



**Environmental
Protection Agency**

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

August 21, 2012

**RE: Greenon High School
NPDES Permit 1PT00014*BD
Clark County**

Mr. Ryan Jenkins
Treasurer
Greenon Local School District
500 Enon Xenia Rd
Enon, OH 45323

Dear Mr. Jenkins:

On August 10th, I inspected the waste water treatment plant serving Greenon High School. The inspection was in preparation for the renewal of the National Pollutant Discharge Elimination System (NPDES) permit that will expire on January 31, 2013.

A review of your Discharge Monitoring Reports (DMRs) for the period of February 2008 through July 2012 revealed the following effluent limit and monitoring frequency violations:

Limit Violations					
Date	Reporting Period	Parameter	Limit Type	Limit (mg/l)	Reported Value (mg/l)
2008	February	Ammonia	Mo. Avg.	3.0	8.
	February 22-28		Weekly Avg	4.5	8.
	March	Ammonia	Mo. Avg	3.0	3.62
	April	CBOD ₅	Mo. Avg	10.0	11.
		Ammonia	Mo. Avg.	3.0	8.8
	April 15-21		Weekly Avg.	4.5	8.8
	May	Total Suspended Solids	Mo. Avg	12.0	16.
	August	Fecal Coliform	Mo. Avg	1000	2370.
	August 1-7	Fecal Coliform	Weekly Avg	2000	2370.
	September	Total Suspended Solids	Mo. Avg	12.0	13.
		Fecal Coliform	Mo. Avg	1000	2570.
	September 8-14		Weekly Avg	2000	2570.
	November	Total Suspended Solids	Mo. Avg	12.0	16.
		Ammonia	Mo. Avg	3.0	7.7
November 8-14	Weekly Avg		4.5	7.7	

Limit Violations (continued)					
Date	Reporting Period	Parameter	Limit Type	Limit (mg/l)	Reported Value (mg/l)
2009	January	Ammonia	Mo. Avg	3.0	8.9
	January 1-7		Weekly Avg	4.5	8.9
	February	Total Suspended Solids	Mo. Avg	12.0	17.
		Ammonia	Mo. Avg	3.0	17.
		CBOD ₅	Mo. Avg	10.0	25.
	February 8-14	Ammonia	Weekly Avg	4.5	17.
		CBOD ₅	Weekly Avg	15.0	25.
	March	Ammonia	Mo. Avg	3.0	22.
	March 1-8		Weekly Avg	4.5	22.
July	Fecal Coliform	Mo. Avg	1000	1900.	
August		Mo. Avg	1000	1900.	
2010	February	Total Suspended Solids	Mo. Qty	0.7 Kg	17032.5 Kg
		Ammonia	Mo. Qty	0.2 Kg	210067. Kg
		CBOD ₅	Mo. Qty	0.6 Kg	51097.5 Kg
	February 1-7	Ammonia	Weekly Avg	3.0	37.
		Total Suspended Solids	Weekly Qty	1.1 Kg	17032.5 Kg
	February 22-28	Ammonia	Weekly Avg	4.5	37.
			Weekly Qty	0.3 Kg	210067. Kg
		CBOD ₅	Weekly Qty	0.9 Kg	51097.5 Kg
	May	Total Suspended Solids	Mo. Avg	12.0	14.
		Ammonia	Mo. Avg	1.0	1.7
	May 15-21	Ammonia	Weekly Avg	1.5	1.7
September	CBOD ₅	Mo. Avg	10.0	227.	
September 1-7		Weekly Avg	15.0	227.	

Frequency Violations					
Date	Parameter	Sample Frequency	Expected	Reported	
2008	Chlorine, Total Residual	May 15-21	1/2Weeks	1	0
		July 15-21	1/2Weeks	1	0
2009	Water Temperature	July 1-7	1/Week	1	0
		Dissolved Oxygen	1/Week	1	0
	August 25 - 31	Turbidity, Severity	1/Day	1	0
	October 1-14	Chlorine, Total Residual	1/2Weeks	1	0
	October 15-28		1/2Weeks	1	0

Many of the limit violations have been previously addressed in emails between our office and your contract operator which pointed to the need to amend the reports to correct the apparent errors. Despite indications at the time that these errors would be corrected, the reports continue to show the violations. Please review your records for the listed violations and amend the reports, as appropriate, by October 1st.

