



**Environmental  
Protection Agency**

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



\*1PM0000120090213\*

HAMILTON MILL CREEK WWTP

JACKSON, JOSHUA 2009/02/13



State of Ohio Environmental Protection Agency

Southwest District Office

401 East Fifth Street  
Dayton, Ohio 45402-2911

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

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

February 12, 2009

Hamilton County Board of Commissioners  
138 E. Court Street  
Cincinnati, OH 45202

*Case SF*  
**RE: MSD Mill Creek WWTW/Compliance Evaluation Inspection  
NPDES Permit No. OH0025461 / OEPA PERMIT NO. 1PM00001\*KD**

Ladies & Gentlemen:

On February 4, 2009, I conducted a NPDES Compliance Evaluation Inspection at the MSD Mill Creek wastewater treatment works (WWTW). Gary Stuhlfauth, Dan Gill and Michelle Waller with Ohio EPA were present. Noble Fulcher (Operator of Record), Dan Siler, Ed Ewbank and Tim Houck, who represented Hamilton County, were also present during this inspection. The purpose of these inspections is to evaluate compliance with the terms and conditions of the NPDES Permit. A copy of the report is provided within.

The one area evaluated during the inspection was rated "Satisfactory". As noted in the report, there are few matters that need addressed without delay. **Please pay special attention to the "items requiring correction" shown in bold type; for there are compliance schedules associated with these items.**

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

Respectfully,

Joshua Jackson  
Environmental Specialist II  
Division of Surface Water

Cc: Noble Fulcher, MSD (w/report)  
Ed Ewbank, MSD (w/report)

Enclosures







State of Ohio Environmental Protection Agency  
Southwest District Office

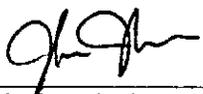
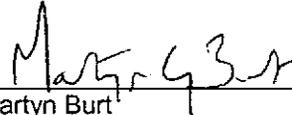
NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PM00001*KD	OH0025461	2/11/2009	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Metropolitan Sewer District of Greater Cincinnati (MSD) Mill Creek WWTW 1600 Gest Street Cincinnati, Hamilton County	10:00 a.m.	8/1/2004
	Exit Time	Permit Expiration Date
	12:15 p.m.	7/31/2008
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Noble Fulcher, Operator of Record	513-244-5178	
Dan Siler, Treatment Supervisor	513-244-5108	
Tim Houck, Operator		
Edward Ewbank, Senior Engineer (regulatory liaison)	513-244-5142	
Name, Address and Title of Responsible Official	Phone Number	
Hamilton County Board of Commissioners 138 E. Court Street, Room 603 Cincinnati, OH 45202		

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	N	Compliance Schedule
N	Operations & Maintenance	N	Effluent/Receiving Waters	N	Self-Monitoring Program
N	Facility Site Review	N	Sludge Storage/Disposal	N	Other
N	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
2-11-09 Date	2/12/09 Date



Inspection Findings

The purpose of this inspection was to observe the current conditions of the WWTW prior to issuing a draft NPDES renewal permit.

MSD Mill Creek wastewater treatment works (WWTW)  
 EFFLUENT LIMIT VIOLATIONS  
 (Period of Review: January – December 2008)

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

Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value
February 2008	004	Fecal Coliform	30D Conc	1000	6000.
February 2008	004	Fecal Coliform	7D Conc	2000	6000.
March 2008	004	Fecal Coliform	30D Conc	1000	1203.59
March 2008	004	Fecal Coliform	7D Conc	2000	2161.02
March 2008	004	Chlorine, Total Residual	1D Conc	0.33	.38
March 2008	004	Chlorine, Total Residual	1D Conc	0.33	.43
May 2008	002	pH, Minimum	1D Conc	6.0	0.0
May 2008	002	pH, Minimum	1D Conc	6.0	0.0
June 2008	604	Total Suspended Solids	30D Conc	30	30.2

Ohio EPA has received self-notification reports for the chlorine residual violations reported in March of 2008. **Please inform this office, in writing, within ten days of receipt of this notification as to the reasons for the remainder of the violations, as well as a description of the actions taken or proposed to prevent any further violations. Your response should include the dates, either actual or proposed, for completion of the actions. Future violations must be reported as required by the NPDES Permit as detailed in Part III.12 titled "Non-compliance Notification".**

In 2008, MSD reported bypassing of secondary treatment on 76 different calendar days at monitoring station 1PM00001603. Wastewater was bypassed after passing through influent bar screens, grit removal and primary sedimentation. The bypassed flow then recombines with secondary effluent prior to chlorine disinfection. The NPDES permit requires that flow rates of 240 MGD or greater will receive secondary treatment until secondary treatment effluent turbidity exceeds 20 NTUs; then flows through secondary treatment are reduced until turbidity is less than 20 NTUs. For the remainder of the wet weather event, flow to secondary treatment is maximized using "20 NTUs" as the main operational control. At no time, during the wet weather event, can secondary treatment effluent flow rates be less than 130 MGD (measured at station 1PM00001604).



Permit # : 1PM00001\*KE  
NPDES # : OH0025461

The Mill Creek WWTW operations staff has the ability to throttle three different sewer interceptor gates to reduce the amount of influent flows during wet weather events. MSD provides written follow-up reports for the days in which influent throttling occurs. These reports show the following: identity of interceptor that was throttled, % gate opening, and time that the gate was throttled.

The NPDES permit requires maximizing flow rates through the treatment facilities during wet weather events; flow rates up to 430 MGD will receive at least primary treatment and chlorination for the duration of the event.

Below is a chart with all influent throttling events reported by MSD; along with the associated discharge flow rates for those days:

Date(s) of reported influent throttling in 2008	Discharge flow reported at 1PM00001002
September 5 <sup>th</sup> (~8 hours)	103.68 MGD
August 29 <sup>th</sup> and 30 <sup>th</sup> (~5 hours)	86.983 MGD (8/29/2008)
June 4 <sup>th</sup> (~18 hours)	242.2 MGD
June 3 <sup>rd</sup> (~3 hours)	181.23 MGD
March 4 <sup>th</sup> (~6 hours)	307.72 MGD
March 18 <sup>th</sup> – March 21 <sup>st</sup> (~71 hours)	308 MGD* (average over 18 <sup>th</sup> – 21 <sup>st</sup> )
March 10 <sup>th</sup> and 11 <sup>th</sup> (~6 hours)	293.56 MGD* (3/11/2008)
March 4 <sup>th</sup> (~10 hours)	368.75 MGD

\*Combined daily discharge flows for 1PM00001002 and 1PM00001004

While Ohio EPA understands that the chart above is somewhat skewed because MSD's flow maximization requirements are based on instantaneous flow rates not average daily flows, it does seem that more specific capacity-related information is needed.

A maximum wet weather flow rate of 430 MGD has been established for the Mill Creek WWTW. Any throttling events that occur, when the instantaneous flow rate target is less than 430 MGD, should be justified through the established self-notification letters. Ohio EPA understands that this target is adjusted when treatment tanks/units are down or for other various reasons. Such explanations must be given in addition to the normal data reporting. Appropriate calculations shall also be provided to justify the lower target flow rate for any throttling event. For example, if tank A is down at the time of a wet weather event and this tank provides 30 MGD of treatment capacity, MSD would then need to include this information to Ohio EPA in order to justify a reduced target flow rate for throttling the sewer interceptors.

**MSD shall submit the additional information for all throttling events shown above by no later than March 2, 2009. All future events shall contain this information as well.**

