



**Environmental
Protection Agency**

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director



1PC0001320110718

GREENE

YELLOW SPRINGS WWTP

JACKSON, JOSHUA | 2011/07/18

Yellow Springs corresp.



Environmental
Protection Agency

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

July 18, 2011

Village of Yellow Springs
Attn: Mr. Mark Cundiff
100 Dayton Street
Yellow Springs, OH 45387

**RE: Village of Yellow Springs WWTW/Compliance Evaluation Inspection Report
NPDES Permit No. OH0028215/OEPA PERMIT NO. 1PC00013*ID**

Dear Mr. Cundiff:

On July 6, 2011, I conducted an NPDES Compliance Evaluation Inspection at the Village of Yellow Springs wastewater treatment works (WWTW). Joe Bates (Operator of Record) and Brad Ault were present during the inspection. The purpose of the inspection was to check on the construction progress and observe how the WWTW was operating.

All evaluated areas, with the exception of "Sludge Storage/Disposal", received "Satisfactory" ratings. There are "Items Requiring Correction" located throughout the report. Please note that many of these items do have compliance schedules for completion. Correspondence should be submitted to the Ohio EPA Southwest District Office when each of the items are completed.

If you have any questions, please feel free to contact me by phone at (937) 285-6029 or by e-mail at joshua.jackson@epa.state.oh.us.

Respectfully,

Joshua Jackson
Environmental Specialist II
Division of Surface Water

Cc: Joe Bates, Village of Yellow Springs (w/attachments)

Enclosures



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
1PC00013*ID	OH0028215	7/6/2011	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Village of Yellow Springs WWTW 3835 Grinnell Road Yellow Springs, Greene County	11:30 a.m.	10/1/2010
	Exit Time	Permit Expiration Date
	2:15 p.m.	9/30/2015
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Joe Bates, Operator of Record Brad Ault, Operator	937-767-7208	
Name, Address and Title of Responsible Official	Phone Number	
Mark Cundiff, Village Manager Village of Yellow Springs 100 Dayton Street Yellow Springs, OH 45387	937-767-1279	

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

Section D: Summary of Findings (Attach additional sheets if necessary)

See Attached Report.

Inspector	Reviewer
 Joshua Jackson Division of Surface Water Southwest District Office	 Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office
7-18-11 Date	7/18/11 Date

Inspection Findings

The Village of Yellow Springs wastewater treatment works (WWTW) is designed to treat an average daily of 0.6 million gallons/day. A review of the discharge monitoring reports (DMRs) for January 2011 – June 2011 shows an average daily flow of 0.98 MGD. This area of Ohio experienced extraordinary rain events in March, April and May of this year. The associated high influent flows at the WWTW exhibits the need for sewage collection system improvements (discussed later in the report).

The Village started construction of the WWTW upgrade in October 2009 (Ohio EPA Permit to Install was issued to the Village on July 1, 2009). The Director's Final Findings & Orders (DFFOs) issued to the Village on March 12, 2010, requires construction completed by no later than May 1, 2011, and the WWTW in compliance with the NPDES permit by no later than July 1, 2011. In general, this included installation/construction of the following salient features:

- Earthen overflow basin (Overflow box will divert influent flow in excess of 3.93 MGD to the overflow basin until flows subside. Wastewater in the overflow basin will then be pumped back to the head of the plant.)
- Mechanical fine screen (6.0 MGD capacity – ¼ inch openings)
- Grit Removal (4.0 MGD capacity – "Vortex")
- Conversion of existing extended aeration activated sludge system to a biological nutrient removal plant (~500,000 gallons of tank volume)
- Conversion of existing aerobic digester and sludge storage tank to a "Sequencing Facultative Digester"
- Side stream Phosphorus treatment for digester supernatant and sludge dewatering filtrate
- Back-up Generator (350 KW – which will power all essential equipment)
- Supervisor Control and Data Acquisition (SCADA) system via DeviceNet.

The main purpose of the inspection was to verify that the Village had met the requirements of the DFFOs; more specifically, the date to complete construction and operational compliance. According to Mr. Joe Bates (Operator of Record), there is still some electrical/SCADA-work that remains, but the remainder of the WWTW has been substantially completed.

