



Environmental  
Protection Agency

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

May 22, 2012

Mr. Greg Young, Superintendent  
Ross Local School District  
3371 Hamilton Cleves Road  
Hamilton, Ohio 45013

**RE: Butler County, Morgan Elementary School, Compliance Evaluation Inspection**

Dear Mr. Young:

On April 26, 2012, I conducted a Compliance Evaluation Inspection at the Morgan Elementary School (NPDES Permit No. OH0127558; OEPA Permit No. 1PT00098\*BD). The inspection was also conducted as part of renewing the NPDES Permit. Representing this facility was Tom Perry, Hayden Smith and Sean Sears. A copy of my inspection report is enclosed.

The inspection report contains one "Unsatisfactory" area and one "Marginal" area. The "Operations & Maintenance" section was rated "Unsatisfactory" as a result of the deficiencies noted with the WWTP operations. The "Self-Monitoring" section was rated "Unsatisfactory" as a result of the monitoring violations.

The areas noted in the report summary will require a written response by June 8, 2012. The response should include a description of the actions proposed to correct the violations and the dates anticipated for completion of these actions.

If you have any questions, please call me at (937) 285-6096.

Sincerely,

Ned Sarle  
Environmental Specialist  
Division of Surface Water  
Permits Section

Enclosures

ec: Tom Perry, Morgan Elementary School  
John Beckman, Beckman Environmental Services Company

NS\bp



State of Ohio Environmental Protection Agency  
Southwest District Office

NPDES Compliance Inspection Report  
Semi-Public Sewage Disposal Inspection Form

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PT00098*BD	OH0127558	4/26/2012	C	S	2

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Ross Local School District Morgan Elementary School 3427 Chapel Road Hamilton, Ohio 45013	9:45 A.M.	10/1/2007
	Exit Time	Permit Expiration Date
	11:15 A.M.	9/30/2012
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Tom Perry, School Principal	(513) 738-1986	
Hayden Smith, Head Custodian	(513) 738-1986	
Sean Sears, Beckman Environmental Services Company	(513) 752-3570	
Name, Address and Title of Responsible Official	Phone Number	
Greg Young, Superintendent 3371 Hamilton Cleves Road Hamilton, Ohio 45013	(513) 863-1253	

Section C: Areas Evaluated During Inspection					
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)					
S	Permit	S	Flow Measurement	N	Pretreatment
S	Records/Reports	N	Laboratory	S	Compliance Schedule
U	Operations & Maintenance	S	Effluent/Receiving Waters	M	Self-Monitoring Program
S	Facility Site Review	S	Sludge Storage/Disposal	N	Other
S	Collection System				

**Section D: Summary of Findings (Attach additional sheets if necessary)**

See Attached Summary of Findings / Comments.

Inspector	Reviewer
<i>Ned Sarle</i> <i>5/1/12</i>	<i>Martyn Burt</i> <i>5/22/12</i>
Ned Sarle Permit Section Division of Surface Water Southwest District Office	Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office

Permit #: 1PT00098\*BD  
 NPDES #: OH0127558

Average Daily Design Flow:	<b>10,000 Gallons/Day</b>
Plant Serves:	Elementary School
Average Daily Flow: (Period of Review):	<b>2060 Gallons/Day (September 2010 through March 2012)</b>
Method of flow monitoring:	<b>elapse time meters for dosing pumps</b>
Type of alarms for plant:	<b>High water alarms</b>

**Pretreatment**

Type of Pretreatment: **Trash Trap**  
 Does the Trash Trap need pumped: **No**  
 Maintenance of pretreatment components is: **Good**

**Comments/Status:**

See Attached Summary of Findings / Comments.

**Secondary Treatment  
(Aeration)**

Color of sludge: **Medium Brown**  
 Quality of Sludge: **Medium**  
 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 checked="" type="checkbox"/>	<input type="checkbox"/>
Blowers are operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Blowers are on a timer	<input checked="" 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...**Fair**

**Comments/Status:**

See Attached Summary of Findings / Comments.

**Secondary Treatment  
(Settling)**

Clarity: **Solids Present**  
 Condition of Weir: **Excessive Algae/Solids Build Up**  
 Weir is level: **Yes**  
 Effluent in weir: **Light Solids**

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Clarifier walls need scraped: **Yes**

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

**Comments/Status:**

See Attached Summary of Findings / Comments.

**Tertiary Treatment**

	Yes	No		Yes	No
Surface sand filters: <b>Slow</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Subsurface</b>	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	Chlorination present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
UV present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Dechlorination present	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Overall maintenance of components is: **Poor**

**Comments/Status:**

See Attached Summary of Findings / Comments.

**Sludge Handling/Storage Disposal**

Hauler name: **AK Butler**  
 Disposal Site: **LeSourdsville WWTP**  
 Sludge wasted from: **Sludge holding tank**  
 How often is sludge wasted: **once every six months**  
 Sludge drying beds: **No**                      Sludge holding tank: **Yes**

Overall maintenance of components is: **Fair**

**Comments/Status:**

See Attached Summary of Findings / Comments.

