



State of Ohio Environmental Protection Agency

**Southeast District Office**

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Logan, Ohio 43138

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

May 24, 2007

**Re:** Pike County  
Village of Piketon  
Ohio EPA Permit No. OPB00031\*ED  
NPDES Permit No. OH0027031  
Correspondence (PWW)

Mayor Bill Spencer  
Village of Piketon  
109 Third Street  
Piketon, Ohio 45661

Dear Mayor Spencer:

On Tuesday, April 3, 2007, Aaron Pennington and I conducted a compliance evaluation inspection at the Piketon Waste Water Treatment Plant (WWTP) located on Old Jasper Road. Mike Shaw represented the village and assisted us during the inspection. The purpose of the inspection was to determine if the treatment plant was meeting the terms and conditions set forth in the NPDES permit.

The following were concerns that arose during the inspection.

1. The grit removal chamber has several deficiencies, as noted in previous inspection letters and on-site discussions. These deficiencies remain unresolved and need to be addressed as soon as possible. The first issue is associated with the design and flow pattern of the chamber. The chamber is designed to route the influent flow to a motorized screen arm to remove the majority of large solids and then to the manual bar screen before discharging into the wet well. The current design does not maintain the intended flow pattern during high flow events, allowing influent wastewater to over flow into the second channel and into the wet well without passing through the motorized bar screen. The second problem is with the motorized bar screen arm. The motor used to operate the mechanical bar screen is not submersible, yet the motor is mounted on the rake which runs up and down the rails into the grit chamber. Because of this, during high flow events the mechanical bar screen must be shut down to prevent damage to the motor. These two issues combined allow substantial amounts of solids to pass into the wet well and then into the primary clarifiers.

In order to maintain a workable water level in the grit chamber, the village installed a sluice gate on the in-coming sewer main. The purpose of the gate was to restrict the influent flow during high flow events and effectively use the large sanitary sewer main just upstream of the WWTP as an equalization basin. I gave my verbal consent for the use of the sluice gate as a temporary measure with the promise of a more engineered flow equalization system in the near future. No such flow equalization system has

been proposed to date. The village cannot continue to use the sluice gate as a flow equalization system for an extended period of time. Several aspects of this approach adversely impact the operation of the WWTP. During times when the sluice gate is lowered to equalize the flow, large solids deposit in the sanitary sewer main upstream or the WWTP, diminishing the capacity of the sewer line. Also, when waste water is retained in the sanitary sewer main for too long the waste water begins to become septic. Septic waste water is low in dissolved oxygen and inhibits the treatment capability of your WWTP. In your response, explain how the village intends to correct this situation.

2. During the inspection, the north primary clarifier appeared to be receiving proportionately more flow than the south primary clarifier. This was resulting in the hydraulic overloading of the north primary clarifier. Take action to evenly distribute the flow to both primary clarifiers immediately.
3. The stilling well for the north primary clarifier was in a state of disrepair and tilted in a way to allow collected solids to escape into the clarifier. Immediately repair/replace the stilling well in the north clarifier.
4. The wet well pumps for the secondary clarifiers are inadequately sized. Per 10 States Standards, one of the two pumps should be able to pump the peak flow if the other is out of service. Currently, neither of the two existing pumps is capable of pumping the peak flows experienced at the Piketon WWTP. In your response to this letter, inform this office of the steps Piketon is going to take to correct this situation.
5. The stilling wells in both secondary clarifiers were in a state of disrepair. Immediately repair/replace the stilling wells in the secondary clarifiers.
6. The recycle valve for the south trickling filter was inoperable and stuck in the closed position at the time of my inspection. Repair/replace this valve immediately.
7. Floating solids were visible on the surface of the chlorine contact basin. This has been mentioned in previous inspection letters. Immediately clean the chlorine contact basin of all residual solids. Also, develop a schedule to clean the chlorine contact basin on a regular basis.
8. During my inspection, I noticed what appeared to be the chlorine and dechlorination distribution lines running from the chlorination building and crudely mounted to the grate and rail outside of the building. Mike stated that the lines had been plumbed in this fashion after a problem occurred with the original setup. The chemical feed for both the chlorine and dechlorination need to be re-plumbed to the approved plans immediately.
9. At the time of my inspection, one of the sludge pumps for the digester was out of service. The sludge pump needs to be repaired/replaced immediately.

