



State of Ohio Environmental Protection Agency

Northeast District Office

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
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July 13, 2009

RE: BELOIT WWTP
NPDES PERMIT NO. 3PB00005
FFY 2010 CEI

Village of Beloit
Board of Public Affairs
P.O. Box 276
Beloit, OH 44609

Ladies and Gentlemen:

On July 7, 2009 this writer conducted a Compliance Evaluation Inspection (CEI) of the Beloit POTW. The intent of the inspection was to evaluate the condition and compliance status of the treatment plant. Representing the village during the inspection were Rodney Sturn, Kristine Shoemaker and Terry Coburn of United Water.

The condition of the treatment system was unsatisfactory at the time of the inspection. Following are observations made during the inspection.

1. The aeration tanks were septic at the time of the inspection. The contents of the tanks were black indicating septic conditions. No air was being provided to the Chicago system and insufficient air was being provided to the Aero-mod system. Upon inspection of the blowers, none of the blowers for the Chicago System were operating. Mr. Coburn activated the blowers soon after his arrival. No reason for the blowers being out of service was apparent to the village. Of the four blowers available for the Aero-mod System, only two were operational at the time of the inspection. It appeared that the air provided by the two blowers was insufficient to maintain a necessary oxygen level in the Aero-mod tanks. Of the remaining two blowers, both required repairs.
2. According to Mr. Coburn, the remote alarm system does not notify him when blowers are out of service. The remote alarm system should be updated to include notification when the blowers fail to operate.
3. The condition of the clarifiers in the Chicago system was unsatisfactory. The south clarifier had significant scum and debris on the surface and the weirs. The material appeared to be so thick that the surface of the debris was dry. The north clarifier also had debris on the surface and at the weirs. The clarifiers appeared as though the time period between cleaning was excessive.



4. The influent bar screen for the Chicago System was blocked by rags and debris. The influent weir was close to overflowing at the time of the inspection. It appeared that the screen had not been cleaned for several days.
5. An inspection of the receiving stream identified sludge deposits and heavy growth of sewage fungus. The water being discharged to the stream was black with a septic odor. The appearance of the stream indicated to this writer that the treatment plant was discharging septic wastewater for several days.

Be advised that the presence of sludge in the receiving stream again placed Beloit in violation of Ohio Administrative Code 3745-1-04(A) at the time of the inspection. This is the second year that the condition of the receiving stream was unsatisfactory as a result of sewage sludge deposits. The presence of the black water also places Beloit in violation of Ohio Administrative Code 3745-1-04(C)

6. The condition of the treatment plant appears to be in need of significant repair or replacement. In addition, Beloit was notified in the FFY 2008 inspection letter that the village will be required to upgrade the wastewater treatment system to remove phosphorus limit. The upgrades will include tertiary filters and chemical addition. A final phosphorus limit will be provided to the village in the near future when the NPDES Permit is renewed.

Because of the condition of the treatment plant and the plant upgrades for phosphorus removal, it is recommended that the village begin to plan for the financial obligations the upgrades will require. The village should review its sewer rates to determine if the current rates are adequate. The village may also consider a gradual increase in the sewer rates over the next three years so as to provide adequate finances for the plant upgrades.

Compliance Review

The compliance data submitted by the village was reviewed for the period covering December 2007 through June 2009. Following are limit violations of the NPDES Permit identified for the review period.

Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
001	Total Suspended Solids	7-Day Conc.	45	79.	2/1/2008
001	Total Suspended Solids	30-Day Loading	22	23.8076	2/1/2008
001	Total Suspended Solids	7-Day Loading	33	100.400	2/1/2008

In addition to the limit violations, the following violation of the compliance schedule contained in Part 1.C of the NPDES Permit was identified.

<u>Permit Effective Date</u>	<u>Permit Expiration Date</u>	<u>Schedule Milestone</u>	<u>Schedule Due Date</u>
11/1/2005	10/31/2010	Eliminate Clean Water Connections	11/1/2007

Be advised that violations of the NPDES Permit are subject to enforcement action per Ohio Revised Code (ORC) 6111.

Necessary Action

Because of the condition of the treatment system and receiving stream, the village must take the following actions.

1. The village completed smoke testing in April 2008 and submitted the final report of findings to this office in July 2008. However, the report did not include a detailed schedule for the removal of the clean water sources identified in the report. The schedule was not to extend beyond October 2008.

A review of the operating data for the POTW shows that flow continues to be highly effected by precipitation events in the village. Daily flow rates can range from 60,000 gpd to over 300,000 gpd. The village must continue to locate and eliminate sources of inflow and infiltration.

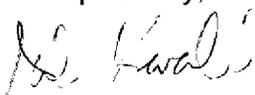
The village must provide a response to this inspection report which provides an update on the status of the street addresses and manhole locations identified as a source of inflow and infiltration to the Beloit POTW. The response must provide the status of each home address and manhole location identified in the April 2008 rehabilitation study report.

2. The village must provide a report indicating the cause for the plant upset identified on July 7, 2009. The response must include, but not be limited to, the cause for the septic conditions on the aeration tanks, the cause for the blowers associated with the Chicago System to be out of service, the cause for the influent screen to the Chicago System to be obstructed, and the cause for septic water to be discharging into the EQ Tank during a dry period. The response must also provide a schedule for repairing the blowers for the Aero-mod system such that all four blowers are operational.

3. The village must provide a response to this inspection report which provides a commitment of the village to incorporate the blower operation into the auto-dialer system. The village and its contractor must be provided notification when the blower systems are out of service. The response must include a date for incorporating the blowers into the auto-dialer system.
4. The village must begin to plan for plant upgrades. The plant is aging and in need of upgrades. In addition, the plant will require upgrades to comply with the future permit limits. Plant upgrades will be addressed in the next permit; however, the village must begin now to prepare finances for future upgrades.
5. When the wastewater treatment plant is upset in any way, is discharging effluent that is sub-par, or is bypassing from the equalization tank, the village must collect composite effluent samples to demonstrate effluent quality. Any time the plant is upset or bypassing, samples of the effluent must be collected to demonstrate impacts on the receiving stream. This procedure is a condition of the Part III, Item 12 of the NPDES Permit. Failure to comply with the condition of the permit is considered a violation of Ohio Revised Code 6111.07.
6. This writer again recommends that a meeting be scheduled with the Board of Public Affairs to discuss these issues. It is also again recommended that quarterly meeting be held between this writer and the Board of Public Affairs to discuss progress on the required actions. Please contact this writer to schedule the first meeting. This recommendation was made in the previous inspection report.

You may contact this writer at (330) 963-1251 to discuss any questions you may have.

Respectfully,



John Kwolek
District Engineer
Division of Surface Water

JK/mt

cc: Terry Coburn, United Water
Kristine Shoemaker, Chairperson, Board of Public Affairs