



State of Ohio Environmental Protection Agency

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\*1PD0000120081024\*

MONTGOME ENGLEWOOD WWTP

REYNOLDS, JOSEP 2008/10/24

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





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 Korteski, Director

October 27, 2008

Mayor and Council  
City of Englewood  
800 Englewood Drive  
Englewood, Ohio 45322

RE: City of Englewood Compliance Evaluation Inspection

Dear Mayor and Council:

On September 26, 2008 Joe Miller and Joe Reynolds performed a Compliance Evaluation Inspection at the Englewood waste water treatment plant.

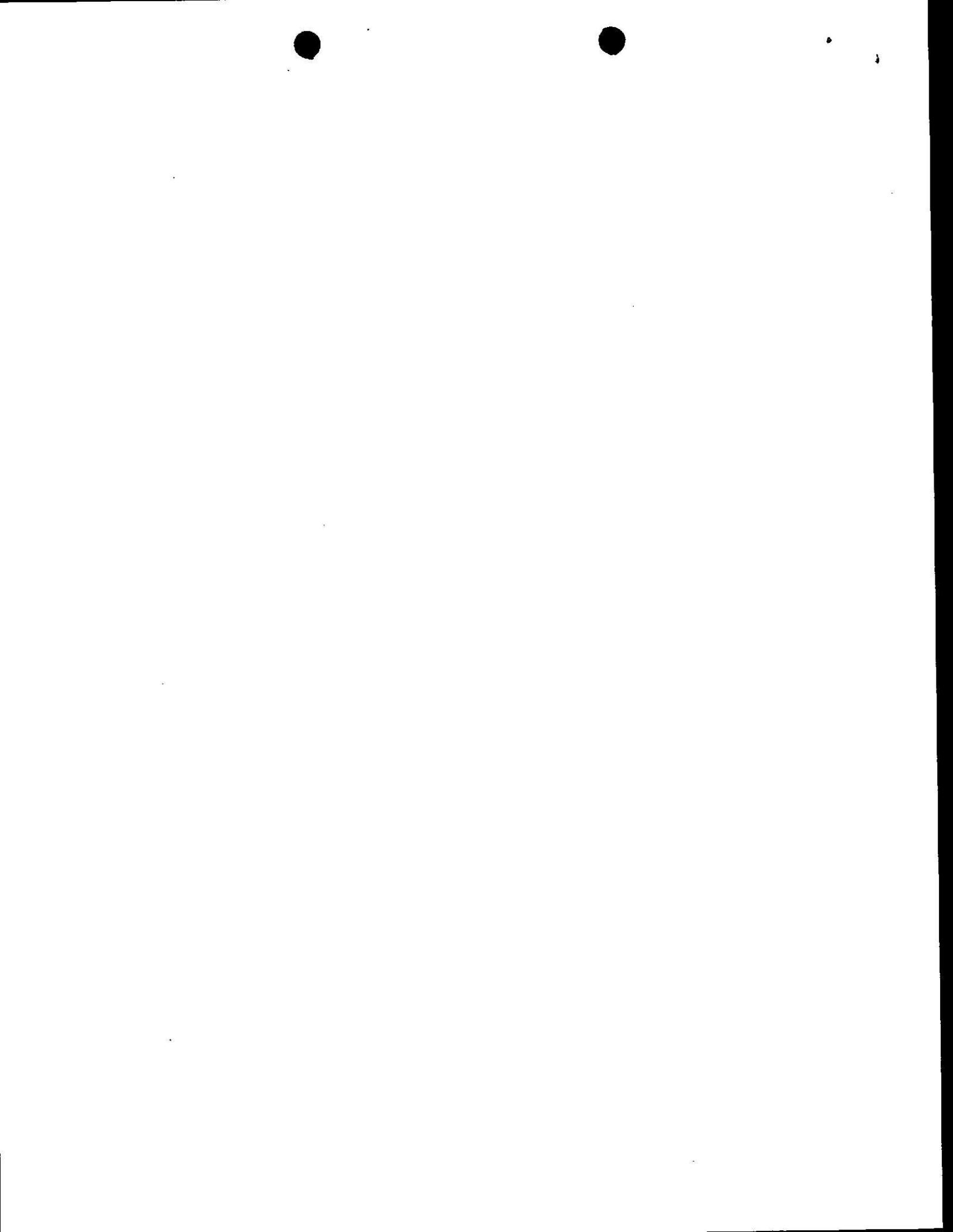
The inspection was performed to determine the city's compliance status with respect to their NPDES permit. The inspection findings are included in the attached report. The report contains several items which require a response. The response dates for each of the items are noted in the "Items Requiring a Response" section of the report.

If you have any question concerning the inspection please contact Mr. Reynolds at (937) 285 - 6097.

