



State of Ohio Environmental Protection Agency

**Southeast District Office**

2195 Front Street  
Logan, Ohio 43138

TELE: (740) 385-8501 FAX: (740) 385-6490  
www.epa.state.oh.us

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director

September 9, 2009

**Re:** Belmont County  
Barnesville WWTP  
Ohio EPA Permit #0PC00001\*HD  
Compliance Sampling Inspection  
Correspondence (PWW/Major)

Mayor and Council  
Village of Barnesville  
132 N. Arch Street  
Barnesville, Ohio 43713

Dear Mayor and Council Members:

On June 8, 2009, Joann Montgomery and I conducted a Compliance Sampling Inspection (CSI) at the Village of Barnesville's wastewater treatment plant (WWTP). Gary Billman, WWTP Superintendent, and Roger Deal, Village Administrator, represented the village in a meeting after the plant inspection. The purpose of the inspection was to determine the facility's compliance status with the terms and conditions of the NPDES permit, federal number OH0024015, state number 0PC00001\*GD. A copy of the inspection report form is attached.

Based on the inspection and file review, the facility was found to be in non-compliance with the permit on the day of the inspection, due to items listed below. The following comments/problems were noted as a result of the inspection:

1. **Operation and Maintenance** - required by Part III, Item (3) of the NPDES permit.
  - a. One of the two rotors on the oxidation ditch was not in service, causing a major failure of treatment at the plant. According to the operator, a bearing on the rotor failed. The failure occurred on 5/28/09 and was repaired and back in service by 6/15/09.
  - b. At the time of the inspection, the rotors on the oxidation ditch were missing many of the paddles used to aerate the wastewater. According to the operator, they have since been replaced. This comment was also made at the last compliance inspection in 2008, and the paddles were then reinstalled. This appears to be a chronic problem. These paddles are essential to proper treatment at this facility.
  - c. There is no alarm system at the plant. The operator must be notified if the power goes out so that backup power, provided by a portable generator, can be installed so that the Ultraviolet Disinfectant System, sludge pumps and rotors can resume operation. Provide a date by when telemetering will be provided.

## d. Certified Operator – Operator of Record

The NPDES permit Part II, Items A and B address new requirements contained in the Operator Certification rules, OAC 3745-07.

1. The permit requires the facility to submit a notice to Ohio EPA indicating who the operator(s) of record are for the facility. A copy of the blank form is attached. Please complete this form for both the WWTP and the sewer system, unless the same operator of record covers both.

Be advised that your current NPDES permit requires a Class II wastewater operator as the operator of record at the plant and a Class II collections system operator as the operator of record for the collection system. These are the minimum certifications for your facility, and must be provided.

2. The operator of record is required by the Operator Certification rules, OAC 3745-07-04, to be physically present at the WWTP five days a week for a total of 20 hours. This must be documented.
3. OAC 3745-07-09 contains requirements for record keeping and operator responsibilities, including record keeping of the operator of record time accounting at the WWTP, and maintenance and operation activities. Please note that all certified operators, not just the operator of record, are required to meet this section (B) of this rule on certified operator responsibilities.

## 2. Effluent/Receiving Waters –

- a. Barnesville failed to notify Ohio EPA of the major breakdown of equipment at the plant, which is a violation of Part III, 12 of the permit. It was particularly important to notify this agency for this situation because the effluent from the WWTP was a threat to public health and safety as shown in the fecal coliform sample of the effluent.
- b. The following effluent violations occurred in June 2009 as a result of the breakdown at the WWTP:

OUTFALL	PARAMETER	TYPE	UNITS	LIMIT	REPORTED	DATE
001	Total Suspended Solids	30D Conc	mg/l	20	78	6/1/2009
001	Total Suspended Solids	7D Conc	mg/l	30	297	6/1/2009
001	Total Suspended Solids	30D Qty	Kg/day	98	252	6/1/2009
001	Total Suspended Solids	7D Qty	Kg/day	148	964	6/1/2009
001	Nitrogen, Ammonia	30D Conc	mg/l	1.5	5.5	6/1/2009
001	Nitrogen, Ammonia	7D Conc	mg/l	3.0	9.7	6/1/2009
001	Nitrogen, Ammonia	7D Conc	mg/l	3.0	12.0	6/8/2009
001	Nitrogen, Ammonia	7D Conc	mg/l	3.0	4.0	6/15/2009
001	Nitrogen, Ammonia	30D Qty	Kg/day	7.4	17.9	6/1/2009
001	Nitrogen, Ammonia	7D Qty	Kg/day	15	31	6/1/2009

001	Nitrogen, Ammonia	7D Qty	Kg/day	15	33	6/8/2009
001	Nitrogen, Ammonia	7D Qty	Kg/day	15	18.5	6/15/2009
001	Fecal Coliform	7D Conc	#/100ml	2000	2748	6/1/2009
001	Fecal Coliform	7D Conc	#/100ml	2000	2366	6/8/2009
001	CBOD 5 day	30D Conc	mg/l	15	28.5	6/1/2009
001	CBOD 5 day	7D Conc	mg/l	22	87	6/1/2009
001	CBOD 5 day	7D Conc	mg/l	22	26	6/8/2009
001	CBOD 5 day	30D Qty	Kg/day	74	90	6/1/2009
001	CBOD 5 day	7D Qty	Kg/day	108	285	6/1/2009
001	Dissolved Oxygen	1D Conc	mg/l	5.0	4.6	6/1/2009
001	Dissolved Oxygen	1D Conc	mg/l	5.0	2.7	6/2/2009
001	Dissolved Oxygen	1D Conc	mg/l	5.0	4.8	6/3/2009
001	Dissolved Oxygen	1D Conc	mg/l	5.0	3.7	6/5/2009
001	Dissolved Oxygen	1D Conc	mg/l	5.0	3.4	6/8/2009
001	Dissolved Oxygen	1D Conc	mg/l	5.0	4.2	6/9/2009
001	Dissolved Oxygen	1D Conc	mg/l	5.0	3.3	6/10/2009
001	Dissolved Oxygen	1D Conc	mg/l	5.0	4.9	6/11/2009
001	Dissolved Oxygen	1D Conc	mg/l	5.0	4.8	6/26/2009

- c. In addition to the above violations, Barnesville have violated the effluent limits since the last Notice of Violation (covering 4/08-9/08) on at least the following times:

OUTFALL	PARAMETER	TYPE	UNITS	LIMIT	REPORTED	DATE
November 2008						
001	Total Suspended Solids	7D Conc	mg/l	45	48	11/1/2008
December 2008						
001	Nitrogen, Ammonia	7D Qty	Kg/day	15	20	12/22/2008
April 2009						
001	Total Suspended Solids	30D Conc	mg/l	30	86	4/1/2009
001	Total Suspended Solids	30D Qty	Kg/day	148	522	4/1/2009
001	Total Suspended Solids	7D Conc	mg/l	45	53	4/8/2009
001	Total Suspended Solids	7D Qty	Kg/day	221	266	4/8/2009
001	Total Suspended Solids	7D Conc	mg/l	45	269	4/15/2009
001	Total Suspended Solids	7D Qty	Kg/day	221	1726	4/15/2009
001	CBOD 5 day	7D Conc	mg/l	40	47	4/15/2009
001	CBOD 5 day	7D Qty	Kg/day	197	334	4/15/2009

Provide an explanation and actions taken or to be taken to remedy these violations.

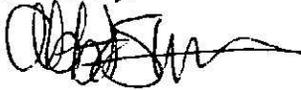
Also, Part III, Item 12 of the permit requires written notification of effluent violations within 5 days of discovery of the violation. There is specific information required to be submitted in writing, including an explanation of the cause of the violations and actions taken or to be taken to remedy the violations, which is not being submitted.

