



**Environmental
Protection Agency**

Gov. Edwin M. Feederly, Governor
Deputy Gov. Paul P. Tate, Lt. Governor
Chris Korieski, Director

December 14, 2010

RE: LORAIN COUNTY
CRESTHAVEN WWTP
NPDES NO. 3PG00051

Lorain County Commissioners
Administration Building
216 Middle Avenue
Elyria, OH 44035

Dear Commissioners:

On December 9, 2010, a Compliance Evaluation Inspection (CEI) was conducted on the Cresthaven Wastewater Treatment Plant (WWTP). Present during the inspection were Mr. Nick Webber, of the Lorain County Sanitary Engineer's Office; Mr. John Sabo of the Lorain County Health Department; and this writer, of Ohio EPA. The inspection was conducted to evaluate the present operation and maintenance conditions at the WWTP, and to evaluate its compliance with the terms and conditions of its NPDES permit.

At the time of the December 9th inspection, the following observations were made:

- 1) Contents of the western extended aeration tank were light brown in color, and the suspended solids (MLSS) concentration appeared to be in a lower operating concentration. Return sludge to the western aeration tank was light brown in color as well.

Contents of the eastern extended aeration tank were medium brown in color, and the suspended solids concentration appeared to be in the more normal operating concentration. Return sludge to the eastern aeration tank was medium brown in color.

According to Mr. Webber, it has been more difficult to operate the WWTP due to the presence of plastic fibers in the system, caused by the lining process of the sanitary sewers in the collection system by Insituform.

- 2) Settling tank contents were typical, and there were no solids or algae in the effluent troughs. Although there was a slight pinfloc suspended in the settling tank contents, the settling tank effluent was visually clear and free of solids.

Effluent weirs / troughs in the settling tanks still have not been replaced as planned, but the replacement weirs / troughs are on-site.

The skimmer line from both of the settling tanks were operating, and returning clear water.

- 3) Tertiary filtration of the settled effluent is accomplished by 2 drum filters. Only one of the two filters was in operation at the time of the inspection, as the second tertiary filter was taken out of service for cleaning of the filter and media.
- 4) When required by NPDES Permit, final effluent is disinfected with chlorine gas, and dechlorinated using sodium bisulfite. However, the disinfection process was not in operation at the time of the inspection, as it is not required between November 1st and April 30th each year.
- 5) Effluent from the WWTP was visually clear, and free of solids and foam.
- 6) The Aerated Sludge Holding tank contents were being well aerated, and were dark brown in color. Sludge is hauled a couple times per year either by Johnson Septic, or Father & Son Septic haulers, to the French Creek WWTP for treatment and disposal.
- 7) The on-site standby generator is cycled every Monday, and was serviced approximately 2 weeks ago.

The last Compliance Evaluation Inspection (CEI) conducted at the Cresthaven WWTP was on September 10, 2009. Since the last inspection, the Cresthaven WWTP has reported the following NPDES Permit effluent violations in their monthly electronic Discharge Monitoring Reports (eDMR):

**CRESTHAVEN WWTP
 NPDES PERMIT NO. 3PG00051
 EFFLUENT LIMIT VIOLATIONS
 (9/1/09 – 12/1/10)**

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
September 2009	CBOD 5 day	7D Conc	15	23.3	9/22/2009
January 2010	Total Suspended Solids	30D Conc	12	12.6	1/1/2010
January 2010	Total Suspended Solids	7D Conc	18	19.2	1/22/2010
January 2010	Total Suspended Solids	7D Qty	5.5	5.88643	1/22/2010
February 2010	Total Suspended Solids	30D Qty	3.6	3.82135	2/1/2010
February 2010	Total Suspended Solids	7D Conc	18	25.3	2/22/2010
February 2010	Total Suspended Solids	7D Qty	5.5	13.0138	2/22/2010

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
March 2010	Total Suspended Solids	30D Conc	12	17.1	3/1/2010
March 2010	Total Suspended Solids	7D Conc	18	20.	3/1/2010
March 2010	Total Suspended Solids	30D Qty	3.6	9.73687	3/1/2010
March 2010	Total Suspended Solids	7D Qty	5.5	8.96288	3/1/2010
March 2010	CBOD 5 day	30D Qty	3.0	3.22822	3/1/2010
March 2010	Total Suspended Solids	7D Conc	18	22.2	3/8/2010
March 2010	Total Suspended Solids	7D Qty	5.5	19.5698	3/8/2010
March 2010	CBOD 5 day	7D Qty	4.5	5.0247	3/8/2010
March 2010	Total Suspended Solids	7D Conc	18	20.	3/22/2010
March 2010	Total Suspended Solids	7D Qty	5.5	12.4148	3/22/2010
March 2010	CBOD 5 day	7D Qty	4.5	4.96592	3/22/2010
October 2010	Total Suspended Solids	7D Qty	5.5	8.01481	10/1/2010

*** Note: No frequency or code violations reported.*

The County should continue with all efforts that will enable the Cresthaven WWTP to consistently meet its NPDES Permit limits. Please submit a report to this office detailing the reasons for the effluent numeric violations.

Also, please include in the report, the approximate percentage completion of the Insituform sanitary sewer lining project in the sanitary sewer system tributary to the Cresthaven WWTP.

If there are any comments or questions concerning this document, you may contact me at (330) 963-1110.

Respectfully,



Charles E. Allen
Environmental Engineer
Division of Surface Water

CEA/mt

File: MUNI/Lorain/Cresthaven P&C