



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

November 1, 2012

Jeffery M. Wargo, Director of Maintenance
Raymond Elementary School
1000 Edgewood Drive
Marysville, OH 43040

Re: **Raymond Elementary School**
NPDES Permit 4PT00130/ OH0142361
Semi-Public CEI
Union County

Dear Mr. Wargo:

On October 9, 2012, a Semi-Public CEI was conducted at the Raymond Elementary School. Present for the inspection were you, Joe, and Kenny, operators of the plant, and myself of the Ohio EPA, Central District Office, Division of Surface Water. The purpose of the inspection was to evaluate compliance with the terms and conditions of your NPDES permit and to evaluate the operation and maintenance of the plant.

Findings:

1. Attached is compliance information between January 2011 and September 2012. The facility has had numerous violations, specifically with respect to chlorine residual and ammonia. The facility is in significant non-compliance due to chlorine violations although there have been fewer violations since installing a dechlorination system in October 2011.

Union County is preparing to advertise bids for the construction of the Raymond and Peoria regional treatment facility. Raymond Elementary will be required to connect to the regional treatment facility.

2. The facility currently estimates flows based on design flow and how much activity is happening at the school. **I highly recommend the installation of hour meters on the dosing pumps to more accurately calculate flows.**
3. There is no outfall marker installed. Due to the impending construction of the regional treatment facility, only temporary signage is required. **Please install a temporary marker as soon as possible.**

4. You asked for some assistance regarding the chlorination problem. While I was unable to find a reference regarding the effect of temperature on chlorination/dechlorination, here are some possible fixes (suggested from Operation of Wastewater Treatment Plants – California State University-Sacramento):
 - a. Maintenance:
 - i. Occasional cleaning of tablet feeder to remove accumulated residues once every 6 – 12 weeks.
 - ii. Once a year, you may want to scrape the feed tubes to remove buildup.
 - b. Operations:
 - i. Try an additional feed tube or a smaller size weir.
 - ii. Determine if the feed tubes are touching the bottom of the tablet feeder.
 - iii. Improper loading which can cause jamming which will result in low dosage levels.

Attached is the inspection checklist. **Follow-up is requested regarding the hour meter and the temporary outfall marker.** If you have any questions or comments concerning the enclosed inspection report, please contact me at (614) 644-3846 or e-mail at cole.miller@epa.state.oh.us.

Sincerely



Cole Miller
Environmental Specialist II
Compliance and Enforcement Unit
Division of Surface Water
Central District Office

ec: Cole Miller

NPDES Compliance Inspection Report

SECTION A: NATIONAL DATA SYSTEM CODING

Permit #	NPDES #	Inspection Type	Inspector	Facility Type
4PT00130	GH0142361	CEI	S	2
Inspection Date	Entry Time	Exit Time	Notice of Violation	Significant Non-Compliance
10/9/2012	10:00 AM	10:30 AM	No	Yes

SECTION B: FACILITY DATA

Name and Location of Facility Inspected	Permit Effective Date
Raymond Elementary School	12/1/2009
	Permit Expiration Date
	11/30/2014
Name(s) and Title(s) of On-Site Representatives	Phone Numbers
Joe, Operator Kenny, Operator Jeff Wargo	
Name and Title of Responsible Official	Phone Number
Jeffery M. Wargo, Director of Maintenance	(937) 644-8123

SECTION C: AREAS EVALUATED DURING INSPECTION

Key: S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated

M	NPDES Compliance	Some chlorine issues.
S	Operations & Maintenance	
S	Facility Site Review	
N	Collection System	
U	Flow Measurement	Flows are estimated.
S	Receiving Waters	
N	Laboratory	

Comments:

Signatures

	10/31/12		10/31/12
Cole Miller, Inspector Compliance & Enforcement Division of Surface Water Central District Office	Date	Erin Sherer, Reviewer Compliance & Enforcement Supervisor Division of Surface Water Central District Office	Date

