



Environmental
Protection Agency

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

April 24, 2012

Lyndon Johnson, Superintendent
West Jefferson WWTP
28 E. Main Street
West Jefferson, OH 43162

Re: **West Jefferson WWTP**
NPDES Permit 4PB00024/ OH0054321
Compliance Evaluation Inspection
Madison County

Dear Mr. Johnson:

On April 13, 2012, a Compliance Evaluation Inspection was conducted at the West Jefferson WWTP. Present for the inspection were you, the superintendent of West Jefferson WWTP and WTP, 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.

Findings:

1. Attached are tables of compliance between June 2009 and March 2012. The facility has largely been compliant with the NPDES permit with effluent violations occurring in 6 of 33 possible months. However, the December 2011 results showed large loading violations for total suspended solids. This is largely attributable to large flow rates as discussed in **Finding 2**.
2. A table with the 10 largest flow rates since June 2009 is also attached. The average flow rate during this time period was 0.744 MGD. The peak flow rate in December 2011 was 4.544 MGD, or 6 times larger than the average flow rate and slightly less than 4 times larger than the average design rate of 1.2 MGD. Also, in two Data Monitoring Reports (DMRs) which had effluent violations, you indicated that flow was responsible for the violations.

At this time, West Jefferson is visually inspecting manholes in different conditions to determine sources of inflow and infiltration (I&I). You are also looking at videoing the sewers. I may recommend I&I reduction be included in a Compliance schedule of the permit renewal (August 1, 2014) depending on interim results.

3. The Schedule of Compliance requires compliance with the final effluent limits by August 1, 2012. Total phosphorous, which is currently only monitored, will have a monthly limit of 1.0 mg/L and a monthly loading of 4.6 kg/day. You plan to initially use ferric chloride to treat for phosphorous and later you hope to use biological processes to treat.
4. You informed me that a preliminary treatment system is being investigated to reduce the amount of screenings and rags entering the plant. Please note that a Permit to Install (PTI) may be required prior to installation.
5. Overall, the plant appeared to be running well during the inspection. The effluent looked clear and exhibited no odor.

If you have any questions or comments concerning the enclosed inspection report, please contact me at (614) 728-3846 or e-mail at cole.miller@epa.ohio.gov.

Sincerely,



Cole Miller
Environmental Specialist
Compliance and Enforcement Unit
Division of Surface Water
Central District Office

ec: Cole Miller

NPDES Compliance Inspection Report

SECTION A: NATIONAL DATA SYSTEM CODING				
Permit #	NPDES #	Inspection Type	Inspector	Facility Type
4PB00024	OH0054321	CEI	S	1
Inspection Date	Entry Time	Exit Time	Notice of Violation	Significant Non-Compliance
4/11/2012	10:00 AM	11:30 AM	No	No

SECTION B: FACILITY DATA	
Name and Location of Facility Inspected	Permit Effective Date
West Jefferson WWTP 450 Cemetery Road West Jefferson, OH	8/1/2009
	Permit Expiration Date
	7/31/2014
Name(s) and Title(s) of On-Site Representatives	Phone Numbers
Lyndon Johnson, Superintendent	
Name and Title of Responsible Official	Phone Number
Lyndon Johnson, Superintendent	(614) 879-5343

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	
M*	Collection System	High flow rates have resulted in effluent violations
S	Flow Measurement	
S	Receiving Waters	
S	Laboratory	

Comments:

Signatures	
 4/16/12	 4/18/12
Cole Miller, Inspector Compliance & Enforcement Division of Surface Water Central District Office	Erin Sherer, Reviewer Compliance & Enforcement Supervisor Division of Surface Water Central District Office

