



John R. Kasich, Governor  
Paul Taylor, Lt. Governor  
Scott J. Smith, Director

January 22, 2013

Kottia Jarvis, Mayor  
Village of Sparta  
PO Box 8  
Sparta, OH 43350

**Re: Sparta WWTP  
NPDES Permit 4PA00104/ OH0130788  
Compliance Evaluation Inspection  
Morrow County**

Dear Mayor Jarvis:

On January 9, 2013, a Compliance Evaluation Inspection was conducted at the Sparta WWTP. Present for the inspection were Paul Howard representing the Village of Sparta 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:

**Calibration of pH Meter** – The operator indicated that the pH meter is calibrated about twice a year. Please be advised that Hach recommends a daily 2 or 3 point calibration of the Sension Meter. Please modify your calibration frequency accordingly.

**Scum** - The scum baffles on both clarifiers were full of scum. Similarly the surface of the clarifiers had significant accumulations of floating scum. Please remove or manage this material in such a manner as to preclude the carryover to downstream treatment units and to the v-notch weir.

**Corrected Flow Values** - Several unusually high flow values were reported through the eDMR system since the previous inspection. The plant operator indicated that these were typographical errors and has subsequently corrected and resubmitted all of the erroneous data with the exception of the flow value reported for October 22, 2011 (19.0 MGD). Please resubmit the corrected flow value for this date as soon as possible.

Kottia Jarvis, Mayor  
Village of Sparta  
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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 written in a cursive, flowing style.

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

ec: Michael Sapp

MS/nsm Sparta WWTP 13

NPDES Compliance Inspection Report

SECTION A: NATIONAL DATA SYSTEM CODING

Permit #	NPDES #	Inspection Type	Inspector	Facility Type
4PA00104	OH0130788	CEI	S	Public
Inspection Date	Entry Time	Exit Time	Notice of Violation	Significant Non-Compliance
1/9/2013	9:30 AM	11:00 AM	No	No

SECTION B: FACILITY DATA

Name and Location of Facility Inspected	Permit Effective Date
Sparta WWTP State Route 229 Sparta, Ohio 43350	6/1/2012
	Permit Expiration Date
	5/31/2017
Name(s) and Title(s) of On-Site Representatives	Phone Numbers
Paul Howard, Operator	(419) 768-7682
Name and Title of Responsible Official	Phone Number
Kottia Jarvis, Mayor	

SECTION C: AREAS EVALUATED DURING INSPECTION

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

S	NPDES Compliance	
M	Operations & Maintenance	Excessive scum in clarifier
S	Facility Site Review	
S	Collection System	
S	Flow Measurement	
M	Receiving Waters	Periodic NPDES permit violations
M	Laboratory	Insufficient calibration frequency of pH meter

Comments:

Signatures

 1/15/13	 1/15/13
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? Diesel generator
- (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..... II
- (e) Operator of Record holds unexpired license of class required by Permit .. Y  
Class held: III
- (f) Copy of certificate of Operator of Record displayed on-site ..... N
- (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..... N

Comments:

**SECTION G: RECORD KEEPING**

- a) Log book provided ..... Y
- b) Format of log book (i.e. computer log, hard bound book) bound 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) ..... 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?.... Y

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 ..... N
- f) Portable pumps are used to relieve system ..... NA
- g) Lift station alarms provided and maintained ..... NA\*
- h) Lift stations equipped with permanent standby power or equivalent .....
- 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
- 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: unknown
- b) Sludge adequately disposed ..... Y  
Method:lanfilling
- c) If sludge is incinerated, where is ash disposed of ..... NA
- d) Is sludge disposal contracted ..... Y\*  
Name:Allied is contracted 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: weir/ultrasonic Device location::upstream fixed media
- b) Calibration frequency adequate..... Y  
Date of last calibration:5/2/12
- 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: Yes\*  
     Name: TCCI  
     Parameters analyzed: ammonia, suspended solids and CBOD
- e) Quality assurance manual provided and maintained ..... N
- f) Calibration and maintenance of instruments is satisfactory? ..... N\*
- 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:

## ADDITIONAL INFORMATION

### **Sparta Wastewater Treatment Plant 4PA00104\*AD - OH0130788**

#### General

The Sparta WWTP has a design treatment capacity of 42,000 gpd with a discharge to an unnamed tributary to Mile Run Creek. Wet stream process provided at the facility include a trash trap, flow equalization basin, extended aeration with settling, fixed media clarification, tertiary sand filtration and ultraviolet disinfection. Solids handling consist of aerobic digestion with decant capabilities followed by sand drying beds.