Compliance Data for Raymond Elementary School between 1/1/2011 to 9/1/2012

Summary

Permit Effluent Limit Violations: 53

Permit Effluent Code Violations: 15

Permit Effluent Frequency Violations: 5

Compliance Schedule Violations: 1

Limit Violations						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
February 2011	001	Nitrogen, Ammonia (NH3)	30D Conc	3.0	3.4	2/1/2011
February 2011	001	Nitrogen, Ammonia (NH3)	7D Conc	4.5	5.9	2/15/2011
August 2011	001	Nitrogen, Ammonia (NH3)	30D Conc	1.0	1.3	8/1/2011
August 2011	001	Nitrogen, Ammonia (NH3)	30D Qty	0.034	.04428	8/1/2011
August 2011	001	Fecal Coliform	30D Conc	1000	7100.	8/1/2011
August 2011	001	Fecal Coliform	7D Conc	2000	7100.	8/22/2011
August 2011	001	Chlorine, Total Residu	1D Conc	0.019	2.21	8/30/2011
August 2011	001	Chlorine, Total Residu	1D Conc	0.019	2.12	8/31/2011
September 2011	001	Nitrogen, Ammonia (NH3)	30D Conc	1.0	3.05	9/1/2011
September 2011	001	Nitrogen, Ammonia (NH3)	30D Qty	0.034	.03577	9/1/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	1.98	9/1/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	1.98	9/2/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.21	9/6/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.15	9/7/2011
September 2011	001	Nitrogen, Ammonia (NH3)	7D Conc	1.5	2.1	9/8/2011
September 2011	001	Nitrogen, Ammonia (NH3)	7D Qty	0.051	.07154	9/8/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.16	9/8/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.19	9/9/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.13	9/12/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.13	9/13/2011

September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.15	9/14/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.15	9/15/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.25	9/16/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.15	9/19/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.13	9/20/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.53	9/21/2011
September 2011	001	Nitrogen, Ammonia (NH3	7D Conc	1.5	4.	9/22/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.57	9/22/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.52	9/23/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.2	9/26/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.08	9/27/2011
September 2011	001	Chlorine, Total Residu	1D Conc	0.019	.15	9/28/2011
October 2011	001	Nitrogen, Ammonia (NH3	30D Conc	1.0	9.65	10/1/2011
October 2011	001	Nitrogen, Ammonia (NH3	30D Qty	0.034	.32873	10/1/2011
October 2011	001	Chlorine, Total Residu	1D Conc	0.019	.09	10/3/2011
October 2011	001	Chlorine, Total Residu	1D Conc	0.019	.06	10/4/2011
October 2011	001	Nitrogen, Ammonia (NH3	7D Conc	1.5	4.4	10/8/2011
October 2011	001	Nitrogen, Ammonia (NH3	7D Qty	0.051	.14989	10/8/2011
October 2011	001	Chlorine, Total Residu	1D Conc	0.019	1.39	10/10/2011
October 2011	001	Chlorine, Total Residu	1D Conc	0.019	.76	10/12/2011
October 2011	001	Chlorine, Total Residu	1D Conc	0.019	.16	10/14/2011
October 2011	001	Chlorine, Total Residu	1D Conc	0.019	.1	10/18/2011
October 2011	001	Chlorine, Total Residu	1D Conc	0.019	.06	10/19/2011
October 2011	001	Nitrogen, Ammonia (NH3	7D Conc	1.5	14.9	10/22/2011
October 2011	001	Nitrogen, Ammonia (NH3	7D Qty	0.051	.50757	10/22/2011
October 2011	001	Chlorine, Total Residu	1D Conc	0.019	.33	10/24/2011
October 2011	001	Chlorine, Total Residu	1D Conc	0.019	.07	10/25/2011
October 2011	001	Chlorine, Total Residu	1D Conc	0.019	.25	10/31/2011
May 2012	001	Chlorine, Total Residu	1D Conc	0.019	.07	5/3/2012
May 2012	001	Chlorine, Total Residu	1D Conc	0.019	.07	5/7/2012
May 2012	001	Chlorine, Total Residu	1D Conc	0.019	.05	5/22/2012

August 2012	001	Fecal Coliform	30D Conc	1000	1500.	8/1/2012
August 2012	001	Chlorine, Total Residu	1D Conc	0.019	.05	8/30/2012

Code Violations				
Reporting Period	Station	Parameter	Reported Value	Violation Date
February 2011	001	Water Temperature	AF	2/1/2011
February 2011	001	Color, Severity	AF	2/1/2011
February 2011	001	Odor, Severity	AF	2/1/2011
February 2011	001	Turbidity, Severity	AF	2/1/2011
February 2011	001	Flow Rate	AF	2/1/2011
February 2011	001	Water Temperature	AF	2/2/2011
February 2011	001	Color, Severity	AF	2/2/2011
February 2011	001	Odor, Severity	AF	2/2/2011
February 2011	001	Turbidity, Severity	AF	2/2/2011
February 2011	001	Flow Rate	AF	2/2/2011
February 2011	001	Water Temperature	AF	2/3/2011
February 2011	001	Color, Severity	AF	2/3/2011
February 2011	001	Odor, Severity	AF	2/3/2011
February 2011	001	Turbidity, Severity	AF	2/3/2011
February 2011	001	Flow Rate	AF	2/3/2011

Frequency Violations						
Reporting Period	Station	Parameter	Sample Frequency	Expected	Reported	Violation Date
May 2011	001	Total Suspended Solids	1/Week	1	0	5/22/2011
October 2011	001	Total Suspended Solids	1/Week	1	0	10/1/2011
October 2011	001	CBOD 5 day	1/Week	1	0	10/15/2011
November 2011	001	Total Suspended Solids	1/Week	1	0	11/1/2011
December 2011	001	Dissolved Oxygen	1/Week	1	0	12/22/2011