- d. The results for the composite sample taken during the inspection showed violations of dissolved oxygen, fecal coliform and ammonia.
3. **Self-Monitoring Program** – samples are to be taken in accordance with the NPDES Permit Part III, Item 5.
    - a. The fecal coliform sample results from Barnesville's lab (4500 #/100ml) varies from Ohio EPA lab results (60,000 #/100 ml) by a factor of at least 10. Barnesville must reassure OEPA that the samples are being taken and analyzed properly. When was Barnesville's sample taken and by whom? What preservation techniques were employed? How long was it between when the sample was taken and when it was analyzed by the lab? What lab performed the analysis? The lab result of 4500 #/100 ml is reported three times during the month (6/1, 6/8 and 6/15). This is unusual to have the very same result. What is the explanation for this?
    - b. Ohio EPA was disappointed that the facility failed to split samples with sampling staff. This is an inexpensive way to verify that your lab is doing a good job. In your case, almost all parameters (except pH and dissolved oxygen) are sent to two outside labs. This would have been an opportunity to verify their data.
    - c. The operators who collect the samples and prepare them for shipment to the lab should verify the collection and preservation procedures and holding times for all the samples with Standard Methods, particularly for fecal coliform.
  4. **Sludge Storage/Disposal** –  
Barnesville is not in compliance with the pathogen reduction and vector attraction requirements of the sludge rules. Therefore, they are currently landfilling their sludge until they are able to comply with the requirements. Barnesville has made progress by obtaining a PTI for phase I of a 2 phase upgrade to sludge handling and other wastewater improvements on 6/22/09. The sludge improvements include liquid aerated sludge holding, a belt filter press, and storage for up to 120 days will be provided. What is the estimated start construction date?
  5. **Collection System** –
    - a. The Barnesville sanitary sewer system suffers from high inflow and infiltration (I/I), which inundates the WWTP at times. I have attached a graph for your information, showing the relationship of precipitation to flow at the WWTP. This graph shows that rainwater is getting into the sanitary sewer system. Barnesville is required by Part I, Item C(2) to develop an ongoing plan for I/I removal. What is being done this year to address this problem and what are the plans for next year to address I/I removal?
    - b. The NPDES permit now requires sewer system discharges to be reported on the Discharge Monitoring Reports (DMR – previously known as Monthly Operating Reports) as outfall OPC00001 300. All discharges from manholes, pump stations and sewage backups that affect basements

must be reported. These are called Sanitary Sewer Overflows (SSO). The operator in responsible charge of the sewer system is responsible for looking for discharges during rainfall events and reporting them to the person who completes the DMR. There are other requirements for SSO reporting in Part II, Item F of the permit. The operators in charge should both become familiar with these requirements.

Please respond to comments 1 through 5 above, in writing, within 20 days of receipt of this notice. If you have any questions, please contact me at (740) 380-5284.

Sincerely,



Ms. Abbot Stevenson  
Environmental Engineer  
Permits and Enforcement Section  
Division of Surface Water

AS/mlm

Enclosure

c: Roger Deal, Village of Barnesville Administrator (w/enclosure)  
c: Gary Billman, Plant Supt., Village of Barnesville WWTP (w/enclosure)  
c: AS file

**NPDES**  
Compliance Inspection Report

**A. NATIONAL DATA SYSTEM CODING**

Permit No.	NPDES No.	Date	Inspection Type	Inspector	Facility Type
0PC00001*GD	OH0024015	June 8, 2009	S	S	1

**B. FACILITY DATA**

Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Village of Barnesville Wastewater Treatment Plant County Road 122 and Township Road 27 Barnesville, Ohio 43713	*	August 1, 2008
	Exit Time	Permit Expiration Date
	*	January 31, 2013

Name(s) and Title(s) of On-Site Representative(s)	Phone Number(s)
Gary Billman, WWTP Supt.	(740) 425-1681 or 3079
Name, Address and Title of Responsible Official	Phone Number
Mayor Tom Michelli and Council Members Village of Barnesville 132 Arch Street Barnesville, Ohio 43713	(740) 425-3444

\* On site 10:00 a.m. to 10:40 a.m. and 1:30 p.m. to 2:30 p.m.

