



**Environmental  
Protection Agency**

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



\*1PE0000220080515\*

BUTLER      HAMILTON WATER RECLAMATION FACILITY      SARLE, EDWARD      2008/05/15



State of Ohio Environmental Protection Agency

Southwest District Office

401 East Fifth Street  
Dayton, Ohio 45402-2911

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

May 15, 2008

Mr. Mark Brandenburger  
City of Hamilton  
One Renaissance Building  
345 High Street  
Hamilton, Ohio 45011

**Re: Butler County, Hamilton WWTP, Compliance Evaluation Inspection**

Dear Mr. Brandenburger:

On May 1, 2008, I conducted a Compliance Evaluation Inspection at this facility (NPDES Permit No. OH0025445; OEPA Permit No. 1PE00002\*KD). Ralph Reigelsperger, Rich Engel, Dan Arthur, Billy Slaven, Greg Hildebrand and Jane Winkler were representing this facility. A copy of my inspection report is enclosed.

The inspection report contains one unsatisfactory area. The Permit section was rated unsatisfactory as a result of the inability to treat up to the design flow through secondary treatment. The design flow of the Hamilton WWTP secondary treatment system is 32.0 MGD. However the maximum flow that can be treated through secondary is currently between 27.5 to 28.5 MGD. This is not acceptable. The secondary treatment system must receive and treat at least 32.0 MGD. This issue will be addressed as part of the current System Evaluation and Capacity Assurance Plan review. Hamilton must correct this WWTP limitation as soon as possible. At this time, no further response is required for this inspection report.

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

Sincerely,

Ned Sarle  
Division of Surface Water  
Permits Section

Enclosure

cc: Ralph Reigelsperger, City of Hamilton  
Billy Slaven, City of Hamilton





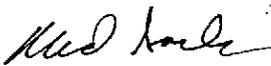
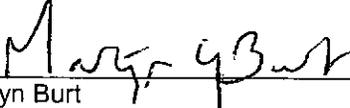
State of Ohio Environmental Protection Agency  
Southwest District Office

NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PE00002*KD	OH0025445	5/1/2008	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
City of Hamilton WWTP 2451 River Road Hamilton, Ohio 45015	10:00 A.M.	8/1/2003
	Exit Time	Permit Expiration Date
	2:15 P.M.	6/30/2008
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Ralph Reigelsperger, Director of Public Works	(513) 785-7272	
Rich Engel, City Engineer	(513) 785-7273	
Dan Arthur, Engineer	(513) 785-7286	
Billy Slaven, Water Reclamation Superintendent	(513) 868-5971	
Greg Hildebrand, Asst. Water Reclamation Supt.	(513) 868-5971	
Jane Winkler, Laboratory Supervisor	(513) 868-5971	
Name, Address and Title of Responsible Official	Phone Number	
Mark Brandenburger, City Manager One Renaissance Building 345 High Street Hamilton, Ohio 45011	(513) 785-7000	

Section C: Areas Evaluated During Inspection					
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)					
U	Permit	S	Flow Measurement	N	Pretreatment
S	Records/Reports	S	Laboratory	S	Compliance Schedule
S	Operations & Maintenance	S	Effluent/Receiving Waters	S	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
 Ned Sarie Division of Surface Water Southwest District Office	 Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office
5/15/08 Date	5/15/08 Date

Sections E thru K: Complete on all inspections as appropriate  
**Y – Yes, N – No, N/A – Not Applicable, N/E – Not Evaluated**

**Section E: Permit Verification**

Inspection observations verify the permit

- (a) Correct name and mailing address of permittee ..... Y
- (b) Correct name and location of receiving waters..... Y
- (c) Product(s) and production rates conform with permit application (Industries)..... N/A
- (d) Flows and loadings conform with NPDES permit..... Y
- (e) Treatment processes are as described in permit application... Y
- (f) New treatment process(es) added since last inspection..... N
- (g) Notification given to State of new, different or increased discharges..... N/A
- (h) All discharges are permitted..... N
- (i) Number and location of discharge points are as described in permit..... Y

Comments/Status:

See Attached Summary of Findings / Comments.

