



John R. Kasich, Governor  
Gary DeRubeis, Lt. Governor  
Scott L. May, Director

May 17, 2013

David Gale, Operator  
Marengo Village  
PO Box 310  
Marengo, OH 43334

Re: **Marengo Village**  
**NPDES Permit 4PA00101/ OH0053881**  
**Compliance Evaluation Inspection**  
**Morrow County**

Dear Mr. Gale:

On April 25, 2013, a Compliance Evaluation Inspection was conducted at the Marengo Village. Present for the inspection were yourself representing the Village of Marengo and myself of the Ohio EPA, Central District Office, Division of Surface Water.

The purpose of the inspection was to evaluate compliance with the terms and conditions of your NPDES permit and to evaluate the operation and maintenance of the plant. The inspection raised a number of concerns which must be addressed in the following areas:

**Effluent Sampler** - The effluent composite sampler did not appear to maintain a temperature at or below 6°C. **Please place a thermometer in the sampler and correct the temperature accordingly. Please note that this deficiency was identified during the previous inspection. Please send this office a picture of the thermometer in the sampler when this task is accomplished.**

**Operator Log Book** - The log books did not contain notations of arrival and departure times by the operator of record. Please begin including arrival and departure times for daily entries as soon as possible. **Please note that this deficiency was identified during the previous inspection. Please begin making these notations immediately.**

David Gale, Operator  
Marengo Village  
Page -2-

If you have any questions or comments concerning the enclosed inspection report,  
please contact me at (614) 728-3848 or e-mail at [mike.sapp@epa.state.oh.us](mailto:mike.sapp@epa.state.oh.us).

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Sapp". The signature is fluid and cursive, with a large initial "M" and "S".

Michael Sapp  
Compliance and Enforcement Unit  
Division of Surface Water  
Central District Office

ec: Michael Sapp

MS/nsm Marengo 13

**NPDES Compliance Inspection Report**

**SECTION A: NATIONAL DATA SYSTEM CODING**

Permit #	NPDES #	Inspection Type	Inspector	Facility Type
4PA00101	OH0053881	CEI	S	Public
Inspection Date	Entry Time	Exit Time	Notice of Violation	Significant Non-Compliance
5/2/2013	10:00 AM	11:45 AM	No	No

**SECTION B: FACILITY DATA**

Name and Location of Facility Inspected	Permit Effective Date
Village of Marengo Marengo WWTP 4442 State Route 229 Marengo, Ohio 43334	7/1/2008
	Permit Expiration Date
	6/30/2013
Name(s) and Title(s) of On-Site Representatives	Phone Numbers
David Gale	(740) 513-1506
Name and Title of Responsible Official	Phone Number
David Gale, Operator	(740) 513-1506

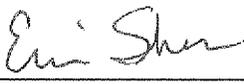
**SECTION C: AREAS EVALUATED DURING INSPECTION**

Key: S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated

S	NPDES Compliance	
S	Operations & Maintenance	
S	Facility Site Review	
S	Collection System	
S	Flow Measurement	
S	Receiving Waters	
M	Laboratory	Failure to maintain proper temperature in sampler

Comments:

Signatures

 5/15/13	 5/16/13
Michael Sapp, Inspector Compliance & Enforcement Division of Surface Water Central District Office	Erin Sherer, Reviewer Compliance & Enforcement Supervisor Division of Surface Water Central District Office

**SECTION D: PERMIT VERIFICATION**

- (a) Correct name and mailing address of permittee ..... Y
- (b) Correct name and location of receiving waters..... Y
- (c) Products and production rates conform with permit application ..... Y
- (d) Flows and loadings conform with NPDES permit ..... Y\*
- (e) Treatment processes are as described in permit application..... Y
- (f) New treatment process 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:

**SECTION E: 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 ..... N
- (d) Permittee is meeting compliance schedule ..... NA

Comments:

**SECTION F: OPERATION AND MAINTENANCE**

- (a) Standby power available ..... Y\*  
If yes, what type? generator
- (b) Adequate alarm system available for power or equipment failures ..... N\*
- (c) All treatment units in service other than backup units ..... Y
- (d) Wastewater Treatment Works classification..... I
- (e) Operator of Record holds unexpired license of class required by Permit ..  
Class held: II\*
- (f) Copy of certificate of Operator of Record displayed on-site ..... Y
- (g) Minimum operator staffing requirements fulfilled ..... Y\*
- (h) Routine and preventative maintenance scheduled and 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 ..... N
- (l) Regulatory agency notified of bypasses ..... NA  
By MOR  and/or Spill Hotline (1-800-282-9378)
- (m) Any hydraulic or organic overloads since last inspection.....

