



**Environmental
Protection Agency**

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

November 29, 2011

Mayor and Council
Village of Union City
419 East Elm Street
Union City, OH 45390

**RE: Compliance Evaluation Inspection (CEI)
Union City Wastewater Treatment Facility
NPDES Permit # 1PB00031*ED/OH0022454**

Ladies and Gentlemen:

On November 8, 2011, I conducted an evaluation of the Union City, Ohio wastewater treatment facility and collection system. At the time of inspection, Bill Bruggeman, Village Administrator, and Travis Gibbons, Wastewater Superintendent, represented the Village.

A response to this inspection report is requested. Provide a response to the items listed under the heading "Items Requiring a Response" by **December 21, 2011**. Should you have any questions, I can be reached at (937) 285-6109 or joe.miller@epa.state.oh.us.

Sincerely,

Joe Miller
Division of Surface Water

ec: Travis Gibbons, Wastewater Superintendent
Bill Bruggeman, Village Administrator

**Union City Wastewater Treatment Facility
Compliance Evaluation Inspection (CEI)
November 8, 2011**

Overview

The Union City wastewater treatment facility serves an estimated population of 1785. The Village utilizes a treatment train as follows: influent pumping, bar screen, comminution, grit removal, aerated lagoon, two facultative storage lagoons, and land application of effluent. Irrigation of lagoon effluent is to surrounding fields using fixed spray applicators. The application area consists of 115 acres with 15 application zones.

Land application of effluent is to take place only when the conditions allow. Part II, Item K. of the NPDES permit includes a list of requirements to be met for irrigation to be allowed.

The Village tests effluent prior to land application as per the NPDES permit. Testing is also conducted in the stream where application field underdrains ultimately discharge.

Influent Needs

The bar screen has been moved from the bypass channel to the channel prior to comminution to improve operation and maintenance. A replacement bar screen needs to be installed in the bypass channel to allow for situations that require a bypass of comminution for maintenance or high flows.

The influent flow meter was removed due to operational problems. In a land application system, influent and effluent flow metering is required.

Sanitary Sewer Overflows (SSOs)

Three sanitary sewer overflows were reported on March 13, 2010 due to a heavy storm event. These overflows were reported as required by the NPDES permit. The overflows occurred at the following locations:

1. Manhole H1 at 505 South Division Street ~4800 gallons (3:00 pm to 7:30 pm)
2. Manhole E9 at 106 Bon-Bon Street ~1200 gallons (3:00 pm to 7:15 pm)
3. Manhole E10 at 110 Bon-Bon Street ~500 gallons (3:00 pm to 7:15 pm)

Infiltration and Inflow

At the time of inspection, Bill Bruggeman provided an overview of the upcoming sewer lining project that expected to be awarded in May 2012. The sewer lining project includes 11,200 feet of sewer in the older section of town. As we discussed, it is

important to continue to budget and address infiltration and inflow related issues in the collection system.

Effluent Violations

Discharge limitation concentration levels were reported to be exceeded during the period of December 2009 to October 2011. Total Daily Inorganic Nitrogen was exceeded on two application dates in March 2011. Monthly Total Suspended Solids concentration was exceeded for September 2011.

ITEMS REQUIRING A RESPONSE

- 1. Infiltration and Inflow** – Provide an annual summary of I/I removal projects completed and those planned for the upcoming year. Specifically detail funding to be allocated to I/I projects and time commitments of staffing to address I/I issues. Please note that sanitary sewer overflows are illicit discharges and require immediate attention.
- 2. Influent Flow Metering** – Provide a plan and schedule for installing an influent flow meter.
- 3. Effluent Violations** – Provide an explanation for effluent violations and efforts planned to prevent any future violations.
- 4. Bypass Channel Bar Screen** – Provide a schedule for installation of a bar screen on the influent bypass channel.