EFFLUENT LIMIT VIOLATIONS

(Period of Review: January 2011 – June 2011)

7D = Weekly 30D = Monthly 1D = Daily
 Conc. = Concentration (mg/l) Qty. = Quantity (Kg/Day)

Reporting Period	Parameter	Limit Type	Limit	Reported Value
March 2011	Total Suspended Solids	30D Qty	40.9	77.7741

March 2011	Total Suspended Solids	7D Qty	68.2	161.721
March 2011	Total Suspended Solids	7D Qty	68.2	87.5886
May 2011	Total Suspended Solids	30D Qty	27.3	39.7940
May 2011	Total Suspended Solids	7D Qty	40.9	125.395
May 2011	CBOD 5 day	30D Qty	22.8	27.7647
May 2011	CBOD 5 day	7D Qty	34.1	58.3588
May 2011	E. coli	30D Conc	161	166.635
May 2011	E. coli	7D Conc	362	390.602
June 2011	Phosphorus, Total (P)	30D Conc	1.0	1.1265
June 2011	Phosphorus, Total (P)	7D Conc	1.5	1.56
June 2011	Phosphorus, Total (P)	7D Conc	1.5	2.26
June 2011	Phosphorus, Total (P)	7D Qty	3.41	4.43958

*Mr. Bates provided self-notification correspondence for the effluent violations shown above.

Items Noted During the Inspection

- During the inspection, Mr. Bates stated that there was a larger than normal amount of solids in the aeration tanks because the south sludge holding tank could not be utilized (two faulty valves) and the north sludge holding tank was full. The mixed liquor suspended solids (MLSS) in the aeration tanks was approximately 8,000 mg/l. Operation/design consultants for the Village provided a MLSS target of 4,500 mg/l. According to Mr. Bates, the high solids levels in the aeration tanks have had a negative effect on treatment ability and have contributed to the June total phosphorus violations. Mr. Bates stated that a contractor was scheduled to repair the valves to the south sludge holding tank on the night of the inspection (Mr. Bates has since followed-up via email and stated that the work was completed and the holding tank was in use. He also noted that the MLSS in the aeration tanks were dropping). During the inspection, I explained to Mr. Bates that solids should not be allowed to build up to levels in the aeration basin that would cause NPDES violations; even if that means using less conventional methods for disposal (landfilling dewatered sludge instead of land application).
- Scum could not be removed from the secondary clarifier because of the valve issues with the south sludge holding tank. There was a substantial scum layer on top of the clarifier (within the baffle) due to the realities that no scum has been regularly removed and the high solids inventory in the WWTW process. It is worth noting that even with the thick scum layer on the clarifier, the effluent was mostly clear with very little solids and the WWTW effluent to the stream was exceptional.

NPDES Compliance Schedule

The population of the Village of Yellow Springs is approximately 3700 residents. Using the standard of 100 gallons/day/capita, the expected influent flow rate at the WWTW would be 370,000 gallons/day (average daily design flow of 600,000 gallons/day). From January 2011 – June 2011, the WWTW averaged approximately three times the expected influent flow rate. The result of the high flow rates have resulted in illegal sanitary sewer overflows at the U.S. 68 lift station.

Part 1.C.3. of the Village's NPDES permit compliance schedule requires the development of a Capacity, Management, Operation and Maintenance (CMOM) program and a written submittal of the program components to Ohio EPA Southwest District Office no later than May 12, 2012. Towards that end, the Village has submitted planning loan applications to Ohio EPA's Division of Environmental & Financial Assistance (DEFA). The planning loans are for: 1) inflow & infiltration study of the Village's collection system (concentrating on the area upstream of the U.S. 68 lift station); 2) U.S. 68 lift station study

Outfall Sign

Part II, R. of the Village's NPDES permit requires the following:

Not later than 4 months from the effective date of this permit, the permittee shall post a permanent marker on outfall pipe located on the west side of Grinnell Road and discharging to an unnamed tributary of Yellow Springs Creek. The marker shall consist at a minimum of the name of the establishment to which the permit was issued, the Ohio EPA permit number, and the outfall number and a contact telephone number. The information shall be printed in letters not less than two inches in height. The marker shall be a minimum of 2 feet by 2 feet and shall be a minimum of 3 feet above ground level. The sign shall not be obstructed such that persons in boats or persons swimming on the river or someone fishing or walking along the shore cannot read the sign. Vegetation shall be periodically removed to keep the sign visible. If the outfall is normally submerged the sign shall indicate that. If the outfall is a combined sewer outfall, the sign shall indicate that untreated human sewage may be discharged from the outfall during wet weather and that harmful bacteria may be present in the water. When an existing marker is replaced or reset, the new marker shall comply with the requirements of this section.

Since the effective date of the NPDES permit is October 1, 2010, the Village is in violation of this NPDES permit condition. The Village shall complete this requirement by no later than August 10, 2011, and submit correspondence to the Ohio EPA Southwest District Office certifying this fact.

Operator of Record for the Sewage Collection System Required

It is Ohio EPA's understanding that Mr. Bates has no charge or oversight over the sewage collection system. Mr. Bates holds an unexpired class III Wastewater Operator license from the Ohio EPA.

