

**Environmental  
Protection Agency**

Patricia S. Swann, Governor  
L. Tom Carney, Lt. Governor  
Dana Ross, Director

September 27, 2010

RE: LORAIN COUNTY  
VILLAGE OF LAGRANGE WWTP  
COMPLIANCE EVALUATION INSPECTION  
NPDES PERMIT NO. 3PB00061

Village of LaGrange  
Village Administrator and Council  
355 South Center Street  
LaGrange, OH 44050

Dear Village Administrator and Council:

On August 17, 2010, an inspection was conducted at the Village of LaGrange wastewater treatment plant (WWTP). Present during the inspection were Mr. Greg Yuronich, Superintendent of the WWTP and representing the Village; Mr. John Sabo, of the Lorain County Health Department; and this writer. The purpose of the inspection was to evaluate the Operation and Maintenance of the WWTP, and to evaluate the facility's compliance with its NPDES permit effluent limits. The previous CEI at the WWTP was conducted on June 4, 2009.

At the time of the inspection, the general operation of the plant could be rated as satisfactory. All treatment components were in operation, and observation of the effluent being discharged revealed no visible signs of floating debris, oil and grease, or high levels of solids.

At the time of the August 17<sup>th</sup> inspection, the following observations were made and information obtained:

- 1) Mechanical screens at the WWTP headworks were in operation. Material removed by the mechanical screens is deposited in a 2 cubic yard dumpster, which is hauled approximately once per year, to the Allied Waste Landfill in Lorain County. The screenings are hauled by the Allied Waste vehicles.
- 2) The Orbal reactor had both channels in use. Contents of the Orbal were medium brown in color, and suspended solids concentrations appeared to be in a normal operating range.
- 3) As an aid for phosphorus removal, 48% aluminum sulfate is added to the wastewater during the aeration process. The aluminum sulfate is added to the Orbal process via time based chemical feed pump, which was not pumping at the time of the inspection.

The aluminum sulfate solution is stored in a fiberglass reinforced tank, within a diked area, in the chemical building.

- 4) Effluent from the Orbal process enters two final clarifiers for solids settling, both of which were in use. Weirs of the final clarifiers had fiberglass/plastic covers, and contained no solids or algal growth. Content of the clarifiers was clear, there was no rising pinfloc, and the settled sludge blanket was visible at a depth of approximately 3 feet. Mechanical sludge scrapers in the clarifiers were operating at the time of the inspection.

- 5) Settled solids from the clarifiers are either returned to the outer ring of the Orbal ditch, or wasted to the aerobic digester.
- 6) Aerobically digested sludge generated at the WWTP meets Class B sludge disposal requirements for land application. The 2.5 solids liquid sludge is hauled to Erie County, and land applied, by H+L Biosolids. The sludge is hauled twice per year, in the spring and fall. Approximately 70 dry tons of sludge was hauled from the WWTP and land applied last year.

Chris Moody, Ohio EPA Northeast District office sludge program coordinator, conducted an inspection of the LaGrange sludge program last year.

- 7) Prior to entering the Ultra Violet disinfection unit, effluent from the final clarifiers is aerated.
- 8) Stringy algae has been causing a build up on the UV lights, thus lowering the UV disinfection efficiency, and requiring more frequent cleaning of the UV bulbs. An ultrasonic device installed in the channel prior to the UV unit, and plastic gratings which were also attached to the UV channel, have considerably slowed the growth of algae in the channel, though not totally eliminated it.
- 9) Final effluent is post aerated prior to discharge. At the time of the inspection, final effluent from the WWTP was visually clear, and free of solids or foam.

The final effluent is sampled by an automatic sampler located at the end of the UV channel. At the time of the inspection, wastewater was entering the WWTP at a flow rate of 0.190 MGD.