10. After review of the Monthly Operating Report (MOR) data for the time period of January 2004 to January 2007, the following violations of your NPDES Permit occurred. During the following months the Piketon WWTP failed to attain 85% removal of Total Suspended Solids (TSS) from the influent waste stream: January, February, March, April, May, June, July, August, October and November 2004; January, April, May, June and October 2005; and March 2006. During the following months the Piketon WWTP failed to attain 85% removal of Carbonaceous Biochemical Oxygen Demand (CBOD) from the influent waste stream: January, February, March, April, May and June 2004; and April 2005.

As part of your response to this letter, inform this office as to the reasons for the above referenced violations, as well as a description of the actions taken or proposed to prevent any further violations. Your response should include the dates, either actual or proposed, for completion of the actions.

11. During the inspection and several previous conversations, it was stated that the Village of Piketon has not taken any action to locate or repair sources of Inflow/Infiltration (I/I) in the sanitary sewer collection system. Within six (6) months of receipt of this letter, prepare and initiate a study plan for the Piketon Sanitary Sewer System to determine and prioritize sources of I/I for repair. Within twelve (12) months of receipt of this letter begin construction work to repair identified sources of I/I in the collection system.

A copy of our inspection form is enclosed with this letter. Please submit a written response to the above comments within 45 days of receipt of this letter. If you have any questions or comments, please contact me at (740) 380-5226.

Sincerely,



Patrick Hudnall  
District Representative  
Division of Surface Water

PH/dh

Enclosure

- c: Village Council
- c: Ronda Clemmons, Village Administrator
- c: Mike Shaw, Operator
- c: Jennifer Chandler, Pike Co. Community & Economic Development

**NPDES**  
Compliance Inspection Report

**A. NATIONAL DATA SYSTEM CODING**

Permit No.	NPDES No.	Date	Inspection Type	Inspector	Facility Type
0PB00031	OH0027031	April 3, 2007	C	S	1

**B. FACILITY DATA**

Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Piketon WWTP	10:00 am	July 1, 2006
	Exit Time	Permit Expiration Date
	12:30 pm	June 30, 2011

Name(s) and Title(s) of On-Site Representative(s)	Phone Number(s)
Mike Shaw, Operator	740-289-8154
Name, Address and Title of Responsible Official	Phone Number
Mayor and Council	740-289-8154

**C. AREAS EVALUATED DURING INSPECTION**

<u>S</u> Permit	<u>S</u> Flow Measurement	<u>N</u> Pretreatment
<u>S</u> Records/Reports	<u>S</u> Laboratory	<u>S</u> Compliance Schedules
<u>M</u> Operations & Maintenance	<u>S</u> Effluent/Receiving Waters	<u>S</u> Self-Monitoring Program
<u>M</u> Facility Site Review	<u>S</u> Sludge Storage/Disposal	<u>   </u> Other
<u>M</u> Collection System		

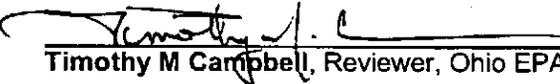
(S = Satisfactory; M = Marginal; U = Unsatisfactory; N = Not Evaluated)

**D. SUMMARY OF FINDINGS/COMMENTS (attach additional sheets if necessary)**

See attached inspection letter

  
 \_\_\_\_\_  
 Patrick Hudnall, Inspector, Ohio EPA, Southeast District Office

5/24/07  
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 Date

  
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 Timothy M Campbell, Reviewer, Ohio EPA, Southeast District Office

5/24/07  
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 Date