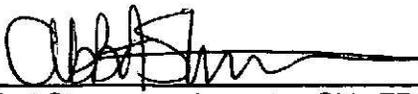
**C. AREAS EVALUATED DURING INSPECTION**

<u>S</u> Permit	<u>S</u> Flow Measurement	<u>NA</u> Pretreatment
<u>S</u> Records/Reports	<u>N</u> Laboratory	<u>S</u> Compliance Schedules
<u>U</u> Operations & Maintenance	<u>U</u> Effluent/Receiving Waters	<u>U</u> Self-Monitoring Program
<u>S</u> Facility Site Review	<u>U</u> Sludge Storage/Disposal	<u>    </u> Other
<u>M</u> Collection System		

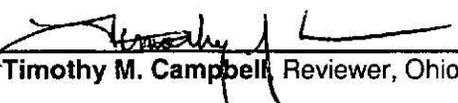
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated, NA = Not Applicable)

**D. SUMMARY OF FINDINGS/COMMENTS** (attach additional sheets if necessary)

See attached letter.

  
Abbot Stevenson, Inspector, Ohio EPA, Southeast District Office

9/9/09  
Date

  
Timothy M. Campbell, Reviewer, Ohio EPA, Southeast District Office

9/9/09  
Date

**E. PERMIT VERIFICATION**

Inspection Observations Verify the Permit	Yes	No	N/A	N/E
a. Correct name and mailing address of permittee	X			
b. Correct name and location of receiving waters	X			
c. Product(s) and production rates conform with permit application (industries)			X	
d. Flows and loadings conform with NPDES permit	X			
e. Treatment processes are as described in permit application/briefing memo	X			
f. New treatment process(es) added since last inspection		X		
g. Notification given to state of new, different, or increased discharges			X	
h. All discharges are permitted	X			
i. Number and location of discharge points are as described in permit	X			

Comments:

**F. COMPLIANCE SCHEDULES/VIOLATIONS**

	Yes	No	N/A	N/E
a. Any significant violations since the last inspection	X			
b. Permittee is taking actions to resolve violations	X			
c. Permittee has compliance schedule	X			
d. Compliance schedule contained in: <u>the NPDES permit</u>	X			
e. Permittee is meeting compliance schedule	X			

Comments: Schedule requires compliance with the sludge regulations.

**G. OPERATION AND MAINTENANCE**

Treatment Facility Properly Operated and Maintained	Yes	No	N/A	N/E
a. Standby power available: Generator <u>X</u> Dual Feed _____	X			
b. Adequate alarm system available for power or equipment failures		X		
c. All treatment units in service other than backup units	X			
d. Sufficient operating staff provided: # of shifts <u>1</u> Days/Week <u>5 (+2 hrs S&amp;S)</u>	X			
e. Operator holds unexpired license of class required by permit Class: <u>II</u>	X			
f. Routine and preventive maintenance schedule/performed on time		X		
g. Any major equipment breakdown since last inspection	X			
h. Operation and maintenance manual provided and maintained		X		
i. Any plant bypasses since last inspection		X		
j. Regulatory agency notified of bypasses: _____ on MORS _____ 800 Number			X	
k. Any hydraulic and/or organic overloads experienced since last inspection	X			

Comments:

- a. Portable, runs whole plant.
- f. Replace rotor paddles.
- g. One oxidation ditch rotor was out of service due to a bad bearing. The plant has been providing poor treatment during this time.

