



**Environmental  
Protection Agency**

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

June 6, 2012

Clark County Board of Commissioners  
50 East Columbia Street  
Springfield, OH 45502

**RE: Clark County Southwest Regional WWTP, Clark County  
Compliance Evaluation Inspection  
NPDES No. 1PK00013\*JD/OH0049794**

Dear Commissioners:

On May 23, 2012, Sandra Leibfritz conducted an inspection at Southwest Regional WWTP located at 3990 Woodbury Road, Medway, Ohio. Jeff Blair was representing the facility. The Laboratory Area was rated as unsatisfactory. All other areas that were evaluated were rated as satisfactory. Details on the ratings may be found in the enclosed inspection report.

On August 25, 2011, Chuck Bauer responded to Ohio EPA's Lab Performance Audit Inspection that was conducted on June 21, 2011. In general, the response stated that the 16 items noted as unsatisfactory were completed or in progress. During the inspection on May 23, 2012, the lab personnel reported that many of the required changes were initiated, but were allowed to lapse. This inspection confirmed that many of the items were incomplete.

There are two items requiring a response. We ask for a response no later than August 31, 2012. Please be advised that your lab will be inspected to ensure compliance with the lab criteria and the Lab Performance Audit requirements. If you should have any questions about the inspection, please call Ms. Leibfritz at (937) 285-6104 or me at (937) 285-6034.

Sincerely,

Martyn G. Burt  
Environmental Supervisor  
Division of Surface Water

MB/ca

Enclosure

ec: Clark County Health Department  
[jblair@clarkcountyohio.gov](mailto:jblair@clarkcountyohio.gov)  
[cbauer@clarkcountyohio.gov](mailto:cbauer@clarkcountyohio.gov)  
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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
1PK00013*KD	OH0049794	05/23/2012	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Clark County Southwest Regional WWTP 3990 Woodbury Road Medway, OH 45323	8:30 am	March 1, 2011
	Exit Time	Permit Expiration Date
	11:15 am	July 31, 2015
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Jeff Blair, Utilities Superintendent & Operator of Record Clark County Department of Utilities Springview Government Center 3130 E. Main Street Springfield, OH 45505	(937) 849-0507 (937) 605-2032 (cell)	
Name, Address and Title of Responsible Official	Phone Number	
Clark County Board of Commissioners 50 E. Columbia Street Springfield, OH 45502	(937) 328-2405	
Alice Godsey, Director of Utilities Clark County Department of Utilities Springview Government Center 3130 E. Main Street Springfield, OH 45505	(937) 521-2158 (Alice Godsey) (937) 521-2155 (Charles Bauer)	

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	U	Laboratory	S	Compliance Schedule
S	Operations & Maintenance	S	Effluent/Receiving Waters	S	Self-Monitoring Program
S	Facility Site Review	S	Sludge Storage/Disposal	S	Other
S	Collection System				

Section D: Summary of Findings (Attach additional sheets if necessary)			
See attached report.			
Inspector		Reviewer	
 Sandra D. Leibfritz Division of Surface Water Southwest District Office		 Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office	
Date		Date	
6/6/2012		6/6/2012	

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:**

- The WWTP consists of influent pumping, (2) screw pumps, coarse bar screen (on bypass over 5 MGD), automatic screen, aerated grit, influent parshall flume, (3) oxidation ditches, splitter box, (2) secondary clarifiers, (2) tertiary screw pumps, (4) tertiary sand filters, chlorination/dechlorination with post aeration and effluent parshall flume.
- Southwest Regional WWTP was issued a renewal permit that became effective on March 1, 2011.
- The design flow of the WWTP is 2.0 MGD. The NPDES permit has a construction schedule for expanding the WWTP from 2.0 to 4.0 MGD
- During the period from January 2011 through December 2011, the average flow was 1.785 MGD.
- Southwest Regional WWTP was issued a PTI (No. 811764) for upgrades to a solids handling facility on June 15, 2011.
- An oxidation ditch pump and a back wash pump (tertiary filters) have been repaired.
- The County has a 6-inch trash pump.

**Section F: Compliance**

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

**Comments/Status:**

- During the period from September 2011 through April 2012, there were two reported final effluent violations. In September 2011, there was one dissolved oxygen violation. In May 2012, there was one oil/grease. SW Regional WWTP does provide Noncompliance Notification for all effluent violations.
- The latest biomonitoring report was reported by Southwest Regional WWTP in September 2011 in their Discharge Monthly report. These results indicate that the final effluent was not acutely toxic to either *P. promelas* or *C. dubia* for outfall 001. Biomonitoring was conducted by Test America.

**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 generator operates all equipment except the screw pumps to the tertiary sand filters and post aeration.

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

The generator is automatically placed under load every Tuesday for ½ hour

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

The alarm system is capable of handling 32 different situations. Currently, the system is utilized for high water levels in the lift stations, secondary clarifier, bar screen, grit blowers, digesters and etc.

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

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

Mr. Blair reported that there is nothing in writing.

(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..... N

**Comments/Status:**

- There are 2 influent screw pumps and another channel to allow for expansion. There are two major lift stations that discharge to the wet well. Park Layne feeds from the bottom and Mud Run feeds from the top. The screw pumps are manually alternated on a monthly to quarterly basis. Rags/debris from the bar screen are disposed of at a solid waste landfill (i.e., Waste Management).
- Both grit chambers are operable. One is off-line due to low flows. Screenings are disposed of at a solid waste landfill (i.e. Waste Management). The weirs in the grit chamber are corroded.
- The County is evaluating how to use the old primary clarifiers.
- The SVI is 250 to 260, but the County goal is a SVI of 100-120.
- The County is using the inner and middle ditch for oxidation and the outer ring for WAS.
- Both clarifiers are on-line. The sludge blanket is ~1.5 feet, but the target is less than a foot.
- All tertiary filters were operational. Flows in excess of 3.0 MG bypass the tertiary building and recombined with the final effluent prior to discharge.
- The effluent in the final channel of the chlorine contact tank was very clear. Approximately 80% of the chlorine is added at the tertiary screw pumps and the remaining 20% is added at the head of the tank.

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

**Record Keeping/Operator of Record:**

- (a) Wastewater Treatment Works classification (OAC 3745-7)..... III
- (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.....Y
- (g) Operator of Record log book provided..... Y
- (h) Format of log book (e.g. computer log, hard bound book)
 

- The maintenance log is kept in a hard bound book. .
  - Alice Godsey, Chuck Bauer and Jeff Blair are the operators. All have their Class III license.
  - On March 9, 2010, the Director approved a staffing reduction of 10 hours for the plant.
- (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)... N
  - v. Identification of person making entries..... N
- (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:**

- There are three Class III licensed operators (Alice Godsey, Chuck Bauer and Jeff Blair), two Class II licensed operator (Scout Lough and Warren Crew) and two Class I licensed operators (Kenny Oster and Harmon Queen).
  - Bench sheets are kept in the laboratory.

**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.....15
  - ii. How many pump stations have telemetered alarms.....15
  - iii. How many pump stations have operable alarms.....15
- (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  
 if so, what is the LTCP status.....  

N/A
- (e) How are CSOs monitored (chalk, block, level sensor, etc.).....  

N/A
- (f) Portable pumps available for collection system maintenance..... Y
- (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:**

- Dave Hasting is responsible for the collection system. Mr. Hastings has a Class II Collection System license. Mr. Hastings phone number is 937.605.1324 and he reports to Jeff Blair.
- There were no reported SSOs in 2008 or 2009. There were 3 reported WIB in 2009. All were due to blockage in line. There were no reported SSOs in 2010 or 2011.
- There are 4 satellite collection systems (Garden Acres, Northridge, Limecrest and Maplewood). SW Regional also There are 6 lift stations in the satellite collection systems as follows: one in Garden Acres, three in Northridge, two in Limecrest. All lift stations are equipped by with Mission Communication. This system records and reports high flow, volume, run times, etc. There is also a private lift station (no dialer) to Emro Marketing. There is permanent standby power for Garden Acres. The remaining three have portable standby power. All pumps were reported as operational.
- SW Regional also maintains Donnelsville sanitary sewer collection system.
- There are a total of 15 lift stations in SW Regional's sanitary sewer collection system. Three of the four major lift stations have permanent power. Mud Run has an alternate power source (2 feeds).
- The County has 5 portable pumps (one 6-inch, three 3-inch and 1 2-inch pumps) and 2 portable generators to relieve the remaining lift stations.
- Garden Acres (satellite collection system) is near capacity. This area is built out.
- In the Mud Run sewershed, the County fixed a separated joint and repaired a few manholes that reduced I/I by 30,000 gpd.
- In April 2012, SW Regional WWTP started receiving 36,000 gpd from Brandt They will eventually receive flow from Phoneton. Both contracts are for 80,000 gpd. Overall, they have a contract with Miami County for 1 mgd.

**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 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 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 checked="" 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 the amount of sludge generated changed significantly since the last inspection..... Y

(c) How much sludge storage is provided at the plant.....

There is 120 days for 2.0 MGD as operations currently exist. When the WWTP upgrades to include an on-site screw press with higher percent solids for a 4.0 MGD, there will be 80 days storage with a contract to haul to a landfill for the remaining days.