**Section F: Permit Violations / Compliance Schedules**

- (a) Any significant violations since the last inspection..... Y
- (b) Permittee is taking actions to resolve violations..... Y
- (c) Permittee has a compliance schedule..... Y
- (d) Compliance schedule contained in NPDES Permit / Consent Order
- (e) Permittee is meeting compliance schedule..... Y

Comments/Status:

See Attached Summary of Findings / Comments.

**Section G: Operation & Maintenance**

**Treatment Works:**

Treatment facility properly operated and maintained

- (a) Standby power available.....generator  or dual feed ..... Y
- (b) Adequate alarm system available for power or equipment failures.. Y
- (c) All treatment units in service other than backup units..... Y
- (d) Wastewater Treatment Works classification (OAC 3745-7)..... I
- (e) Operator of Record holds unexpired license of class required by permit..... Y  
 Class: IV
- (f) Copy of certificate of Operator of Record displayed on-site..... Y
- (g) Minimum operator staffing requirements fulfilled (OAC 3745-7)... Y
- (h) Routine and preventative maintenance scheduled/performed... Y
- (i) Any major equipment breakdown since last inspection..... N
- (j) Operation and maintenance manual provided and maintained..... Y
- (k) Any plant bypasses since last inspection..... Y
- (l) Regulatory agency notified of bypasses..... Y  
 On MORs  and/or Spill Hotline (1-800-282-9378)
- (m) Any hydraulic and/or organic overloads since last inspection..... Y

**Record Keeping:**

- (a) Log book provided..... N/E
- (b) Format of log book (i.e. computer log, hard bound book)
- (c) Log book(s) kept onsite (in an area protected from weather)..... N/E
- (d) Log book contains the following:
  - I. Identification of treatment works..... N/E
  - II. Date/times of arrival/departure for Operator of Record and any other operator required by OAC 3745-7..... N/E
  - III. Daily record of operation and maintenance activities (including preventative maintenance, repairs and request for repairs)..... N/E
  - IV. Laboratory results (unless documented on bench sheets)... N/E
  - V. Identification of person making log entries..... N/E
- (d) Has the operator of record submitted written notification to the permittee, Ohio EPA and (if applicable) any local environmental agencies when a collection system overflow, treatment plant bypass or effluent limit violation has occurred..... N/E

**Section G: Operation & Maintenance (con't)**

**Collection System:**

- (a) Percent combined system: 0%
- (b) Any collection system overflows since last inspection..... Y  
(CSO  and/or SSO )
- (c) Regulatory agency notified of overflows (SSOs)..... Y
- (d) CSO O&M plan provided and implemented..... N/A
- (e) CSOs monitored and reported in accordance with permit..... N/A
- (f) Portable pumps used to relieve system..... Y
- (g) Lift station alarms provided and maintained..... Y
- (h) Are lift stations equipped with permanent standby power  
or equivalent..... Y
- (i) Is there an inflow/infiltration problem (separate sewer system),  
or were there any major repairs to collection system since  
last inspection..... Y
- (j) Any complaints received since last inspection of basement flooding Y
- (k) Are any portions of the sewer system at or near capacity..... Y

**Comments/Status:**

See Attached Summary of Findings / Comments.

**Section H: Sludge Management**

- (a) Sludge management plan (SMP)  
Submitted date:                      Approval #:                      Not submitted     N/A
- (b) Sludge management plan current..... N/E
- (c) Sludge adequately disposed..... N/E  
(Method:                      )
- (d) If sludge is incinerated, where is ash disposed of
- (e) Is sludge disposal contracted..... N/E  
(Name:                      )
- (f) Has amount of sludge generated changed significantly since  
last inspection..... N/E
- (g) Adequate sludge storage provided at plant.....N/E
- (h) Land application sites monitored and inspected per SMP..... N/E
- (i) Records kept in accordance with State and Federal law..... N/A
- (j) Any complaints received in last year regarding sludge..... N/E
- (k) Is sludge adequately processed (digestion, pathogen control)..... N/E

**Comments/Status:**

None.

