



State of Ohio Environmental Protection Agency

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HIGHLAND GREENFIELD WWTP

JACKSON, JOSHUA 2008/02/26



State of Ohio Environmental Protection Agency

Southwest District Office

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Dayton, Ohio 45402-2911

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

February 26, 2008

City of Greenfield
Attn: City Council
P.O. Box 300
Greenfield, OH 45123

RE: *Copy*
City of Greenfield WWTW/Compliance Evaluation Inspection Report
NPDES Permit No. OH0021083 / OEPA PERMIT NO. 1PD00022*FD
Notice of Violation

Ladies & Gentlemen:

On February 14, 2008, Joshua Jackson conducted a NPDES Compliance Evaluation Inspection at the City of Greenfield wastewater treatment works (WWTW). Jim McCoy (Operator of Record) and Brian Smith were present during the inspection. The purpose of the inspection was to evaluate compliance with the terms and conditions of the NPDES Permit.

A copy of Mr. Jackson's report on the inspection is enclosed. As indicated in the report, three areas evaluated received "Unsatisfactory" ratings. **Please pay special attention to the "items requiring correction", which are shown in bold type.**

Thank you and your staff for the time extended during the inspection process. If you have any questions, please feel free to contact Mr. Jackson by phone at (937) 285-6029 or by e-mail at joshua.jackson@epa.state.oh.us.

Respectfully,

Martyn Burt
Compliance & Enforcement Supervisor
Division of Surface Water

Cc: Brian Smith, City of Greenfield
Jim McCoy, City of Greenfield

Enclosures







State of Ohio Environmental Protection Agency
Southwest District Office

NPDES Compliance Inspection Report

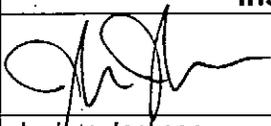
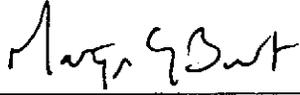
Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PD00022*FD	OH0021083	2/14/2008	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
City of Greenfield WWTW 187 Lost Bridge Road Buckskin Township, Highland County	10:00 a.m.	7/1/2005
	Exit Time	Permit Expiration Date
	11:45 a.m.	7/31/2008
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Jim McCoy, Operator of Record Brian Smith, Water & Sewer Services Director	937-981-3413 937-981-2435	
Name, Address and Title of Responsible Official	Phone Number	
City of Greenfield Council Attn: Jeff Fugate P.O. Box 300 Greenfield, OH 45123	937-981-3500	

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

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

See Attached Report.

Inspector	Reviewer
 Joshua Jackson Division of Surface Water Southwest District Office	 Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office
2-26-08 Date	2/26/08 Date



Inspection Findings

The City of Greenfield is currently under Director's Final Findings & Orders for sanitary sewer overflows in the collection system. As part of these orders, the City was required to begin construction on the wastewater treatment works (WWTW) by no later than August 1, 2007. Because this compliance date has not been met, a rating of "Unsatisfactory" was given for the "Compliance Schedule" section of this report. Ohio EPA was informed that construction on the WWTW would not begin on time because of delays in funding due to an environmental assessment being performed by Ohio Valley Regional Development Commission.

According to the consulting engineers for the City of Greenfield, it is anticipated that everything should be in place to begin construction on the WWTW by the middle of April 2008. Ohio EPA's expectation is that construction on the approved City of Greenfield WWTW upgrade will begin at that point in time. If there are any further delays, Ohio EPA will investigate the possibility of further enforcement against the City.

Since construction on the Railroad Interceptor was completed, the City has reported two instances of WWTW overflows as a result of strong precipitation events causing higher than normal influent flow rates. During these events, wastewater overflowed the primary clarifiers onto the plant grounds. Operations staff have observed that once influent flow rates are between 4 and 5 million gallons/day (MGD), overflows at the WWTW occur. These overflows are prohibited by the terms and conditions of the City's NPDES discharge permit for the WWTW. Because of this, the "Facility Site Review" section of this report was given a rating of "Unsatisfactory".

Once construction on the WWTW upgrade is completed and the new preliminary treatment units are installed (with a hydraulic capacity of 10 MGD), the consulting engineers do not expect similar overflows to occur. **Until that time, the City must provide a means for pumping influent flows around the primary clarifiers to the secondary aeration units during peak flow conditions. This temporary pumping system shall be in place by March 15, 2008.**

It was anticipated that all SSOs would be eliminated with the completion of the Railroad Interceptor project. Since this project was completed in 2007, at least 2 SSOs have occurred at Washington and Oak Streets. City staff cleared a large amount of debris in the sewer after the first overflow event but another has still occurred since that time. Engineers are preparing to perform flow monitoring in the collection system to help identify causes of inflow/infiltration in the collection system. **Until this SSO is eliminated, the City has not met the terms and conditions of the Directors Final Findings & Orders. By no later than May**



1, 2008, the City must provide an acceptable time table for when the Washington & Oak SSO (or any other SSOs) will be eliminated.

Effluent Limit Violations

(Period of Review: July 2007 – January 2008)

7D = Weekly 30D = Monthly 1D = Daily
Conc. = Concentration (mg/l) Qty.= Quantity (Kg/Day)

Reporting Period	Parameter	Limit Type	Limit	Reported Value
July 2007	Phosphorus, Total (P)	30D Conc	1.0	1.095
July 2007	Chlorine, Total Residual	1D Conc	0.038	.05
July 2007	Phosphorus, Total (P)	7D Conc	1.5	2.23
August 2007	Chlorine, Total Residual	1D Conc	0.038	.05
August 2007	Chlorine, Total Residual	30D Conc	0.032	.0496
August 2007	Phosphorus, Total (P)	30D Conc	1.0	2.088
August 2007	Phosphorus, Total (P)	7D Conc	1.5	2.685
August 2007	Chlorine, Total Residual	1D Conc	0.038	1.19
August 2007	Phosphorus, Total (P)	7D Conc	1.5	1.61
August 2007	Phosphorus, Total (P)	7D Conc	1.5	2.1
September 2007	pH, Maximum	1D Conc	9.0	9.4
October 2007	Phosphorus, Total (P)	30D Conc	1.0	1.70286
October 2007	Phosphorus, Total (P)	7D Conc	1.5	2.26
October 2007	Phosphorus, Total (P)	7D Conc	1.5	1.96
October 2007	Phosphorus, Total (P)	7D Conc	1.5	2.03
November 2007	Phosphorus, Total (P)	30D Conc	1.0	1.448
November 2007	Phosphorus, Total (P)	7D Conc	1.5	1.94
November 2007	Phosphorus, Total (P)	7D Conc	1.5	1.94

Because of the violations shown above, the City was given an "Unsatisfactory" in the "Effluent/Receiving Waters" section of this report. Operations staff have taken several steps to reduce the levels of phosphorus in the effluent such as switch to a high concentration of Ferric Sulfate and work with a local industry to better communicate about batch discharges of zinc/iron phosphate.

The City's current method of sludge dewatering is using a mechanical belt filter press. In the past, whenever the filter press was off-line for repairs, it could take the City weeks to make repairs. For this reason, the City of Greenfield should evaluate utilizing geotextile woven bags as a back-up plan. Typically, these bags have a relatively inexpensive start-up cost when compared to a mechanical means of dewatering.

The City must provide a contingency plan for dewatering and disposal of sludge to Ohio EPA Southwest District Office no later than April 16, 2008.