**Section H: Sludge Management – (con't)**

- (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:**

- Synagro comes out every 6 to 8 weeks to remove sludge from the digesters.
- Sludge generated from WWTP as follows: 2008 110.11 dry tons, 2009 - 129.27 dry tons, 2010 - 172.69 and 2011 - 109.24
- Synagro is scheduled to remove sludge within the next two weeks.
- Southwest Regional WWTP was issued a PTI (No. 811764) for upgrades to a solids handling facility on June 15, 2011.

**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: May 24, 2011)
- (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:**

- The final effluent flow meter is used to report flows on the DMRs. This flow meter is located after the chlorine contact tank. The meter has been calibrated and is checked on a daily basis. SW Regional uses the influent meter to check and report flow.
- The parshall flume will be calibrated by the end of June 2012.

**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:**

- The influent sample is collected after the screw pumps, but before the screens.
- The effluent sample is collected after the tertiary building, but prior to the chlorine contact tank.
- The upstream sample is collected at the bridge located on Spangler Road.
- The downstream sample is collected at the bridge where the Mad River crosses Osborn Road.

**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
- (e) Analyses being performed more frequently than required by permit. N
- (f) If (e) is yes, are results in permittee's self-monitoring report..... N/A

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

- (g) Satisfactory calibration and maintenance of instruments/equipment. Y  
(see score from GLC page)
- (h) Commercial laboratory used..... Y  
Parameters analyzed by commercial lab:

Lab name: Test America - oil/grease, metals, cyanide, nitrite/nitrate, CBOD<sub>5</sub>, and phosphorus.  
Lab name: Test America – mercury.  
Lab name: SW Regional WWTP – TSS, NH<sub>3</sub>, pH, DO, *E. coli*, chlorine and temperature.

*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.....

Test America has an unsatisfactory rating for ammonia; however, SW Regional’s rating for ammonia was satisfactory (dated July 22, 2011).

**Comments/Status:**

Hach’s mColiBlue24 is listed as an approved Test Method for *E. coli*.  
Hach’s procedure 8167 DPD is equivalent to USEPA method and Std. Method 4500-CL G.

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

Outfall #: 1PK00013001  
Outfall Description: Clear and odor free.

Receiving Stream: Mad River  
Receiving Stream Description: Both upstream and downstream of the outfall were similar in appearance (turbid).

**Comments/Status:**

- The discharge was nonturbulent and shore hugging.
- There was a sign posted at the outfall as per NPDES permit requirements.

**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:**

**FINAL EFFLUENT VIOLATIONS – OUTFALL 001\***

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
September 2011	Dissolved Oxygen	1D Conc	5.5	4.97	9/7/2011
April 2012	Oil and Grease, Hexane	1D Conc	10.	13.6	4/19/2012

\* During the period from September 2011 through April 2012 - noncompliance notification given.

## **Areas Requiring a Response**

### 1. Stormwater Pollution Prevention Plan.

Southwest Regional WWTP is required to develop a stormwater pollution prevention plan (swp3) as per Parts IV, V and VI of your NPDES permit. It's my understanding that a swp3 has not been developed. No later than August 31, 2012, provide written notification to this office that Southwest Regional has developed and implemented a swp3.

### 2. Lab Performance Audit Inspection

On August 25, 2011, Chuck Bauer responded to Ohio EPA's Lab Performance Audit Inspection that was conducted on June 21, 2011. In general, the response was that the 16 items were completed or in progress. During the inspection on May 23, 2012, the lab personnel reported that many changes were implemented, but they did not follow through with the changes.

Examples:

Item 1 required the chemical reagents and associated information (manufacturer, receipt, lot numbers etc.) to be noted in the log book. Lab personnel reported that they began to note the information in the log book; however, they "trailed off recording the information" as required.

Item 2 has not been completed

Item 3 requires that duplicates and blanks be analyzed for CBOD and *E coli*. Lab personnel reported that duplicates for CBOD have not been done because there are not enough bottles.

Item 4 required Class I weights for the balance. Three weights were sent out to be recertified as Class I. When they were returned the 100 g was rated as a Class I, but the 10 g and 1 g were rated as a Class II.

Item 5 required an NIST traceable standard thermometer. Lab personnel showed Ms. Leibfritz a digital thermometer on the refrigerator which is an NIST traceable thermometer; however, there are other thermometers in the lab that were not calibrated annually with a NIST traceable thermometer. Please be advised that the digital thermometer is due for calibration on June 22, 2012.

Refer to item 1 for item 6.

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Item 7 required logging daily conductivity and pH on the reagent water obtained from an outside source. Southwest Regional WWTP did send a sample out to Test America and results for conductivity were received, but lab personnel were unsure what to do with this information.

Items 8, 9 and 13 were completed.

The remaining items were also incomplete. For these reasons, the Laboratory Area was rated as unsatisfactory. No later than August 31, 2012, Southwest Regional must comply with the lab criteria and the items in the Performance Audit Inspection.