



**Environmental
Protection Agency**

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



1PT0010420070404

SHELBY

HOUSTON HS

MILLER, JOSEPH

2007/04/04



State of Ohio Environmental Protection Agency

Southwest District Office

401 E. Fifth St.
Dayton, Ohio 45402

TELE: (937) 285-6357 FAX: (937) 285-6249
www.epa.state.oh.us

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

April 4, 2007

Houston High School
John F. Scheu, Superintendent
5300 Houston Road
Houston, OH 45333

**RE: Compliance Evaluation Investigation (CEI)
Houston High School Wastewater Treatment Plant
Houston, Shelby County**

Dear Mr. Scheu,

On March 27, 2007, I conducted a Compliance Evaluation Investigation at the Houston High School wastewater treatment works. This inspection was conducted to determine compliance with the NPDES discharge permit and to discuss renewal of this permit. Dave Ewing, Maintenance, represented the school district during this inspection.

A detailed inspection report is attached with areas of concern highlighted. A response is requested for the "Items Requiring a Response" section of the inspection report by **April 27, 2007**. Your response should include items completed or planned to be completed to address identified issues. If you have any questions, I can be reached at (937) 285-6109.

Sincerely,

~~Joe Miller~~
Division of Surface Water
Compliance and Enforcement

CC: Rick Russell, High School Principal
Dave Ewing, Maintenance
Michael N. Siegel, Certified Operator
Shelby County Health Department



State of Ohio Environmental Protection Agency
Southwest District Office

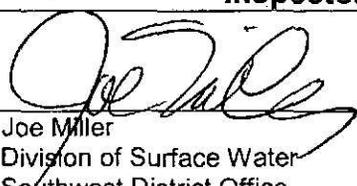
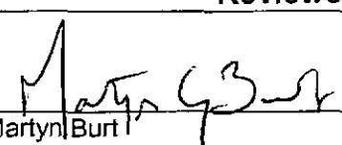
NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PT00104*AD	OH0131997	3/27/2007	C	S	2

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Houston High School WWTP 5300 Houston Road Houston, OH 45333	10:00 AM	6/1/2002
	Exit Time	Permit Expiration Date
	11:10 AM	5/31/2007
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Dave Ewing, Maintenance	937-295-3010	
Name, Address and Title of Responsible Official	Phone Number	
Hardin-Houston School District John Scheu, Superintendent 5300 Houston Road Houston, OH 45333	937-295-3010	

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	S	Self-Monitoring Program
M	Facility Site Review	U	Sludge Storage/Disposal	N	Other
S	Collection System				

Section D: Summary of Findings (Attach additional sheets if necessary)
See attached.

Inspector	Reviewer
 Joe Miller Division of Surface Water Southwest District Office Date: 4/4/07	 Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office Date: 4/5/07

**Houston High School WWTP
Compliance Evaluation Investigation
March 27, 2007**

General Information

The Houston High School wastewater treatment work was upgraded in 2003 under NPDES permit 1PT00104*AD/OH0131997. The current treatment works consists of a trash trap, equalization, extended aeration, clarification, sludge holding, dosing tank to surface sand filters, chlorination/dechlorination, and post-aeration. Discharge from the wastewater plant is to Ninemile Creek, a tributary of Loramie Creek.

The Houston High School contracts with Mike Siegel, Wastewater 3, as their operator. Mr. Siegel signs the Monthly Operating Reports (MORs) for the wastewater treatment plant. Dave Ewing, maintenance, conducts any on-site wastewater operations. Ohio Administrative Code (OAC) 3745-7 specifies treatment system classifications and staffing requirements. This facility is currently rated as a Class I facility which requires the operator of record must be physically present at the facility a minimum of 3 days per week for a minimum of 1.5 hours per week.

During the inspection, operational issues were noted which require attention.

- Sludge wasting is not being done properly.
- The chlorine contact tank had a large accumulation of sludge solids.
- Sludge disposal is being reported improperly.
- Post-aeration was not functioning properly.

A sludge holding tank was installed as part of the wastewater treatment plant improvements. The sludge holding tank should be used to waste solids to maintain proper operation. The sludge holding tank is not being used. Solids are being wasted to the sand filters, which require time intensive clean-up. Ultimately, this type of operation will cause clogging and failure of the sand filters.

Likely a result of not wasting solids and poor operation, the chlorine contact tank and post-aeration tank contained a large amount of sludge solids. These tanks should be clear of solids, as this is the last step before discharge to the receiving stream. Compliance issues will likely result from operating in this manner.

Disposal of sludge is required to be reported as per your NPDES permit. Currently, the sludge reported by Houston High School is actually the solids removed from the influent trash trap, or septage. Rural Sanitation currently disposes of this material. The ultimate disposal of this material is the responsibility of the school district.

The post-aeration blower was not function properly. The delivery pipe had partially disconnected and was not reaching the wastewater.

Effluent violations for the Houston High School for the period of January 2004 to February 2007 are listed below:

Permit No	Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
1PT00104*AD	January 2006	Total Suspended Solids	30D Conc	12	14	1/1/2006

Permit No	Reporting Period	Violation Date	Parameter	Sample Frequency	Expected	Reported
1PT00104*AD	May 2004	5/1/2004	Nitrogen, Ammonia (NH3)	1/Month	1	0
1PT00104*AD	August 2004	8/15/2004	Chlorine, Total Residual	1/2Weeks	1	0
1PT00104*AD	July 2004	7/8/2004	Water Temperature	1/Week	1	0
1PT00104*AD	July 2004	7/8/2004	Dissolved Oxygen	1/Week	1	0
1PT00104*AD	June 2006	6/15/2006	Chlorine, Total Residual	1/2Weeks	1	0

ITEMS REQUIRING A RESPONSE:

- 1. Operations Improvement** – The overall operation of this facility was poor. Continued operation in this manner will result in poor performance, increased costs, and compliance problems. Describe what measures will be taken to improve operation of the wastewater plant.
- 2. Certified Operator** – The minimum time described above needs to be provided by the operator of record. An operations and maintenance log needs to be maintained with date, times, actions, etc. as per Ohio Administrative Code 3745-7-09. Detail how the school district will meet this requirement.
- 3. Sludge** – Sludge disposal needs to be conducted and reported properly.
- 4. Post-Aeration** – The delivery pipe needs to be secured to the blower.

Recommendations

The Ohio EPA's Compliance Assistance Unit works free of charge providing on-site wastewater operation instruction and advice. Contact Keith Kroeger at 614-644-2014 or Jon VanDommelen at 614-644-2011 to schedule an on-site visit.

Sludge wasting is a fundamental concept of wastewater treatment. The maintenance staff should be trained in basic wastewater operation and process control. The Operator Training Committee of Ohio (<http://www.ohiowater.org/OTCO/>) and other agencies conduct periodic wastewater instructional courses. The school district may want to consider getting someone on staff certified as a wastewater operator.