Missing Compliance Schedule Milestones				
Schedule Due Date	Completion Date	Event Code	Schedule Type	Schedule Milestone
December 2010		5699	Construction	Final Compliance w/ Eff Limits

Flow Data for Raymond Elementary School between 1/1/2011 and 9/1/2012

	Date	Flows (GPD)
Ten Highest Flows	1/3/2011	9000
	1/4/2011	9000
	1/5/2011	9000
	1/6/2011	9000
	1/7/2011	9000
	1/10/2011	9000
	1/11/2011	9000
	1/12/2011	9000
	1/13/2011	9000
	1/18/2011	9000
Average Flow Rate		6538

Method of flow monitoring:	Plant Design
Type of alarms for plant:	Visual

SECTION D: PRELIMINARY TREATMENT

Type of Preliminary Treatment? Trash Trap	<input checked="" type="checkbox"/>	Yes	No
Does the unit require pumping or cleaning?	<input type="checkbox"/>		X
Maintenance of preliminary treatment is satisfactory?	X		<input type="checkbox"/>

Comments/Status: Trash trap is pumped annually.

SECTION E: AERATION

Color of MLSS?	Dark Brown				
	Yes	No		Yes	No
Aeration is taking place	X	<input type="checkbox"/>	Plant is septic	<input type="checkbox"/>	X
Blowers are operational	X	<input type="checkbox"/>	Blowers are on a timer	X	<input type="checkbox"/>
Skimmers are operational	X	<input type="checkbox"/>	Plant is flooded	<input type="checkbox"/>	X
Diffusers are operational	X	<input type="checkbox"/>	Grating is present	X	<input type="checkbox"/>
Sludge return is operational	X	<input type="checkbox"/>	Foam present?	<input type="checkbox"/>	X
Overall maintenance satisfactory?				X	<input type="checkbox"/>

Maintenance of aerating equipment is adequate.

Comments/Status:

SECTION F: CLARIFIERS

Clarity of water topping weir	Clear				
	Yes	No		Yes	No
Weir is clean?	X	<input type="checkbox"/>			
Weir is in good condition (i.e., level, free of corrosion, etc.)?	X	<input type="checkbox"/>			
Is effluent present in weir channel?	X	<input type="checkbox"/>			
Is the sludge blanket visible?	<input type="checkbox"/>	X			
Do the clarifier walls need scraping?	<input type="checkbox"/>	X			
Is sludge settling properly?	X	<input type="checkbox"/>			
Overall maintenance of the clarifier is satisfactory?	X	<input type="checkbox"/>			

Comments/Status:

SECTION G: TERTIARY TREATMENT

	Yes	No		Yes	No
Surface sand filters:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Subsurface/Upflow	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Distribution box operational	<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 checked="" type="checkbox"/>	<input type="checkbox"/>
UV present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Dechlorination present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Overall maintenance satisfactory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Frequency of cleaning: 2-3 months
 Fixed media upkeep: N/A

Comments/Status:

SECTION H: SLUDGE HANDING / STORAGE DISPOSAL

Sludge is periodically wasted from what component?	Clarifier/Aeration	
Sludge disposal contractor?	Ty Clarridge	
Sludge disposal location?		
	Yes	No
Does the WWTP have sludge drying beds?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the WWTP have a sludge holding tank?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the maintenance on the sludge handling unit adequate?	N/A	

Comments/Status:

SECTION I: RECORD KEEPING / OPERATOR OF RECORD

	Yes	No
Operator of Record hold unexpired license of class required by Permit.	X	
Has the Operator of Record submitted an ORC Notification form?	X	
Copy of certificate of Operator of Record displayed on-site?*		X
If a Staffing Reduction plan has been approved, are the stipulations of the plan being met?		
Operator of Record log book provided?	X	
Minimum operator staffing requirements fulfilled (OAC 3745-7)?	X	
Log book kept onsite (in an area protected from weather)?	X	
Log book contains the following:		
Identification of treatment works	X	
Date/times of arrival/departure for Operator of Record and any other operator required by OAC 3745-7	X	
Daily record of operator and maintenance activities (including preventative maintenance, repairs and request for repairs, process control test results, etc.)	X	
Laboratory results (unless documented on bench sheets)	X	
Identification of person making entries	X	
Has the Operator of Record submitted written notifications to the permittee, Ohio EPA and, if applicable, any local environmental agencies when a collection system overflow, treatment plant bypass or effluent limit violation has occurred	X	
Logbook Format		Bound book

Comments/Status:

SECTION J: PLANT DISCHARGE

Discharge point is:	Unnamed Tributary
Discharge is visible:	Yes
Name of discharge point:	N/A
Marker present:	No
Quality of effluent:	Clear and non-odorous
Contract laboratory:	MASI

Comments/Status