A review of the operating data for the wastewater treatment plant (as reported to Ohio EPA in SWIMS) was conducted prior to the inspection. The electronic Discharge Monitoring Report (eDMR) data covered the period of May 1, 2009 through August 1, 2010. The SWIMS program reported the following numeric effluent violations of the Village of LaGrange NPDES permit to discharge:

***LAGRANGE WWTP***  
*NPDES PERMIT NO. 3PB00061*  
***NUMERIC EFFLUENT VIOLATIONS***  
*(May 1, 2009- August 1, 2010)*

<b>Reporting Period</b>	<b>Parameter</b>	<b>Limit Type</b>	<b>Limit</b>	<b>Reported Value</b>	<b>Violation Date</b>
July 2009	Phosphorus, Total (P)	30D Conc	1.0	1.11	7/1/2009
July 2009	Phosphorus, Total (P)	7D Conc	1.5	1.71	7/1/2009
July 2009	Phosphorus, Total (P)	7D Conc	1.5	1.94	7/8/2009
June 2010	Dissolved Oxygen	1D Conc	6.0	4.9	6/28/2010

*\*\*Note: There were no reporting code or frequency violations found for the time period.*

The following items were also discussed with Mr. Yuronich during the August 17<sup>th</sup> inspection:

1. There are three persons employed at the WWTP: two full time (one Class III and one Class I licensed operator); and one permanent part time (30 hours/week). The plant is manned for nine hours per day during the week, and four hours per day during the weekend.
2. Analyses for NPDES permit-required samples are performed both by the lab at the WWTP (CBOD, SS, Ammonia, pH, D.O.), and by a contracted outside lab (Fecal Coliform, Oil & Grease, Phosphorus, Nitrate-Nitrite, Heavy Metals). The outside lab is North Coast Laboratories of Streetsboro, Ohio.

North Coast Labs provides preserved, sample collection bottles to the WWTP. Wastewater samples are collected by WWTP personnel, and are picked up by North Coast Lab personnel. A chain of custody (COC) form is utilized for the sample collection and analysis process.

A review of the COC form found the date, time, and signoff for the person collecting the sample; the person picking up the sample and delivering it to the lab.

3. Since the last inspection, a thermometer has been kept in both the influent and effluent automatic sampler refrigerators, in order to verify they are being maintained at 4 degrees centigrade.
4. There is one Industrial User (IU) connected to the sanitary sewer system (Micron Manufacturing, which produces circuit boards). **The IU still has not been visited by the Village for several years, and should be inspected.** It is recommended that an Industrial Waste Survey (IWS) be conducted at the industry to characterize the waste and possible contributions to the WWTP.
5. The record keeping requirements of a certified wastewater operator for the WWTP, as outlined in OAC 3745-7-09, were discussed with Mr. Yuronich. Mr. Yuronich indicated he has been keeping his operator's log in a hard bound book (calendar type), and it includes information such as the initials of who worked at the WWTP on a particular day (not the hours, which are kept electronically on the computer at the Village hall), and any maintenance performed.

Please note, according to OAC 3745-7-09, the information which is to be recorded in the operator's log book shall include:

- a) Identification of the wastewater treatment works.
- b) Date and times of arrival and departure for the operator of record and any other operator.
- c) Specific operation and maintenance activities that affect or have the potential to affect the quality or quantity of sewage treated and effluent produced.

- d) Results of tests performed and samples taken, unless documented on a laboratory sheet.
- e) Performance of preventative maintenance and repairs, or requests for repair of the equipment that affect or have the potential to affect, the quality or quantity of sewage treated.
- f) Identification of the persons making entries.
- g) The records shall be kept up to date, contain a minimum of the previous three months of data at all times, and be maintained for at least three years.

The Village of LaGrange should continue current operation and maintenance practices which are enabling the WWTP to consistently meet its NPDES permit limits.

If there are any questions or comments regarding the contents of the report or this letter, please contact this office.

Respectfully,



Charles E. Allen  
Environmental Engineer  
Division of Surface Water

CEA:bo