Comments:

**SECTION G: RECORD KEEPING**

- a) Log book provided ..... Y
- b) Format of log book (i.e. computer log, hard bound book)  
Computer log
- 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 ..... N\*
  - 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) ..... Y
  - v) Identification of person making log entries ..... Y
- e) Has the Operator of Record submitted written notification to the permittee, Ohio EPA and any applicable local environmental agencies when a collection system overflow, treatment plant bypass or effluent limit violation has occurred?....

Comments:

**SECTION H: COLLECTION SYSTEM**

- a) Percent combined system: ..... 0%
- b) Any collection system overflows since last inspection ..... N  
CSO  SSO
- c) Regulatory agency notified of overflows ..... NA
- d) CSO O&M plan provided and implemented..... NA
- e) CSOs monitored and reported in accordance with permit ..... NA
- f) Portable pumps are used to relieve system..... N
- g) Lift station alarms provided and maintained ..... Y\*
- h) Lift stations equipped with permanent standby power or equivalent ..... N\*
- 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 ..... N
- l) Are operations changed during high-flow events?..... N

Comments:

**SECTION I: SLUDGE MANAGEMENT**

- a) Sludge management plan (SMP) last audited by Ohio EPA:  
Audit Date: Not Applicable
- b) Sludge adequately disposed ..... Y\*  
Method: hauling to another POTW
- c) If sludge is incinerated, where is ash disposed of ..... N
- d) Is sludge disposal contracted ..... N  
Name: Poors Septic for hauling
- e) Has amount of sludge generated changed significantly ..... N
- f) Adequate sludge storage provided at plant ..... Y
- g) Records kept in accordance with State and Federal law ..... Y
- h) Any complaints received last year regarding sludge ..... N
- i) Is sludge adequately processed (digestion, pathogen control)..... Y

Comments:

**SECTION J: SELF-MONITORING PROGRAM**

- a) Primary flow measuring device operated and maintained ..... Y\*  
Type of device:magmeter Device location: effluent pipe
- b) Calibration frequency adequate..... Y\*  
Date of last calibration:
- c) Secondary instruments operated and maintained ..... Y\*
- d) Flow measurements equipment adequate to handle full range of flows .... Y
- e) Actual flow discharged is measured ..... Y
- f) Flow measuring equipment inspection frequency daily
- g) Sampling location(s) are as specified by permit ..... Y
- h) Parameters and sampling frequency agree with permit..... Y
- i) 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:

**SECTION K: Laboratory**

- a) EPA applicable analytical testing procedures used (40 CFR 136.3) ..... Y
- b) If alternate procedures are used, are they properly approved? ..... NA
- c) Analysis performed more frequency ..... N  
     If yes, are results recorded in permittee's report? ..... NA
- d) Commercial laboratory used: Y\*  
     Name: MASI  
     Parameters analyzed: all parametes except pH and DO
- e) Quality assurance manual provided and maintained ..... N
- f) Calibration and maintenance of instruments is satisfactory? ..... Y
- g) Results of last U.S. EPA quality assurance ..... NA  
     Date:

Comments:

**SECTION L: 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	Clear	

Comments:

**SECTION M: 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:

## Compliance Data for Marengo Village between 3/1/2012 to 4/1/2013

### Summary

Permit Effluent Limit Violations: 1  
 Permit Effluent Code Violations: 0  
 Permit Effluent Frequency Violations: 0  
 Compliance Schedule Violations: 0

Limit Violations						
Month	Permit Section	Parameter	Unit	Limit	Measured Value	Violation Date
December 2012	001	Nitrogen, Ammonia (NH3)	TD Qty	1.7	1.95874	12/15/2012

### Flow Data for Marengo Village between 3/1/2012 and 4/1/2013

	Date	Flows (MGD)
Ten Highest Flows	3/1/2013	0.230
	5/8/2012	0.100
	10/30/2012	0.100
	1/11/2013	0.085
	5/3/2012	0.075
	12/17/2012	0.075
	10/29/2012	0.070
	5/9/2012	0.069
	12/16/2012	0.068
	10/31/2012	0.060
<b>Average Flow Rate</b>		0.027

**ADDITIONAL INFORMATION**  
**Marengo Wastewater Treatment Plant**  
**4PA00101 – OH0053881**

**General**

The Marengo Wastewater Treatment Plant has a design treatment capacity of 38,000 gpd with a direct discharge to Big Walnut Creek. Wet stream processes provided at the facility include influent pumping, flow equalization, extended aeration, final settling, tertiary sand filtration, ultraviolet disinfection and post aeration. Solids handling consists of sludge holding, thickening and hauling the sludge to another POTW for disposal.

