



**Environmental  
Protection Agency**

John R. Kasich, Governor

Mary Taylor, Lt. Governor

Scott J. Nally, Director

June 5, 2012

RE: LORAIN COUNTY  
SHEFFIELD VILLAGE  
BARR ELEMENTARY SCHOOL  
(NPDES NO. 3PT00015)

Mr. Will Folger, Superintendent  
Sheffield-Sheffield Lake City Schools  
1824 Harris Road  
Sheffield Village, OH 44054

Dear Mr. Folger:

On May 30, 2012, a Compliance Evaluation Inspection (CEI) was conducted at the Barr Elementary School wastewater treatment plant (WWTP). Present during the inspection were Mr. John Sabo of the Lorain County Health Department; and this writer, of the Ohio EPA. The Barr Elementary School is located at 2180 Lake Breeze Road, Sheffield Village.

The purpose of the inspection was to evaluate the WWTP's operation and maintenance condition, and its compliance with the terms and conditions of its National Pollutant Discharge Elimination System (NPDES) permit. The last inspection conducted on the WWTP was in August 2010.

At the time of the May 30<sup>th</sup> inspection, the following items were observed at the WWTP:

- 1) The trash trap contents were typical, and not in need of pumping.
- 2) Contents of the aeration tank were watery gray in color, and were being aerated. Aeration tank solids content appeared to be very low, possibly having been recently pumped out. **Return sludge (RAS) lines from the settling tank to the aeration tank were not operating.**
- 3) **Inspection of the electrical control panel for the aeration tank blower motor found the blower motor to be incorrectly wired, or at least mislabeled.** The electrical control switch for the blower motor was not functional, and blower motor electricity is being controlled by the On/Off switch labeled as the Number 1 Pump. The Number 1 Pump switch controlled the blower motor, while the Number 2 Pump switch was not functional. There was evidence of a previous electrical short in the control box, as there was black soot on the inside of the control panel door.
- 3) **Settling tank contents contained a thick (2" to 3") mat of floating scum, which should not be present on the settling tank water surface, and needs to be removed.** There appeared to be no skimmer from the settling tank to the aeration tank.

- 4) The pumps in the surface sand filter dosing station were set on 'AUTO', and operated when manually tested. However, the water level in the dosing station was at the bottom of the tank, as if recently pumped out. The high-level alarm was functional when manually tested.
- 5) Both of the surface sand filter cells contained **vegetative growth, which needs to be removed, and the cells kept free of vegetation and/or solids.**
- 6) The WWTP treated effluent is disinfected by an Ultra Violet (UV) light unit. At the time of the inspection, the UV unit was in operation. The discharge line from the UV unit to the receiving stream has had the earth sink down, creating a ditch/channel approximately one foot in depth, and can be a trip/fall hazard.

Although the ditch/channel had temporary orange construction plastic fencing around the area, **the ditch/channel should immediately be backfilled, as it presents a potential hazard to anyone, especially elementary school children, who may be in the area.**

A review of the Barr Elementary School WWTP operating data, submitted monthly to the Ohio EPA, was conducted prior to the inspection. The electronic Discharge Monitoring Report (eDMR) data covered the period of August 1, 2009, through June 1, 2012. The data review found the following effluent numeric violations for the period reviewed:

**BARR ELEMENTARY SCHOOL  
 NPDES NO. 3PT00015  
 EFFLUENT NUMERIC VIOLATIONS  
 (AUG. 1, 2009 – JUNE 1, 2012)**

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
December 2009	Total Suspended Solids	30D Conc	12	73.	12/1/2009
December 2009	Total Suspended Solids	30D Qty	0.147	.27631	12/1/2009
December 2009	Nitrogen, Ammonia (NH3-N)	30D Conc	3.0	17.5	12/1/2009
December 2009	Nitrogen, Ammonia (NH3-N)	30D Qty	0.036	.06624	12/1/2009
December 2009	CBOD 5 day	30D Conc	10	21.	12/1/2009
December 2009	Total Suspended Solids	7D Conc	18	73.	12/15/2009
December 2009	Total Suspended Solids	7D Qty	0.220	.27631	12/15/2009
December 2009	Nitrogen, Ammonia (NH3-N)	7D Conc	4.5	17.5	12/15/2009
December 2009	Nitrogen, Ammonia (NH3-N)	7D Qty	0.055	.06624	12/15/2009
December 2009	CBOD 5 day	7D Conc	15	21.	12/15/2009
December 2009	Dissolved Oxygen	1D Conc	6.0	4.	12/18/2009
March 2010	Total Suspended Solids	30D Conc	12	76.	3/1/2010
March 2010	Total Suspended Solids	30D Qty	0.147	.43149	3/1/2010
December 2010	Total Suspended Solids	30D Conc	12	15.	12/1/2010
June 2011	Fecal Coliform	30D Conc	1000	5000.	6/1/2011

Proper operation and maintenance practices, which will enable the Barr Elementary School WWTP to continuously meet its NPDES Permit effluent limits, should continue to be implemented. **The above WWTP maintenance / repairs should immediately be made, and the plant kept in good operational condition.**

Please inform this office in writing, within ten days of the receipt of this correspondence, as to:

- 1) What steps will be taken to address the numeric effluent violations.
- 2) When the above repairs will be made such that a re-inspection can be conducted.

If there are questions or comments regarding this correspondence, please contact this office.

Respectfully,



Charles E. Allen  
Environmental Engineer  
Division of Surface Water

CA/cs

cc: Christina Douglas, Uni-Tech  
John Sabo, Lorain County Health Dept.