**Section I: Self-Monitoring Program**

**Flow Measurement:**

- (a) Primary flow measuring device operated and maintained..... Y  
Type of device: Ultrasonic & Parshall flume     Ultrasonic & Weir     Weir   
Calculated from influent                       Other  (Specify: Radar/ Open Channel)
- (b) Calibration frequency adequate ..... Y  
(Date of last calibration: 5/23/2007)
- (c) Secondary instruments operated and maintained..... Y
- (d) Flow measurement equipment adequate to handle full range  
of flows..... Y
- (e) Actual flow discharged is measured..... Y
- (f) Flow measuring equipment inspection frequency  
 Daily     Weekly     monthly     other

**Comments/Status:**

Flow monitoring equipment may measure between 0 – 70 MGD.

**Section I: Self-Monitoring Program (con't)**

**Sampling:**

- (a) Sampling location(s) are as specified by permit..... Y
- (b) Parameters and sampling frequency agree with permit..... Y
- (c) Permittee uses required sampling method..... Y
- (d) Sample collection procedures are adequate..... Y
  - (i) Samples refrigerated during compositing..... Y
  - (ii) Proper preservation techniques used..... Y
  - (iii) Containers and sample holding times prior to analysis conform with 40 CFR 136.3..... Y
- (e) Monitoring records (i.e., flow, pH, DO) maintained for a minimum of three years including all original strip chart recordings (i.e, continuous monitoring instrumentation, calibration and maintenance records)..... Y
- (f) Adequate records maintained of sampling date, time, location, etc.. Y

**Laboratory:**

*General*

- (a) EPA approved analytical testing procedures used (40 CFR 136.3).. N/E
- (b) If alternate analytical procedures are used, proper approval has been obtained..... N/E
- (c) Analyses being performed more frequently than required by permit. N/E
- (d) If (c) is yes, are results in permittee's self-monitoring report..... N/E
- (e) Commercial laboratory used..... N/E  
Parameters analyzed by commercial lab:

Lab name:

*Quality Control/Quality Assurance*

- (f) Quality assurance manual provided and maintained..... N/E
- (g) Satisfactory calibration and maintenance of instruments/equipment. N/E
- (h) Adequate records maintained..... N/E
- (i) Results of latest USEPA quality assurance performance sampling program:

Satisfactory  Marginal  Unsatisfactory

Date:

**Comments/Status:**

None.

**Section J: Effluent/Receiving Water Observations**

Outfall Number	Oil sheen	Grease	Turbidity	Visible Foam	Visible Floating Solids	Color	Other
001	-	-	-	-	-	clear	-

**Comments/Status:**

See Attached Summary of Findings / Comments.

**Section K: Multimedia Observations**

- (a) Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories..... N
- (b) Do you notice staining or discoloration of soils, pavement or floors.. N
- (c) Do you notice distressed (unhealthy, discolored, dead) vegetation.. N
- (d) Do you see unidentified dark smoke or dust clouds coming from sources other than smokestacks..... N
- (e) Do you notice any unusual odors or strong chemical smells..... N
- (f) Do you see any open or unmarked drums, unsecured liquids, or damaged containment facilities..... N

If any of the above are observed, ask the following questions:

- (1) What is the cause of the condition?
- (2) Is the observed condition or source a waste product?
- (3) Where is the suspected contaminant normally disposed?
- (4) Is this disposal permitted?
- (5) How long has the condition existed and when did it begin?

**Comments/Status:**

None.

NPDES Permit #: OH0025445  
OEPA Permit #: 1PE00002\*KD

### **Summary of Findings / Comments**

A review of the Monthly Operating Reports (MORs) for the period of May 2007 through March 2008 indicated several NPDES Permit violations. These violations are noted on Attachment I. The City of Hamilton (Hamilton) has adequately addressed these violations. Future violations must continue to be reported as required by the NPDES Permit as detailed in Part III.12 titled "Noncompliance Notification."

On January 19, 2007, a new Consent Order (CO) became effective for Hamilton. Hamilton was in violation of the previous CO due to bypasses from the sewage collection and treatment system. The new CO requires Hamilton to take action to address these bypasses.

