





State of Ohio Environmental Protection Agency

Southwest District Office

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

July 1, 2009

Joel McGuire, Mayor
City of Harrison
300 George Street
Harrison, Ohio 45030

RE: Compliance Evaluation Inspection at Harrison WWTP
NPDES Permit 1PC00002*ID

Dear Mayor McGuire:

On June 5, 2009, I met with Jim Leslie, Bob Haas and Gene Allen to conduct a compliance evaluation inspection at the Harrison Wastewater Treatment Plant. A copy of my inspection report is attached. All areas were rated as satisfactory except for the effluent quality which was rated as unsatisfactory due to the effluent limit excursions noted in my report.

Several important items are discussed in the summary of findings section of the report. No response to this inspection is necessary. If you have any questions regarding the inspection or the report, please call me at (937) 285-6101.

Sincerely,

Mary Osika
Environmental Specialist
Great Miami River Basin
Division of Surface Water

Enclosure

cc: Jim Leslie, Harrison Utilities Director





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Southwest District Office

NPDES Compliance Inspection Report

| Section A: National Data System Coding | | | | | |
|--|-----------|----------------|-----------------|-----------|---------------|
| Permit # | NPDES# | Month/Day/Year | Inspection Type | Inspector | Facility Type |
| 1PC00002*ID | OH0021440 | 6/5/2009 | CEI | | Public |

| Section B: Facility Data | | |
|--|-----------------------|--|
| Name and Location of Facility Inspected | Entry Time | Permit Effective Date |
| City of Harrison WWTP 10999 Campbell Road Harrison, Ohio | 8:45 am | August 1, 2008 |
| | Exit Time 10:30 am | Permit Expiration Date January 31, 2013 |
| Name(s) and Title(s) of On-Site Representatives | | Phone Number(s) |
| Jim Leslie, Director of Utilities Gene Allen, Bob Haas, Operators | | (513) 367-3725 or (513) 367-2111 |
| Name, Address and Title of Responsible Official | | Phone Number |
| Joel McGuire, Mayor City of Harrison 300 George Street Harrison, Ohio 45030 | | (513) 367-2111 |

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

| Section D: Summary of Findings (Attach additional sheets if necessary) |
|--|
| See attached sheet |

| Inspector | Reviewer |
|--|--|
| | |
| 7/1/09 | 7/2/09 |
| Mary Osika Environmental Specialist Division of Surface Water Southwest District Office | Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office |

Permit # : 1PC00002*ID
NPDES #: OH0021440

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)..... Y
- (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..... Y
- (g) Notification given to State of new, different or increased discharges..... Y
- (h) All discharges are permitted..... Y
- (i) Number and location of discharge points are as described in permit..... Y

Comments/Status:

The NPDES permit was modified in August 2008 in order to change the yearly biomonitoring month to match one of the quarterly biomonitoring months. The quarterly acute toxicity test for c. dubia will be done in October which matches the 1/year toxicity testing month of October.

Section F: Permit Compliance

- (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 effective NPDES permit
- (e) Permittee is meeting compliance schedule..... Y

Comments/Status:

See summary sheet for discussion permit violations.

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)..... III
- (e) Operator of Record holds unexpired license of class required by permit..... Y
 Class: III
- (f) Copy of certificate of Operator of Record displayed on-site..... N
- (g) Minimum operator staffing requirements fulfilled (OAC 3745-7)... N/A
- (h) Routine and preventative maintenance scheduled/performed... Y
- (i) Any major equipment breakdown since last inspection..... Y
- (j) Operation and maintenance manual provided and maintained.... Y
- (k) Any plant bypasses since last inspection..... N
- (l) Regulatory agency notified of bypasses..... N/A
 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..... Y
- (b) Format of log book (i.e. computer log, hard bound book)

Hard bound log book
- (c) Log book(s) kept onsite (in an area protected from weather)..... Y
- (d) Log book contains the following:
 - I. Identification of treatment works..... Y
 - II. Date/times of arrival/departure for Operator of Record and any other operator required by OAC 3745-7..... Y
 - III. Daily record of operation and maintenance activities (including preventative maintenance, repairs and request for repairs)..... Y
 - IV. Laboratory results (unless documented on bench sheets)... N
 - V. Identification of person making log entries..... Y
- (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..... Y

Section G: Operation & Maintenance (cont)

Collection System:

- (a) Percent combined system: 0%
- (b) Any collection system overflows since last inspection..... N
(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..... N
- (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..... N
- (j) Any complaints received since last inspection of basement flooding N
- (k) Are any portions of the sewer system at or near capacity..... N

Comments/Status:

Operator of Record must display copy of certificate of class III operator within the entry area of administrative building of wastewater treatment facility.