Compliance Data for West Jefferson WWTP between 6/1/2009 to 3/1/2012

Summary

Permit Effluent Limit Violations: 12

Permit Effluent Code Violations: 3

Permit Effluent Frequency Violations: 0

Upcoming Compliance Schedule Milestone: 1

Limit Violations						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
June 2009	001	Nitrogen, Ammonia (NH3)	30D Conc	2	3.3	6/1/2009
June 2009	001	Nitrogen, Ammonia (NH3)	7D Conc	3	4.2	6/15/2009
June 2009	001	Nitrogen, Ammonia (NH3)	7D Conc	3	3.2	6/22/2009
August 2010	001	Chlorine, Total Residu	1D Conc	0.028	.29	8/27/2010
September 2010	001	Chlorine, Total Residu	1D Conc	0.028	.05	9/16/2010
March 2011	001	Total Suspended Solids	7D Qty	104	117.378	3/8/2011
April 2011	001	Total Suspended Solids	7D Qty	104	115.286	4/15/2011
December 2011	001	Total Suspended Solids	30D Conc	15	54.0666	12/1/2011
December 2011	001	Total Suspended Solids	7D Conc	23	186.6	12/1/2011
December 2011	001	Total Suspended Solids	30D Qty	68	552.191	12/1/2011
December 2011	001	Total Suspended Solids	7D Qty	104	2061.57	12/1/2011
December 2011	001	CBOD 5 day	7D Qty	68	68.5420	12/1/2011

Code Violations				
Reporting Period	Station	Parameter	Reported Value	Violation Date
June 2009	001	Dissolved Oxygen	AD	6/13/2009
June 2009	001	Dissolved Oxygen	AD	6/14/2009
December 2011	001	Dissolved Oxygen	AD	12/11/2011

Missing Compliance Schedule Milestones				
Schedule Due Date	Completion Date	Event Code	Schedule Type	Schedule Milestone
August 2012		5699	Construction	Final Compliance w/ Eff Limits

Flow Data for West Jefferson WWTP between 6/1/2009 and 3/1/2012

	Date	Flows (MGD)
Top Highest Flows	12/5/2011	4.544
	3/5/2011	3.671
	5/3/2011	3.419
	3/9/2011	3.256
	5/26/2011	3.106
	2/25/2011	3.100
	1/26/2012	3.053
	12/6/2011	3.002
	4/20/2011	2.893
	4/19/2011	2.882
Average Flow Rate		0.744

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 Y
- (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 N
- (b) Permittee is taking actions to resolve violations N/A
- (c) Permittee has a compliance schedule Y
- (d) Permittee is meeting compliance schedule Y

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 Y
- (c) All treatment units in service other than backup units Y
- (d) Wastewater Treatment Works classification III
- (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 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 N/A
By MOR and/or Spill Hotline (1-800-282-9378)
- (m) Any hydraulic or organic overloads since last inspection N/A

Comments:

SECTION G: RECORD KEEPING

- a) Log book provided..... Y
- b) Format of log book (i.e. computer log, hard bound book)
Hard Bound
- 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 repair) 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 N/A
- d) CSO O&M plan provided and implemented..... N/A
- e) CSOs monitored and reported in accordance with permit N/A
- f) Portable pumps are used to relieve system..... N
- g) Lift station alarms provided and maintained N/E
- h) Lift stations equipped with permanent standby power or equivalent N/E
- 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?..... Y*

Comments: The peak flow is 6 times larger than the average flow and 4 times larger than the design flow. Violations have resulted from the I&I.

During peak flows when the EQ tank is constantly pumping, the rotors are turned off to retain solids.

SECTION I: SLUDGE MANAGEMENT

- a) Sludge management plan (SMP) last audited by Ohio EPA:
Audit Date: N/E
- b) Sludge adequately disposed Y
Method: Land application
- c) If sludge is incinerated, where is ash disposed of N/A
- d) Is sludge disposal contracted N/A
Name:
- e) Has amount of sludge generated changed significantly N
- f) Adequate sludge storage provided at plant Y
- g) Records kept in accordance with Ohio and Federal law Y
- h) Any complaints received last year regarding sludge N
- i) Is sludge adequately processed (digestion, pathogen control)..... N/E

Comments:

SECTION J: SELF-MONITORING PROGRAM

- a) Primary flow measuring device operated and maintained Y
Type of device: Doppler Device location: Prior to post-aeration
- b) Calibration frequency adequate..... Y
Date of last calibration: 10/11/11
- 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 Annually
- 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? Y
- c) Analysis performed more frequently N/A
 If yes, are results recorded in permittee's report? N/A
- d) Commercial laboratory used:
 Name: MASI
 Parameters analyzed: Metals, oil and grease, ammonia
- e) Quality assurance manual provided and maintained Y
- f) Calibration and maintenance of instruments is satisfactory? Y
- g) Results of last U.S. EPA quality assurance N/A
 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: