



State of Ohio Environmental Protection Agency

Northeast District Office

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

March 6, 2008

RE: LAKE COUNTY  
CITY OF KIRTLAND  
OPERATED PACKAGE PLANTS  
COMPLIANCE EVALUATION INSPECTIONS  
NPDES PERMIT NOS. - 3PG00059,  
3PG00058, 3PG00065, 3GV00014 AND  
KIRTLAND CIVIC CENTER WWTP

Mayor and Council  
City of Kirtland  
9301 Chillicothe Road  
Kirtland, OH 44094

Ladies & Gentlemen:

On March 3, 2008, this writer conducted inspections of the Hickory Hill Colony, Rockwood Ledges, Shenandoah Estates, Kirtland Community Center and Kirtland Civic Center wastewater treatment plants (WWTPs). Your wastewater treatment plant operator, Mr. Steve Piscopo, represented the City during the inspections.

**Plant Observations and Comments on NPDES Permit Requirements**

Hickory Hill Colony WWTP (NPDES Permit No. 3PG00059)

The plant was producing an effluent with satisfactory visual quality, free of solids and oil and grease. All required treatment units were in operation. The aeration tank content and the sludge return line were dark brown in color. Some sludge was on the surface of the settling tank. The settling tank weirs were satisfactory. The northern filter beds had sludge on the surface. The southern filter beds were covered with snow.

A review of the plant's self-monitoring reports for the period of May 2006 through January 2008 revealed the following effluent limitation violations:

Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
001	00610	Nitrogen, Ammonia (NH3)	30D Conc	1.0	1.555	7/1/2006
001	00610	Nitrogen, Ammonia (NH3)	7D Conc	1.5	3.02	7/8/2006
001	00610	Nitrogen, Ammonia (NH3)	7D Qty	0.17	.20575	7/8/2006
001	00610	Nitrogen, Ammonia (NH3)	7D Qty	0.17	.1707	8/1/2007
001	31616	Fecal Coliform	30D Conc	1000	1000.	8/1/2007

Rockwood Ledges WWTP (NPDES Permit No. 3PG00058)

The plant was producing an effluent with satisfactory visual quality, free of solids and oil and grease. All required treatment units were in operation. The aeration tank wastewater and return sludge line were dark brown. Some sludge was on the surface of the settling tank. The settling tank weirs were satisfactory. The filter beds in use were ponded. The remaining filter beds were covered with snow.

A review of the plant's self-monitoring reports for the period of May 2006 through January 2008 revealed the following effluent limitation violations:

Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
001	31616	Fecal Coliform	7D Conc	2000	3800	8/1/2007
001	00610	Nitrogen, Ammonia (NH3)	7D Qty	0.42	.42316	11/8/2007

Shenandoah Estates WWTP (NPDES Permit No. 3PG00065)

The plant was producing an effluent with satisfactory visual quality, free of solids and oil and grease. All required treatment units were in operation. The aeration tank wastewater and sludge return line were dark brown. The sludge behind the settling tank baffles is in need of removal. The settling tank weirs were satisfactory. The filter bed in use was ponded. The remaining filter bed was covered with snow.

A review of the plant's self-monitoring reports for the period of May 2006 through January 2008 revealed the following effluent frequency violation:

Station	Reporting Code	Parameter	Sample Frequency	Expected	Reported	Violation Date
001	00083	Color, Severity	1/Day	1	0	09/30/2007

Kirtland Community Center WWTP (NPDES Permit No. 3GV00014)

The plant was producing an effluent with poor visual quality. The effluent was turbid. This plant consists of an aeration tank and settling tank only. This plant has no tertiary treatment or disinfection facilities. Sludge was evident behind the settling tank baffles and in the effluent trough.

Pursuant to the NPDES general permit for this facility, which became effective on October 1, 2007, the wastewater treatment plant must be upgraded to meet best available demonstrated control technology by October 1, 2010. Construction of the upgraded plant must commence no later than April 1, 2009. Construction must be completed by April 1, 2010.

A review of the plant's self-monitoring reports for the period of October 2007 through January 2008 revealed the following frequency violation:

Station	Reporting Code	Parameter	Sample Frequency	Expected	Reported	Violation Date
001	01350	Turbidity, Severity	1/Day	1	0	10/20/2007

Kirtland Civic Center WWTP (NPDES Permit No. – not yet assigned)

The plant was producing an effluent with satisfactory visual quality, free of solids and oil and grease. All required treatment units were in operation. The aeration tank content and return sludge line were dark brown. Some sludge was on the surface of the settling tank. The settling tank weirs were satisfactory. The filter beds were ponded.

This office has received the general NPDES permit application for the civic center. The permit application will be processed soon.

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Please be advised that failure to comply with the effluent limitations or to satisfy the monitoring or reporting requirements of your NPDES permit may be cause for enforcement pursuant to the Ohio Revised Code Chapter 6111.

**Actions to be Taken by Permittee**

Once the weather permits, sludge, sludge laden sand, and vegetation must be removed from the top layer of sand on the filter beds at each plant. Assurances must be made that 18 inches of Ohio EPA approved filter sand exists on all the filter beds. Ohio EPA approved filter sand has a uniformity coefficient that does not exceed 3.0 and an effective size of 0.4 mm - 1.0 mm. The sand must be raked and evenly distributed across the surface of the filter bed.

According to Mr. Piscopo, sludge wasting at each of the plants is scheduled for this month.

Within 10 days of the date of this letter, please submit a letter outlining the corrective actions that will be implemented to eliminate the above highlighted deficiencies. Your response should include the dates, either actual or proposed, for completion of the actions.

Should you have any questions regarding this letter, please contact the undersigned at (330) 963-1183.

Sincerely,



Marie Underwood, P.E.  
Environmental Engineer  
Division of Surface Water

MU/mt

cc: Phil Kiefer, P.E., City Engineer