



**Environmental
Protection Agency**

John R. Kasich, Governor

Mary Taylor, Lt. Governor

Scott J. Nally, Director

April 5, 2012

RE: CUYAHOGA COUNTY
HUNTING VALLEY
UNIVERSITY SCHOOL
NPDES PERMIT NO. OH0129224
OHIO EPA PERMIT NO. 3PT00039

Mr. Gary T. Warchock
Director of Plant Services
University School
2785 SOM Center
Hunting Valley, Ohio 44022

Dear Mr. Warchock:

On March 14, 2012, an inspection of the wastewater treatment plant (WWTP) serving University School was conducted by the undersigned. Present during the inspection were Messrs. Steve Howe, Ake Environmental, and Dale Reed, Building Maintenance/WWTP Operator. The purpose of the inspection was to evaluate the facility's compliance with the terms and conditions of the National Pollutant Discharge Elimination System (NPDES) permit.

Facility Description

The NPDES permit, with an effective date of October 1, 2010 and expiration date of September 30, 2015, authorizes an average daily discharge of 0.008 MGD to the unnamed tributary of the Chagrin River. The WWTP consists of a flow equalization basin, extended aeration package plant, and chlorination/dechlorination tank. The treated water (Station 602) is pumped to 2 dual-train vegetated wetlands prior to discharge at Outfall 001.

We understand that the WWTP is maintained under a service agreement with Ake Environmental Services. The operational responsibilities for the plant are coordinated between Ake and Mr. Reed. The agreement also includes submission of the monthly Discharge Monitoring Reports (DMRs) by Ake.

Inspection Findings/Compliance Status

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

1. The general operation and maintenance of the treatment processes and equipment appeared to be satisfactory. A visual observation of the plant effluent revealed no signs of floating debris, oil & grease, or foam in the discharge at Station 602.
2. Compared to the treatment plant, the discharge from the wetland system appeared to be somewhat murky. While weather may have been a factor at the time, it is equally likely that the wetland system may not be performing as designed. The DMR data for Outfall 001 indicates that the effluent is not being effectively "polished" by the wetland. However, in order to adequately assess the performance of the wetland, the facility must first establish a defined/representative sampling point for Outfall 001. Ideally, the sampling location should be downstream of the confluence of the two cells.

3. Appropriate guardrail (or grating) needs to be installed around the "open" equalization tank. Chains or gates must be installed at openings in the rail. Additionally, please ensure that all existing grating and/or tank covers are in sound condition.
4. The "open" tank area of the old microscreen currently poses a safety risk. We understand that the school plans to fill in the tank and extend the current floor. In the meantime, please ensure that access is restricted.
5. It was noted that the facility had purchased a bound O&M logbook to replace the historical log sheets. The logbook will allow the facility to better maintain the operational information required by Ohio Administrative Code (OAC) 3745-07.



A review of the DMRs received by Ohio EPA for the period, January 2010 – February 2012, was conducted. A summary of the facility data is listed in Table A. Additionally, the effluent data was reviewed for compliance with the final effluent limitations and monitoring requirements of the NPDES permit. The specific violations are listed in Table B.

Table A: Data Summary (1/2010 – 2/2012)						
Parameter	Season	Units	# Obs.	Percentiles		Data Range
				50 th	95 th	
Outfall 001						
Water Temperature	Annual	C	13	9	18	2-18
Dissolved Oxygen	Summer	mg/l	6	1.3	1.4	1.2-1.4
Dissolved Oxygen	Winter	mg/l	7	1.7	1.97	1.2-2
pH	Annual	S.U.	13	7.2	7.84	6.7-7.9
Total Suspended Solids	Annual	mg/l	13	11	20.2	2-25
Nitrogen, Ammonia (NH3)	Summer	mg/l	6	5.82	21.5	1.1-22
Nitrogen, Ammonia (NH3)	Winter	mg/l	7	1.92	15.9	0.37-19.5
Chlorine, Total Residual	Annual	mg/l	11	0	0	0-0
CBOD 5 day	Summer	mg/l	6	6.2	11.8	1.4-12
CBOD 5 day	Winter	mg/l	7	4.2	6.17	1-6.5
Outfall 588						
Sludge Volume, Gallons	Annual	Gals	2	4000	4000	4000-4000
Outfall 602						
Water Temperature	Annual	C	130	14	19	8-24
Flow Rate	Summer	GPD	366	2950	10000	13-27600
Flow Rate	Winter	GPD	422	3590	8720	206-61100
Flow Rate	Annual	GPD	788	3330	9260	13-61100
Color, Severity	Annual	Units	130	0	0	0-0
Dissolved Oxygen	Summer	mg/l	4	6.6	6.79	6.5-6.8
Dissolved Oxygen	Winter	mg/l	4	5.65	6.04	5.4-6.1
pH	Annual	S.U.	8	7.35	7.77	3.9-7.8
Total Suspended Solids	Annual	mg/l	8	7.5	15.5	5-19
Nitrogen, Ammonia (NH3)	Summer	mg/l	4	1.77	7.19	0.66-8.05
Nitrogen, Ammonia (NH3)	Winter	mg/l	4	0.3	2.32	0.14-2.68
Odor, Severity	Annual	Units	130	0	0	0-0
Turbidity, Severity	Annual	Units	130	0	1	0-1
Fecal Coliform	Annual	#/100 ml	2	360	657	30-690
E. coli	Annual	#/100 ml	2	1500	2400	490-2500
CBOD 5 day	Summer	mg/l	4	3.7	5.08	3.4-5.3
CBOD 5 day	Winter	mg/l	4	4.8	7.37	2-7.7

Table B: Effluent Limitation Violations (1/2010 – 2/2012)						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
June 2010	602	E. coli	30D Conc	161	2500.	8/1/2011
August 2011	602	E. coli	30D Conc	161	490.	6/1/2011
August 2011	602	E. coli	7D Conc	362	2500.	8/22/2011

June 2011	602	E. coli	7D Conc	362	490.	6/1/2011
June 2010	602	Nitrogen, Ammonia (NH3	30D Conc	2.0	8.05	6/1/2010
June 2010	602	Nitrogen, Ammonia (NH3	30D Conc	2.0	2.33	8/1/2011
June 2011	602	Nitrogen, Ammonia (NH3	30D Qty	0.06	.08026	6/1/2010
December 2010	602	Nitrogen, Ammonia (NH3	7D Conc	3.0	8.05	6/15/2010
August 2011	602	pH	1D Conc	6.5	3.9	12/6/2010

Please inform this office, in writing, as to the corrective actions taken or to be taken to address any violation or deficiencies referenced herein. Your response shall include the dates for completion of the actions.

Please be advised that past or current violations of the terms and conditions of the NPDES permit may be subject to enforcement actions pursuant to Chapter 6111 of the Ohio Revised Code (ORC). Such actions can result in fines of up to \$10,000 per day of violation.

If you should have any questions please contact this office at (330) 963-1196.

Respectfully,



Ermelindo Gomes
Environmental Engineer
Division of Surface Water

EG/cs

cc: Steve Howe, AKE Laboratory, Inc.