



John E. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Pruitt, Director

September 16, 2013

Morrow County Commissioners
c/o Patricia K. Davies, County Administrator
80 N. Walnut St.
Mt. Gilead, OH 43338

**Re: Johnsville WWTP
NPDES Permit 4PG00052/ OH0136492
Semi-Public CEI
Morrow County**

Dear Ms. Davies:

On August 21, 2013, a Semi-Public Compliance Evaluation Inspection was conducted at the Johnsville WWTP. Present for the inspection were Wes Craft, contract operator for McGhee's Technical Services 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. **Plant Pump Station** - One concern noted during the inspection was the significant soil erosion occurring around the primary pump station at the intersection of State Route 42 and Township Road 80. Road runoff from the intersection has caused significant erosion that might compromise the integrity of the fence and the concrete pad supporting the generator. I would recommend that a dike or berm be installed to redirect surface drainage around the pump station.
2. **Outfall Signage** - The outfall sign on the bank of Cedar Fork Creek was overgrown with vegetation. Please clear the sign of vegetation and maintain it in a condition such that it can be easily seen.

Morrow County Commissioners
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Please refer to the Summary of Findings and Comments section of this report for additional information regarding the inspection. 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.

Sincerely

A handwritten signature in black ink that reads "Michael Sapp". The signature is written in a cursive, flowing style.

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

c: File Copy
Lonnie McGhee w/attachments

ec: Michael Sapp

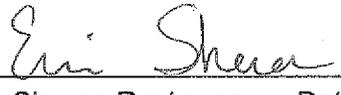
NPDES Compliance Inspection Report

SECTION A: NATIONAL DATA SYSTEM CODING				
Permit #	NPDES #	Inspection Type	Inspector	Facility Type
4PC00052	OH0156492	CEI	S	Public
Inspection Date	Entry Time	Exit Time	Notice of Violation	Significant Non-Compliance
8/21/2013	9:30 AM	11:15 AM	No	No

SECTION B: FACILITY DATA	
Name and Location of Facility Inspected	Permit Effective Date
Johnsville WWTP State Route 42 and State Route 314 Johnsville, Ohio	6/1/2013
	Permit Expiration Date
	5/31/2018
Name(s) and Title(s) of On-Site Representatives	Phone Numbers
Morrow County Commissioners	(419) 947-7535
Name and Title of Responsible Official	Phone Number
Patricia K. Davies, County Administrator	(419) 947-7535

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	
M	Receiving Waters	Marginal due to effluent violations.
N	Laboratory	

Comments:

Signatures	
 9/5/13	 9/6/13
Michael Sapp, Inspector Compliance & Enforcement Division of Surface Water District Office	Erin Sherer, Reviewer Compliance & Enforcement Supervisor Division of Surface Water District Office

Method of flow monitoring:	Doppler meter on influent line
Type of alarm for plant:	Alarms and autodialer on influent pump station.

SECTION D: PRELIMINARY TREATMENT

Type of Preliminary Treatment?	Trash Trap		
		Yes	No
Does the unit require pumping or cleaning?		X	<input type="checkbox"/>
Maintenance of preliminary treatment is satisfactory?		X	<input type="checkbox"/>

Comments/Status:

SECTION E: AERATION

Color of MLSS?	Chocolate brown (MLSS appeared high)			
	Yes	No	Yes	No
Aeration is taking place	X	<input type="checkbox"/>	Plant is septic	<input type="checkbox"/> X
Blowers are operational	X	<input type="checkbox"/>	Blowers are on a timer	X <input type="checkbox"/>
Skimmers are operational	X	<input type="checkbox"/>	Plant is flooded	<input type="checkbox"/> X
Diffusers are operational	X	<input type="checkbox"/>	Grating is present	X <input type="checkbox"/>
Sludge return is operational	X	<input type="checkbox"/>	Foam present?	<input type="checkbox"/> X
Overall maintenance satisfactory?			X	<input type="checkbox"/>

Maintenance of aerating equipment is...

Comments/Status:

SECTION F: CLARIFIERS

Clarity of water topping weir	Clear	
	Yes	No
Weir is clean?	X	<input type="checkbox"/>
Weir is in good condition (i.e., level, free of corrosion, etc.)?	X	<input type="checkbox"/>
Is effluent present in weir channel?	X	<input type="checkbox"/>
Is the sludge blanket visible?	<input type="checkbox"/>	X
Do the clarifier walls need scraping?	<input type="checkbox"/>	X
Is sludge settling properly?	X	<input type="checkbox"/>
Overall maintenance of the clarifier is satisfactory?	X	<input type="checkbox"/>

Comments/Status:

SECTION G: TERTIARY TREATMENT

	Yes	No		Yes	No
Surface sand filters:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Subsurface/Upflow	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Distribution box operational	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Beds aerated	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are filters ponding/flooding	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Beds raked	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sand filters overgrown	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Chlorination present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
UV present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Dechlorination present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Overall maintenance satisfactory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Frequency of cleaning: Sand filters are cleaned as needed. Flow has been directed to one sand filter since plant start-up.

Fixed media upkeep: Fixed media filters are cleaned 1-2 months. Clear water is sent back to flow equalization tank, solids are sent to sludge holding.