All Sanitary Sewer Overflows (SSOs) are required to be reported in accordance to the NPDES Permit and the CO. Hamilton must report the SSOs in accordance to the NPDES Permit as detailed in Part III, Section 11 titled "Unauthorized Discharges" and in Part III, Section 12 titled "Noncompliance Notification." The CO requires SSOs from overflow locations 002, 014, 022, 027 and 037 to be reported on the Monthly Operating Reports (MORs).

For the SSOs addressed in the CO, Attachment II lists the bypasses reported for May 2007 through March 2008. Future SSOs must continue to be reported in accordance to the NPDES Permit and the CO.

The CO also requires the internal WWTP bypasses be reported on the MORs at station 603. Attachment III lists internal WWTP bypasses reported for May 2007 through March 2008. Eight bypasses were reported for this period. Five of these bypasses were the result of a 25 year rain event combined with a significant inflow source. The inflow source was an open 3 foot by 4 foot access hatch that was flooded under seven feet of water from the Great Miami River. This events resulted in widespread surcharging of the sanitary sewers, overflows from the collection system, and ten locations where pumping from the sanitary sewers were required.

The WWTP is designed for an average daily flow rate of 32.0 MGD. A review of the MORs for May 2007 through March 2008 indicated the average daily flow was 16.21 MGD. The peak daily flow rate was reported as 64.26 MGD. This peak flow rate occurred on March 19, 2008 during a 25 year storm event

The secondary treatment system was noted as not being able to receive 32.0 MGD of flow. The diversion chamber after the primary clarifiers limits flows for the secondary treatment system to 18 MGD. The remaining flows are automatically bypassed to the disinfection system. The secondary treatment system also receives 3.5 to 4.5 MGD of flows from Smart Papers. An additional 6 MGD from the old storage facility may also be directed to the secondary treatment system. As a result, the secondary treatment system is only treating between 27.5 to 28.5 MGD. This limitation is not acceptable.

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OEPA Permit #: 1PE00002\*KD

The flows to the secondary treatment system must be maximized to at least 32.0 MGD or greater if possible. Modification of the diversion chamber to provide an adjustable weir is being considered. Hamilton must proceed with this proposal as soon as possible. Finally, this issue will be required to be addressed as part of the SECAP plan. This plan was submitted on December 28, 2007 and is currently under review.

For many years, the Hamilton WWTP has experienced color pass through as a result of two local industrial dischargers. The resulting WWTP discharges alter the Great Miami River's color and are violations of the NPDES Permit and the Water Quality Standards. Since the last inspection, color pass through events were reported on June 14, 2007 and January 29, 2008. Smart Papers LLC was the source of these violations. Smart Papers has also had high levels of chlorine in their discharge. These high levels have at times inhibited the wastewater nitrification process. Hamilton must work diligently with these facilities to eliminate colored WWTP discharges and to prevent WWTP inhibitions.

Sludge produced at the Hamilton WWTP is land applied, composted or land filled. Synagro land applies the lime stabilized sludge. They are also contracted to haul the sludge to Rumpke land fill. The composted sludge is removed by Evans Landscaping and is taken to their Hamilton County facility. The composted sludge is then used as a soil amendment and is sold around the state.

The facility's NPDES Permit expires on June 30, 2008. A timely NPDES Permit renewal application was received on October 1, 2007. The Ohio EPA is planning on renewing this permit in the second half of 2010. Until the permit is renewed, Hamilton must comply with the expired NPDES Permit.

A laboratory audit was conducted on October 30, 2007 by the Ohio EPA, Division of Environmental Services. Areas were noted in a report sent to Hamilton on December 14, 2007. Hamilton addressed these issues on February 12, 2008.

Several WWTP odor complaints have been reported since the last inspection. Hamilton must continue their efforts to minimize these odors.

The WWTP is staffed 24 hours a day for 7 days a week.

The quarterly reports required by the CO were received on June 26, 2007; September 27, 2007; December 28, 2007 and March 20, 2008.