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I otherwise do not expect you to address remaining violations that would likely be very difficult to assign a cause to given how long ago they occurred. However, it is important for you to be aware of your obligation to notify this office of violations. These notifications should include an explanation of the cause of the violations, remedies employed, and plans to avoid violations from recurring. Please ensure that you meet this obligation for any future violations.

Findings from my inspection are as follows:

Plant Security

School staff was not available at the time of my inspection, but I found the gate to the wastewater treatment plant unlocked. Although this provided me the opportunity to observe the condition of the plant, I strongly encourage you to secure the gate against vandalism and for safety.

High Flows

Reported flows have been highly variable and have been over twice the design capacity of the treatment plant. This is especially troubling in light of there being flow equalization tanks. While I hope to better assess how flow equalization is being practiced when I inspect the plant again with the operator present, it is very important that you optimize flow equalization so that the plant is not overwhelmed by high flows that could lead to violations.

Chlorination/Dechlorination/Post Aeration

Both the chlorination and dechlorination tablet feeders were empty and appeared to have been empty for a long time. It is very important that you maintain the disinfection system during the entire period of May 1st to October 31st to address the need to comply with the fecal coliform limits in your permit. Please note that fecal coliform will be changed to e-coli in the upcoming renewal of your NPDES permit.

I otherwise encourage you to consider going with ultraviolet (UV) disinfection as a very proven technology over chemical disinfection and the need for dechlorination. I believe it would be a very simple retrofit for the wastewater treatment plant, and I am interested in your thoughts about pursuing it. Please note that if you decide to install UV disinfection, you will need to obtain a Permit to Install (PTI) from Ohio EPA.

The post aeration blower was operating but the diffusor was broken off and lying in the tank. Based on the lack of dechlorination tablets in the feeder located in the same tank, I believe the diffusor has been broken for a long time.

Your contract operator is currently required to be at the facility three days a week which should allow these maintenance issues to be identified and corrected. Ignoring

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identified maintenance needs puts much higher weight on any violations that are a result of unaddressed identified maintenance needs.

Operator Log Book

I could not find an operator log book and your NPDES permit requires you to maintain on site. Having this record available allows Ohio EPA to determine that required oversight is being provided. I suggest you consider storing the operator log book inside one of the weather-proof control boxes. Please explain how you will address this very important issue.

Finally, please note that in the forthcoming NPDES permit renewal, the certified operator oversight requirement will be reduced from Class I to Class A. This change will now only require a Certified Class A operator to be on site for a minimum of one hour a week over at least two days.

Non-Potable Water Supply

I noted that a garden hose was connected to a water spigot at the clarifier and was connected to a submersible pump in the clarifier. Please note that all non-potable water supplies must be clearly labeled to protect against misuse. I strongly encourage you to relocate this water supply system to the post aeration tank as this water will have passed through the sand filters and been disinfected; the spigot and hose would still need to be labeled as being non-potable. In either case, I strongly encourage you to clearly label the garden hose as being only for use at the wastewater treatment plant.

Please provide me a written response to this inspection letter by September 17th addressing the items I have presented. If you have any questions concerning this letter or the attached inspection form, please call me at (937) 285-6095 or email me at matt.walbridge@epa.ohio.gov.