Sincerely,

Martyn Burt  
Compliance Supervisor  
Division of Surface Water

cc: Vernon Brown, Waste Water Superintendent





State of Ohio Environmental Protection Agency  
Southwest District Office

NPDES Compliance Inspection Report

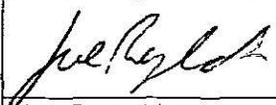
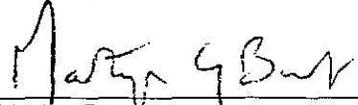
Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PD00001*MD	OH0025011	9/26/2008	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
City of Englewood WWTP 800 Englewood Drive Englewood, Ohio 45322	9:00	8/1/2008
	Exit Time	Permit Expiration Date
	12:00	10/31/2011
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Vernon Brown, Superintendent	(937) 836 - 5106 ext. 471	
Name, Address and Title of Responsible Official	Phone Number	
Mayor and Council City of Englewood 333 West National Road Englewood, Ohio 45322	(937) 836 - 5106	

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	S	Effluent/Receiving Waters	S	Self-Monitoring Program
S	Facility Site Review	S	Sludge Storage/Disposal	S	Other
M	Collection System				

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

The collection system was rated marginal due to inflow and infiltration problems in the system. The rest of the inspection findings are included in the attached report.

Inspector	Reviewer
 Joe Reynolds Division of Surface Water Southwest District Office	 Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office
10/28/08 Date	10/28/08 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)..... NA
- (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..... NA
- (h) All discharges are permitted..... Y
- (i) Number and location of discharge points are as described in permit..... Y

Comments/Status:

The plant is currently being operated in a plug flow extended aeration (18 to 24 hours aeration) mode.

**Section F: Compliance**

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

Comments/Status:

**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..... N
- (d) Wastewater Treatment Works classification (OAC 3745-7)..... I
- (e) Operator of Record holds unexpired license of class required by permit..... Y  
Class: I
- (f) Copy of certificate of Operator of Record displayed on-site..... NE
- (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..... Y
- (j) Operation and maintenance manual provided and maintained..... Y
- (k) Any plant bypasses since last inspection..... Y
- (l) Regulatory agency notified of bypasses..... N  
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..... NE
- (b) Format of log book (i.e. computer log, hard bound book)
- (c) Log book(s) kept onsite (in an area protected from weather)..... NE
- (d) Log book contains the following:
  - I. Identification of treatment works..... NE
  - II. Date/times of arrival/departure for Operator of Record and any other operator required by OAC 3745-7..... NE
  - III. Daily record of operation and maintenance activities (including preventative maintenance, repairs and request for repairs)..... NE
  - IV. Laboratory results (unless documented on bench sheets)... NE
  - V. Identification of person making log entries..... NE
- (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..... NE

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

**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)..... NA
- (d) CSO O&M plan provided and implemented..... NA
- (e) CSOs monitored and reported in accordance with permit..... NA
- (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 N
- (k) Are any portions of the sewer system at or near capacity..... Y

**Comments/Status:**

Curtis Pace is the full time maintenance person at the plant. The US 40 and US 70 lift stations have permanent standby power. The Meijer station has plumbing available for a portable pump hook-up.

**Section H: Sludge Management**

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

**Comments/Status:**

**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: \_\_\_\_\_)
- (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:**



**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).. NE
  - (b) If alternate analytical procedures are used, proper approval has been obtained..... NE
  - (c) Analyses being performed more frequently than required by permit. NE
  - (d) If (c) is yes, are results in permittee's self-monitoring report..... NE
  - (e) Commercial laboratory used..... NE
- Parameters analyzed by commercial lab:

Lab name:

*Quality Control/Quality Assurance*

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

**Comments/Status:**

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

Outfall Number	Outfall sign in place?	Oil sheen	Grease	Turbidity	Foam	Solids	Color	Other
001	NE	none	none	none	white	none	clear	

**Comments/Status:**

**Section K: Multimedia Observations**

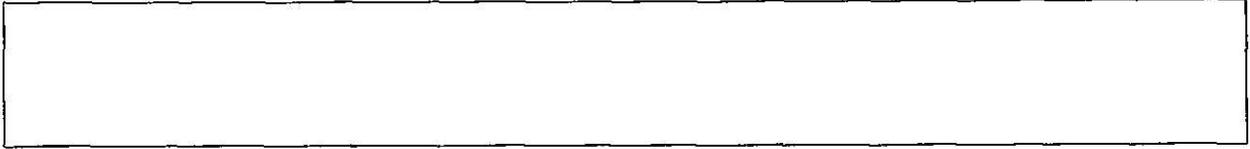
- (a) Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories..... N
- (b) Do you notice staining or discoloration of soils, pavement or floors.. N
- (c) Do you notice distressed (unhealthy, discolored, dead) vegetation.. N
- (d) Do you see unidentified 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:**

Permit # : 1PD00001  
NPDES #: OH0025011



## Inspection Findings

The City of Englewood currently holds National Pollutant Discharge Elimination System (NPDES) permit number 1PD00001\*MD. The permit was issued on June 27, 2008 and it expires on October 31, 2011. This permit includes a compliance schedule to meet new nutrient limits.

The treatment system consist of the following units: course screens, automatic grit removal, aeration, clarification, chlorination / dechlorination, and post aeration.

