



State of Ohio Environmental Protection Agency

**Northeast District Office**

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Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director

July 2, 2009

RE: ASHTABULA COUNTY  
GENEVA-ON-THE-LAKE WWTP  
OHIO EPA PERMIT NO. 3PC00020  
NPDES PERMIT NO. OH0023337

Mayor David Nelson  
Village of Geneva-on-the-Lake  
4929 South Warner Drive  
Geneva-on-the-Lake, Ohio 44041

Dear Mayor Nelson:

This letter is a follow-up to the Compliance Evaluation Inspection that was conducted at the above referenced facility on June 3, 2009. The facility was represented by Mr. Vic Quinones, Superintendent. The purpose of the inspection was to evaluate the facility's compliance status with respect to the terms and conditions of the NPDES permit.

**Facility Description**

The wet-stream treatment components consist of preliminary treatment, influent pumping, off-line flow equalization basin, 415,000 gpd dual-unit activated sludge treatment process, final settling tanks, chlorine disinfection, and dechlorination. Sludge handling facilities consist of aerobic sludge digestion tanks and sludge drying beds.

**Inspection Findings/Compliance Status**

At the time of the inspection, the following observations and comments were noted:

1. It was noted that Mr. Quinones is continuing to evaluate the causes of the Fecal Coliform violations. Improvements to the chlorine contact tanks, including replacement of the feed pumps, have been aimed at enhancing chlorine dispersion and contact time.
2. The facility appeared to be carrying an excessive solids inventory, particularly in the North Basin. Despite Mr. Quinones best efforts, one can only surmise that the resumption of septage hauling last year compounded the facility's sludge handling issues. We understand that Mr. Quinones has temporarily suspended the septage disposal program pending an improvement in plant performance.
3. The treatment plant is not currently equipped with appropriate septage receiving facilities. The installation of such facilities would first require the Village to obtain a permit-to-install (PTI) from Ohio EPA. Septage receiving stations normally consist of screening, grit and grease removal. Aerated covered storage and a

system to regulate the loading into the treatment system are also necessary. Additional sludge handling equipment, i.e. mechanical dewatering, may also be necessary to accommodate the increased sludge generation associated with septage.

4. Ohio EPA continues to be concerned with excessive flows to the treatment plant due to Infiltration and Inflow (I/I) and the resultant bypasses from the EQ basin. These impacts have resulted in a significant number of bypass/overflow events:

602	Overflow Volume	Million Gallons	10/2/2008	0.407
602	Overflow Volume	Million Gallons	11/15/2008	1.13
602	Overflow Volume	Million Gallons	11/16/2008	0.735
602	Overflow Volume	Million Gallons	11/17/2008	0.322
602	Overflow Volume	Million Gallons	11/26/2008	0.118
602	Overflow Volume	Million Gallons	12/1/2008	3.81
602	Overflow Volume	Million Gallons	12/9/2008	2.06
602	Overflow Volume	Million Gallons	12/24/2008	1.04
602	Overflow Volume	Million Gallons	2/7/2009	1.178
602	Overflow Volume	Million Gallons	2/10/2009	0.035
602	Overflow Volume	Million Gallons	2/11/2009	1.403
602	Overflow Volume	Million Gallons	3/8/2009	1.518
602	Overflow Volume	Million Gallons	3/11/2009	1.013
602	Overflow Volume	Million Gallons	4/3/2009	0.421

As indicated to Mr. Quinones, such bypassing is in violation of the terms and conditions set forth in Part III of the NPDES permit. It is the expectation of Ohio EPA that the Village undertake all necessary actions to ensure that the frequency of bypasses is minimized/eliminated.

We understand that the Village is continuing to investigate sources of extraneous I/I in the collection system. The efficiency of wastewater treatment at the treatment plant depends strongly on the design and performance of the collection system. High levels of I/I increase the hydraulic load on the treatment plant, which can reduce treatment efficiency, can exceed the capacity of components within the treatment process, and, in extreme situations, wash out the biological organisms that treat the wastewater. Hence, removal of extraneous "Clean Water" from the collection system will go a long way toward protecting the substantial investment that the Village has made at the treatment plant.

5. The review of the facility laboratory noted that the following permit parameters are currently being analyzed in-house: Residual Chlorine, pH, Dissolved Oxygen, and Temperature. The balance of the permit parameters are analyzed by North Coast Laboratory. The following items need to be addressed in the laboratory:

- The pH meter kept displaying an error message, indicative of a possible probe malfunction. Mr. Quinones stated that he would immediately contact the equipment vendor to determine the cause of the problem.
- Calibration and Maintenance logbooks should be kept of the facility equipment used to generate NPDES permit data.

A review of the facility's monthly discharge monitoring reports (DMRs) received by Ohio EPA for the period, October 2008 – May 2009, indicates violations of the terms and conditions of the NPDES permit. The specific instances of noncompliance are as follows:

Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
October 2008	001	Total Suspended Solids	7D Conc	45	58.5	10/1/2008
October 2008	001	Fecal Coliform	7D Conc	2000	37712.3	10/1/2008
October 2008	001	Chlorine, Total Residu	1D Conc	0.038	.05	10/6/2008
October 2008	001	Fecal Coliform	7D Conc	2000	5422.17	10/8/2008
May 2009	001	Total Suspended Solids	7D Conc	45	54.	5/1/2009
May 2009	001	Total Suspended Solids	7D Qty	71	100.202	5/1/2009
May 2009	001	Fecal Coliform	30D Conc	1000	7075.84	5/1/2009
May 2009	001	Fecal Coliform	7D Conc	2000	8640.	5/1/2009
May 2009	001	Fecal Coliform	7D Conc	2000	12521.9	5/8/2009
May 2009	001	Fecal Coliform	7D Conc	2000	12580.5	5/15/2009

Please be advised that failure to satisfy the terms and conditions of the NPDES permit may be cause for enforcement actions pursuant to the Ohio Revised Code, Chapter 6111. Such actions can result in fines of up to \$10,000 per day per violation. It is requested that the Village submit a formal response detailing the actions that will be taken to address the deficiencies and/or violations referenced herein. Your response shall include dates for initiation and completion of the action items.

**Proposed Leachate Pilot Study:**

This office has reviewed your June 12, 2009 letter requesting approval to proceed with a pilot "leachate processing program with the Waste Management Landfill in Geneva". You note that the Village is "searching for creative ways to generate revenue to maintain and improve out wastewater treatment facility." In reviewing this request, we offer the following comments:

- Leachate is an industrial waste subject to regulation under federal (40 CFR 403) and state regulations. Leachate can be successfully treated at larger publicly-owned treatment works (POTWs), i.e. greater than 1.0 MGD, when it is a small

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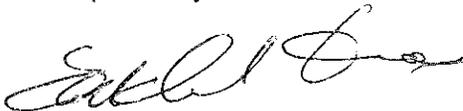
percentage of the wastewater flow being received at the facility. Additionally, these larger facilities regulate the introduction of industrial wastes, including trucked wastes, through the implementation of an Ohio EPA-approved Industrial Pretreatment Program. Because POTWs are usually not specifically designed to treat industrial wastes, pretreatment programs are needed to eliminate potentially serious problems that occur when these substances are discharged into the collection and/or treatment system.

- The introduction of leachate into a wastewater treatment system with a small design capacity presents numerous difficulties. The smaller the plant design capacity relative to the leachate loading, the greater the risk that the plant will be subject to upsets and potential violation of permitted discharge effluent limits. Please understand that the pollutants in leachate, e.g. ammonia-N, can be up to 20 - 30 times stronger than typical domestic sewage. In other words, a single 5,000 gallon tanker truck of leachate would be equivalent to treating 100,000 gallons of domestic sewage. Elevated levels of other pollutants, such as Total Dissolved Solids (TDS), could be detrimental to your wastewater treatment system as they adversely affect the bacteria that are necessary to provide treatment to the wastewater.
- The average daily flows at the facility during the period, October 2008 through May 2009, of 470,000 gallons per day exceeds the plant's design capacity. Hence, even if plant size was not an issue, the facility does not have the reserve capacity to handle the additional loading.

For these reasons, we cannot support the Village's request to accept leachate at the facility.

Should you have any questions or comments regarding this letter, please contact this office.

Respectfully,



Ermelindo Gomes  
Environmental Engineer  
Division of Surface Water

EG/mt

File: Public/PC/Geneva-on-the-Lake WWTP