Collection System	Yes	No	N/A	N/E
a. Percent combined system: 0%				
b. Any collection system overflows since last inspection (CSO ____ SSO ____ )		X		
c. Regulatory agency notified of overflow (SSOs)			X	
d. CSO O and M plan provided and implemented			X	
e. CSOs monitored and reported in accordance with permit			X	
f. Portable pumps used to relieve system		X		
g. Lift station alarm systems provided and maintained	X			
h. Are lift stations equipped with permanent standby power or equivalent	X			
i. Is there an inflow/infiltration problem (separate sewer system), or were there any major repairs to collection system since last inspection	X			
j. Any complaints received since last inspection of basement flooding		X		
k. Are any portions of the sewer system at or near capacity		X		

Comments:

## H. SLUDGE MANAGEMENT

	Yes	No	N/A	N/
a. Sludge adequately disposed (Method: land filled)	X			
b. If sludge is incinerated, where is ash disposed of? ____			X	
c. Is sludge disposal contracted (Name: <u>Agrisludge</u> )	X			
d. Has amount of sludge generated changed significantly since last inspection		X		
e. Adequate sludge storage provided at plant		X		
f. Land application sites monitored and inspected per SMP			X	
g. Records kept in accordance with state and federal law	X			
h. Any complaints received in last year regarding sludge		X		
i. Is sludge adequately processed (digestion, dewatering, pathogen control) in accordance with Ohio EPA rules		X		

Comments: 1. Barnesville's sludge does not meet the vector attraction or pathogen reduction requirements. On 4/22/09, PTI #708176 was approved for an upgrade of the sludge handling at this facility. No land application may be performed until it does. In the meantime, sludge will be landfilled.  
 2. A complete sludge compliance inspection was conducted this day by Jacob Howdysell, Ohio EPA Central Office on 1/17/08. See his inspection report for details.

**I. SELF-MONITORING PROGRAM**

<b>Part 1 - Flow Measurement</b>		<b>Yes</b>	<b>No</b>	<b>N/</b>	<b>N/</b>
a.	Primary flow measuring device properly operated & maintained. Type of device: <input checked="" type="checkbox"/> ultrasonic & parshall flume _____ calculated from influent _____ weir _____ Other _____ ultrasonic & weir _____ Specify: _____	X			
b.	Calibration frequency adequate (date of last calibration: <u>3/18/09</u> )	X			
c.	Secondary instruments (totalizers, recorders etc.) properly operated and maintained	X			
d.	Flow measurement equipment adequate to handle expected ranges of flows	X			
e.	Actual flow discharged is measured		X		
f.	Flow measuring equipment inspection frequency: <input checked="" type="checkbox"/> Daily _____ Weekly _____ Monthly _____ Other				

**Comments:** e) meter measures influent

<b>Part 2 - Sampling</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>N/E</b>
a.	Sampling location(s) are as specified by permit	X			
b.	Parameters and sampling frequency agree with permit	X			
c.	Permittee uses required sampling method	X			
d.	Sample collection procedures are adequate	X			
i.	Samples refrigerated during compositing	X			
ii.	Proper preservation techniques used				X
	Conform with 40 CFR 136.3				X
e.	Monitoring records (e.g., flow, pH, D.O., etc.) maintained for a minimum of three years including all original strip chart recordings (e.g., continuous monitoring instrumentation, calibration, and maintenance records)				X
f.	Adequate records maintained of sampling date, time, exact location, etc.				X

**Comments:** d. Operator must make sure holding times, especially six hours for fecal coliform, are being met.

<b>Part 3, Laboratory - General</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>N/E</b>
a.	EPA approved analytical testing procedures used (40 CFR 136.3)	X			
b.	If alternate analytical procedures are used, proper approval has been obtained			X	
c.	Analyses being performed more frequently than required by permit		X		
d.	If (c) is yes, are results reported in permittee's self-monitoring report			X	
e.	Commercial laboratory used	X			
	1. Parameters analyzed by commercial lab: <u>metals, sludge, fecal coliform, ammonia, TSS, cBOD5</u>				
	2. Lab name: <u>Reame &amp; Hager, Coshocton Env.</u>				

**Comments:**



L. SAMPLING PROCEDURES (FOR CSI'S)

- Grab samples obtained
- Composite obtained
- Compositing frequency: 200 mls/20 min. Preservation: H<sub>2</sub>SO<sub>4</sub>, HNO<sub>3</sub>, ICE, NaOH
- Flow proportioned sample obtained
- Automatic sampler used
- Sample split with permittee
- Chain of custody employed
- Sample obtained from facility sampling device
- Sample refrigerated during compositing:  Yes  No
- Sample representative of volume and nature of discharge: \_\_\_\_\_

**Comments:** Plant personnel was not available to accept split sample from OEPA's composite sampler on the second day. Sludge deposits and sludge worms were noted in stream downstream from outfall.

**TABLE I**

**OHIO EPA FIELD DATA**

FACILITY: Barnesville WWTP

DATES SAMPLED: June 8 & 9, 2009

<u>Station</u>	<u>Date</u>	<u>Time</u>	<u>Parameter</u>	<u>Units</u>	<u>Value</u>	<u>Permit Limits</u>
001	6/8	1405	pH	S.U.	7.06	6.5-9.0
			Temperature	°C	18.17	-
			Dissolved oxygen	mg/l	6.85	5.0 min.
			Conductivity	umhos/cm	749	-
001	6/9	1115	pH	S.U.	6.99	6.5-9.0
			Temperature	°C	18.31	-
			Dissolved oxygen	mg/l	4.72	5.0 min.
			Conductivity	umhos/cm	773	-

**TABLE II**

**COMPLIANCE SAMPLING DATA**

FACILITY: Barnesville WWTP

DATES SAMPLED: June 8-9, 2009

STATION	T*	PARAMETER	UNITS	<u>OHIO EPA</u>		<u>ENTITY**</u>		<u>PERMIT LIMITS</u>	
				CONC.	(KG/D) LOAD.	CONC.	(KG/D) LOAD.	CONC.	(KG/D) LOAD.
001	C	Susp. solids	mg/l	9	24.9	-	-	30	148
	C	CBOD <sub>5</sub>	mg/l	5.8	16.1	-	-	22	108
	G	Cyanide, free	ug/l	-	-	-	-	-	-
	C	Ammonia	mg/l	14.9	41.3	-	-	3	15
	C	Nitrate-nitrite	mg/l	<0.10	-	-	-	-	-
	C	Fecal coliform #/100ml		60,000	-	-	-	-	-
	G	Oil & Grease	mg/l	-	-	-	-	10 max.	-
	C	Nickel, tot.	ug/l	2.9	-	-	-	-	-
	C	Copper, tot.	ug/l	6.3	-	-	-	-	-
	C	Cadmium, tot.	ug/l	<0.2	-	-	-	-	-
	C	Lead, tot.	ug/l	<2.0	-	-	-	-	-
	C	Chromium, tot.	ug/l	<2.0	-	-	-	-	-
	C	Mercury, tot.	ug/l	<0.2	-	-	-	-	-
	C	Strontium, tot.	ug/l	266	-	-	-	-	-
	C	Zinc, tot.	ug/l	12	-	-	-	-	-
	G	Chrom. hex.	ug/l	<10	-	-	-	-	-
		Flow, total	MGD			0.732			

\*SAMPLE TYPE: G=grab; C=composite

\*\* Entity did not split samples.



Ohio 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: www.epa.state.oh.us/ddagw/opcert.html

#### 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

#### III. OPERATOR OF RECORD INFORMATION

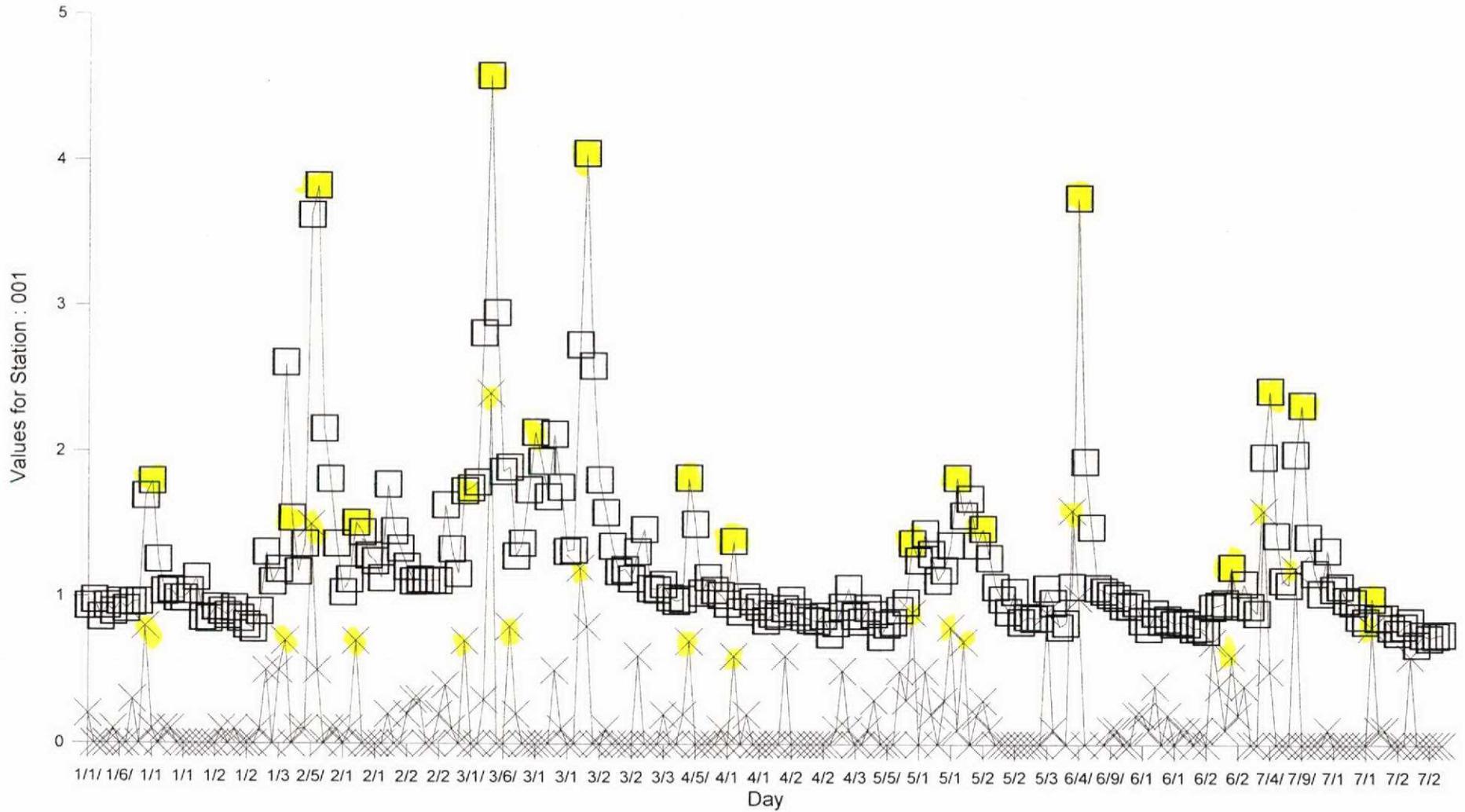
Add Additional(A), New (N) or Remove(R)	Name of Operator of Record	Certification Number & Expiration Date	I verify that I am the onsite certified operator responsible for the technical operation of the above referenced facility. (Signature of certified operator)*

\* 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: \_\_\_\_\_

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

Barnesville WWTP 0PC00001\*GD :  
 Period : 01/01/2008 to 08/01/2008



Flow Rate (MGD)



Total Precipitation (Inches)

Barnesville WWTP 0PC00001\*HD :  
Period : 08/01/2008 to 01/01/2009

