



State of Ohio Environmental Protection Agency

Northwest District Office

347 North Dunbridge Road
Bowling Green, OH 43402-9398

TELE: (419) 352-8461 FAX: (419) 352-8468
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

Re: Ashland County
Black River Local Schools WWTP
NPDES Permit

November 14, 2007

Janice Wyckoff, Superintendent
Black River Local Schools
257 County Road 40
Sullivan, Ohio 44880

Dear Superintendent Wyckoff:

On October 25, 2007, an inspection was made of the wastewater treatment facilities serving the Black River Local Schools. At the time of the inspection the major components of the treatment plant were in operation and functioning. Several concerns were noted during the inspection.

The light bulb in the old treatment plant building needs replaced. None of the lights in this building worked. For the safety of the operators and maintenance staff these lights need repaired immediately. It was also observed that the sludge return line in the old treatment plant flows to the last aeration tank. The return line should be rerouted so that it discharges to the first aeration tank.

The weir trough in the clarifier tank of the new plant was completely packed with sludge. This sludge should be pumped out and returned to the aeration tanks for further treatment. Both of the sludge returns in the new plant were flowing clear. Ideally these returns should be a chocolate brown color. The sides of the clarifier should be scraped in a gentle downward motion to push the settled sludge toward the return lines. The clarifier was extremely turbid and grey. Typically several feet of clarity are visible in a properly functioning treatment plant.

The upflow fixed media clarifiers were both in use. These clarifiers were also very turbid and appeared to have a significant buildup of sludge on the media. The sludge level should be checked and the media cleaned.

The alarm light on the sand filter dosing station was illuminated. The station appeared to be operating normally. The cause of the alarm should be investigated.

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The eastern sand filter was ponded and full of sludge. The flow should be switched to the other filter and the eastern filter allowed to dry. It was observed that a crack in the wall that divides the two filter beds was allowing flow from the ponded filter onto the western bed. The crack was located under the distribution box to the sand beds. This crack shall be repaired. Piles of dried sludge that had previously been scraped from the filter beds were located around the walls of the beds. These piles need to be removed and disposed of properly. This material should be weighed and disposed of in a sanitary dumpster for disposal at a landfill. The weight should be recorded and reported on the annual sludge reporting form.

No chlorination tablets were present in the chlorinator unit. Disinfection is required from May 1st through October 31st.

The sludge wasting line from the old treatment plant to the sludge holding tank needs attention. The point at which this line passes through the concrete wall of the sludge tank is cut to a large square hole. It appeared that the liquid level in the sludge tank may have reached a point in the past, that sludge began flowing out of the hole. This was evident from dried sludge material located in a depression next to the tank. The square hole should be grouted so that the wasting line passes securely through the concrete wall without any liquid leaking out.

A follow up inspection will be conducted within the next 60 days to measure progress on the above items. We request that either yourself, or someone from your staff, be present during the inspection. We will contact your office prior to the inspection to arrange the meeting.

A review of the monthly operating reports submitted for August 2006 through September 2007 revealed numerous violations of the limits contained in your NPDES permit. A printout of these violations is included for your review. Our office is concerned with the number of violations occurring at the treatment plant. Improved operation is needed in order to avoid possible enforcement action.

The review of your monthly operating reports also revealed that the daily flow being reported is always either 0.01, 0.025 or 0.001 million gallons. This was mentioned in our previous letter dated August 18, 2006. Due to the nature of your facility the flows typically vary more frequently than is being reported. Flow readings should be recorded daily. This is typically done by the same person who does the other daily reporting. Please respond to our office in writing **within 21 days** from receipt of this letter stating how the flow rates are obtained and the person responsible for recording this data.

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If you have any questions please call me at 419-373-3070.

Sincerely,



Walter Ariss
Environmental Specialist II
Division of Surface Water

/csl

Enclosure

Ⓜpc: NWDO-DSW file w/ enclosures /
Derrick Shinault, Eastwood Environmental Inc.

OHIO ENVIRONMENTAL PROTECTION AGENCY

OPERATION AND MAINTENANCE INSPECTION
WWTP'S LESS THAN 25,000 GPD

NPDES Permit No. 2PT00005

Facility Name Black River Schools Expiration Date 11/30/2011

Facility Address 257 CR 40 Date 10/25/07 Time 10:30 am

City Sullivan County Ashtabula Township _____

Name and Address of Owner _____

Person Contacted _____ Owner Phone _____

Flow: Design 25,000 GPD Present 25,000 GPD (metered - estimated)

Trib. Pop. _____ (actual - estimated) Weather at time of inspection: Temp 60° sunny

OEPA Personnel Walter Ariss District NWDO

1. Plant Effluent - Mark Severity No.

No.	Severity Description	No.	Turbidity	No.	Odor	No.	Color
0	None		Clear	<input checked="" type="checkbox"/>	None	<input checked="" type="checkbox"/>	Colorless
1	Mild	<input checked="" type="checkbox"/>					
2	Moderate		Light Solids		Musty		Grey
3	Serious						
4	Extreme		Heavy Solids		Septic		Black

2. Effect of effluent on Receiving Stream Name: unroad trib Black River

No.	Severity Description	No.	Turbidity	No.	Odor	No.	Color
0	None	<input checked="" type="checkbox"/>	Clear	<input checked="" type="checkbox"/>	None	<input checked="" type="checkbox"/>	Colorless
1	Mild						
2	Moderate		Light Solids		Musty		Grey
3	Serious						
4	Extreme		Heavy Solids		Septic		Black

3. a. Plant has _____ excellent _____ good fair _____ poor operation
 b. Plant has _____ excellent _____ good fair _____ poor maintenance
 c. Sand filters have _____ excellent _____ good fair _____ poor maintenance

d. Not operating at expected efficiency due to:

- (1) _____ hydraulic overload
 (2) _____ organic/ solids overload
 (3) _____ personnel inefficiency
 (4) _____ equipment failure
 (5) _____ wastes
 (6) _____

Disinfection: (Required May 1 thru Oct.31.)	
IN	OUT
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
_____	_____
_____	_____
_____	_____

Chlorination Tablets
 Dechlorination Tablets
 U.V.

Yes No

4. Compliance with NPDES Permit

Periodic Violations Y N Parameters: _____
 Chronic Violations TSS, BOD, NH₃

5. Adequate plant safety

6. Operation and Maintenance Service

Name Estward Environmental

Frequency of Visits 1 week?

Facility Name: Blonde River Schools

Process	# Units	Unit	If Needed - Description and Comments
Preliminary	<input checked="" type="checkbox"/>	Trash Trap	Pumping Frequency: ?
		Grease Trap	Pumping Frequency:
		Bar Screen	
		Comminutor	
	<input checked="" type="checkbox"/>	Flow Equalization	ok
Aeration Equipment		Plant Timer <u>Y</u> <input checked="" type="checkbox"/> <u>N</u>	Cycle Time:
	<input checked="" type="checkbox"/>	Motor/ Blower Unit <i>running</i>	
Secondary Treatment	<input checked="" type="checkbox"/>	Aeration Tank <i>new plant has heavy white billowing foam on aeration tanks</i>	Color: ok Adequate Aeration: Y <input checked="" type="checkbox"/> N
	<input checked="" type="checkbox"/>	Clarifier	Very turbid, weir bucket full of sludge
Final Settling	<input checked="" type="checkbox"/>	Sludge Return <i>old plant return removed to first aeration tank</i>	In <input checked="" type="checkbox"/> Out <input type="checkbox"/> <i>new plant returns running clear</i>
	<input checked="" type="checkbox"/>	Surface Skimmer	In <input checked="" type="checkbox"/> Out <input type="checkbox"/>
	<input checked="" type="checkbox"/>	Fixed Media Clarifier	Very turbid, appears full of sludge
	<input checked="" type="checkbox"/>	Surface Sand Filter <i>Crack in wall allowing water onto western bed</i>	eastern filter ponded & full of sludge sludge piled around outside of filter
Tertiary Treatment		Polishing Pond	
		Other	
	<input checked="" type="checkbox"/>	Chlorine Tube Feeder	no tablets
Disinfection	<input checked="" type="checkbox"/>	Dechlorination Tube Feeder	ok
		Ultraviolet (UV)	
	<input checked="" type="checkbox"/>	Elapsed Pump Time	recording not being done properly
Flow Metering		Recorder (continuous total)	
	<input checked="" type="checkbox"/>	Raw Wastewater (type) Flow EQ	ok
Pumps	<input checked="" type="checkbox"/>	Sand Filter Effluent Dosing	alarm alarm light on
	<input checked="" type="checkbox"/>	Aerated Storage Tank	note for old plant waste line needs grouted
Sludge Handling		Sludge Drying Bed	
		Municipal POTW	
		Landfill	
Sludge Disposal		Land Application	
	<input checked="" type="checkbox"/>	Post Aeration	off
		Spray Irrigation	
Advanced Treatment		Other	

NPDES permit limit violations August 2006 through September 2007
 Black River Local Schools

Reporting Period	Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
October 2006	001	00610	Nitrogen, Ammonia (NH3)	30D Conc	1.0	1.055	10/1/2006
October 2006	001	00610	Nitrogen, Ammonia (NH3)	7D Conc	1.5	1.83	10/15/2006
October 2006	001	00610	Nitrogen, Ammonia (NH3)	30D Qty	0.09	.09184	10/1/2006
October 2006	001	00610	Nitrogen, Ammonia (NH3)	7D Qty	0.14	.15931	10/15/2006
November 2006	001	00530	Total Suspended Solids	7D Conc	18	19.	11/1/2006
November 2006	001	00610	Nitrogen, Ammonia (NH3)	30D Conc	3.0	10.02	11/1/2006
November 2006	001	00610	Nitrogen, Ammonia (NH3)	7D Conc	4.5	13.03	11/1/2006
November 2006	001	00610	Nitrogen, Ammonia (NH3)	7D Conc	4.5	7.01	11/15/2006
November 2006	001	00610	Nitrogen, Ammonia (NH3)	30D Qty	0.28	.87229	11/1/2006
November 2006	001	00610	Nitrogen, Ammonia (NH3)	7D Qty	0.43	1.13433	11/1/2006
November 2006	001	00610	Nitrogen, Ammonia (NH3)	7D Qty	0.43	.61026	11/15/2006
November 2006	001	80082	CBOD 5 day	30D Conc	10	10.25	11/1/2006
November 2006	001	80082	CBOD 5 day	7D Conc	15	17.	11/8/2006
November 2006	001	80082	CBOD 5 day	7D Qty	1.42	1.47994	11/8/2006
February 2007	001	00530	Total Suspended Solids	1D Conc	18	33.	2/2/2007
February 2007	001	00530	Total Suspended Solids	1D Qty	1.70	3.12263	2/2/2007
February 2007	001	80082	CBOD 5 day	1D Conc	15	16.	2/2/2007
February 2007	001	80082	CBOD 5 day	1D Qty	1.42	1.514	2/2/2007
February 2007	001	00400	pH	1D Conc	6.5	6.1	2/2/2007
March 2007	001	00530	Total Suspended Solids	1D Conc	18	55.	3/13/2007
March 2007	001	00530	Total Suspended Solids	1D Conc	18	68.	3/20/2007
March 2007	001	00530	Total Suspended Solids	1D Conc	18	49.	3/27/2007
March 2007	001	00530	Total Suspended Solids	30D Conc	12	44.	3/1/2007
March 2007	001	00530	Total Suspended Solids	1D Qty	1.70	5.20438	3/13/2007
March 2007	001	00530	Total Suspended Solids	1D Qty	1.70	6.4345	3/20/2007
March 2007	001	00530	Total Suspended Solids	1D Qty	1.70	4.63663	3/27/2007
March 2007	001	00530	Total Suspended Solids	30D Qty	1.14	4.1635	3/1/2007
March 2007	001	80082	CBOD 5 day	1D Conc	15	23.	3/13/2007
March 2007	001	80082	CBOD 5 day	1D Conc	15	23.	3/20/2007
March 2007	001	80082	CBOD 5 day	1D Conc	15	16.	3/27/2007
March 2007	001	80082	CBOD 5 day	30D Conc	10	16.25	3/1/2007
March 2007	001	80082	CBOD 5 day	1D Qty	1.42	2.17638	3/13/2007
March 2007	001	80082	CBOD 5 day	1D Qty	1.42	2.17638	3/20/2007
March 2007	001	80082	CBOD 5 day	1D Qty	1.42	1.514	3/27/2007
March 2007	001	80082	CBOD 5 day	30D Qty	0.95	1.53766	3/1/2007
April 2007	001	00530	Total Suspended Solids	1D Conc	18	36.	4/3/2007
April 2007	001	00530	Total Suspended Solids	1D Qty	1.70	3.4065	4/3/2007
May 2007	001	00610	Nitrogen, Ammonia (NH3)	1D Conc	1.5	7.03	5/15/2007
May 2007	001	00610	Nitrogen, Ammonia (NH3)	30D Conc	1.0	3.595	5/1/2007
May 2007	001	00610	Nitrogen, Ammonia (NH3)	1D Qty	0.14	.26609	5/15/2007
May 2007	001	00610	Nitrogen, Ammonia (NH3)	30D Qty	0.09	.13607	5/1/2007
June 2007	001	00610	Nitrogen, Ammonia (NH3)	1D Conc	1.5	4.3	6/5/2007
June 2007	001	00610	Nitrogen, Ammonia (NH3)	30D Conc	1.0	2.735	6/1/2007
June 2007	001	00610	Nitrogen, Ammonia (NH3)	1D Qty	0.14	.16276	6/5/2007
September 2007	001	00400	pH	1D Conc	6.5	6.2	9/5/2007
September 2007	001	00400	pH	1D Conc	6.5	6.3	9/11/2007
September 2007	001	00400	pH	1D Conc	6.5	6.4	9/18/2007
September 2007	001	00400	pH	1D Conc	6.5	5.9	9/25/2007