Ohio Administrative Code (OAC) 3745-7-02(A)(2) states:

Each person owning or operating a treatment works or sewerage system, except as provided for in paragraph (E) of this rule, shall designate one or more operator of record to oversee the technical operation of the treatment works, sewerage system, or each wastewater treatment facility. Each operator of record shall have a valid certification of a class equal to or greater than the classification of the treatment works, sewerage system, or wastewater treatment facility.

OAC 3745-7-04(B)(1) goes on to state:

Each sewerage system that is a tributary to a class I treatment works shall be classified as a class I sewerage system. Each sewerage system that is a tributary to a class II, III, or IV treatment works shall be classified as a class II sewerage system.

Since the Village of Yellow Springs' WWTW is a Class II facility, Ohio Administrative Code 3745-7 requires the rating of "Class II" for the sewage collection system. An Operator of Record is required for the collection system and shall hold a Wastewater Operator or Collection System license no less than a level of Class II.

OAC 3745-7-09(C)(1) states:

The duties of an operator of record shall include, but not be limited to, those outlined in paragraphs (B)(1) to (B)(3) of this rule and the following additional duties and responsibilities:

Responsible and effective on site management and supervision of the technical operation of the public water system, treatment works, or sewerage system;

This section of the rule makes clear that the Operator of Record of the collection system has to be intimately involved with the day-to-day duties and decision-making. Although there is no staffing hour requirements (like the WWTW), the definition makes clear that the Operator of Record for the collection system cannot hold that title without spending some time in the collection system.

The Village of Yellow Springs shall complete the following by no later than August 25, 2011:

- **Contract with a properly licensed individual to serve as Operator of Record for the Village's sewage collection system.**

- **Submit a completed Operator of Record Notification Form to Ohio EPA. This completed form shall give the name of the Operator of Record for the Village of Yellow Springs' Sewage Collection system as well as his/her qualifications (Operator of Record Form is attached).**

Termination of Administrative Orders

When the Village believes that the requirements of the DFFOs have been met, the Village shall complete Part VI. "Termination" under the Administrative Orders, which states:

Respondent's (Village of Yellow Springs) obligations under these Orders shall terminate when Respondent certifies in writing and demonstrates to the satisfaction to the Ohio EPA that Respondent has performed all obligations under these Orders and the Chief of Ohio EPA's Division of Surface Water acknowledges, in writing, the termination of these Orders. If Ohio EPA does not agree that all obligations have been performed, then Ohio EPA will notify Respondent of the obligations that have not been performed, in which case Respondent shall have an opportunity to address any such deficiencies and seek termination as described above.

The certification shall contain the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete".

This certification shall be submitted by Respondent to Ohio EPA and shall be signed by a responsible official of the Respondent. For purposes of these Orders, a responsible official is defined in OAC Rule 3745-33-03(D)(4) for a municipality.

Until this part is fulfilled, the Village is still under the obligations and directives of the Administrative Orders.



Environmental Protection Agency
 Division of Drinking and Ground Waters
 Operator Certification Unit

Operator of Record (ORC) Notification Form

Ohio Environmental Protection Agency
 Division of Drinking and Ground Waters
 Operator Certification Unit
 50 West Town St, Suite 700
 P.O. Box 1049
 Columbus, OH 43216-1049

Phone: (614) 644-2752
 1- 866 - 411-OPCT (6728)
 Fax: (614) 644-2909
 email: opcert@epa.state.oh.us
 website: http://www.epa.ohio.gov/ddagw/opcert.aspx

I. SYSTEM INFORMATION

Name of System: _____ Phone Number: _____

PWS ID/NPDES Permit #: _____ STU #: _____ Classification: _____

 Name of Facility Owner or Permittee, Title (Print) Facility Owner or Permittee (Signature)

II. SYSTEM TYPE (Check only one of the following. Use additional sheets if necessary.)

Public Water System (PWS)	Distribution System	Treatment Works	Collection System
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

III. OPERATOR OF RECORD INFORMATION

Add Additional (A), Existing (E), New (N) or Remove (R)	Effective Date	Name of Operator of Record	Certification Number & Expiration Date	I verify that I am the onsite certified operator responsible for the technical operation of the above referenced facility. I have a valid certification of a class equal to or greater than the classification of the above referenced facility. (Signature of certified operator)*

* A signature by an operator of record who is being removed is not required.
 (Attach additional sheets if necessary.)

Amount of time an ORC spends onsite at the Facility: _____ hours/week _____ days/week

For Internal Use Only	
Reviewed by:	Date of SDWIS update:
Date of Compliance Status Letter:	