



John R. Kasich, Governor  
Robert Casper, Lt. Governor  
Scott L. Bulfinch, Director

**Certified Mail #91 7108 2133 3932 1838**

January 7, 2013

Jamie Grube, Superintendent  
Buckeye Valley Schools  
675 Coover Road  
Delaware, OH 43015

**Re: Buckeye Valley Middle & High Schools  
NPDES Permit 4PT00107/ OH0121410  
Reconnaissance Inspection  
Delaware County  
Notice of Violation**

Dear Mr. Grube:

This correspondence serves as **Notice of Violation** for chronic non-compliance with NPDES permit limits at the wastewater treatment plant serving the Buckeye Valley Schools facility. On December 4, 2012, a Reconnaissance Inspection was conducted at the Buckeye Valley school complex. Present for the inspection were TJ Howard, contract wastewater treatment plant operator representing Buckeye Valley Schools and myself of the Ohio EPA, Central District Office, Division of Surface Water.

The school is in Significant Non-Compliance (SNC) due to the frequency and magnitude of effluent violations for ammonia and E. coli bacteria. This facility has been in SNC for approximately five years and the school's status on the SNC list was highlighted during inspections conducted on March 5, 2008, April 29, 2009 and January 26, 2011.

The school has taken some steps to address noncompliance with permit limits. Specifically, the operator is working with the Ohio EPA Compliance Assistance Unit to monitor for and add supplemental alkalinity to enhance treatment for ammonia. While these steps have helped to reduce the severity of the violations, effluent limit violations continue to occur. Additional violations include failure to provide noncompliance notification for effluent violations, failure to install outfall signage and to maintain an operator logbook. These additional violations would appear to be very correctable and should be resolved immediately.

Jamie Grube, Superintendent  
Buckeye Valley Schools  
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This office has attempted to return this facility to compliance voluntarily without success and it appears that formal enforcement action, with a financial penalty, will now be necessary. I respectfully request a meeting with you and the plant operator to discuss the enforcement process and to reiterate our expectations for the resolution of violations at this facility.

Please refer to the Summary of Findings and Comments section of this report for additional details regarding the compliance inspection. Please contact me at (614) 644-3848 or e-mail at [mike.sapp@epa.state.oh.us](mailto:mike.sapp@epa.state.oh.us) to schedule a meeting regarding your facility.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael E. Sapp". The signature is fluid and cursive, with a long horizontal stroke at the end.

Michael Sapp  
Compliance and Enforcement Unit  
Division of Surface Water  
Central District Office

ec: Michael Sapp

c: Mark Tingley, Director of Administrative Services  
TJ Howard

MS/nsm Buckeye Valley HS 12

**NPDES Compliance Inspection Report**

SECTION A: NATIONAL DATA SYSTEM CODING				
Permit #	NPDES #	Inspection Type	Inspector	Facility Type
4PT00107	OH0121410	RI	S	Semi-Public
Inspection Date	Entry Time	Exit Time	Notice of Violation	Significant Non-Compliance
12/4/12	9:30 AM	10:30 AM	Yes	Yes

SECTION B: FACILITY DATA	
Name and Location of Facility Inspected	Permit Effective Date
Buckeye Valley Middle & High Schools 679 Coover Road Delaware, Ohio 43015	11/1/2011
	Permit Expiration Date
	10/31/2016
Name(s) and Title(s) of On-Site Representatives	Phone Numbers
TJ Howard, Contract Operator	(419) 560-3413
Name and Title of Responsible Official	Phone Number
Mark Tingley, Director of Administrative Services	(740) 369-8735

SECTION C: AREAS EVALUATED DURING INSPECTION		
Key: S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated		
U	NPDES Compliance	Failure to provide non-compliance notification.
U	Operations & Maintenance	Excessive weed growth in sand filters
U	Facility Site Review	No outfall signage. Log book not properly maintained.
S	Collection System	
S	Flow Measurement	
U	Receiving Waters	Significant Non-Compliance for chronic effluent violations
N	Laboratory	

Comments:  
See attached summary for additional comments.

