



**Environmental
Protection Agency**

John R. Kasich, Governor

Mary Taylor, Lt. Governor

Scott J. Nally, Director

October 25, 2012

RE: GEAUGA COUNTY
CHARDON VILLAGE
NPDES NO: 3PB00010

Mr. Randal Sharpe, City Manager
City of Chardon
Chardon Municipal Center
111 Water Street
Chardon, Ohio 44024-1201

Dear Mr. Sharpe,

On September 27, 2012, this writer met with Mr. Sellitto to conduct an inspection of the wastewater treatment plant (WWTP) serving the City of Chardon. The intent of the inspection was to evaluate the operation and maintenance of the WWTP and review compliance with the National Pollutant Discharge Elimination System (NPDES) permit.

Discharge monitoring reports (DMRs) from January 1, 2010 through October 1, 2012 were reviewed for compliance with the current NPDES permits at this facility. A violation summary has been attached to this letter. The following is a summary of the inspection:

The current WWTP has an average design flow of 1.808 MGD. The WWTP includes influent pumping, screening, grit removal, flow equalization, activated sludge aeration oxidation ditches, phosphorus removal system, final clarification, tertiary filtration, ultra violet disinfection, aerobic sludge digestion and a sludge belt filter press. At the time of the inspection, all WWTP units were operational. The belt filter press is not used on a daily basis and is used as needed.

NPDES PERMIT

According to DMR data, the flow to the wastewater plant over the past three years averaged 1.219 MGD. DMRs were reviewed for the reporting period from January 1, 2010 through October 1, 2012. A violation summary from the DMR data reviewed has been attached to this letter.

The NPDES permit was recently renewed with a Mercury Variance granted for the facility. The final permit modification went into effect February 1, 2012. The mercury variance issued to the City of Chardon included a variance based limit in the NPDES permit. The variance based limit in the modified permit was altered to reflect comments received by the City of Chardon and also a discrepancy noted in the Projected Effluent Quality (PEQ) calculation. The PEQ originally presented a variance based limit of 4.4 ng/l. However, out of the 57 values reported by Chardon, five were greater than 4.4 ng/l (usually it is expected only three will be greater than the PEQ). Based on this and Chardon's comments requesting a less stringent variance based limit, the mercury monthly average concentration limit was changed to 6.3 ng/l in the final permit modification.

During the inspection, mercury noncompliance was discussed at length. Chardon is currently in noncompliance for the number of the mercury violation reported. According to Mr. Sellitto, there are sources of mercury in the collection system that are from commercial sources and also residential areas that have been documented by the sampling conducted by Chardon. Based on sampling conducted in the collection system by Chardon, De Nora Tech, is indicated as a known source of mercury. Chardon had previously provided comments to Ohio EPA during the public notice period of De Nora Tech's draft Indirect Discharge Permit (IDP). The comments provided by Chardon to the Ohio EPA were requesting a discharge limit be established for mercury (total low level) at De Nora Tech.

Please note, the De Nora Tech's IDP remains in draft form and has not been finalized. Ms. Donna Kniss and Mr. Ryan Laake are the Ohio EPA Pretreatment Coordinators working with De Nora Tech to address mercury issues that may exist. An inspection of the facility was recently conducted by the pretreatment staff and they will be addressing this issue with De Nora Tech.

Because Chardon is in noncompliance due to mercury violations, this office recommends you contact Ms. Donna Kniss of Northeast District Office to develop a local limit for mercury.

Please see the following regarding local limits:

What are local limits and how are they used in the pretreatment program?

Local limits are specific discharge limits developed and enforced by publicly owned treatment works (POTW)s upon industrial or commercial facilities, which discharge wastewater to a sewer system tributary to the POTW to implement the general and specific discharge prohibitions listed in the federal pretreatment regulations. POTWs operating an approved pretreatment program must develop local limits or demonstrate why these limits are not necessary, and submit their evaluation to Ohio EPA for review and approval. In general, the approved program must consider several pieces of information for the development/evaluation of local limits:

- *wastewater flow from industrial/commercial sources vs. total flow to the POTW;*
- *removal rates at the POTW for metals;*
- *loading capabilities at the POTW for conventional pollutants;*
- *the wasteload allocation applicable to the POTW for each pollutant; and*
- *if sludge is land applied, the gallons of sludge removed from the POTW and the percent solids for the sludge.*

All of this information is used to determine a site-specific, local limit for discharge of pollutants into the sewer system tributary to the POTW. The local limits are typically adopted by the approved program through a sewer use ordinance or some other document. The local limits would then be compared to applicable categorical standards, and the most stringent of these two would be incorporated into indirect discharge permits written by the approved program.

