

**Environmental
Protection Agency**

Tim Emmons, Governor
Les Fisher, Lt. Governor
Dana Kolesik, Director

July 22, 2010

RE: CITY OF MASSILLON WWTP
NPDES 3PE00007
2010 PRE-PERMIT CEI

Mayor and Council
City of Massillon
One James Duncan Plaza
Massillon, OH 44646

Dear Mayor and Council:

On July 13, 2010, Dean Stoll and this writer conducted a pre-permit compliance evaluation inspection (CEI) of the City of Massillon Wastewater Treatment Plant (WWTP). Present during the inspection were Keith Bledsoe, Manager, and Tony Ulrich, Operations Superintendent, Massillon Wastewater Treatment Department.

The existing sewage treatment system consists of influent pumping, barscreen, grit removal, flow equalization, primary sedimentation, roughing towers, aeration tanks, secondary clarification, tertiary sand filters and ultraviolet disinfections. The sludge treatment units consists of sludge blending and mixing tank, gravity belt thickener, anaerobic digestion, mechanical dewatering, a belt filter press and cake sludge storage. The system discharges to the Tuscarawas River.

At the time of the inspection, the treatment system was producing what appeared to be a satisfactory quality effluent. The final effluent did have a slight brown tint. Tony Ulrich stated that this tint was noticed and maybe due to the paper recycling industry that uses the plant. Please submit a written explanation of the cause of the brown tint to the final effluent.

The mixed liquor in the aeration tanks had a very good color. The final clarifiers appeared to be producing satisfactory quality effluent. The weirs in the clarifiers were covered to reduce algae. The digesters and belt filter press appeared to be working properly.

The rapid sand filters were producing a clear effluent, but remain problematic. Each of the three filter cells must be taken off line every four weeks so that they can be cleaned. The filters are bypassed daily with a few million gallons of secondary effluent being bypassed around the sand filters. The filters were discussed and it appears that the sand filters cannot handle the average daily flow from the plant. Due to the filters' inability to handle the average daily flow, the plant is having effluent violations. These filters must be upgraded or replaced. Please submit in writing, the City of Massillon's plan to fix the sand filter problem.

Odors continue to be an issue at this facility. The three major sources of odors include the headworks, roughing towers and sludge blending tanks.

The roughing towers are removing approximately 55% of the organic load they receive. Odors at the top of the towers were not excessive at the time of inspection. A misting system utilizing hydrogen peroxide and caustic is used at the screw pumps, the sludge blending tanks and the influent screw pumps to reduce odors.

The influent hydrogen sulfide (H₂S) concentrations are significantly higher than what is normally expected at a municipal wastewater treatment plant. The hydrogen sulfide concentration entering this plant can be as high as 100 mg/l. These high concentrations are adding to the source of the odor problems. They also adversely affect the treatment efficiency of the system. The flow equalization tank, which was to be used to equalize the high influent organic load, is not used during dry weather due to the additional odors created by its use. The tank is only able to be used during rainfall events. Reducing influent H₂S concentrations at the WWTP must be a priority for the City.

Maintenance of the collection system has been a priority for the department. The collection system is being inspected and cleaned every two years. The department has detected and fixed a few of the inflow and infiltration problems. Work will continue in the detection and repair of problem areas. It was stated that the plant is currently down 4 positions. The goal is to fill these positions in the near future to aid in plant operations.

A review of your Discharge Monitoring Reports (DMRs) covering the period January 2009 through May 2010 revealed the following effluent violations:

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
July 2009	Oil and Grease, Hexane	1D Conc	10	13.	7/1/2009
January 2010	Oil and Grease, Hexane	1D Conc	10	17.	1/7/2010
January 2010	Oil and Grease, Hexane	1D Conc	10	28.	1/20/2010
February 2009	Total Suspended Solids	7D Conc	18	19.2	2/8/2009
February 2009	Total Suspended Solids	7D Qty	1076	1300.03	2/8/2009
March 2010	Total Suspended Solids	30D Conc	12	14.6608	3/1/2010
March 2010	Total Suspended Solids	7D Conc	18	24.56	3/22/2010
March 2010	Total Suspended Solids	30D Qty	718	891.784	3/1/2010
March 2010	Total Suspended Solids	7D Qty	1076	1751.65	3/22/2010

New water quality standards were adopted by Ohio EPA. These rules require changes to be made to the bacteria monitoring and limits in all new and renewed NPDES permits. The new standards will require the implementation of E. coli limits and monitoring requirements. The E. coli standards will be stated in the renewed NPDES permit. Information regarding the new E. coli water quality standards can be found on the Ohio EPA, Division of Surface Water Web site: www.epa.ohio.gov/dsw.

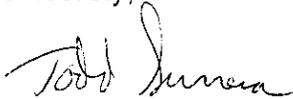
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A compliance schedule will be placed in the renewed NPDES permit for the tertiary sand filters. It will contain a timeline and steps the City of Massillon will take to correct the tertiary sand filter problem.

The renewal NPDES permit for this facility will be public noticed in the near future. You will have 30 days from the date of public notice to submit written comments to Ohio EPA regarding the draft permit.

Should you have any questions or comments regarding this letter, please feel free to contact this office at (330) 963-1255.

Sincerely,

A handwritten signature in cursive script that reads "Todd Surrena".

Todd Surrena
Engineering Geologist
Division of Surface Water

TMS/mt

cc: Keith Bledsoe, Manager, Wastewater Treatment Department

File: Public/Permit Compliance