



**Environmental  
Protection Agency**

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



\*1PS0001220090807\*

SHELBY

RUSSIA WWTP

LEIBFRITZ, SANDRA 2009/08/07



State of Ohio Environmental Protection Agency

Southwest District Office

401 East Fifth Street  
Dayton, Ohio 45402-2911

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

August 7, 2009

Mayor Dale Armstrong  
P.O. Box 357  
Russia, OH 45363

**RE: Russia WWTP – NPDES No. 1PS00012\*DD/OH0115444  
Compliance Evaluation/Prepermit Inspection –Shelby County**

Dear Mayor Armstrong:

On July 17, 2009, Sandra Leibfritz conducted an inspection at Russia's WWTP located at 551 East Main Street, Russia, Shelby County. Mike Busse (Utility Superintendent) and Mark Shappie (Class I Operator) were representing the facility. All areas that were evaluated were rated as satisfactory except the effluent/receiving waters area. Details on the inspection may be obtained from the enclosed inspection report.

As discussed with Mr. Busse and Mr. Shappie, there are several changes to Russia's NPDES permit. Permit changes include lowered permit limits, SSO monitoring requirements, classification requirements, operator of record requirements, signage requirements and inclusion of other terms and conditions. Within the next month, you should be receiving your draft NPDES for the next 5 years. Please read this draft permit and direct any questions regarding the changes to this office.

The effluent/receiving waters area was rated as marginal due to the pH violations. Ohio EPA understands that the Village has investigated and will continue to investigate alternate methods to control pH until the pH violations are resolved. As discussed during the inspection, please keep Ms. Leibfritz informed as to the actions (e.g., alum, ferric chlorine and etc.) and the conclusions of these actions that will be taken to resolve the pH violations

There are six items that require a response. We ask for a written response no later than August 28, 2009. 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

cc: Shelby County Health Department  
Mike Busse via [russiapd@russiaoh.com](mailto:russiapd@russiaoh.com)





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
1PS00012*DD	OH0115444	07/17/09	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Village of Russia WWTP 551 East Main Street Russia, OH 45363	11:00 a.m.	December 3, 2004
	Exit Time	Permit Expiration Date
	12:45 p.m.	December 31, 2009
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Michael Busse, Utilities Superintendent Village of Russia P.O. Box 361 Russia, OH 45363	(937) 526-4436	
Name, Address and Title of Responsible Official	Phone Number	
Dale Armstrong, Mayor Village of Russia P.O. Box 361 Russia, OH 45363	(937) 526-4436	

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	M	Laboratory	N	Compliance Schedule
S	Operations & Maintenance	M	Effluent/Receiving Waters	S	Self-Monitoring Program
S	Facility Site Review	N	Sludge Storage/Disposal	N	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
8/7/09 Date	8/7/09 Date

## INSPECTION FINDINGS/COMMENTS

### Areas Requiring a Response

1. Russia reported a TSS concentration of 322 mg/l on July 31, 2008 for outfall 001. During the inspection, Mr. Busse indicated that this was an error. Ms. Leibfritz was shown bench sheets for outfall 601 with this concentration. Bench sheets for outfall 001 indicate that no sample was collected on July 31, 2009. No later than August 28, 2009, Russia must amend the DMR for July 2008 to accurately reflect the actual data obtained for outfall 001 on July 31, 2008.
2. No later than August 28, 2009, Russia should submit the Operator of Record Notification Form designating one or more operator of record to oversee the technical operation of the sewerage system. The original should be sent to address on the form with a copy to this office. This form may be obtained from the following web link:  
  
[http://www.epa.state.oh.us/ddagw/Documents/opcert/Operator of Record Notification Form.pdf](http://www.epa.state.oh.us/ddagw/Documents/opcert/Operator_of_Record_Notification_Form.pdf)
3. Chemical containers (e.g., pH buffers) in your lab were not adequately labeled. All containers must be labeled with initials, dates of receipt, expiration, and opening. No later than August 28, 2009, provide written notification that all chemical containers in your lab are properly labeled.
4. During the inspection, the membrane filter for the dissolved oxygen probe needed to be changed because air bubbles were trapped beneath the membrane. This information must be noted on the bench sheets. Provide written notification on the date that the membrane filter was changed.
5. By the end of summer, Russia is going to determine the sludge depth in the primary lagoon. Once this project is completed, provide the conclusions and recommendations to this office.
6. There are two groundwater monitoring wells for the lagoon system. One well is upstream of the lagoon and the other is downstream. Semi-annual results have not been submitted to Ohio EPA for 2008 or 2009. Russia reported that the water yield is too low in the upstream well. Ohio EPA understands that Russia will rework the upstream well to provide a better water yield. What is the time line for providing a usable ground water monitoring well? Provide written notification, when the work on the well has been completed.

