... Y
- (d) Operator holds unexpired license of class required by permit..... Y  
Class: I
- (f) Routine and preventative maintenance schedule/performed  
on time..... Y
- (g) Any major equipment breakdown since last inspection..... Y
- (h) Operation and maintenance manual provided and maintained..... N
- (i) Any plant bypasses since last inspection..... N
- (j) Regulatory agency notified of bypasses..... N/A  
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..... 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 N
- (k) Are any portions of the sewer system at or near capacity..... N

**Comments/Status:**

The plant does not have an alarm system. Major equipment breakdowns include the rotor gear reducers, a rotor motor short, the pinch valve automated feed system, and the automated chlorine feed system.



**Section H: Sludge Management**

- (a) Sludge management plan (SMP)  
Submitted date:                      Approval #:                      Not submitted     N/A
- (b) Sludge management plan current..... Y  
(c) Sludge adequately disposed..... Y  
(Method:haul to Indian Lake)  
(d) If sludge is incinerated, where is ash disposed of  
(e) Is sludge disposal contracted..... Y  
(Name:Use septage hauler to haul to Indian Lake)  
(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..... 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:**

**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 ..... N  
(Date of last calibration: 2006)  
(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:**



**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:**



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

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

**Comments/Status:**

**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:**



## Inspection Findings

National Pollutant Discharge Elimination System (NPDES) permit number 1PB00025\*ED was issued to the Village of Rushsylvania on May 24, 2007. The permit will expire on June 30, 2012.

Dave Wilson is a Class I certified waste water operator. The Rushsylvania WWTP is a Class I plant.

In accordance with recent rule changes to Ohio Administrative Code 3745 – 7 – 04 the Operator of Record for the Rushsylvania WWTP will need to meet the minimum staffing requirements (Class I operator of Record present at the plant 3 days per week, minimum 1.5 hours per week).

Additionally Ohio Administrative Code 3745 – 7 – 09 requires the Operator of Record to maintain an operators log at the plant. The operators log has been developed but it needs to be updated to comply with the rule. The log format is described in section (A) (3) of the rule (see attached).

An Operator of Record form needs to be completed and returned to the Ohio EPA Central office for the facility (see attached).

On November 6, 2006 Permit to Install number 563612 was issued to the village. This permit was for the following upgrades:

- Miami Road sewer and pump station improvements.
- Equalization pond upgrade.
- Oxidation ditch aeration / mixing upgrades.
- Clarifier splitter box.
- Equipment retrofits to existing clarifier.
- New secondary clarifier.
- New influent fine screen.
- New influent pinch valve.
- Aeration retrofits to sludge holding tank.
- New chlorine chemical feed system.

An operations and maintenance manual was developed as part of the recent plant upgrade. The manual needs to be updated to reflect actual operations.



## Inspection Findings (cont.)

Although the treatment system upgrade was mainly completed in 2008, there were several construction / operational issues that remained. Some of these issues include the following:

- Ground water was seeping into the clarifiers. Grouting work was performed. This work reduced the amount of seepage. Some ground water seepage was noted in off-line clarifier (number 1).
- The baffle / discharge weir system on the new secondary Clarifier was out of plumb. This was impacting skimmer performance. The system was realigned and a new rubber skimmer was added.
- The new chlorination / dechlorination system has not worked reliably. The system is scheduled to be replaced this fall with a new UV system (Permit to Install 711859). In the interim chlorine and bisulfite are being added manually.
- The rotor drive wells on the ditch were holding water. The wells have been regouted.
- There were issues associated with the splitter box evenly dividing flows between the two clarifiers. Baffles are being used to help evenly divide the flow. Only one clarifier is used during dry weather.
- The influent pinch valve restricts flows into plant to a maximum flow of 125 gpm. This limits the amount of wet weather flow that can be introduced directly into the plant. The village is looking at replacing the valve with a weir to allow more storm flow through plant. Influent samples may be impacted by flows that back-up as a result.
- The thermal capacitors on the clarifier drive motors were replaced. The motors continue to run warm. The manufactures reports this as a normal operating condition.

Low flows have helped in maintaining compliance. There have been no overflows from the lagoon in over three years.

The peak hourly treatment capacity has not been determined. This information will need to be developed to establish a storm mode operations procedure.

The treatment system is currently set up to treat 100,000 gpd through plant. Excess flows are diverted to the equalization lagoon. A third pump was added to the influent lift station (equalization return) to allow for more versatility in returning equalized flows to the plant.



