



**Environmental  
Protection Agency**

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



\*1PD0000320100325\*

BUTLER

FAIRFIELD WWTP

SARLE, EDWARD

| 2010/03/25



**Environment  
Protection Agency**

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

*Sewage  
Fairfield  
WWTP*

March 25, 2010

Mr. Dave Crouch  
City of Fairfield  
5350 Pleasant Avenue  
Fairfield, Ohio 45014

**Re: Butler County, City of Fairfield, Compliance Evaluation Inspection  
NPDES Permit No. OH0025071, OEPA Permit No. 1PD00003\*OD**

Dear Mr. Crouch:

On March 11, 2010, I conducted a Compliance Evaluation Inspection at this facility. Representing this facility was Drew Young, Jason Hunold, Linda Mowbray and you. A copy of my inspection report is enclosed.

The inspection report contained one marginal area. The Effluent / Receiving Water section was rated marginal as a result of the NPDES Permit violations.

At this time, all areas noted in the inspection report are being addressed. Therefore, no response is required at this time.

If you have any questions, please call me at (937) 285 - 6096.

Sincerely,

Ned Sarle  
Division of Surface Water  
Permits Group

Enclosures

cc: Drew Young, City of Fairfield





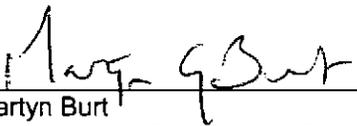
State of Ohio Environmental Protection Agency  
Southwest District Office

NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PD00003*OD	OH0025071	3/11/2010	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Fairfield WWTP 4799 Groh Lane Fairfield, Ohio 45014	9:00 A.M.	12/1/2009
	Exit Time	Permit Expiration Date
	2:55 P.M.	7/31/2014
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
David E. Crouch, Public Utilities Director	(513) 867-5375	
Drew Young, Public Utilities Superintendent	(513) 858-7760	
Jason Hunold, Chief Operator	(513) 858-7760	
Linda Mowbry, Lab Supervisor	(513) 858-7760	
Name, Address and Title of Responsible Official	Phone Number	
David E. Crouch, Public Utilities Director 5350 Pleasant Avenue Fairfield, Ohio 45014	(513) 867-5375	

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

Section D: Summary of Findings (Attach additional sheets if necessary)			
See Attached Summary of Findings / Comments.			
Inspector		Reviewer	
 Ned Sarle Division of Surface Water Southwest District Office		 Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office	
3/25/10 Date		3/25/10 Date	

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) Flows and loadings conform with NPDES permit..... Y
- (c) Treatment processes are as described in permit application... Y
- (d) All discharges are permitted..... Y
- (e) Number and location of discharge points are as described  
in permit..... Y
- (f) Storm water discharges properly permitted..... Y

Comments/Status:

See Attached Summary of Findings / Comments.

**Section F: Compliance**

- (a) Any significant violations since the last inspection..... Y
- (b) Appropriate Non-compliance notification of violations..... Y
- (c) Permittee is taking actions to resolve violations..... Y
- (d) Permittee has a compliance schedule..... N
- (e) Compliance schedule contained in...N/A
- (f) Permittee is in compliance with schedule..... N/A
- (g) Has biomonitoring shown toxicity in discharge since last inspection N

Comments/Status:

See Attached Summary of Findings / Comments.

**Section G: Operation & Maintenance**

**Treatment Works:**

Treatment facility properly operated and maintained

(a) Standby power available.....generator  or dual feed ..... Y

i. What does the back-up power source operate.....

The dual power feed serves the whole WWTP. The City of Fairfield is looking at installing a backup generator later this year.

ii. How often is the generator tested under load.....

N/A.

(b) Which components have an alarm system available for power or equipment failures.....

The influent pump station, pretreatment system, aeration treatment system, secondary clarifiers and ultraviolet disinfection.

(c) All treatment units in service other than backup units..... Y

(d) What method is used for scheduling routine & preventative maintenance (calendar, software, etc.).....

Computer program.

(e) Any major equipment breakdown since last inspection..... N

(f) Operation and maintenance manual provided and maintained..... Y

(g) Any plant bypasses since last inspection..... N

(h) Any plant upsets since last inspection..... Y

**Comments/Status:**

None.