The annual report required by the CO was received on February 11, 2008. Sixty-five water in basement (WIB) events were reported as a result of sewer blockages. An additional WIB event was due to a hydraulic overload of the sanitary sewer. Hamilton may need to increase their system wide cleaning schedule to prevent WIB events due to blockages.

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An Overflow Emergency Response Plan required by the CO was received on August 13, 2007. This plan was approved by the Ohio EPA on January 4, 2008. This plan was also implemented by Hamilton on July 1, 2007.

A Management and Operation and Maintenance (MOM) program was implemented on October 1, 2007. A MOM plan as required by the CO was also received on December 3, 2007. The Ohio EPA is in the process of approving this plan.

A System Evaluation and Capacity Assurance Plan required by the CO was received on December 28, 2007. The Ohio EPA provided comments on this plan on February 29, 2008. These comments were addressed by Hamilton on May 12, 2008.

Ground water monitoring for the old sludge landfill is required by the CO. Hamilton is required to submit an annual report that includes the sampling results, trend analysis and monitoring well depth. The sampling is performed semiannually. Hamilton has complied with these requirements.

NPDES Permit #: OH0025445  
OEPA Permit #: 1PE00002\*KD

Attachment I					
NPDES Permit Violations					
May 2007 through March 2008					
Reporting Period	Parameter	Limit Type	Units	Permit Limit	Reported Value

May 2007	Chlorine	Daily	mg/l	0.037	0.051
May 2007	Chlorine	Daily	mg/l	0.037	0.066
May 2007	pH	Daily	S.U.	9.0	10.2
October 2007	Chlorine	Daily	mg/l	0.037	0.32

Attachment II  
 City of Hamilton  
 Sewage Collection System Bypasses for May 2007 through March 2008

Station	Parameter	Units	Date	Reported Flow
2	Flow Rate	MGD	2/6/2008	0.01354
2	Flow Rate	MGD	3/4/2008	0.02511
2	Flow Rate	MGD	3/18/2008	0.0877
2	Flow Rate	MGD	3/19/2008	0.52904
14	Flow Rate	MGD	3/18/2008	0.06375
14	Flow Rate	MGD	3/19/2008	0.07008
22	Flow Rate	MGD	3/18/2008	0.01377
22	Flow Rate	MGD	3/19/2008	0.0296
27	Flow Rate	MGD	10/23/2007	0.1498
27	Flow Rate	MGD	1/9/2008	0.16268
27	Flow Rate	MGD	2/5/2008	0.51917
27	Flow Rate	MGD	2/6/2008	2.37634
27	Flow Rate	MGD	3/4/2008	2.61394
27	Flow Rate	MGD	3/5/2008	0.19749
27	Flow Rate	MGD	3/18/2008	3.49133
27	Flow Rate	MGD	3/19/2008	10.9781
27	Flow Rate	MGD	3/20/2008	1.0244
37	Flow Rate	MGD	10/22/2007	0.2161
37	Flow Rate	MGD	10/23/2007	0.96296
37	Flow Rate	MGD	11/26/2007	0.05796
37	Flow Rate	MGD	1/8/2008	0.01629
37	Flow Rate	MGD	1/9/2008	0.21098
37	Flow Rate	MGD	2/5/2008	0.70911
37	Flow Rate	MGD	2/6/2008	2.48195
37	Flow Rate	MGD	3/4/2008	4.06705
37	Flow Rate	MGD	3/18/2008	2.51895
37	Flow Rate	MGD	3/19/2008	AD
37	Flow Rate	MGD	3/20/2008	AD

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Attachment III.  
City of Hamilton  
WWTP Bypasses for May 2007 through March 2008

Station	Parameter	Units	Date	Reported Value
603	Bypass Volume	MGAL	2/6/2008	15.61
603	Bypass Volume	MGAL	3/4/2008	12.45
603	Bypass Volume	MGAL	3/5/2008	7.67
603	Bypass Volume	MGAL	3/18/2008	4.94
603	Bypass Volume	MGAL	3/19/2008	20.56
603	Bypass Volume	MGAL	3/20/2008	16.92
603	Bypass Volume	MGAL	3/21/2008	13.66
603	Bypass Volume	MGAL	3/22/2008	4.86