Dry Fork Road, phase 2 is the next big sewer project in line. They are starting their master plan for 2009-10 with Arcadis.

City has submitted a PTI application for the existing use of Archeae additive at the wastewater treatment facility.

At the time of the inspection, the aerobic digester was septic and emitting an odor. Facility is rectifying this situation by adding activated sludge to create aerobic condition and reducing aeration down time.

Odor complaints have been received by Ohio EPA regarding evening odors from this facility.

Section H: Sludge Management

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

Comments/Status:

The City is looking at the option of primary sludge disposal at a sanitary landfill.

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:)
- (b) Calibration frequency adequate Y
 (Date of last calibration: November 2008)
(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:

Yearly calibration is conducted on the effluent flow measuring equipment which is done every November.

Section I: Self-Monitoring Program (cont)

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).. Y
 - (b) If alternate analytical procedures are used, proper approval has been obtained..... Y
 - (c) Analyses being performed more frequently than required by permit. Y
 - (d) If (c) is yes, are results in permittee's self-monitoring report..... Y
 - (e) Commercial laboratory used..... Y
- Parameters analyzed by commercial lab: all but CBOD, TSS, pH, DO, Temp. NH3, fecals (Harrison's lab)

Lab name: Belmont, EnviroScience (toxicity)

Quality Control/Quality Assurance

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

Date: 8/29/2008

Comments/Status:

DMRQA Study 28 – all parameters satisfactory except for Hex Chromium and Nitrate Nitrogen (not acceptable). Remedial performance testing was done for these parameters which came back as satisfactory.

Section J: Effluent/Receiving Water Observations

| Outfall Number | Outfall sign in place? | Oil sheen | Grease | Turbidity | Foam | Solids | Color | Other |
|----------------|------------------------|-----------|--------|-----------|------|--------|-------|-------|
| 001 | yes | no | no | no | no | no | no | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Comments/Status:

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:

Summary of Findings/ Comments

The effluent quality has been rated as unsatisfactory due to the permit limit excursions the facility has had in the past year. During the review period of March 1, 2008 to May 30, 2009, there were fifteen permit limit excursions reported by the facility at outfall 001 to the Whitewater River. The violations are described below.

| <u>Parameter</u> | <u>Date</u> | <u>Permit Limit</u> | <u>Value Reported</u> |
|------------------------|-----------------------|---------------------|-----------------------|
| Total Suspended Solids | week of Mar.15, 2008 | 18 mg/l | 24.5 mg/l |
| Total Suspended Solids | week of Mar.15, 2008 | 195.8 kg/d | 328.563 kg/d |
| Total Suspended Solids | week of Dec. 22, 2008 | 18 mg/l | 24.6666 mg/l |
| Total Suspended Solids | month of Dec., 2008 | 12 mg/l | 12.0833 mg/l |
| Total Suspended Solids | week of Jan. 1, 2009 | 18 mg/l | 18.66 mg/l |
| Total Suspended Solids | week of Jan. 8, 2009 | 18 mg/l | 36.0 mg/l |
| Total Suspended Solids | week of Jan.15, 2009 | 18 mg/l | 36.33 mg/l |
| Total Suspended Solids | week of Jan.15, 2009 | 195.8 kg/d | 710.75 kg/d |
| CBOD 5 | week of Jan.15, 2009 | 174.1 kg/d | 229.27 kg/d |
| Total Suspended Solids | week of Jan. 22, 2009 | 18 mg/l | 28.33 mg/l |
| CBOD 5 | week of Jan. 22, 2009 | 15 mg/l | 19.33 mg/l |
| Total Suspended Solids | month of Jan. 2009 | 12 mg/l | 30.31 mg/l |
| Total Suspended Solids | month of Jan. 2009 | 130.5 | 261.04 kg/d |
| CBOD 5 | month of Jan. 2009 | 10 mg/l | 12.25 mg/l |
| Oil and Grease | March 4, 2009 | 10 mg/l | 37.6 mg/l |

Ohio EPA is initiating enforcement action with the City of Harrison due to failure to enforce its pretreatment program which may have contributed to the causes of the effluent limit violations.

The City of Harrison has submitted a PTI application for agency approval for the existing use of Archaea additive to the wastewater treatment plant. The purpose of the additive is to improve oxidation of BOD and reduction of waste activated sludge.

The City of Harrison is currently evaluating odor abatement options at the wastewater treatment plant. One option is to employ a deodorizer mist system around the aerobic digesters. Another option will be to eliminate the stock pile of sludge on the storage pad and have the sludge picked up regularly by a sanitary landfill contractor.

The Harrison Wastewater Treatment Plant has been treating wastewater at an average of 1.2 MGD for the past year. The average daily design flow rate of the plant is 2.3 MGD.