**Section G: Operation & Maintenance con't**

**Record Keeping/Operator of Record:**

- (a) Wastewater Treatment Works classification (OAC 3745-7)..... IV
- (b) Operator of Record holds unexpired license of class required by Permit..... Y
- (c) Copy of certificate of Operator of Record displayed on-site..... Y
- (d) Has the Operator of Record submitted an ORC Notification form. Y
- (e) Minimum operator staffing requirements fulfilled (OAC 3745-7).... Y
- (f) If a Staffing Reduction plan has been approved, are the stipulations of the plan being met..... N/A
- (g) Operator of Record log book provided..... Y
- (h) Format of log book (e.g. computer log, hard bound book)  

Computer system.
- (i) Log book kept onsite (in an area protected from weather)..... Y
- (j) 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 operator and maintenance activities (including preventative maintenance, repairs and request for repairs, process control test results, etc.)..... Y
  - iv. Laboratory results (unless documented on bench sheets)... Y
  - v. Identification of person making entries..... Y
- (k) 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..... Y

**Comments/Status:**

None.

**Section G: Operation & Maintenance con't**

**Collection System:**

- (a) Are there pump stations in the collection system..... Y
  - i. How many publicly-owned pump stations equipped with permanent standby power or equivalent.....11
  - ii. How many pump stations have telemetered alarms.....13
  - iii. How many pump stations have operable alarms.....13
  
- (b) Any chronic collection system overflows since last inspection..... N
- (c) Regulatory agency notified of all overflows..... N/A
- (d) Are there CSOs in the collection system..... N/A  
if so, what is the LTCP status.....
- (e) How are CSOs monitored (chalk, block, level sensor, etc.).....
- (f) Portable pumps available for collection system maintenance..... N
- (g) RDII Program established and active..... Y
- (h) Any WIB complaint received since last inspection..... N
- (i) Is there a WIB response plan..... Y
- (j) Is any portion of the collection system at or near dry weather capacity..... N

**Comments/Status:**

See Attached Summary of Findings / Comments.

**Section H: Sludge Management**

(a) Method of Sludge Disposal...

- Land Application
- Haul to Another NPDES Permittee
- Haul to a Mixed Solid Waste Landfill

\*if one of the selected methods is land application, complete applicable charts.

**Class A - Exception Quality Sewage Sludge (monitoring station 584)**

Pathogen Reduction Alternative	84370 Vector Attraction Reduction Options							
	Option 1 -38% Volatile Solids Reduction	Option 2 -Anaerobic Bench Scale Analysis	Option 3 - Aerobic Bench Scale Analysis	Option 4 - Specific Oxygen Uptake Rate	Option 5 - Aerobic Time and Temperature	Option 6 - Alkali Addition	Option 7 - >75% Percent Solids without Unstabilized Solids	Option 8 - >75% Percent Solids with Unstabilized Solids
Alternative 1 - Time and Temperature Regime (84369)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - High pH and High Temperature (84369)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 3 - Other Processes (84369)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 4 - Unknown Processes (84369)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Composting (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Heat Drying (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Heat Treatment (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Thermophilic Aerobic Digestion (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Beta Ray Irradiation (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Gamma ray Irradiation (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Pasteurization (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 6 - Approved Equivalent Process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Permit #: 1PD00003\*  
 NPDES #: OH0025071

**Class B Sewage Sludge (monitoring station 581)**

Pathogen Reduction Alternative	84370 Vector Attraction Reduction Options									
	Option 1 -38% Volatile Solids Reduction	Option 2 -Anaerobic Bench Scale Analysis	Option 3 - Aerobic Bench Scale Analysis	Option 4 - Specific Oxygen Uptake Rate	Option 5 - Aerobic Time and Temperature	Option 6 - Alkali Addition	Option 7 - >75% Percent Solids without Unstabilized	Option 8 - >75% Percent Solids with Unstabilized	Option 9 - Land Injection	Option 10 - Immediate Incorporation
Alternative 1 - Geometric Mean of Seven Fecal Samples (84369)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - Aerobic Digestion (46396)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - Air Drying (46396)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - Anaerobic Digestion (46396)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - Composting (46396)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - Lime Treatment (46396)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 3 - Approved Equivalent Process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (b) Has amount of sludge generated changed significantly since the last inspection..... N
- (c) How much sludge storage is provided at the plant.....
- (d) Records kept in accordance with State and Federal law (5 years according to OAC 3745-40-06)..... Y
- (e) Any complaints received in last year regarding sludge..... N
- (f) 5/8" screen at headworks for facilities that land apply sludge..... Y
- (g) Are sludge application sites inspected to verify compliance with NPDES permit..... Y
- (h) Is a contractor used for sludge disposal..... Y  
 If so, what is the name of the contractor.....

**Comments/Status:**

**Section I: Self-Monitoring Program**

**Flow Measurement:**

- (a) Primary/Secondary flow measuring devices (e.g. weir with ultrasonic level sensor):
- (b) Flow meter calibrated annually ..... Y  
(Date of last calibration: 10/29/2009)
- (c) 24-hour recording instruments operated and maintained..... Y
- (d) Flow measurement equipment adequate to handle full range of flows..... Y
- (e) All discharged flow is measured..... Y

**Comments/Status:**

Flow monitoring equipment is capable of measuring between 0 and 33 MGD.