#### Section D. - Permit Verification

- (d.) The average daily flow at outfall 001, for the time period from April 2011 – December 2012 was 20,000 gpd. The maximum daily flow experienced during that time period was 67,000 gpd (April 2012). The operator indicated that the magnitude of the high flow events has decreased significantly following the completion of some I/I work at the Highland School in Fall 2011.

#### Section E. - Compliance

- (a.) The attached table contains a list of the NPDES permit violations from April 2011-November 2012.
- (b.) The operator attributed many of the violations to high flows and high ammonia loadings from the Highland School. The ammonia violations are being managed by monitoring and adding supplemental alkalinity as necessary. The violations experienced in June and July 2012 where attributed to power outages at the plant.

#### Section F. - Operation and Maintenance

- (a.) The plant is equipped with a generator capable of providing back-up power to the entire plant and the main plant lift station. The generator must be manually started during power outages.
- (b.) The plant is equipped with an autodialer that alerts the plant superintendent in the event of a power failure. The autodialer was installed in May 2010.
- (i.) The plant previously experienced problems with aeration and sludge blowers trip-off occasionally due to power surges/drops from the electric company. Scadatech rewired the blowers and the frequency of these occurrences has been diminished.

### Section H. Collection System

- (g.) There are no pump stations in the collection system tributary to the Sparta WWTP. The only lift station is at the treatment plant.
- (l.) The operator no longer places the plant in storm mode (i.e. shutting off the air to aeration) following the I/I work done at the school complex.

### Section I. - Sludge Management

- (d.) Allied Waste is contracted to haul sludge cake to the Shiloh Landfill in Wooster, Ohio.

### Section J. - Self Monitoring Program

- (a.) Effluent flows are measured using a v-notched weir and an ultrasonic unit. This unit was last calibrated on May 2, 2012.
- (g.) Ammonia CBOD<sub>5</sub> and suspended solids are manually composited. Three or four samples are collected at half hour intervals.

### Section K. – Laboratory

- (d.) The plant operator performs analyses for dissolved oxygen, temperature and pH. TCCI performs analysis for all other parameters.
- (f.) The operator indicated that the pH meter is calibrated about twice a year.  
**Please be advised that Hach recommends a daily 2 or 3 point calibration of the Sension Meter.**

**SUMMARY OF FINDINGS AND COMMENTS**  
**Sparta Wastewater Treatment Plant**  
**4PA00104\*AD - OH0130788**

At the time of the inspection, the following general observations were made with respect to the operational practices at the facility:

1. The trash trap is pumped-out once or twice a year by Poor's Septic. Pumping is typically performed in the summer after the conclusion of the school year.
2. Thirty minute settleability tests are performed weekly; however, the operator does not use the results of the settleability test or any other operational tests to dictate wasting rates. The operator indicated that he wastes for 15 minutes every week for each of the aeration trains.
3. The operator pumped down the east aeration trains last summer to replace an air valve and clean the diffusers. Similar maintenance will be done on the west aeration train this summer.
4. Only one of the two aeration tanks is in operation during the summer months when the school is not in session. The plant operator switches flow between the two aeration trains weekly during summer operation.
5. The fixed media filters are drained and cleaned every other week week.
6. The operator monitors effluent pH and aeration tank alkalinity on a weekly basis and adds a 50 pound bag of sodium bicarbonate, if necessary. This practice has helped compliance with effluent ammonia limits. If the effluent pH drops below 6.5 S.U. the operator will add an extra 50 pound bag of bicarbonate. The addition of supplemental alkalinity is generally not necessary in the summer when the school is closed.
7. Air is supplied to the aeration tanks continuously; the plant is not equipped with the capability to operate the blowers in an on/off mode of operation.
8. The scum baffles on both clarifiers were full of scum. Similarly the surface of the clarifiers had significant accumulations of floating scum. Please remove or manage this sum in such a manner as to preclude the carryover to downstream treatment units.
9. The operator has experienced problems with the flow equalization tank since the plant was placed in operation. The tank is not equipped with a gravity overflow to the aeration basins. The operator is concerned that sewage will overflow the tank onto the ground if the power fails and the operator is not present to manually start the generator. The operator also indicated that design problems with the splitter box do not allow him to utilize the basin to effectively equalize the forward