Signatures	
	
Michael Sapp, Inspector Compliance & Enforcement Division of Surface Water Central District Office	Erin Sherer, Reviewer Compliance & Enforcement Supervisor Division of Surface Water Central District Office

**SUMMARY OF FINDINGS AND COMMENTS**  
**Buckeye Valley Schools**  
**Wastewater Treatment Plant**  
**4PT00107 - OH0121410**

The wastewater treatment plant serving the Buckeye Valley Schools facility has a design treatment capacity of 35,000 gpd with a direct discharge to an unnamed tributary to the Olentangy River. The plant serves a middle school, high school and administration building located off Coover Road. Wet stream process provided at the facility include a trash trap, flow equalization basin, extended aeration with clarification, a dosing tank, fixed media sand filters, tertiary sand filters, chlorination and dechlorination facilities. Solids handling consist of a sludge holding tank with decant capabilities. Liquid sludge is hauled to another facility for further processing followed by land application.

1. At the time of the inspection, the following general observations were made regarding the operational practices at the plant;
  - The trash trap is pumped out by Able Sanitation four times a year.
  - A grease trap is provided upstream of the plant to pretreat waste streams generated from the school cafeteria. The contract operator was uncertain about the pumping frequency of the grease trap although he noted that he doesn't see much grease at the treatment plant.
  - TCCI performs laboratory analysis for suspended solids, ammonia, CBOD<sub>5</sub>, chlorine and E. coli bacteria.
  - The plant operator performs analyses for dissolved oxygen (YSI Meter), pH (Hach), residual chlorine, color, odor and turbidity.
  - Both aeration trains are now in operation, in contrast to the previous inspections where only one of the two trains was in operation.
  - Timers were recently installed on the aeration blowers for on/off operation. The blowers run for four hours followed by a one hour off cycle.
  - No sludge has been hauled out of the plant since the last inspections was performed in January 2011.
  - The operator performs spin tests, with a centrifuge, to assess solids inventories in the plant.
  - The clarifier walls are scraped on a weekly basis. The fixed media clarifiers are drained down every other week.

2. A review of the flow data from January 2011 – October 2012 revealed an average daily flow of 6,000 gpd and a peak flow of 34,000 on July 14, 2011. The operator attributes the peak flow in July to the fact that his flow equalization pumps were out of service and he was pumping down the equalization tank in batches.
3. The operator is adding 50 pounds of supplemental alkalinity each week. A slurry of bicarbonate is added directly to the aeration tanks. Twenty pounds of alkalinity is added on Mondays and Wednesdays; ten pounds are added on Fridays.
4. Please be advised that Part III-12 of your effective NPDES permit requires that you submit an email or a letter of explanation outlining the actions you have taken or are taking to correct certain instances of non-compliance. This requirement is particularly important for facilities such as Buckeye Valley which has been in SNC for a significant period of time. This deficiency was identified in the previous inspection report and the plant operator has been repeatedly notified of this requirement. In spite of these notifications, the only response the operator provided was for violations occurring in January 2012.
5. Excessive weed growth was observed in the tertiary sand filters. These units must be maintained in a weed free condition to preclude short-circuiting of solids through the filters. This deficiency was also noted during previous inspections. Additionally, the concrete walls in the northwest corner of the back filter were separating. This must be repaired as soon as possible to preclude bypassing of the filter and disinfection facilities.
6. Part II. M. of your effective NPDES permit requires a sign that identifies the location of the permitted outfall to the unnamed tributary to the Olentangy River. The installation of outfall signage was required on or before March 1, 2012 (see page 8 of your effective permit). Please have this sign posted within the next 30 days and provide documentation to this office following installation. The sign must comply with the following requirements:
  - The marker shall consist, at a minimum, of the name of the establishment to which the permit was issued, the Ohio EPA permit number, and the outfall number and a contact telephone number. The information shall be printed in letters not less than two inches in height.
  - The marker shall be a minimum of 2 feet by 2 feet and shall be a minimum of 3 feet above ground level. The sign shall not be obstructed such that persons in boats or persons swimming on the river or someone fishing or walking along the shore cannot read the sign. Vegetation shall be periodically removed to keep the sign visible.

