



**Environmental
Protection Agency**

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



1PB0003420080129

CLERMONT WILLIAMSBURG WWTP

JACKSON, JOSHUA 2008/01/29



State of Ohio Environmental Protection Agency

Southwest District Office

401 East Fifth Street
Dayton, Ohio 45402-2911

TELE: (937) 285-6357 FAX: (937) 285-6249
www.epa.state.oh.us

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

January 29, 2008

-Camp
Village of Williamsburg
Attn: Ms. Patty Bates
107 West Main St.
Williamsburg, OH 45176

**RE: Village of Williamsburg WWTW/Compliance Evaluation Inspection Report
NPDES Permit No. OH0021571 / OEPA PERMIT NO. 1PB00034*FD
Notice of Violation**

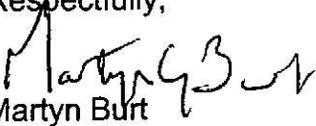
Dear Ms. Bates:

On January 24, 2008, Joshua Jackson conducted an NPDES Compliance Evaluation Inspection at the Village of Williamsburg wastewater treatment works (WWTW). Mr. Kyle Corbitt was representing the Village during the inspection. The purpose of the inspection was to evaluate compliance with the terms and conditions of the NPDES Permit.

A copy of Mr. Jackson's report on the inspection is enclosed. As indicated in the report, several areas received below "Satisfactory" ratings. **Please pay special attention to the "Items requiring correction in Bold Type", as there are compliance schedules associated with them.**

Thank you and your staff for the time extended during the inspection process. If you have any questions, please feel free to contact Mr. Jackson by phone at (937) 285-6029 or by e-mail at joshua.jackson@epa.state.oh.us.

Respectfully,


Martyn Burt
Compliance & Enforcement Supervisor
Division of Surface Water

Cc: Jeremy Fite, Village of Williamsburg

Enclosures





State of Ohio Environmental Protection Agency
Southwest District Office

NPDES Compliance Inspection Report

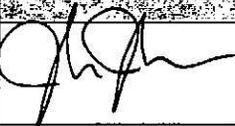
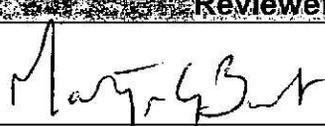
Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PB00034*FD	OH0021571	1/24/2008	C	S	

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Williamsburg WWTW 100 Mill Street Williamsburg, Clermont County	10:00 a.m.	8/1/2004
	Exit Time	Permit Expiration Date
	12:00 p.m.	7/31/2009
Name(s) and Title(s) of On-Site Representatives		Phone Number(s)
Jeremy Fite, Operator of Record Kyle Corbitt, WWTW Operator		513-724-2248
Name, Address and Title of Responsible Official		Phone Number
Village of Williamsburg Attn: Ms. Patty Bates, Administrator 107 W. Main Street Williamsburg, OH 45176		513-724-6107

Section C: Areas Evaluated During Inspection			
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)			
S	Permit	S	Flow Measurement
N	Pretreatment	S	Laboratory
U	Records/Reports	S	Compliance Schedule
S	Operations & Maintenance	U	Effluent/Receiving Waters
S	Self-Monitoring Program	S	Sludge Storage/Disposal
S	Facility Site Review	N	Other
M	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
1-29-08 Date	1/29/08 Date

Permit # : 1PB00034*FD

NPDES #: OH0021571

Sections E thru K: Complete on all inspections as appropriate
Y – Yes, N – No, N/A – Not Applicable, N/E – Not Evaluated

Section E: Permit Verification

Inspection observations verify the permit

- (a) Correct name and mailing address of permittee Y
- (b) Correct name and location of receiving waters..... Y
- (c) Product(s) and production rates conform with permit application (Industries)..... Y
- (d) Flows and loadings conform with NPDES permit..... Y
- (e) Treatment processes are as described in permit application... Y
- (f) New treatment process(es) added since last inspection..... N
- (g) Notification given to State of new, different or increased discharges..... N/A
- (h) All discharges are permitted..... Y
- (i) Number and location of discharge points are as described in permit..... Y

Comments/Status:

Section E: Permit Verification

- (a) Any significant violations since the last inspection..... Y
- (b) Permittee is taking actions to resolve violations..... N/E
- (c) Permittee has a compliance schedule..... N
- (d) Compliance schedule contained in
- (e) Permittee is meeting compliance schedule..... N/A

Comments/Status:

It is unknown what caused all the violations and Ohio EPA is unaware of what the Village is doing to prevent similar violations from occurring in the future.

Section C: Operation & Maintenance

Treatment Works:

Treatment facility properly operated and maintained

- (a) Standby power available.....generator or dual feed Y
- (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 (OAC 3745-7)..... II
- (e) Operator of Record holds unexpired license of class required by permit..... Y
 Class: II
- (f) Copy of certificate of Operator of Record displayed on-site..... Y
- (g) Minimum operator staffing requirements fulfilled (OAC 3745-7)... N
- (h) Routine and preventative maintenance scheduled/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
 On MORs and/or Spill Hotline (1-800-282-9378)
- (m) Any hydraulic and/or organic overloads since last inspection..... N

Record Keeping:

- (a) Log book provided..... N
- (b) Format of log book (i.e. computer log, hard bound book)
- (c) Log book(s) kept onsite (in an area protected from weather)..... N
- (d) Log book contains the following:
 - I. Identification of treatment works..... N
 - II. Date/times of arrival/departure for Operator of Record and any other operator required by OAC 3745-7..... N
 - III. Daily record of operation and maintenance activities (including preventative maintenance, repairs and request for repairs)..... N
 - IV. Laboratory results (unless documented on bench sheets)... N/A
 - V. Identification of person making log entries..... N/A
- (e) Has the operator of record submitted written notification 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..... N/A

Section G: Operation & Maintenance (cont)

Collection System:

- (a) Percent combined system: 0%
- (b) Any collection system overflows since last inspection..... N
(CSO and/or SSO)
- (c) Regulatory agency notified of overflows (SSOs)..... 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 used to relieve system..... Y
- (g) Lift station alarms provided and maintained..... Y
- (h) Are lift stations equipped with permanent standby power
or equivalent..... N
- (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/E

Comments/Status:

According to Mr. Corbitt, 3 main sewer pipes were re-lined in 2007. They have done smoke testing in the Village details were not given at the time of the inspection. The Village has 4 lift stations with visual/audio alarms. They are all checked daily. The Main St. lift station does have an auto-dialer system for "High wet-well".

Section H: Sludge Management

- (a) Sludge management plan (SMP)
Submitted date: Approval #: Not submitted N/A
- (b) Sludge management plan current..... N/A
(c) Sludge adequately disposed..... Y
(Method:Hauling to the Village of New Richmond)
(d) If sludge is incinerated, where is ash disposed of
(e) Is sludge disposal contracted..... Y
(Name:Gullets Sanitation)
(f) Has amount of sludge generated changed significantly since
last inspection..... N
(g) Adequate sludge storage provided at plant.....N/E
(h) Land application sites monitored and inspected per SMP..... N/A
(i) Records kept in accordance with State and Federal law..... Y
(j) Any complaints received in last year regarding sludge..... N
(k) Is sludge adequately processed (digestion, pathogen control)..... N/E

Comments/Status:

Section I: Self-Monitoring Program

Flow Measurement:

- (a) Primary flow measuring device operated and maintained..... Y
Type of device: Ultrasonic & Parshall flume Ultrasonic & Weir Weir
Calculated from influent Other (Specify:Magmeter)
- (b) Calibration frequency adequate N
(Date of last calibration: August 2004)
(c) Secondary instruments operated and maintained..... Y
(d) Flow measurement equipment adequate to handle full range
of flows..... Y
(e) Actual flow discharged is measured..... Y
(f) Flow measuring equipment inspection frequency
Daily Weekly monthly other

Comments/Status:

Section I: Self-Monitoring Program (cont)

Sampling:

- (a) Sampling location(s) are as specified by permit..... Y
- (b) Parameters and sampling frequency agree with permit..... Y
- (c) Permittee uses required sampling method..... Y
- (d) Sample collection procedures are adequate..... Y
 - (i) Samples refrigerated during compositing..... Y
 - (ii) Proper preservation techniques used..... Y
 - (iii) Containers and sample holding times prior to analysis conform with 40 CFR 136.3..... Y
- (e) 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
- (f) Adequate records maintained of sampling date, time, location, etc.. Y

Laboratory:

General

- (a) EPA approved analytical testing procedures used (40 CFR 136.3).. Y
 - (b) If alternate analytical procedures are used, proper approval has been obtained..... N
 - (c) Analyses being performed more frequently than required by permit. N
 - (d) If (c) is yes, are results in permittee's self-monitoring report..... N/A
 - (e) Commercial laboratory used..... Y
- Parameters analyzed by commercial lab: Metals, O&G, phosphorus, nitrate+nitrite

Lab name: Test America

Quality Control/Quality Assurance

- (f) Quality assurance manual provided and maintained..... N
- (g) Satisfactory calibration and maintenance of instruments/equipment. N
- (h) Adequate records maintained..... N
- (i) Results of latest USEPA quality assurance performance sampling program: Satisfactory Marginal Unsatisfactory

Date:

Comments/Status:

Operations staff should document all equipment calibration that is performed including dissolved oxygen and nitrogen ammonia instrumentation.

Section J: Effluent/Receiving Water Observations

Outfall Number	Oil sheen	Grease	Turbidity	Visible Foam	Visible Floating Solids	Color	Other
001	None	None	mild	medium brown	mild	clear	

Comments/Status:

Section K: 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/Status:

Inspection Findings
(Items requiring correction are in Bold Type)

The Village of Williamsburg's wastewater treatment works (WWTW) is designed to treat an average daily flow of 0.5 million gallons per day (MGD). From July 2006 – December 2007, the Village reported an average daily flow of 0.28 MGD. The WWTW consists of the following major components:

- Preliminary Screens (mechanical ¾" opening)
- Vortex Grit Removal
- (4) Sequencing Batch Reactor Tanks
- Ultraviolet disinfection
- (2) Aerobic Digesters
- (4) Sludge drying beds

Effluent Limit Violations

(Period of Review: July 2006 – December 2007)

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

Reporting Period	Parameter	Limit Type	Limit	Reported Value
July 2006	Phosphorus, Total (P)	30D Conc	2.0	3.1
July 2006	Phosphorus, Total (P)	7D Conc	3.0	3.1
July 2006	pH	1D Conc	6.5	6.
July 2006	pH	1D Conc	6.5	6.3
July 2006	pH	1D Conc	6.5	6.3
July 2006	pH	1D Conc	6.5	6.4
July 2006	pH	1D Conc	6.5	6.4
September 2006	Phosphorus, Total (P)	30D Conc	2.0	3.05
September 2006	Phosphorus, Total (P)	7D Conc	3.0	3.05
December 2006	Phosphorus, Total (P)	30D Conc	2.0	2.13
May 2007	Phosphorus, Total (P)	30D Conc	2.0	3.21
May 2007	Phosphorus, Total (P)	7D Conc	3.0	3.21
June 2007	Phosphorus, Total (P)	30D Conc	2.0	3.4
June 2007	Phosphorus, Total (P)	7D Conc	3.0	3.4
June 2007	Oil and Grease, Freon	1D Conc	5.0	6.
July 2007	Phosphorus, Total (P)	30D Conc	2.0	2.94
August 2007	Phosphorus, Total (P)	30D Conc	2.0	2.81
September 2007	Phosphorus, Total (P)	30D Conc	2.0	4.
September 2007	Phosphorus, Total (P)	7D Conc	3.0	4.
October 2007	Phosphorus, Total (P)	30D Conc	2.0	3.12
October 2007	pH	1D Conc	6.5	6.3
October 2007	pH	1D Conc	6.5	6.2
October 2007	Phosphorus, Total (P)	7D Conc	3.0	4.53
October 2007	pH	1D Conc	6.5	6.1
October 2007	pH	1D Conc	6.5	6.3
October 2007	pH	1D Conc	6.5	6.1

Permit # : 1PB00034*FD
NPDES # : OH0021571

October 2007	pH	1D Conc	6.5	6.4
October 2007	pH	1D Conc	6.5	6.3
October 2007	pH	1D Conc	6.5	6.2
October 2007	pH	1D Conc	6.5	6.2
October 2007	pH	1D Conc	6.5	6.1
October 2007	pH	1D Conc	6.5	6.2
November 2007	Phosphorus, Total (P)	30D Conc	2.0	2.36

A review of the files showed that Ohio EPA was not given a self-notification report with any of the NPDES exceedences listed above. Part III (General Conditions), Section 12, of the Village of Williamsburg's NPDES permit states the following:

- A. *The permittee shall by telephone report any of the following within twenty-four (24) hours of discovery, at (toll free) 1-800-282-9378:*
 1. *Any noncompliance which may endanger health or the environment;*
 2. *Any unanticipated bypass which exceeds any effluent limitation in the permit; or*
 3. *Any upset which exceeds any effluent limitation in the permit.*
 4. *Any violation of a maximum daily discharge limitation for any of the pollutant listed by the Director in the permit.*
- B. *For the telephone reports required by Part 12.A, the following information must be included:*
 1. *The times at which the discharge occurred, and was discovered;*
 2. *The approximate amount and the characteristics of this discharge;*
 3. *The stream(s) affected by the discharge;*
 4. *The circumstances which created the discharge;*
 5. *The names and telephone numbers of the persons who have knowledge of these circumstances;*
 6. *What remedial steps are being taken; and*
 7. *The names and numbers of the persons responsible for such remedial steps.*
- C. *These telephone reports shall be confirmed in writing within five days of the discharge and submitted to the appropriate Ohio EPA District office. The report shall include the following:*
 1. *The limitation(s) which has been exceeded;*
 2. *The extent of the exceedance(s);*
 3. *The cause of the exceedance(s);*
 4. *The period of the exceedance(s) including exact dates and times;*
 5. *If uncorrected, the anticipated time the exceedance(s) is expected to continue, and*
 6. *Steps being taken to reduce eliminate and/or prevent recurrence of the exceedance(s).*

The Village of Williamsburg shall also adhere to the General Conditions of the NPDES permit, specifically Part 12 (noncompliance notification), in the future. Contact this office for assistance in establishing a self-notification report protocol.

The Village shall also submit written correspondence to this office no later than March 3, 2008, documenting the following:

- The cause of each of the violations shown in the table above.
- The corrective action taken.
- Preventative measures used to prevent similar violations from occurring again.

There is currently no operation & maintenance daily log book at the WWTW. Ohio Administrative Code 3745-7-09 requires the following:

(A) The owner and operator of record of a public water system, treatment works or sewerage system shall maintain or cause to be maintained operation and maintenance records for each public water system, water treatment plant within a public water system, treatment work, or wastewater treatment facility within a treatment works. Some of the formats in which the records may be maintained include, but are not limited to, hard bound books with consecutive page numbering, time cards, separate operation and maintenance records, or well organized computer logs.

- 1) *The records shall be housed and maintained in such a manner as to be protected from weather damage and guarantee the authenticity and accuracy of the records contained within.*
- 2) *The records shall be accessible onsite for twenty-four hour inspection by agency or emergency response personnel.*
- 3) *At a minimum, the following information shall be recorded:*
 - (a) Identification of the public water system, sewerage system, or treatment works;*
 - (b) Date and times of arrival and departure for the operator of record and any other operator required by this chapter;*
 - (c) Specific operation and maintenance activities that affect or have the potential to affect the quality or quantity of sewage or water conveyed, effluent or water produced;*
 - (d) Results of tests performed and samples taken, unless documented on a laboratory sheet;*
 - (e) Performance of preventative maintenance and repairs or requests for repair of the equipment that affect or have the potential to affect the quality or quantity of sewage or water conveyed, effluent or water produced; and*
 - (f) Identification of the persons making entries.*
- 4) *The records shall be kept up to date, contain a minimum of the previous three months of data at all times, and be maintained for at least three years.*

Village operations staff must adhere to these requirements by developing a daily operation and maintenance log by no later than March 1, 2008.

With the lack of non-compliance notifications and operation & maintenance log book, the "Records and Reports" section of this report was given a rating of "Unsatisfactory".

Items Noted During the Inspection

1. The laboratory was in relatively good condition with the exception of the following items:
 - a. There was no thermometer located in the BOD incubator to ensure that a constant temperature of $20^{\circ} \pm 1^{\circ}\text{C}$.
 - b. For quality assurance/quality control reasons, it is recommended the Village of Blanchester lab routinely performs split sampling in-house and with an outside laboratory for CBOD₅, TSS and fecal coliform.
 - c. Proper documentation should be provided for all calibration that is performed on the instruments; such as DO and nitrogen-ammonia meters.
 - d. The laboratory should have an up-to-date copy of 40 CFR 136. There should also be copies of the appropriate "Standard Methods" test procedures for every test that is performed in-house (CBOD₅, TSS, nitrogen-ammonia, etc.).
I have included a copy of 40 CFR 136 for your convenience.
Items 1a – 1d must be corrected as soon as possible but no later than February 11, 2008.

2. There was no thermometer in the automatic composite samplers to ensure that a constant temperature of $< 6^{\circ}\text{C}$ is being maintained. **This should be corrected as soon as possible but no later than February 11, 2008.**

3. The main flow meter for the WWTW (influent meter) had not been calibrated since 2004. Flow meter should at least be calibrated once/year. **The Village shall have the influent flow meter calibrated as soon as possible but no later than March 3, 2008.**

4. The Village hauls liquid sludge from the aerobic digester approximately once per week. Typically 3-5 loads of sludge are taken out at a time and transported to the Village of New Richmond WWTW. New Richmond then dewateres the sludge and it is transported to a mixed solids waste landfill. In order to save costs, the Village of Williamsburg may want to investigate utilizing geotextile bags for dewatering sludge on-site. Dried sludge could then be land applied or hauled to a mixed solid waste landfill. Several area municipalities have been successfully utilizing this method of

dewatering/disposal, such as the City of Hillsboro and the Villages of Sabina and Sardinia. *Please contact this office to discuss this further.*

5. The "Operator of Record", Jeremy Fite, was unavailable at the time of the inspection due to medical leave. It is anticipated that Mr. Fite will be on leave for approximately 5-7 weeks total (his return is set for early to mid-February). Mr. Kyle Corbitt (no certification) has been performing all the day-to-day duties in Mr. Fite's absence.

Ohio Administrative Code 3745-7-04(C)(2)(c) states, "The operator of record for a class II, III, or IV treatment works or class II sewerage system may be replaced by a backup operator with a certificate one classification lower than the treatment works or sewerage system for a period up to thirty consecutive days....".

Until Mr. Corbitt acquires his class I treatment works license, The Village of Williamsburg must contract with a certified operator with a class II (or higher) treatment works license to fill in for Mr. Fite.

6. There is no formalized routine preventative maintenance schedule for the WWTW, although Mr. Corbitt did describe work that has been performed (greasing, changing air filters, etc.). **The Village shall establish a preventative maintenance schedule for essential WWTW equipment as soon as possible, but no later than March 3, 2008.** The O&M log should document when preventative maintenance work is completed.
7. There was a large amount of brown foam on the SBR tanks. When the decant arm would lower at the end of the "settle" mode, it would capture some of the foam. This foam is then flushed out of the outfall during the decant mode. The Village should evaluate different options for reducing foam in the SBRs and also minimizing the amount of foam captured when the decant arm is lowered.
The Village submit correspondence to this office no later than March 3, 2008, and notify Ohio EPA as to what work was completed in an effort to eliminate foam discharged through the outfall.
8. At the time of the inspection, there was a noticeable amount of biosolids located at and just upstream of the outfall pipe. For this reason and for all the numeric violations shown in the table above, the "Effluent/Receiving Waters" section of this report was given a rating of "Unsatisfactory".

Inflow and Infiltration

At the time of the inspection, the Village of Williamsburg did not have an infiltration & inflow (I&I) removal program established. For this reason, a rating of "Marginal" was given to the "Collection System" section of this report. With aging sewer infrastructures, more and more communities are investing time and money

Permit # : 1PB00034*FD
NPDES # : OH0021571

into sewer investigation and repair work in order to remove extraneous water from the collection system. Groundwater and surface water run-off can enter the sewers through deteriorated manholes, sewer joints, cracked sewer mains/laterals and cross-connections (including downspouts, sump pumps and driveway drains). During precipitation events, surges of "clean" water in the collection system can create compliance problems at the WWTW or even illegal sanitary sewer overflows.

Mr. Corbitt stated that there was some sewer re-lining work done in 2007, but he could not identify why these areas were prioritized over other areas. Initiating an I&I removal program should consist of the following items (at a minimum):

1. Dye/smoke testing.
2. Collection system flow monitoring to identify and prioritize problems areas.
3. Establish and implement a rotating schedule for CCTVing of the sewer mains (starting with the problem areas identified by the collection system flow monitoring)
4. Inventory manhole conditions and residential downspout connections.
5. Prioritize and initiate specific I&I removal projects.

All of the items shown above must be documented and available for review by Ohio EPA.