



State of Ohio Environmental Protection Agency

Northeast District Office

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Twinsburg, Ohio 44087

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

April 28, 2009

RE: WAYNE COUNTY  
CITY OF WOOSTER  
NPDES# 3PD00013

**NOTICE OF VIOLATION**

**CERTIFIED MAIL**

Mayor Robert Breneman  
City of Wooster  
1020 Old Columbus Road  
Wooster, Ohio 44691-4618

Dear Mayor Breneman:

On April 1, 2009, this writer, accompanied by Dean Stoll of this office met with you and Mr. Jim Borton to conduct an inspection of the wastewater treatment plant serving the City of Wooster (City). The intent of the inspection was to discuss compliance issues at the wastewater treatment plant and learn about a new additive to the wastewater treatment process called Archaea by Arkea Solutions, Inc. The inspection of the wastewater treatment plant revealed the following:

- 1) We are aware the City began adding the Archaea: Arkea Substrate on March 17, 2009 with hopes of aiding with plant compliance and sludge settleability. According to representatives from Archaea Solutions, Inc, it may take up to 6 weeks for the wastewater treatment plant to respond to the course of treatment. The substrate is added at vertical loop reactor pass #1.
- 2) The City is evaluating additional treatment for the high strength wastewater received from Frito Lay, Inc. However, no formal General Plan or Permit-to-Install application has been submitted to our office for review. Mr. Borton stated the flow and concentration of CBOD and COD from the Frito Lay discharge has not changed in the last 5 years. However, the influent organic loading to the wastewater treatment plant has increased 3,000 to 4,000 lb/day. Mr. Borton stated there is not one specific cause identified. Further, Mr. Borton stated that during this period, a leaking effluent pipeline, which was preventing wastewater from reaching the flow meter, had been replaced. Mr. Borton stated the influent load may have been there but was masked because it was leaking before getting to the meter; however, this would not account for the entire 4,000 lb load. Please provide more detail on the location of this leaking line and how it would impact influent loadings.
- 3) We were informed that the treatment plant had been operating in the "cannibal" operation mode since March 25, 2009. The operational mode change had not been reported to this office. This office must be notified of any future significant operational changes while the plant remains in noncompliance.
- 4) During the inspection, it was noticed the sludge return lines were out of service. It is our understanding the sludge return pump went down on March 27, 2009 and was discovered by an operator the morning of April 1, 2009. Please provide an explanation to this office as to why this incident was not immediately discovered.

The sludge return pump failure inhibited solids removal from the final clarifiers. As such, the final clarifiers had floating solids and scum on the tank surface and throughout the weirs. The total suspended solids coming off the final clarifiers was checked the day of the inspection and the final (combined) was 49.6 mg/l.

Mr. Borton notified this writer that the sludge blanket dropped in the clarifiers and the total suspended solids dropped to 20 mg/l within two hours after the inspection (early afternoon). The sludge bulking and total suspended solids continued to fall throughout the rest of the day. The SCADA programmer was present during the inspection to get the sludge return pumps online. The SCADA programmer worked on the bug in the program to prevent the problem from happening in the future.

- 5) A summary of the City of Wooster's wastewater treatment plant discharge violations for outfall 001 for the month of March 2009 is shown below:

Reporting Period	Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
March 2009	001	80082	CBOD 5 day	30D Qty	284	702.264	3/1/2009
March 2009	001	80082	CBOD 5 day	30DConc	10	13.7619	3/1/2009
March 2009	001	80082	CBOD 5 day	7D Qty	426	2998.81	3/8/2009
March 2009	001	80082	CBOD 5 day	7D Conc	15	49.	3/8/2009
March 2009	001	00300	Dissolved Oxygen	1D Conc	5.0	3.9	3/8/2009
March 2009	001	00300	Dissoived Oxygen	1D Conc	5.0	4.8	3/9/2009
March 2009	001	00610	Nitrogen, Ammonia (NH3)	7D Qty	191	199.143	3/8/2009
March 2009	001	00530	Total Suspended Solids	30D Qty	455	2027.56	3/1/2009
March 2009	001	00530	Total Suspended Solids	30DConc	16	37.5217	3/1/2009
March 2009	001	00530	Total Suspended Solids	7D Qty	682	10109.6	3/8/2009
March 2009	001	00530	Total Suspended Solids	7D Conc	24	163.5	3/8/2009

According to the 24 hour non-compliance reports submitted to our office, the plant was operating in the contact stabilization mode during the month of March 2009. The reports also indicated the plant experienced a significant rain event on March 8, 2009 and additional rain on March 10, 2009. These rain events, in conjunction with the ongoing sludge settleability issue caused the secondary clarifiers to bulk and discharge excessive solids and therefore resulted in a Dissolved Oxygen sag. As referenced above, the City began adding Arkea additives on March 17<sup>th</sup> to address the overload conditions.

In addition, Siemens Water Technologies was contacted by the City to review and evaluate current plant operations. Due to continuing compliance issues, this office requests a copy of the evaluation report from Siemens Water Technologies

- 6) In summary this office is requesting the following items be submitted in response to the above noted inspection:
- a. A leaking effluent pipeline, which was preventing wastewater from reaching the flow meter, had been replaced. Please provide more detail on the location of this leaking line and how it would impact influent loadings.

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- b. Please provide an explanation to this office as to why the sludge return pump failure was not immediately discovered.
- c. Please submit a copy of the evaluation report to be completed by Siemens Water Technologies.

These items should be submitted in the next effluent violation monthly summary report to be submitted in May 2009.

If you have any questions or comments regarding this letter, please contact this office at (330) 963-1299.

Respectfully,



Laura A. Weber, P.E.  
Environmental Engineer  
Division of Surface Water

LAW/mt

Attachment: Violation lists

- cc: Jim Borton, Utilities Manager, City of Wooster  
Wayne County Health Dept.
- ec: Rich Blasick, P.E., Ohio EPA, DSW, NEDO  
Virginia Wilson, P.E., Ohio EPA, DSW, NEDO  
Larry Reeder, Ohio EPA, DSW Enforcement, Central Office  
Bill Fischbein, Ohio EPA, Legal