7. Ohio Administrative Code (OAC) Section 3745-7-09 requires the operator of record to maintain a log book documenting specific operational and maintenance activities with additional information on dates and times of plant visits. The rule requires that the records be housed and maintained in such a manner as to be protected from weather damage. The log book for the Buckeye Valley School was waterlogged and damaged to the point where it could not be read. This is a violation of OAC 3745-7-09. I would recommend that the operator make every attempt to preserve the damaged log book and start and maintain a new one that is properly protected from water damage.
8. The attached table contains a list of NPDES permit violations reported at the plant since the last inspection was conducted in January 2011. The school is in Significant Non-Compliance (SNC) due to the frequency and magnitude of effluent violations for ammonia and E. coli bacteria. This facility has been in SNC for approximately five years and the school's status on the SNC list was highlighted during inspections conducted on March 5, 2008, April 29, 2009 and January 26, 2011.

The operator has been working with the Ohio EPA Compliance Assistance Unit to monitor for and add supplemental alkalinity to facilitate compliance with ammonia limits. The plant is still not consistently meeting ammonia limits, although the magnitude of the violations has been significantly reduced.

This office has attempted to return this facility to compliance voluntarily without success and it appears that formal enforcement will now be necessary. **A number of deficiencies which are outlined elsewhere in this report (e.g. failure to provide non-compliance notification, absence of outfall signage, poor maintenance of tertiary sand filters and poor condition of operator log book) have been raised with the plant operator on numerous occasions. These deficiencies must be corrected immediately.**

## Compliance Data for Buckeye Valley Middle & High Schools between 12/1/2010 to 10/31/2012

### Summary

Permit Effluent Limit Violations: 89  
 Permit Effluent Code Violations: 0  
 Permit Effluent Frequency Violations: 0  
 Compliance Schedule Violations: 0

Limit Violations						
Reporting Period	Location	Parameter	Limit Type	Limit	Value	Violation Date
December 2010	001	Nitrogen, Ammonia (NH3)	30D Conc	3.0	17.45	12/1/2010
December 2010	001	Nitrogen, Ammonia (NH3)	7D Conc	4.5	11.3	12/1/2010
December 2010	001	Nitrogen, Ammonia (NH3)	30D Qty	0.4	3.19295	12/1/2010
December 2010	001	Nitrogen, Ammonia (NH3)	7D Qty	0.6	1.23179	12/1/2010
December 2010	001	Nitrogen, Ammonia (NH3)	7D Conc	4.5	23.6	12/15/2010
December 2010	001	Nitrogen, Ammonia (NH3)	7D Qty	0.6	5.15411	12/15/2010
January 2011	001	Nitrogen, Ammonia (NH3)	30D Conc	3.0	23.75	1/1/2011
January 2011	001	Nitrogen, Ammonia (NH3)	30D Qty	0.4	.44824	1/1/2011
January 2011	001	CBOD 5 day	30D Conc	10	24.4	1/1/2011
January 2011	001	CBOD 5 day	7D Conc	15	43.2	1/1/2011
January 2011	001	Nitrogen, Ammonia (NH3)	7D Conc	4.5	27.2	1/8/2011
January 2011	001	CBOD 5 day	7D Conc	15	42.2	1/8/2011
January 2011	001	Nitrogen, Ammonia (NH3)	7D Conc	4.5	20.3	1/22/2011
February 2011	001	Nitrogen, Ammonia (NH3)	30D Conc	3.0	24.15	2/1/2011
February 2011	001	Nitrogen, Ammonia (NH3)	7D Conc	4.5	15.9	2/1/2011
February 2011	001	CBOD 5 day	30D Conc	10	23.5	2/1/2011
February 2011	001	CBOD 5 day	7D Conc	15	45.4	2/8/2011
February 2011	001	Nitrogen, Ammonia (NH3)	7D Conc	4.5	32.4	2/15/2011
February 2011	001	Nitrogen, Ammonia (NH3)	7D Qty	0.6	.61317	2/15/2011
February 2011	001	CBOD 5 day	7D Conc	15	39.2	2/15/2011
March 2011	001	Nitrogen, Ammonia (NH3)	30D Conc	3.0	7.0455	3/1/2011
March 2011	001	Nitrogen, Ammonia (NH3)	7D Conc	4.5	13.2	3/15/2011
May 2011	001	Nitrogen, Ammonia (NH3)	7D Conc	1.5	1.62	5/1/2011
May 2011	001	CBOD 5 day	7D Conc	15	17.6	5/1/2011
September 2011	001	Fecal Coliform	30D Conc	1000	1430.	9/1/2011
September 2011	001	CBOD 5 day	7D Conc	15	20.	9/15/2011
October 2011	001	Nitrogen, Ammonia (NH3)	30D Conc	1.0	5.25	10/1/2011
October 2011	001	Nitrogen, Ammonia (NH3)	7D Conc	1.5	8.9	10/1/2011
October 2011	001	Nitrogen, Ammonia (NH3)	30D Qty	0.13	.14182	10/1/2011
October 2011	001	Nitrogen, Ammonia (NH3)	7D Qty	0.2	.23581	10/1/2011