Permit #: 1PB00031*ED
 NPDES #: OH0022454



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
1PB00031*ED	OH0022454	11/8/2011	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
The Village of Union City Wastewater Treatment Works 502 Beamsville-Union City Road Union City, OH 45390	9:30 AM	October 1, 2010
	Exit Time	Permit Expiration Date
	11:30 AM	9/30/2015
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Bill Bruggeman, Village Administrator Travis Gibbons, Wastewater Superintendent	937-968-4305 ext. 9 937-621-3015	
Name, Address and Title of Responsible Official	Phone Number	
Mayor and Council Village of Union City 419 East Elm Street Union City, OH 45390	937-968-4305	

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

Section D: Summary of Findings (Attach additional sheets if necessary)	
See attached	
Inspector	Reviewer
 Joe Miller Division of Surface Water Southwest District Office Date: 11/29/11	 Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office Date: 11/29/11

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) Flows and loadings conform with NPDES permit..... Y
- (c) Treatment processes are as described in permit application... Y
- (d) All discharges are permitted..... Y
- (e) Number and location of discharge points are as described
in permit..... Y
- (f) Storm water discharges properly permitted..... N/A

Comments/Status:

Wastewater treatment and disposal is by lagoons with land irrigation of effluent

Influent flow meter has been removed, needs to be replaced.

Section F: Compliance

- (a) Any significant violations since the last inspection..... Y
- (b) Appropriate Non-compliance notification of violations..... N
- (c) Permittee is taking actions to resolve violations..... Y
- (d) Permittee has a compliance schedule..... N
- (e) Compliance schedule contained in...N/A
- (f) Permittee is in compliance with schedule..... N/A
- (g) Has biomonitoring shown toxicity in discharge since last inspection N/A

Comments/Status:

Application concentration of daily Inorganic Nitrogen (2 times - 3/11) and monthly Total Suspended Solids exceeded (9/11).

Sanitary sewer overflows on March 13, 2010.

Section G: Operation & Maintenance

Treatment Works:

Treatment facility properly operated and maintained

- (a) Standby power available.....generator or dual feed Y
 - i. What does the back-up power source operate.....

Influent pumping
 - ii. How often is the generator tested under load.....

1/month under load; 1/week without load

- (b) Which components have an alarm system available for power or equipment failures.....

High water influent; power failure
Automatic dialer

- (c) All treatment units in service other than backup units..... Y
- (d) What method is used for scheduling routine & preventative maintenance (calendar, software, etc.).....

Scheduled: Aerators 1/month; Pumps checked daily
- (e) Any major equipment breakdown since last inspection..... Y
- (f) Operation and maintenance manual provided and maintained..... Y
- (g) Any plant bypasses since last inspection..... N
- (h) Any plant upsets since last inspection..... N

Comments/Status:

Intend to augment lagoons with "Aquago" to reduce sludge blanket.

Discovered influent gate to be partially closed, has been corrected.

Moved bar screen prior to comminutor. Bypass channel needs to be provided with a bar screen.

3 influent pumps, up to 1500 gpm

Section G: Operation & Maintenance con't

Record Keeping/Operator of Record:

- (a) Wastewater Treatment Works classification (OAC 3745-7)..... I
- (b) Operator of Record holds unexpired license of class required by Permit..... Y
- (c) Copy of certificate of Operator of Record displayed on-site..... Y
- (d) Has the Operator of Record submitted an ORC Notification form.. Y
- (e) Minimum operator staffing requirements fulfilled (OAC 3745-7).... Y
- (f) If a Staffing Reduction plan has been approved, are the stipulations of the plan being met..... N/A
- (g) Operator of Record log book provided..... Y
- (h) Format of log book (e.g. computer log, hard bound book)

Need to use a bound log book with numbered pages.
- (i) Log book kept onsite (in an area protected from weather)..... Y
- (j) 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 operator and maintenance activities (including preventative maintenance, repairs and request for repairs, process control test results, etc.)..... Y
 - iv. Laboratory results (unless documented on bench sheets)... N
 - v. Identification of person making entries..... Y
- (k) Has the Operator of Record submitted written notifications 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

Comments/Status:

Sanitary Sewer Overflows were reported as required.

Effluent violations need to be reported as per Part III, Item 12 of the NPDES permit.

If no application takes place during the period of time when sampling is expected, use the code "AC" for plant not discharging.

Section G: Operation & Maintenance con't

Collection System:

- (a) Are there pump stations in the collection system..... N
 - i. How many publicly-owned pump stations equipped with permanent standby power or equivalent.....
 - ii. How many pump stations have telemetered alarms.....
 - iii. How many pump stations have operable alarms.....

- (b) Any chronic collection system overflows since last inspection..... Y
- (c) Regulatory agency notified of all overflows..... Y
- (d) Are there CSOs in the collection system..... N
if so, what is the LTCP status.....
- (e) How are CSOs monitored (chalk, block, level sensor, etc.).....
- (f) Portable pumps available for collection system maintenance..... N
- (g) RDII Program established and active..... Y
- (h) Any WIB complaint received since last inspection..... N
- (i) Is there a WIB response plan..... Y
- (j) Is any portion of the collection system at or near dry weather capacity..... N

Comments/Status:

The Village expects to be awarded funding from OPWC in May 2012 for a 11,200 foot sewer lining project.

Continue to provide updates on infiltration and inflow reduction efforts including planning for upcoming projects.

Section I: Self-Monitoring Program

Flow Measurement:

- (a) Primary/Secondary flow measuring devices (e.g. weir with ultrasonic level sensor):
Badger Data Industrial 3000 (orifice) – numbers recorded manually
- (b) Flow meter calibrated annually Y
(Date of last calibration: 2010)
- (c) 24-hour recording instruments operated and maintained..... Y
- (d) Flow measurement equipment adequate to handle full range of flows..... Y
- (e) All discharged flow is measured..... Y

Comments/Status:

Need to calibrate flow meter annually.

Need to install influent flow meter.

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
(see GLC page)
- (d) 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

Comments/Status:

Lab evaluated during last inspection. SOPs still need to be developed.

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

Laboratory:

General

- (a) Does the Quality Assurance Manual contain written Standard Operating Procedures (SOP's) for all analysis performed onsite..... N
- (b) Do SOP's include the following if applicable..... N/A
 - Title
 - Scope and Application
 - Summary
 - Sample Handling and Preservation
 - Interferences
 - Apparatus and Materials
 - Reagents
 - Procedure
 - Calculations
 - Quality Control
 - Maintenance
 - Corrective Action
 - Reference (Parent Method)

Note: Standard Methods 1020A establishes that "Quality assurance (QA) is the definitive program for laboratory operation that specifies the measure required to produce defensible data of known precision and accuracy. Standard operating procedures are to be used in the laboratory in sufficient detail that a competent analyst unfamiliar with the method can conduct a reliable review and/or obtain acceptable results." SOPs should be developed for each analytical procedure.

- (c) EPA approved analytical testing procedures used (40 CFR 136.3).. Y
- (d) If alternate analytical procedures are used, proper approval has been obtained..... N
- (e) Analyses being performed more frequently than required by permit. N
- (f) If (e) is yes, are results in permittee's self-monitoring report..... N/A
- (g) Satisfactory calibration and maintenance of instruments/equipment. N/A (see score from GLC page)
- (h) Commercial laboratory used..... Y
Parameters analyzed by commercial lab: TSS, CBOD, TIN, bacteria

Lab name: MASI Laboratories

Comments/Status:

In-house testing: Influent – pH, temperature; Effluent: pH, dissolved oxygen, temperature

Section J: Effluent/Receiving Water Observations

Outfall # 001

Outfall Description: Land application to designated fields with fixed sprayers

Receiving Stream: Gray Branch (underdrains from application area), monitoring at Hillgrove-Fort Recovery Road bridge



union city ohio



Union City Land Application of Wastewater Measured by Flow (MGD) November 2009 to September 2011

