



Environmental  
Protection Agency

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

File Copy:  
Joe Reynolds

September 6, 2011

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 1, 2011, 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*FD	OH0020575	9/1/2011	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Village of Rushsylvania WWTP 235 E. Mill Street Rushsylvania, Ohio	9:30 AM	8/1/2010
	Exit Time	Permit Expiration Date
	11:30 AM	6/30/2012
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Dave Wilson, Operator of Record Mike Hodge, maintenance assistant	(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
S	Records/Reports	N	Laboratory	N	Compliance Schedule
S	Operations & Maintenance	S	Effluent/Receiving Waters	S	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	
	9/6/11		9/6/11
Joe Reynolds	Date	Martyn Burt	Date
Division of Surface Water		Compliance & Enforcement Supervisor	
Southwest District Office		Division of Surface Water	
		Southwest District Office	

## Inspection Findings

The Village of Rushsylvania currently holds National Pollutant Discharge Elimination System (NPDES) permit number 1PB00025\*FD. The permit was issued on May 12, 2010 and will expire on June 30, 2012. An NPDES renewal application will need to be submitted 180 days prior to the permit expiration date.

The treatment systems consist of the following units: Bar screen, fine screen, flow equalization, oxidation ditch, clarification, UV disinfection, post aeration, and aerobic sludge digestion.

The waste water treatment plant is designed to treat an average daily flow of 0.1 million gallons. Flows above 0.1 MGD are diverted to a flow equalization lagoon.

The "Operator of Record" for the plant is Dave Wilson. In the spring of 2011 the village hired Mike Hodge to help with plant operations and minimum staffing requirements. There are no alarm systems at the plant to notify staff of power failures or system bypassing.

Mr. Wilson has been working to improve treatment plant performance after the latest plant upgrade. Improvements he has made include the replacement of the chlorine disinfection system with UV disinfection, new brackets on the oxidation ditch rotors, and relocation / removal of the oxidation ditch access bridges. Projects Mr. Wilson is working on include: replacement of the influent pinch valve with a weir, and the addition of a recirculation pump in the final tank to improve plant flows in the winter (reduce plant freezing).

Mr. Wilson also has been working to remove Infiltration and Inflow (I/I) sources from the collection system. This work has included the installation of new storm piping and a sewer lining project. New culverts were installed on Miami Street. Jet cleaning of part of the system was performed for the first time in several decades. The county road 9 area has been identified as a potential source of infiltration and inflow.

The village currently produces Class B sludge. Sludge is aerobically digested. Sludge is hauled from the treatment plant to the Indian Lake Water Pollution Control plant for final processing and disposal. Approximately 30,000 gallons is hauled from the plant once per year.

Between January 1, 2010 and July 1, 2011 the village reported 3 final effluent limitation violations. These violations include: 1 fecal coliform and 2 ammonia.

## Facility Inspection

Influent samples are collected before the coarse bar screen. The sampler tubing needs to be cleaned or changed.

The influent channel tends to collect debris. Low flows, flow restrictions, and shallow slope contribute to the problem.

The preliminary treatment system includes a bar screen followed by an automatic fine screen with screw conveyor. The influent channel has a weir that direct flows over 100,000 gallons to the equalization lagoon.

After the preliminary treatment system flow passes through a pinch valve. This valve restricts the peak flows going to the plant. Mr. Wilson plans on replacing this valve with a weir later this year.

After the pinch valve there is an influent flow meter (parshall flume with sonic sensor). This meter was designed to control the pinch valve. It is no longer used for this purpose.

Next, flow enters the oxidation ditch. The mixed liquor was chocolate brown (3,000 to 3,500 mg/l). Minor amounts of nocardia foam were floating on the surface. One of two rotors was being used at the time of the inspection.

Flows from the ditch enter a splitter chamber (weir with slide gate) where flow can be divided between the two clarifiers. This chamber is located on a bend in the ditch which makes it difficult to evenly divide flow and maintain the splitter box.

There are two secondary clarifiers. Only one is used at a time due to low flows. The clarifier effluent trough tends to hold water. Low flows have contributed to freeze issues in the clarifiers. The scum scrapers are removed in winter to prevent damage to the scraper motors. The effluent was clear. Pin floc solids were being carried over the effluent weir.

From the secondary clarifiers flows go to the UV disinfection system. There are three banks of light in the system. The effluent was clear, no foam. Duck weed was noted in the final channel. A two inch recirculation pump was being added to the tank to allow for flow to be returned to the oxidation ditch in an attempt to reduce freezing during the winter.

A V-notch weir and sonic sensor is used to record final effluent flows. This structure is located at the end of the post aeration basin.

The final effluent was clear, no foam. The final effluent sampler is located on top of the final effluent pipe. The sampler did not have a thermometer in it.

## Items Requiring a Response

1. A brief update, which summarizes Infiltration and Inflow work completed in the last two years, must be submitted to this office by no later than October 24, 2011.
2. Please provide an updated review of the user charge system for the village. Consideration should be given to the changes in staffing and work being performed on the collection system and at the plant. The Ohio EPA "Division of Environmental and Financial assistance ((614) 644 - 2798) may be used as a resource for the review and update of this information. The updated information must be submitted by no later than December 5, 2011.
3. The tubing on the influent sampler needs to be cleaned or replaced. Thermometers should be maintained in the influent and effluent samplers. Written verification as to the completion of these items must be provided by October 24, 2011.
4. An outfall sign must be placed at a location downstream of the final outfall visible to the public. The marker shall consist at a minimum of the name of the establishment to which the permit was issued, the Ohio EPA permit number, and the outfall number and a contact telephone number. The information shall be printed in letters not less than two inches in height. The marker shall be a minimum of 2 feet by 2 feet and shall be a minimum of 3 feet above ground level. The sign shall not be obstructed such that persons in boats or persons swimming on the river or someone fishing or walking along the shore cannot read the sign. Vegetation shall be periodically removed to keep the sign visible. Written verification as to completion of this work must be provided by October 24, 2011.
5. A preliminary schedule for the development of an alarm system to notify plant personnel of power failures and system bypassing at the plant must be submitted to this office by no later than October 24, 2011.