**Section D. - Permit Verification**

- (d.) The average daily flow at outfall 001, for the time period between March 2012-March 2013 was approximately 27,000 gpd. The average daily flow has decreased since the previous inspection in March 2012. The operator attributed this decrease to the drier than normal year and to work done on the storm sewer system in the village.

**Section E. - Compliance**

- (a.) One permit violation was reported since the previous inspection was conducted in March 2012. The violation was for an ammonia loading exceedance in December 2012.
- (b.) The plant operator attributed the ammonia loading violation to high flows at the plant in December 2012.

**Section F. - Operation and Maintenance**

- (a.) The plant is equipped with a diesel powered generator capable of providing back-up power to the entire plant and the main pump station. The generator is not equipped with an automatic transfer switch and must be placed in operation manually. The generator is exercised monthly under load.
- (b.) The plant is not equipped with an autodialer or any other sort of alarm system. The operator lives across the street from a pump station and uses the visual alarm on the unit for indication of power failure.
- (e.) Dave Gale currently holds a Class II license.
- (g.) Plant visits are made daily (six or seven days a week) for approximately 2 hours/day. Additional time is spent at the plant on weekends (2-4 hours).
- (h.) The operator greases the blowers during the first of every month.

### **Section G. Record Keeping**

- (d.ii.) The log books did not contain notations of arrival and departure times by the operator of record. Please begin including arrival and departure times for daily entries as soon as possible. Please note that this deficiency was identified during the previous inspection.

### **Section H. Collection System**

- (g.) There are 4 lift stations in the collection system served by the Marengo plant. All of the pump stations are equipped with audible or visual alarms.
- (h.) Only pump stations 1 and 2 are equipped with back-up power. The other two units are small and only serve a small number of residences.
- (i.) An inflow and infiltration problem exists as evidenced by the presence of flows exceeding 100,000 gpd during storm events. Peak flows seemed to have dropped following the closing of the elementary school. The Village has made some improvements and repairs to the storm sewer system which has helped to keep some storm water out of the sanitary system. The operator believed that the reported flow of 230,000 gpd on March 1, 2-13 was an error. He was going to explore this possibility and resubmit the eDMR if necessary.

### **Section I. - Sludge Management**

- (b.) Sludge is hauled to the Village of Mt. Gilead WWTP for further treatment and processing. Poor's Septic is contracted for hauling and has hauled sludge three times over the past year.

### **Section J. - Self-Monitoring Program**

- (a.) Effluent flows are measured with a magmeter installed on the line from the post aeration tank.
- (b.) The magmeter is being calibrated in accordance with manufacturer's specifications.
- (c.) The effluent sampler collects time-weighted composite samples.

### **Section K. - Laboratory**

- (d.) The operator only performs analyses for dissolved oxygen and pH. All of the remaining analyses are being sent out to MASI. Calibration was satisfactory for both the pH and dissolved oxygen meters.

## SUMMARY OF FINDINGS AND COMMENTS Marengo Wastewater Treatment Plant

1. At the time of the inspection, the following general observations were made regarding the operation and maintenance of the plant:
  - The air in the aeration tanks is cycled on and off (45 minutes on followed by 30 minutes off). Air on cycles are increased in the south aeration tank due to problems with the air piping. The flow equalization blower is run continuously.
  - The operator replaced the air piping (aluminum drop tubes and diffusers) in one of the flow equalization tank last summer. Replacement of the air piping in the aeration tanks will likely occur this summer.
  - The steel tank housing the flow equalization, sludge holding, aeration and clarifier units was sand blasted and painted in September 2012.
  - The UV bulbs are cleaned weekly.
  - MLSS concentrations are maintained around 2200 mg/L. This concentration is increased slightly in the winter.
  - Approximately 500 gallons of WAS is wasted every Saturday morning.
  - The post-aeration mixer cycles on and off every half hour.
  - The plant operator shuts off the air to the aeration tanks during sustained high flow events for the retention of solids.
  - MLSS concentrations are assessed once a month. The target MLSS concentration for optimal treatment is 1800 mg/L.
2. Individual residences within the Village still have septic tanks with the outlets connected to small diameter gravity sewers. The Village is responsible for pumping tanks on an as needed basis. In general, the tanks are pumped once every ten years or when back-up problems begin to occur. The operator suspects that the septic tanks result in higher than normal influent ammonia concentrations.
3. Significant solids accumulations were observed on the surface of all the sand beds. Please have the solids removed from these units as soon as the weather permits and make every attempt to maintain these units in a condition which is free of solids and weeds at all times.

4. The effluent composite sampler did not appear to maintain a temperature at or below 6°C. Please place a thermometer in the sampler and correct the temperature accordingly. Please note that this deficiency was identified during the previous inspection