



**Environmental  
Protection Agency**

Ted Strickland, Governor  
Lee Fisher, Lt. Governor  
Chris Korleski, Director



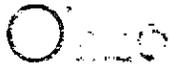
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MORGAN ELEM SCH

SARLE, EDWARD

2010/10/21



**Environmental  
Protection Agency**

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Lee Fisher, Lt. Governor  
Chris Korleski, Director

*Souage*

October 21, 2010

Mr. Todd Yohey, Superintendent  
Ross Local School District  
3371 Hamilton Cleves Road  
Hamilton, Ohio 45013

Re: Butler County, Morgan Elementary School, Compliance Evaluation Inspection

Dear Mr. Yohey:

On October 6, 2010, I conducted a Compliance Evaluation Inspection at the Morgan Elementary School (NPDES Permit No. OH0127558; OEPA Permit No. 1PT00098\*BD). Representing this facility was Hayden Smith and Sean Sears. A copy of my inspection report is enclosed.

The inspection report contains two unsatisfactory areas. The Operations & Maintenance section was rated unsatisfactory as a result of the deficiencies noted with the influent pipe, the flow equalization tank, the sludge holding tank, and the surface sand filters. The Self-Monitoring section was rated unsatisfactory as a result of the failure to monitor the dissolved oxygen on a weekly basis.

The areas noted in the report summary will require a written response by November 12, 2010. 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  
Division of Surface Water  
Permits Section

Enclosures

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



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	10/6/2010	C	S	1

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	1:05 P.M.	10/1/2007
	Exit Time	Permit Expiration Date
	2:15 P.M.	9/30/2010
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
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	
Todd Yohey, 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	S	Laboratory	S	Compliance Schedule
U	Operations & Maintenance	S	Effluent/Receiving Waters	U	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> 10/21/10	<i>Martyn Burt</i> 10/21/10
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:	10,000 Gallons/Day
Plant Serves:	Elementary School
Average Daily Flow: (Period of Review):	2283 Gallons/Day (October 2007 through August 2010)
Method of flow monitoring:	elapse time meters for dosing pumps
Type of alarms for plant:	High water alarms

**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...**Poor**

**Comments/Status:**

See Attached Summary of Findings / Comments.

**Secondary Treatment  
(Settling)**

Clarity: **Clear**  
Condition of Weir: **Clean**  
Weir is level: **Yes**  
Effluent in weir: **Clear**

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Clarifier walls need scraped: **No**

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

**Comments/Status:**

None.

**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 type="checkbox"/>	<input checked="" type="checkbox"/>	Beds alternated	<input type="checkbox"/>	<input checked="" 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 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: **MSD Mill Creek**  
Sludge wasted from: **Sludge holding tank**  
How often is sludge wasted: **Never**  
Sludge drying beds: **No**      Sludge holding tank: **Yes**

Overall maintenance of components is: **Poor**

**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

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. This pipe must be replaced for safety reasons and to prevent clean water from entering the WWTP.

The WWTP was approved for construction in 1981 and is now approximately 29 years old. The package plant is constructed using metal tanks. Typically, metal tanks last only 30 years before needing to be replaced. 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 metal diffusers must be replaced and aeration provided for these 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. The pumps and control floats must be replaced. A copy of the engineering drawings for this tank is provided for your information.

The flow splitter box for the two surface sand filters does not work. The wastewater is currently discharging to both filters. This is not acceptable. Wastewater flows must be directed to only one filter so that the other filter may rest and the solids removed. A new plug must be provided for the flow splitter box so that the wastewater effluent will be dosed to only one filter. The surface of the filters also appears to be uneven. The filters must be level so that the wastewater is dosed evenly over the filters.

A review of the Discharge Monitoring Reports (DMRs) for October 2007 through August 2010 indicated one effluent violation. A monthly ammonia concentration violation was reported in September 2008. Morgan Elementary School failed to report this violation in accordance to the NPDES Permit. Future violations must be reported as required by the NPDES Permit as detailed in Part III, Section 12 titled "Noncompliance Notification."

The dissolved oxygen is required to be monitored and reported on a weekly basis. Currently, it is only being reported once every two weeks. This deficiency has been noted in several Notices of Violation letters. However, the Ross Local School District has failed to address these letters and to correctly monitor the WWTP discharge.

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 2283 gpd and a peak daily flow rate of 65,649 gpd. The school has approximately 450 students and 43 staff members. The Ohio EPA would expect a higher average daily flow rate than is currently being reported. The school is currently using water provided by the Southwest Regional Water District. Please provide the

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water usage bills for the September 2009 through May 2010. Finally, the peak flows are much greater than would be expected. The Morgan Elementary School should minimize the infiltration and inflow sources as much as possible.

The facility is required to be under the supervision of a Class I WWTP operator. An Operator of Record Form must be submitted by Greg Beckman. 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%20of%20Record%20Notification%20Form.pdf).

An operator log book must be maintained at this WWTP and 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.

Beckman Environmental Services Company (BESCO) collects the WWTP effluent samples. The temperature and dissolved oxygen are tested on-site. The TSS, Ammonia, Fecal Coliform and CBOD5 are transported back to BESCO where they are tested. For the May 2010 effluent samples, please provide the following information:

1. Chains of custody records for all samples taken for this facility. If these records are not maintained, please indicate how the sample integrity is ensured.
2. Bench sheets or log book entries showing results, initial calibrations and calibration verifications appropriate for the analyses for any of CBOD5, pH, dissolved oxygen, total suspended solids, total residual chlorine, ammonia-nitrogen, and fecal coliform.

Finally, Standard Operating Procedures (SOPs) for these test methods must also be developed. We understand that BESCO has not written these SOPs at this time. The SOPs must be developed as soon as possible but not later than May 31, 2011. When completed, please provide us with copies of these. Finally, a General Lab Criteria checklist is being provided. We will be using this check list during future inspections.

#### 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 blowers are on 45 minutes

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and off 15 minutes during the school year and on 30 minutes and off 30 minutes during the summer.

The sludge generated from the WWTP is hauled to the MSD Mill Creek WWTP. In 2007 through 2010, sludge was not removed from the WWTP.

The WWTP is required to be under the supervision of a Class I WWTP operator. Sean Sears is currently a Class A WWTP operator. Greg Beckman provides supervision of this WWTP. He is a Class I WWTP Operator. When the permit is renewed, a Class A operator will be required. This operator will be required to be at the WWTP two times a week for a total of one hour.

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 renewal date of the NPDES Permit.