**Plant Discharge**

Discharge point is a: **Ditch**  
 Name of discharge point: **Unnamed tributary of Dry Fork Creek**  
 Discharge is visible: **Yes**                      Quality of Effluent: **Clear**

**Comments/Status:**

None.

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## Summary of Findings / Comments

### Areas Requiring a Response

A review of the Discharge Monitoring Reports (DMRs) for September 2010 through March 2012 indicated one effluent violation. This violation is listed on Attachment I. A Notice of Violation letter addressing this violation was sent to the school on January 13, 2012. However, the required written response addressing this violation was never submitted. The Operator of Record, Mr. Hayden Smith, failed to report this violation in accordance to the NPDES Permit. Please address this violation. Future violations must also be reported as required by the NPDES Permit as detailed in Part III, Section 12 titled "Noncompliance Notification."

A number of effluent monitoring violations were noted in the period reviewed. These monitoring violations are noted on Attachment II. The Morgan Elementary School must ensure the sampling frequencies comply with the NPDES Permit.

The secondary clarifier walls are scraped four times a month. The clarifier walls must be scraped on a more frequent basis to ensure sludge is returned to the aeration tank. The sludge return line was also not working for one and a half weeks in February 2012. As a result, sludge collected behind the clarifier baffle and effluent weir. The floating sludge should be removed. In addition, sludge was discharged to the surface sand filters. This sludge should also be removed as soon as possible. This sludge should be properly removed by placing it in plastic trash bags and disposed at a landfill. Finally, any future equipment breakdowns must be repaired quickly to prevent effluent violations and operational problems at the WWTP.

The dosing lateral to one surface sand filter was leaking. This has caused a small hole to be excavated in the surface of the filter. The leaking pipe should be repaired and the hole filled in with sand.

The contractor operator who samples the WWTP effluent indicated that the ultraviolet disinfection system has never worked due to issues with the electrical system. Hayden Smith was not aware of this situation. Please confirm if the ultraviolet disinfection system is working. If it is not, it must be repaired and placed in operation as soon as possible.

The WWTP is currently required to be under the supervision of a Class I wastewater operator. When the NPDES Permit is renewed in September 2012, the WWTP will then be required to be under the supervision of a Class A wastewater operator. At this time, the Operator of Record is Hayden Smith who is a Class A wastewater operator. Once the NPDES Permit is renewed, an Operator of Record Form listing Hayden Smith must be submitted by the school. A copy of this form may be downloaded at the following web site:  
[http://www.epa.state.oh.us/portals/28/documents/opcert/Operator\\_of\\_Record\\_Notification\\_Form.pdf](http://www.epa.state.oh.us/portals/28/documents/opcert/Operator_of_Record_Notification_Form.pdf).

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An operator log book must be maintained by Hayden Smith at the WWTP and must be protected from weather. The operator log book must contain the following:

1. Identification of treatment works.
2. Date/times of arrival/departure for Operator of Record and any other operator required by OAC 3745-7.
3. Daily record of operator and maintenance activities (including preventative maintenance, repairs and request for repairs, process control test results, etc.).
4. Laboratory results (unless documented on bench sheets).
5. Identification of person making entries.

#### Areas Not Requiring a Response

The WWTP consists of a trash trap, a flow equalization tank, an aeration tank, a secondary clarifier, a dosing tank, two surface sand filters and an ultraviolet disinfection system. An aerated sludge holding tank is also provided. The trash trap is pumped four times a year. The aeration tank blowers are on a timer.

The existing WWTP was constructed in 1981. It is now approximately 31 years old. The package plant is constructed using metal tanks. The metal pipe between the trash trap and flow equalization tank was noted as being rusted out and a hole was exposed at the top of the pipe. The flow equalization tank and sludge holding tank were noted as being septic. The metal diffusers have rusted out and fallen into these tanks. The septic wastewater is also corrosive and will accelerate the deterioration of these metal tanks. The pumps and control floats in the flow equalization tank are missing. The wastewater has flooded this tank and is discharging through the overflow channel. In the last inspection report, we noted these conditions. Since the last inspection, these conditions have gotten worse. In response to the last inspection report, the school indicated that these deficiencies would be addressed. However, the school has now decided to completely replace the WWTP. The school will be closed in July 2013 while several improvements are made to the school. Please note that the new WWTP will require a Permit to Install be approved prior to construction.

The WWTP is designed for an average design daily flow rate of 10,000 gpd and a peak design daily flow rate of 15,000 gpd. The flow rate is estimated using the surface sand filter dosing pump elapse time meters. A review of the DMRs indicated an average daily flow rate of 2060 gpd and a peak daily flow rate of 2150 gpd. The school has approximately 430 students and 45 staff members.