Sincerely,



Matt Walbridge
Environmental Specialist
Division of Surface Water

MW/tf

Enclosures

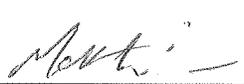
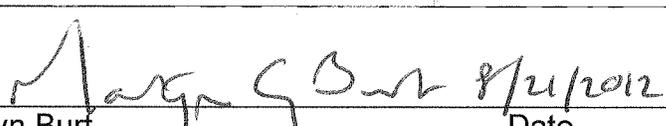
cc: Brenda Sweeney



Environmental
Protection Agency

Southwest District Office

NPDES Compliance Inspection Report
Semi-Public Sewage Disposal Inspection Form

Section A: National Data System Coding					
Permit Number	NPDES Number	Inspection Date	Inspection Type	Inspector	Facility Type
1PT00014*BD	OH0040410	8-10-12	C	S	2
Section B: Facility Info					
Name and Location of Facility Inspected			Entry Time	Permit Effective Date	
Greenon Local School District Greenon High School 3950 South Tecumseh Road Springfield, OH 45505			3:35 PM	11-1-07	
			Exit Time	Permit Expiration Date	
			4:10 PM	10-31-12	
Name(s) and Title(s) of On-Site Representatives			Phone Number(s)		
Cars in parking lot, but school doors were locked			-		
Name and Address of Operator of Record			Phone Number(s)		
Brenda Sweeney Bsweeney4@woh.rr.com			(937) 568-4534 (937) 605-2748 (cell)		
Name, Address and Title of Responsible Official			Phone Number		
Ryan Jenkins Greenon Local School District 500 Enon Xenia Rd Enon, OH 45323			(937) 864-2084		
Ohio EPA Inspector			Ohio EPA Reviewer		
					
Date			Date		
8-21-12			8/21/2012		
Matt Walbridge Division of Surface Water Southwest District Office			Martyn Burt Environmental Supervisor Division of Surface Water Southwest District Office		

Average Daily Design Flow:	12,000 Gallons/Day
Plant Serves:	730 students/staff
Average Daily Flow: (Period of Review):	Approximately 13,500 gpd October 2011 – May 2012 (school year – minus Christmas Holiday)
Method of flow monitoring:	Weir/ultrasonic
Type of alarms for plant:	High water level
Comments:	Flows are highly variable – sometimes as high as 40,000 gpd and as low as 700 gpd

Pretreatment

Type of Pretreatment: **Trash Trap**
 Does the Trash Trap need pumped: **Not Determined**
 Maintenance of pretreatment components is: **Not Evaluated**

Comments/Status:

Secondary Treatment (Aeration)

Color of sludge: **Light Brown**
 Quality of Sludge: **Thin**
 Foam: **None present**
 Odor: **No objectionable odor present**

	Yes	No		Yes	No
Aeration is taking place	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Plant is septic	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Blowers are operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Blowers are on a timer	<input type="checkbox"/>	<input type="checkbox"/>
Skimmers are operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Plant is flooded	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Diffusers are operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Grating is present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sludge return is operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Maintenance of aerating equipment is...**Good**

Comments/Status:

Aeration was robust. Mixed liquor was thin. No odor. Return activated sludge was clear indicated no solids in the system or rat-holing around the intake and the need to scrape the sides of the clarifier.

**Secondary Treatment
(Settling)**

Clarity: **Cloudy**
 Condition of Overflow Weir: **Clean**
 Weir is level: **Yes**
 Effluent in weir: **Other**
 Clarifier walls need scraped: **Unknown**

Overall maintenance of settling components is: **Good**

Comments/Status:

There was no discharge from the clarifier. The water at the surface was somewhat turbid. A sludge return line in the tank across from the blowers was very loose.

Tertiary Treatment

	Yes	No		Yes	No
Surface sand Filters: Slow	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Subsurface	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Distribution box operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Beds alternated	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are filters ponding/flooding	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Beds raked	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sand filters overgrown	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Chlorination present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
UV present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Dechlorination present	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Overall maintenance of components is: **Poor**

Comments/Status:

- ***Post aeration diffusor was broken off from the blower (which was operating).***
- ***Both the chlorination and dechlorination tablet feeders were empty.***

Sludge Handling/Storage Disposal

Hauler name: **Unknown**
 Disposal Site: **City of Springfield WWTP**
 Sludge wasted from: **Sludge Holding Tank**
 How often is sludge wasted: **Approx. once per year**
 Sludge drying beds: **No** Sludge holding tank: **Yes**

Overall maintenance of components is: **Fair**

Comments/Status:

The sludge holding tank was fairly full but was poorly mixed/aerated. I didn't notice an objectionable odor.