**Section I: Self-Monitoring Program (con't)**

**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  
(see GLC page)
- (d) 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/Status:**

None.

**Section I: Self-Monitoring Program (con't)**

**Laboratory:**

*General*

- (a) Does the Quality Assurance Manual contain written Standard Operating Procedures (SOP's) for all analysis performed onsite..... Y
- (b) Do SOP's include the following if applicable..... Y
  - Title
  - Scope and Application
  - Summary
  - Sample Handling and Preservation
  - Interferences
  - Apparatus and Materials
  - Reagents
  - Procedure
  - Calculations
  - Quality Control
  - Maintenance
  - Corrective Action
  - Reference (Parent Method)

*Note: Standard Methods 1020A establishes that "Quality assurance (QA) is the definitive program for laboratory operation that specifies the measure required to produce defensible data of known precision and accuracy. Standard operating procedures are to be used in the laboratory in sufficient detail that a competent analyst unfamiliar with the method can conduct a reliable review and/or obtain acceptable results." SOPs should be developed for each analytical procedure.*

- (c) EPA approved analytical testing procedures used (40 CFR 136.3).. Y
- (d) If alternate analytical procedures are used, proper approval has been obtained..... N/A
- (e) Analyses being performed more frequently than required by permit. Y
- (f) If (e) is yes, are results in permittee's self-monitoring report..... Y
- (g) Satisfactory calibration and maintenance of instruments/equipment. Y  
(see score from GLC page)
- (h) Commercial laboratory used..... Y  
Parameters analyzed by commercial lab: Metals, sludge parameters, nitrate, nitrites, phosphorus, TKN, cyanide, Oil & Grease, mercury and biomonitoring.

Lab name: Test America and Envirosience.

**Discharge Monitoring Report Quality Assurance (DMRQA)**

- (a) Participation in latest USEPA quality assurance performance sampling..... Y  
Date:
- (b) Were any parameters "Unsatisfactory"..... N
- (c) Reasons for "Unsatisfactory" parameters.....

**Comments/Status:**

None.

**Section J: Effluent/Receiving Water Observations**

Outfall # 001

Outfall Description: Effluent pipe discharge.

Receiving Stream: Great Miami River

Receiving Stream Description: No adverse conditions were noted.

**Comments/Status:**

None.

**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:**

None.

Permit #: 1PD00003\*C  
NPDES #: OH0025071

### **Summary of Findings / Comments**

A review of the Monthly Operating Reports (MORs) for December 2008 through February 2010 indicated several violations. These violations are listed on Attachment I. At this time, the Fairfield WWTP has adequately addressed these violations. Future violations must continue to be reported as required by the NPDES Permit as detailed in Part III.12 titled "Noncompliance Notification."

The Fairfield WWTP is designed to treat an average daily flow (ADF) of 10.0 MGD and a peak daily flow (PDF) of 18.0 MGD. For December 2008 through February 2010, the Fairfield WWTP treated an ADF of 5.12 MGD and a PDF of 9.77 MGD. No WWTP bypasses were reported for this period.

The sanitary sewer system consists of 175 miles of gravity sanitary sewers and 13 pump stations. The sanitary sewers are cleaned an average of once every five years. Sanitary sewers are visually inspected once every ten years. Sources of I/I are eliminated as found. A sewage collection system hydraulic model has also been completed. Fairfield must continue their efforts to minimize I / I into the sanitary sewer. No overflows were reported for the sewage collection system for December 2008 through February 2010. No Water in Basement incidents were reported for 2009. All future sewage collection system bypasses must be reported in accordance to the NPDES Permit as detailed in Part III, Section 11 titled "Unauthorized Discharges."

Sludge is land applied by Boris and Busch. In 2009, 641 dry tons of sludge were land applied. Sludge was not hauled to the landfill during the year.

In the next NPDES Permit renewal, the Ohio EPA will be switch from fecal coliform to E. coli. The new limits will be 126 #/100ml for the monthly average and 284 #/100ml for the weekly average. The City of Fairfield should check to see if this will be an issue for compliance.

Permit #: 1PD00003\*OD  
NPDES #: OH0025071

Attachment I

Effluent Limit Violations for December 2008 through February 2010

Reporting Period	Parameter	Limit Type	Units	Permit Limit	Reported Value
June 2009	Ammonia	Weekly	mg/l	2.4	3.5
June 2009	Fecal Coliform	Weekly	#/100 ml	2000	3051
February 2010	TSS	Monthly	mg/l	22.8	24.8
February 2010	TSS	Weekly	mg/l	34.2	58.4