More information on local limits can be found at:

<http://epa.ohio.gov/dsw/pretreatment/index.aspx#Intro>

INSPECTION SUMMARY

The following is a summary of findings from the inspection:

At the time of the inspection, the WWTP was producing a satisfactory quality effluent. The influent pump station and influent screening were in satisfactory condition. The influent meter is in satisfactory condition and is located such that recycle flow is accounted in the metered flows. The influent meter is a parshall flume. Mr. Sellitto indicated there is no acceptable location upstream of the recycle flows to move the influent meter. It is understood the effluent meter is not accurate when flows are less than 500,000 gpd. The current effluent meter is an ultrasonic placed on the effluent weir.

The oxidation ditches were in satisfactory condition. The ditches were provided with adequate mixing and the mixed liquor was a chocolate brown color. No froth or foam was noted in the oxidation ditches at the time of the inspection.

There are four final clarifiers. The clarifiers were in satisfactory condition. Minimal solids buildup was noted and algae growth was minimal. There are three rapid sand filters. The effluent from the filter is clear. The media used in the rapid sand filters is silica sand, which is replaced approximately every three years. The filters are provided with automatic controls.

The UV system was in operation and appeared to be in satisfactory condition. There are two banks which includes a total of twelve bulbs. It is understood the system runs one bank at a time. Chardon winterizes the UV system each year by pulling the bulbs out of the water but leaving in the chamber which is under concrete.

The flow equalization basin was in satisfactory condition. The basin was updated in 1989 and 2000. The basin is large and is provided with surface aerators and mixers. The final effluent from the system was inspected and appeared to be in satisfactory condition. Some algae was noted in the final effluent tank. It is understood this tank is taken out of service two to three times a year for cleaning. The final effluent appeared clear and the receiving stream appeared to be in satisfactory condition.

The sludge digesters appeared to be in satisfactory condition. The sludge press was in satisfactory condition but was not in operation at the time of the inspection. According to Mr. Sellitto, the facility typically presses sludge a few times a week. Universal Disposal currently hauls sludge offsite to a landfill.

SUMMARY

This office recommends you contact Ms. Donna Kniss at (330) 963-1285 or donna.kniss@epa.state.oh.us regarding developing a local limit for mercury. Chardon is currently in noncompliance for the number of mercury violations that have accrued. A failure to address the mercury noncompliance may result in this office pursuing an enforcement action against Chardon.

CHARDON VILLAGE
OCTOBER 25, 2012
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Please respond within 30 days of receipt of this letter regarding actions that are to be taken to obtain and maintain compliance. 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/cs

cc: Mr. Dan Sellitto, Superintendent, City of Chardon Division of Water & Wastewater
Geauga County Health Department

File: Public/CHARDON

CHARDON WWTP VIOLATION SUMMARY

CHARDON DISCHARGE VIOLATIONS:

Reporting Period	Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
February 2011	001	50092	Mercury, Total (Low Le	30D Conc	1.3	1.99	2/1/2011
February 2011	001	50092	Mercury, Total (Low Le	30D Qty	0.0000	.00001	2/1/2011
March 2011	001	50092	Mercury, Total (Low Le	30D Conc	1.3	1.832	3/1/2011
March 2011	001	50092	Mercury, Total (Low Le	30D Qty	0.0000	.00001	3/1/2011
May 2011	001	50092	Mercury, Total (Low Le	30D Conc	1.3	4.5	5/1/2011
May 2011	001	50092	Mercury, Total (Low Le	30D Qty	0.0000	.00002	5/1/2011
June 2011	001	50092	Mercury, Total (Low Le	30D Conc	1.3	2.31	6/1/2011
June 2011	001	50092	Mercury, Total (Low Le	30D Qty	0.0000	.00001	6/1/2011
September 2011	001	50092	Mercury, Total (Low Le	30D Conc	1.3	3.065	9/1/2011
September 2011	001	50092	Mercury, Total (Low Le	30D Qty	0.0000	.00002	9/1/2011
October 2011	001	50092	Mercury, Total (Low Le	30D Conc	1.3	2.625	10/1/2011
October 2011	001	50092	Mercury, Total (Low Le	30D Qty	0.0000	.00001	10/1/2011
November 2011	001	50092	Mercury, Total (Low Le	30D Conc	1.3	1.31125	11/1/2011
December 2011	001	50092	Mercury, Total (Low Le	30D Conc	1.3	1.78	12/1/2011
December 2011	001	50092	Mercury, Total (Low Le	30D Qty	0.0000	.00001	12/1/2011
August 2012	001	01119	Copper, Total Recovera	1D Conc	35	51.7	8/6/2012

CHARDON FREQUENCY VIOLATIONS:

Reporting Period	Station	Reporting Code	Parameter	Sample Frequency	Expected	Reported	Violation Date
November 2010	001	50092	Mercury, Total (Low Le	1/Quarter	1	0	11/1/2010
January 2012	001	50092	Mercury, Total (Low Le	1/Quarter	1	0	1/1/2012