Comments/Status:

SECTION H: SLUDGE HANDLING / STORAGE DISPOSAL

Sludge is periodically wasted from what component?	Clarifiers to sludge holding tank		
Sludge disposal contractor?	Hauling is contracted but hauler is unknown.		
Sludge disposal location?	Sludge holding tank		
	Yes	No	
Does the WWTP have sludge drying beds?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Does the WWTP have a sludge holding tank?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the maintenance on the sludge handling unit adequate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Comments/Status:

SECTION I: RECORD KEEPING / OPERATOR OF RECORD

	Yes	No
Operator of Record holds unexpired license of class required by Permit?	X	
Has the Operator of Record submitted an ORC Notification form?	X	
Copy of certificate of Operator of Record displayed on-site?*		X
If a Staffing Reduction plan has been approved, are the stipulations of the plan being met? Not applicable.		
Operator of Record log book provided?	X	
Minimum operator staffing requirements fulfilled (OAC 3745-7)?	X	
Log book kept onsite (in an area protected from weather)?	X	
Log book contains the following:		
Identification of treatment works	X	
Date/times of arrival/departure for Operator of Record and any other operator required by OAC 3745-7	X	
Daily record of operator and maintenance activities (including preventative maintenance, repairs and request for repairs, process control test results, etc.)	X	
Laboratory results (unless documented on bench sheets)	X	
Identification of person making entries	X	
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	X	
Logbook Format	Computer log	Bound book

Comments/Status:

SECTION J: PLANT DISCHARGE

Discharge point is:	Outfall on south bank of Cedar Fork Creek upstream of bridge.
Discharge is visible:	Yes
Name of discharge point:	Outfall 001 – Final Effluent
Marker present:	Yes (outfall signage was overgrown with vegetation)
Quality of effluent:	Good. Clear
Contract laboratory:	MASI

Compliance Data for Johnsville WWTP between 3/1/2011 to 8/1/2013

Effluent Violation at the Johnsville WWTP from March 2011 – July 2013

Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
September 2011	001	Nitrogen, Ammonia (NH3)	7D Conc	1.5	20.5	9/1/2011
September 2011	001	Nitrogen, Ammonia (NH3)	7D Qty	0.23	.54315	9/1/2011
September 2011	001	Nitrogen, Ammonia (NH3)	30D Conc	1.0	10.25	9/1/2011
September 2011	001	Nitrogen, Ammonia (NH3)	30D Qty	0.15	.27157	9/1/2011
April 2012	001	Total Suspended Solids	7D Conc	18	31.	4/15/2012
November 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	4.5	5.5	11/15/2012

Flow Data for Johnsville WWTP between 3/1/2011 and 8/1/2013

	Date	Flows (MGD)
Ten Highest Flows	7/9/2013	0.034
	6/17/2013	0.029
	6/10/2013	0.027
	4/11/2013	0.026
	7/11/2013	0.026
	7/22/2013	0.024
	7/10/2013	0.022
	7/18/2013	0.022
	4/10/2013	0.021
	7/8/2013	0.021
Average Flow Rate		0.013

ADDITIONAL INFORMATION
Johnsville Wastewater Treatment Plant
4PG00052*AD – OH0136492

General

The Johnsville Wastewater Treatment Plant has a design treatment capacity of 40,000 gpd with a direct discharge to the Cedar Fork Creek. Wet stream processes provided at the facility include a trash trap, flow equalization, extended aeration, clarification, fixed-media clarification, tertiary sand filtration, ultraviolet disinfection and post aeration. Solids handling consists of aerobic digestion, thickening and hauling to another POTW.

1. At the time of the inspection, the following general observations were made regarding the operation and maintenance of the plant:
 - The flow equalization blowers are operated full time. The aeration blowers are operated in an on/off mode of operation where they are off at intervals totaling 7-8 hours/day.
 - Thirty minute settleability tests are run once a week. The operator attempts to maintain a target 30-minute settleability around 60% for optimal treatment. The most recent test showed a settleability of 80%.
 - The operator indicated that the sludge holding tank is full and needs pumped in order to waste solids from aeration. A recent change in the contract hauler has resulted in delays in pumping out the holding tank.
 - The trash trap is being aerated to freshen-up the wastewater prior to treatment. The trash trap has is currently pumped out every six months. The plant operator intends to increase the pumping frequency to once every 4-5 months.
 - Wes Craft completely pumps down the main pump station, on a weekly basis, to ensure that all solids are adequately conveyed to the plant.
 - Aeration tank covers/blankets are available for use in the winter to try and maintain temperatures conducive to nitrification.
 - The clarifier walls are scraped during the daily visits to ensure that solids are returned to aeration.
 - Both the plant and influent pump station are equipped with self-exercising diesel powered generators.
 - Plant visits are made daily Monday through Friday.
 - The average daily flow at outfall 001, for the time period between March

2011-August 2013, was approximately 13,000 gpd. Both of the aeration trains were functional at the time of the inspection.

- The gravity collection system flows to one main pump station which conveys the wastewater to the plant through a 4-inch diameter force main. Six residences are served by individual grinder pumps. The county maintains several spare grinder pumps.
 - The outfall sign on the bank of Cedar Fork Creek was overgrown with vegetation. Please clear the sign of vegetation and maintain it in a condition such that it can be easily seen.
2. The plant has experienced several NPDES permit violations since the previous inspection was performed in March 2011. The cause of the ammonia violation in November 2012 was unknown. The April 2012 suspended solids violation was attributed to laboratory error. No operational issues were attributed to the September 2011 ammonia violations. The contract operators speculate that a error may have occurred at the contract laboratory.
 3. One concern noted during the inspection was the significant soil erosion around the primary pump station at the intersection of State Route 42 and Township Road 80. Road runoff from the intersection has caused significant erosion that might compromise the integrity of the fence and the concrete pad supporting the generator. I would recommend that a dike or berm be installed to direct surface drainage around the pump station.