The sludge generated from the WWTP is hauled to the MSD Mill Creek WWTP. In 2011, sludge was not removed from the WWTP.

The next permit will switch from fecal coliform to E. coli limits. The new E. coli limits should be a monthly average of 161 #/100ml and a weekly average of 362 #/100ml. The Ohio EPA would recommend performing some E. coli monitoring prior to the

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renewal date of the NPDES Permit. A sign will also be required to be provided at the WWTP discharge location.

The school will be closed in July 2013 while improvements are made to the school buildings. The school will be installing a new geothermal heating and cooling system. Please be aware that an NPDES Permit may be required for this discharge. The Ohio EPA has issued a general NPDES Permit for these types of discharges. Information about this general permit may be reviewed at the following web link:  
[http://www.epa.state.oh.us/dsw/permits/GP\\_GeothermalSystems.aspx](http://www.epa.state.oh.us/dsw/permits/GP_GeothermalSystems.aspx) .

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Attachment I

Morgan Elementary School

Effluent Limit Violations for September 2010 through March 2012

Reporting Period	Parameter	Limit Type	Units	Permit Limit	Reported Value
September 2011	TSS	Monthly	mg/l	12	14

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Attachment II

Morgan Elementary School

Effluent Monitoring Violations for September 2010 through March 2012

Reporting Period	Parameter	Sample Frequency	Expected	Reported	Violation Date
September 2010	Dissolved Oxygen	1/Week	1	0	09/08/2010
September 2010	Dissolved Oxygen	1/Week	1	0	09/22/2010
October 2010	Flow Rate	1/Day	1	0	10/29/2010
October 2010	Dissolved Oxygen	1/Week	1	0	10/08/2010
October 2010	Dissolved Oxygen	1/Week	1	0	10/22/2010
November 2010	Dissolved Oxygen	1/Week	1	0	11/08/2010
November 2010	Dissolved Oxygen	1/Week	1	0	11/22/2010
December 2010	Flow Rate	1/Day	1	0	12/15/2010
December 2010	Dissolved Oxygen	1/Week	1	0	12/08/2010
December 2010	Dissolved Oxygen	1/Week	1	0	12/22/2010
January 2011	Flow Rate	1/Day	1	0	01/31/2011
January 2011	Dissolved Oxygen	1/Week	1	0	01/22/2011
February 2011	Flow Rate	1/Day	1	0	02/28/2011
February 2011	Dissolved Oxygen	1/Week	1	0	02/08/2011
February 2011	Dissolved Oxygen	1/Week	1	0	02/22/2011
March 2011	Flow Rate	1/Day	1	0	03/31/2011
March 2011	Dissolved Oxygen	1/Week	1	0	03/08/2011
March 2011	Dissolved Oxygen	1/Week	1	0	03/22/2011
April 2011	Water Temperature	1/Week	1	0	04/08/2011
April 2011	Water Temperature	1/Week	1	0	04/22/2011
April 2011	Flow Rate	1/Day	1	0	04/20/2011
April 2011	Flow Rate	1/Day	1	0	04/21/2011
April 2011	Flow Rate	1/Day	1	0	04/22/2011
April 2011	Flow Rate	1/Day	1	0	04/25/2011
April 2011	Flow Rate	1/Day	1	0	04/26/2011
April 2011	Flow Rate	1/Day	1	0	04/27/2011
April 2011	Flow Rate	1/Day	1	0	04/28/2011
April 2011	Flow Rate	1/Day	1	0	04/29/2011
April 2011	Dissolved Oxygen	1/Week	1	0	04/08/2011
April 2011	Dissolved Oxygen	1/Week	1	0	04/22/2011
May 2011	Flow Rate	1/Day	1	0	05/31/2011
May 2011	Dissolved Oxygen	1/Week	1	0	05/08/2011
May 2011	Dissolved Oxygen	1/Week	1	0	05/22/2011
June 2011	Water Temperature	1/Week	1	0	06/08/2011
June 2011	Water Temperature	1/Week	1	0	06/22/2011
June 2011	Dissolved Oxygen	1/Week	1	0	06/08/2011

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Attachment II

Morgan Elementary School

Effluent Monitoring Violations for September 2010 through March 2012

Reporting Period	Parameter	Sample Frequency	Expected	Reported	Violation Date
June 2011	Dissolved Oxygen	1/Week	1	0	06/22/2011
July 2011	Water Temperature	1/Week	1	0	07/08/2011
July 2011	Water Temperature	1/Week	1	0	07/22/2011
July 2011	Dissolved Oxygen	1/Week	1	0	07/08/2011
July 2011	Dissolved Oxygen	1/Week	1	0	07/22/2011
August 2011	Dissolved Oxygen	1/Week	1	0	08/08/2011
October 2011	Dissolved Oxygen	1/Week	1	0	10/08/2011