## Inspection Findings (cont.)

The majority of the collection system was installed in the early 1940's. The system is made up of a combination of clay, concrete and PVC pipe. There is a lot of infiltration and inflow into the system. Some TV and smoke testing work has been performed. Mr. Wilson believes the County Road 9 sewer is a large contributor of clear water into the system. Down spouts and sumps are believed to be large contributors of infiltration and inflow as well.

A 40,000 gallon aerated sludge holding tank is available at the plant. This tank provides 6 months of storage. New diffusers were added to the tank as part of the plant upgrade. Liquid sludge is hauled to the Indian lake WWTP. In 2008, 4.63 dry tons of sludge was hauled to the Indian Lake WWTP.

A back-up generator is provided at the plant. The generator is run every Monday. The plant has been powered by the generator, but this is not part of the weekly exercise.

Between May, 2007 and July, 2009 the Village reported the following final effluent numeric limits violations: (6) fecal coliform, (9) chlorine, (4) ammonia, (2) CBOD5, and (3) suspended solids. During the same time period the following frequency violations were recorded: (75) flow, (15) suspended solids, (14) CBOD5, (2) ammonia, (16) pH, (9) dissolved oxygen, and (1) phosphorus. In 2009 (through July, 2009) no violations any type have occurred.

## Facility Inspection

The equalization lagoon was empty. Brush was growing up on the sides of the lagoon.

The sludge holding tank was being aerated at the time of the inspection. The aeration is run 25 minutes per hour summer, and continuous in the winter. Decant is returned to the equalization lagoon for return to the head of the plant.

Influent flows receive preliminary treatment through a fine screen with conveyor. There is an 8' weir that parallels the inlet channel. Excess flows are diverted over this weir to the equalization lagoon. In order to eliminate a bottle neck associated with the pinch valve, Mr. Wilson would like to replace the pinch with a weir.



## Facility Inspection (cont.)

The oxidation ditch was chocolate brown. A small amount of nocardia foam was noted on the surface. Only one rotor was being used. A new bracket was made to raise one of the rotors (reduce amount of mixing). A similar bracket will be made for the second rotor.

Only one of two clarifiers was on-line (low flow). A small amount of pin floc solids were noted in the tank. Some preliminary solids were noted in the tank. The effluent was clear. There were some solids in the effluent trough.

The old chemical chlorination / dechlorination system is being used until the new UV system is installed (some time before next disinfection season). The system is manually adjusted. The bottom of the chlorine contact tank was visible throughout the system.

The final effluent was clear. No foam or solids noted in the effluent channel.

### Items requiring a response

1. In order to address the on-going issues associated with infiltration and inflow (I/I) into the collection system, the village needs to establish an on-going program to identify and eliminate sources of I/I. One of the focuses of the program should be to develop resources (both financial and technical) that can be used to support in the elimination of residential sump and down spout connections. An preliminary schedule, with specific action dates, for the development of such a program must be submitted to this office by no later than January 18, 2010.
2. Stress testing of the plant needs to be performed in order to determine what the peak hourly treatment capacity of the various units is. This information can be used to establish a written protocol for storm mode operations. A preliminary schedule for performance of this testing must be submitted to this office by no later than January 18, 2010.
3. The attached Operator of Record (ORC) Notification Form must be completed and returned to Ohio EPA, at the address noted, by no later than October 19, 2009. A copy of the notification should be submitted to the Ohio EPA Southwest District Office, 401 East Fifth Street, Dayton, Ohio 45402.



## Items requiring a response (cont.)

4. The operator log books at the facility must be updated to meet the requirements of OAC 3745-7-09 (A) (see attached). Written verification as to the completion of this update must be provided by no later than October 19, 2009.
5. A written response detailing the circumstances that resulted in the large number of frequency violations (the majority occurred in September, October, and November, 2007) must be submitted to this office by no later than October 19, 2009.
6. An evaluation as to cause and corrective actions to prevent preliminary solids from being diverted around fine screen must be performed. An update, detailing the findings of this investigation and the corrective action(s) taken or proposed must be submitted to this office by no later than January 18, 2010.
7. The Operation and Maintenance manual for the plant must be updated to reflect current plant operations. This update can proceed the plant stress testing, and should be scheduled as such. A preliminary schedule for submittal of this update must be provided by no later than January 18, 2010.
8. Representative sampling of the plant influent must be established as soon as possible. Written verification as to the completion of this work must be provided by no later than November 2, 2009.
9. In order to protect the integrity of the lagoon liner weeds and brush that develop on the banks of the lagoon should be removed immediately. A written update as to the completion of this work must be provided by no later than November 2, 2009.
10. A preliminary schedule for development of a alarm system to notify plant personnel of power and equipment failures at the plant must be submitted to this office by no later than January 18, 2010.
11. The plant flow meter must be calibrated on an annual basis. Written verification as to the completion of this calibration must be provided by no later than November 2, 2009.