### **Areas Not Requiring a Response**

On September 1, 1992, the Ohio EPA issued the Village of Russia a PTI (No. 05-5383) for a controlled discharge lagoon treatment system. The existing WWTP consists of a 4-cell facultative lagoon system. There are two aerated lagoons (primary lagoons Nos. 1 and 2) for treatment and two stabilization/storage lagoon (secondary lagoon No.4) for settling and storage. The storage lagoons are also aerated.

On July 3, 2008, Ohio EPA issued Russia a PTI (No. 656242) for a storage lagoon (No. 4), influent parshall flume and Solar Bee. Construction was completed as per detail plans. The storage lagoon was designed to provide the WWTP with a minimum of 180 days storage.

The influent has to pass through the primary lagoon (either lagoon No. 1 or No. 2. Standard operating procedure at the WWTP is to direct flow to the stabilization/storage lagoon (No. 3 or 4); however, there is the ability to direct flow from lagoon No. 1 and No. 2 to Ninemile Creek.

Historically, the WWTP has pH violations due to algae growth in the lagoons. In the past several years, the operator has tried barley straw and ultrasonic waves to control algae with limited success. In the spring, the operator used alum (aluminum sulfate) in conjunction with the Solar Bee to control algae. In the fall, the operator will try using ferric chloride for algae control. The operator is investigating which chemical will give the best algae control. For pH violations, the effluent/receiving area was rated as marginal.

There are three lift stations on the collection system. Two are owned by the Village and the third is privately owned. The Village owned lift station is checked daily and the privately owned lift station is checked weekly. The operator reported that each of the lift stations are equipped two pumps. All pumps and alarms were reported as operational.

Since 1992, there has been 25% growth in the Village. The population of Russia is 600.

O'Reilly Precision Tools did connect to sewers in the fall of 2008.

During the inspection, there was no discharge.

The parshall flume for the controlled discharge is downstream of the outfall; however, the existing NPDES permit (No. 1PS00012\*DD) list the location as outfall 801 (upstream). In the renewed permit, the parshall flume will be redesignated as outfall 901 (downstream).

There are three employees who work at the plant and on the collection system. There are two operators (Mike Busse and Mark Shappie) for the sewerage system. Mr. Busse holds a Class II license and Mark Shappie holds a Class I license. The plant is rated as a Class I facility. The third individual, Shaun Shell, has no license.

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

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
June 2008	pH	1D Conc	9.0	9.6	6/16/2008
June 2008	pH	1D Conc	9.0	9.5	6/17/2008
June 2008	pH	1D Conc	9.0	9.3	6/18/2008
June 2008	pH	1D Conc	9.0	9.5	6/19/2008
June 2008	pH	1D Conc	9.0	9.2	6/20/2008
July 2008	pH	1D Conc	9.0	9.6	7/22/2008
July 2008	pH	1D Conc	9.0	9.7	7/23/2008
August 2008	pH	1D Conc	9.0	9.7	8/5/2008
August 2008	pH	1D Conc	9.0	9.6	8/6/2008
October 2008	pH	1D Conc	9.0	9.1	10/23/2008
April 2009	pH	1D Conc	9.0	9.1	4/20/2009
April 2009	pH	1D Conc	9.0	9.2	4/21/2009
April 2009	pH	1D Conc	9.0	9.3	4/22/2009
April 2009	pH	1D Conc	9.0	9.1	4/23/2009
April 2009	pH	1D Conc	9.0	9.3	4/24/2009
April 2009	pH	1D Conc	9.0	9.3	4/25/2009
April 2009	pH	1D Conc	9.0	9.3	4/26/2009
April 2009	pH	1D Conc	9.0	9.2	4/27/2009
April 2009	pH	1D Conc	9.0	9.3	4/28/2009

\* Violations noted are during the period from May 2008 through June 2009.