October 2011	001	Fecal Coliform	30D Conc	1000	2600.	10/1/2011
October 2011	001	Fecal Coliform	7D Conc	2000	2600.	10/8/2011
October 2011	001	Nitrogen, Ammonia (NH3	7D Conc	1.5	1.6	10/15/2011
November 2011	001	Nitrogen, Ammonia (NH3	30D Conc	3.0	5.392	11/1/2011
November 2011	001	Nitrogen, Ammonia (NH3	7D Conc	4.5	10.1	11/15/2011
December 2011	001	Nitrogen, Ammonia (NH3	30D Conc	3.0	33.	12/1/2011
December 2011	001	Nitrogen, Ammonia (NH3	7D Conc	4.5	23.	12/1/2011
December 2011	001	Nitrogen, Ammonia (NH3	30D Qty	0.4	.94171	12/1/2011
December 2011	001	Nitrogen, Ammonia (NH3	7D Qty	0.6	.67903	12/1/2011
December 2011	001	CBOD 5 day	30D Conc	10	15.8825	12/1/2011
December 2011	001	CBOD 5 day	7D Conc	15	27.7	12/1/2011
December 2011	001	Nitrogen, Ammonia (NH3	7D Conc	4.5	43.	12/15/2011
December 2011	001	Nitrogen, Ammonia (NH3	7D Qty	0.6	1.20439	12/15/2011
December 2011	001	CBOD 5 day	7D Conc	15	18.2	12/15/2011
January 2012	001	CBOD 5 day	30D Conc	10	17.265	1/1/2012
January 2012	001	CBOD 5 day	7D Conc	15	39.	1/1/2012
January 2012	001	Total Suspended Solids	30D Conc	12	14.	1/1/2012
January 2012	001	Total Suspended Solids	7D Conc	18	20.	1/1/2012
January 2012	001	Nitrogen, Ammonia (NH3	30D Conc	3.0	16.295	1/1/2012
January 2012	001	Nitrogen, Ammonia (NH3	7D Conc	4.5	31.3	1/15/2012
February 2012	001	Nitrogen, Ammonia (NH3	30D Conc	3.0	37.75	2/1/2012
February 2012	001	Nitrogen, Ammonia (NH3	7D Conc	4.5	33.	2/1/2012
February 2012	001	Nitrogen, Ammonia (NH3	30D Qty	0.4	.93783	2/1/2012
February 2012	001	Nitrogen, Ammonia (NH3	7D Qty	0.6	.63702	2/1/2012
February 2012	001	CBOD 5 day	30D Conc	10	10.75	2/1/2012
February 2012	001	CBOD 5 day	7D Conc	15	21.4	2/1/2012
February 2012	001	Nitrogen, Ammonia (NH3	7D Conc	4.5	42.5	2/15/2012
February 2012	001	Nitrogen, Ammonia (NH3	7D Qty	0.6	1.23864	2/15/2012
March 2012	001	Total Suspended Solids	30D Conc	12	13.25	3/1/2012
March 2012	001	Nitrogen, Ammonia (NH3	30D Conc	3.0	27.005	3/1/2012
March 2012	001	Nitrogen, Ammonia (NH3	7D Conc	4.5	46.6	3/1/2012
March 2012	001	Nitrogen, Ammonia (NH3	7D Conc	4.5	7.41	3/15/2012
March 2012	001	pH	1D Conc	9.0	12.	3/15/2012
March 2012	001	Total Suspended Solids	7D Conc	18	23.	3/22/2012
April 2012	001	Total Suspended Solids	30D Conc	12	20.75	4/1/2012
April 2012	001	Total Suspended Solids	7D Conc	18	31.	4/1/2012
April 2012	001	Nitrogen, Ammonia (NH3	7D Conc	4.5	4.77	4/15/2012
April 2012	001	Total Suspended Solids	7D Conc	18	20.	4/22/2012
May 2012	001	Nitrogen, Ammonia (NH3	30D Conc	1.0	6.06	5/1/2012
May 2012	001	Nitrogen, Ammonia (NH3	7D Conc	1.5	4.84	5/1/2012
May 2012	001	Nitrogen, Ammonia (NH3	30D Qty	0.13	.19673	5/1/2012
May 2012	001	Nitrogen, Ammonia (NH3	7D Qty	0.2	.20884	5/1/2012
May 2012	001	E. coli	30D Conc	126	2200.	5/1/2012
May 2012	001	Nitrogen, Ammonia (NH3	7D Conc	1.5	7.28	5/15/2012
May 2012	001	E. coli	7D Conc	284	2200.	5/22/2012