flow. If the control gates are lowered to the point where the forward flow is effectively equalized then the gate opening will clog.

10. Several unusually high flow events were reported on the eDMR forms since the previous inspection. The plant operator indicated that these were typographical errors and has subsequently corrected and resubmitted all of the erroneous data with the exception of the flow value reported for October 22, 2011 (19.0 MGD). **Please correct and resubmit the flow value for this date as soon as possible.**

## Compliance Data for Sparta WWTP between 4/1/2011 to 12/1/2012

### Summary

Permit Effluent Limit Violations: 21  
 Permit Effluent Code Violations: 0  
 Permit Effluent Frequency Violations: 0  
 Compliance Schedule Violations: 0

[Make Report From current]

Limit Violations						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
May 2011	001	CBOD 5 day	7D Conc	15	30.4	5/1/2011
May 2011	001	CBOD 5 day	7D Qty	2.38	5.17700	5/1/2011
July 2011	001	Nitrogen, Ammonia (NH3)	30D Conc	1.0	1.05	7/1/2011
July 2011	001	Nitrogen, Ammonia (NH3)	7D Conc	1.5	2.03	7/8/2011
August 2011	001	Nitrogen, Ammonia (NH3)	30D Conc	1.0	3.3245	8/1/2011
August 2011	001	Nitrogen, Ammonia (NH3)	30D Qty	0.16	.31356	8/1/2011
August 2011	001	Nitrogen, Ammonia (NH3)	7D Conc	1.5	6.6	8/22/2011
August 2011	001	Nitrogen, Ammonia (NH3)	7D Qty	0.24	.62453	8/22/2011
October 2011	001	Total Suspended Solids	7D Conc	18	19.	10/1/2011
December 2011	001	Total Suspended Solids	30D Conc	12	15.25	12/1/2011
December 2011	001	Total Suspended Solids	7D Conc	18	40.	12/15/2011
December 2011	001	Total Suspended Solids	7D Qty	2.86	4.0878	12/15/2011
April 2012	001	Nitrogen, Ammonia (NH3)	30D Conc	3.0	6.2045	4/1/2012
April 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	4.5	12.5	4/8/2012
April 2012	001	Nitrogen, Ammonia (NH3)	7D Qty	0.72	.94625	4/8/2012
April 2012	001	CBOD 5 day	7D Conc	15	19.	4/15/2012
May 2012	001	Total Suspended Solids	7D Conc	18	19.	5/15/2012
June 2012	001	E. coli	30D Conc	161	186.426	6/1/2012

June 2012	001	Total Suspended Solids	7D Conc	18	21.	6/8/2012
June 2012	001	E. coli	7D Conc	362	1986.	6/8/2012
July 2012	001	Total Suspended Solids	7D Conc	18	33.	7/15/2012

Flow Data for Sparta WWTP between 4/1/2011 and 12/1/2012

	Date	Flows (MGD)
Ten Highest Flows	10/22/2011	19.000
	10/28/2012	0.250
	4/21/2012	0.067
	12/6/2011	0.066
	4/5/2011	0.056
	4/20/2011	0.053
	10/20/2011	0.053
	4/21/2011	0.052
	5/3/2011	0.050
	1/27/2012	0.046
<b>Average Flow Rate</b>		0.049