The waste water treatment plant is designed to treat an average daily flow of 2.5 million gallons. Between January 1, 2007 and September 30, 2008 waste water flows averaged 1.77 million gallons per day. In this same time period a maximum flow of 6.14 million gallons was recorded. Average daily flows are approximately 70 percent of the system design. As flows approach 80 percent of design active planning for system upgrades / expansion should begin.

Infiltration and inflow (I/I) is contributing to peak flows at the plant (January 5, 2005 peak of 11.6 MGD). During storm events as plant flows approach 5.0 MGD to 5.5 MGD the plant is placed in storm mode. In storm mode a portion of the flow bypasses primary treatment and the first five passes of the aeration system (flows are introduced directly into the sixth pass).

Vernon Brown (Class III waste water operator) is the Operator of Record in responsible charge of plant operations. Curtis Pace is in charge of plant maintenance.

In September, 2008 the city completed plant upgrades which included the following: perforated plate screening, aeration tank piping / flow improvements, return activated sludge and plant drain improvements, alteration of the clarifier influent / effluent arrangement (rim flow arrangement), flow monitoring upgrades, and sludge digester improvements. The city plans on installing a System Control and Data Acquisition (SCADA) system to monitor alarm conditions and oversee plant storm mode operations.

The city currently produces a Class A sludge. Sludge is aerobically digested in 10 basins (old plant), before being sent to a belt filter press (2 meter, 200 gpm). Pressed solids are combined with admix materials (lime and ash) in the cemtech process before being stored on site for three days. After three days the solids are removed from the plant to be combined with yard waste at the city's compost facility.

Between September 1, 2006 and August 31, 2008 the City of Englewood reported 19 final effluent violations. These violations include: 6 Fecal Coliform, 12 Suspended Solids, and 1 dissolved oxygen.

## Facility Inspection

The preliminary treatment system includes a coarse bar screen, automatic grit removal system including grit clarifier, hydro screen (30 mm) and old hydro screen. The old hydro screen serves as a back-up to the grit system.

Influent samples are collect after the coarse bar screen. The temperature in the influent sampler was at 4 degrees.

Effluent from the grit system is sent to the aeration system. The effluent channel also receives Return Activated Sludge and filtrate return from the press. The aeration system operates in series, six passes. No air is provided in the initial pass. Air feed rates are stepped up through the subsequent passes. Flows above 5 MGD to 5.5 MGD are sent directly to the sixth pass. The mixed liquor was chocolate brown (4500 to 5000 mg/l).

There are two secondary clarifiers. Flows through the clarifiers have been reversed with the installation of a rim flow system. The scraper arms have pick ups which direct solids to the center well. The effluent was clear. Pin floc solids were being carried over the effluent weir. The effluent trough was covered with a mat of algae.

A new secondary clarifier splitter box was recently added. The box will allow for manual or automated (SCADA controlled) diversion of flow between the clarifiers.

From the secondary clarifiers flows are sent to the chlorination system. Liquid chlorine is metered (rotometer) into the tank from a chlorine feed building. The effluent was clear. Some pin floc solids were noted.

Dechlorination chemicals are added after the chlorine tank.

Flow from the chlorine contact tank enters an effluent chamber. The effluent chamber is used to collect effluent samples and measure effluent flow. A rectangular weir with sonic meter is used to measure flow. The final effluent sampler was at 4 degrees Celsius.

The final effluent discharges through a cascade aeration system prior to discharging to the Stillwater River. The final effluent was clear. Minor white foam was forming.

At the time of the inspection the auger on the lime silo was broken.

## Items Requiring a Response

1. The routing of flows (potentially including RAS solids and filtrate) to the final pass of the secondary treatment system is a partial bypass of treatment and is in violation of the city's NPDES permit. Before such a bypass can be permitted a complete No Feasible Alternatives (NFA) study must be performed (see: USEPA National Pollutant Discharge Elimination System (NPDES) Permit Requirements for Peak Wet Weather Discharges From Public Owned Treatment Works Treatment Plants Serving Separate Sanitary Sewer Collection Systems). A preliminary schedule for performance of a NFA study and bypass elimination schedule (as deemed appropriate) must be submitted to this office by no later than February 15, 2009. In the interim the city will need to begin documenting the bypass activity. This information can be included in the operator's log. During active bypass periods the city needs to limit / eliminate the amount of RAS and filtrate flows being introduced upstream of the bypass.
2. A preliminary schedule for installation of the new Supervisory Control and Data Acquisition (SCADA) must be submitted to this office by no later than December 15, 2008. This system will help with system operations and oversight (notification of alarm conditions).
3. A brief written summary detailing the city's progress toward meeting the new permit nutrient limits must be submitted by no later than December 15, 2008.
4. An updated summary of Infiltration and Inflow work completed to date must be submitted to this office by no later than February 15, 2009.
5. A written summary detailing the cause and repairs made to the cemtec auger must be submitted to this office. This summary should include a chronology of events including: auger failure date, work towards completing repairs (date parts ordered, date parts installed, date repair completed), and date the system was placed back on-line. This summary must be submitted to this office by no later than December 15, 2008.