June 2012	001	E. coli	30D Conc	126	169.	6/1/2012
July 2012	001	E. coli	30D Conc	126	307.5	7/1/2012
July 2012	001	E. coli	7D Conc	284	307.5	7/8/2012
September 2012	001	Total Suspended Solids	30D Conc	12	12.75	9/1/2012
September 2012	001	Nitrogen, Ammonia (NH3	30D Conc	1.0	7.17425	9/1/2012
September 2012	001	Nitrogen, Ammonia (NH3	30D Qty	0.13	.15268	9/1/2012
September 2012	001	Total Suspended Solids	7D Conc	18	45.	9/8/2012
September 2012	001	Nitrogen, Ammonia (NH3	7D Conc	1.5	14.3	9/15/2012
September 2012	001	Nitrogen, Ammonia (NH3	7D Qty	0.2	.3031	9/15/2012
October 2012	001	Nitrogen, Ammonia (NH3	30D Conc	1.0	5.57	10/1/2012
October 2012	001	Nitrogen, Ammonia (NH3	7D Conc	1.5	7.06	10/1/2012
October 2012	001	Nitrogen, Ammonia (NH3	30D Qty	0.13	.2255	10/1/2012
October 2012	001	Nitrogen, Ammonia (NH3	7D Qty	0.2	.3073	10/1/2012
October 2012	001	Nitrogen, Ammonia (NH3	7D Conc	1.5	4.08	10/15/2012

Flow Data for Buckeye Valley Middle & High School between 12/1/2010 and 10/31/2012

	Date	Flows (MGD)
Ten Highest Flows	7/14/2011	0.034
	4/24/2012	0.026
	1/6/2012	0.026
	7/7/2011	0.026
	7/8/2011	0.026
	7/12/2011	0.026
	7/28/2011	0.025
	3/6/2012	0.024
	7/6/2011	0.024
	7/9/2011	0.021
<b>Average Flow Rate</b>		0.006