**Operator of Record (ORC) Notification Form**

Ohio Environmental Protection Agency  
 Division of Drinking and Ground Waters  
 Operator Certification Unit  
 50 West Town St, Suite 700  
 P.O. Box 1049  
 Columbus, OH 43216-1049

Phone: (614) 644-2752  
 1- 866 - 411-OPCT (6728)  
 Fax: (614) 644-2909  
 email: opcert@epa.state.oh.us  
 website: www.epa.state.oh.us/ddagw/opcert.html

**I. SYSTEM INFORMATION**

Name of System: \_\_\_\_\_ Phone Number: \_\_\_\_\_  
 PWS ID/NPDES Permit #: \_\_\_\_\_ STU # \_\_\_\_\_ Classification: \_\_\_\_\_  
 \_\_\_\_\_  
 Name of Facility Owner or Permittee, Title (Print) Facility Owner or Permittee (Signature)

**II. SYSTEM TYPE (Check only one of the following. Use additional sheets if necessary.)**

Public Water System (PWS)	Distribution System	Treatment Works	Collection System

**III. OPERATOR OF RECORD INFORMATION**

Add Additional(A), New (N) or Remove(R)	Name of Operator of Record	Certification Number & Expiration Date	I verify that I am the onsite certified operator responsible for the technical operation of the above referenced facility. (Signature of certified operator)*

\* A signature by an operator of record who is being removed is not required.  
 (Attach additional sheets if necessary.)

Amount of time an ORC spends onsite at the Facility: \_\_\_\_\_

For Internal Use Only	
Reviewed by:	Date of SDWIS update:
Date of Compliance Status Letter:	



3745-7-09      **Recordkeeping requirements and responsibilities of a certified operator.**

(A) The owner and operator of record of a public water system, treatment works or sewerage system shall maintain or cause to be maintained operation and maintenance records for each public water system, water treatment plant within a public water system, treatment works, or wastewater treatment facility within a treatment works. Some of the formats in which the records may be maintained include, but are not limited to, hard bound books with consecutive page numbering, time cards, separate operation and maintenance records, or well organized computer logs.

(1) The records shall be housed and maintained in such a manner as to be protected from weather damage and guarantee the authenticity and accuracy of the records contained within.

(2) The records shall be accessible onsite for twenty-four hour inspection by agency or emergency response personnel.

(3) At a minimum, the following information shall be recorded:

(a) Identification of the public water system, sewerage system, or treatment works;

(b) Date and times of arrival and departure for the operator of record and any other operator required by this chapter;

(c) Specific operation and maintenance activities that affect or have the potential to affect the quality or quantity of sewage or water conveyed, effluent or water produced;

(d) Results of tests performed and samples taken, unless documented on a laboratory sheet;

(e) Performance of preventative maintenance and repairs or requests for repair of the equipment that affect or have the potential to affect the quality or quantity of sewage or water conveyed, effluent or water produced; and

(f) Identification of the persons making entries.

(4) The records shall be kept up to date, contain a minimum of the previous three months of data at all times, and be maintained for at least three years.



(B) A certified operator shall:

- (1) Perform their duties in a responsible and professional manner consistent with standard operating procedures and best management practices;
- (2) Operate and maintain public water systems, sewerage systems, treatment works, and appurtenances so as not to endanger the health or safety of persons working in or around the facility, the public at large, or the environment due to negligence or incompetence; and
- (3) Report all instances of noncompliance with applicable regulations to the operator of record or facility supervisor.

(C) The duties of an operator of record shall include, but not be limited to, those outlined in paragraphs (B)(1) to (B)(3) of this rule and the following additional duties and responsibilities:

- (1) Responsible and effective on site management and supervision of the technical operation of the public water system, treatment works, or sewerage system;
- (2) Immediately notifying the permittee or owner of a public water system, sewerage system, or treatment works, and ensuring the agency and, if applicable, the local regulatory agency, is notified of items that require notification in accordance with sections 6109. or 6111. of the Revised Code, the rules adopted thereunder, or the facility's NPDES permit; and

(D) In the event that there are issues related to paragraphs (A) to (C) of this rule that are within the area of responsibility of, but beyond an operator of record or a certified operator's ability to address, it shall be the operator's responsibility to document any efforts to rectify the problem.

Effective: 12/21/2006

R.C. 119.032 review dates: 12/21/2011

Promulgated Under: 119.03

Statutory Authority: RC Sections 6111.46, 6109.04

Rule Amplifies: RC Sections 6111.46, 6109.04

