



**Environmental
Protection Agency**

John R. Kasich, Governor

Mary Taylor, Lt. Governor

Scott J. Nally, Director

March 16, 2012

RE: ORWELL VILLAGE WWTP
ORWELL VILLAGE, ASHTABULA CO.
OHIO EPA PERMIT 3PB00041
COMPLAINT EVALUATION INSPECTION

Mr. Jack Nettis, Jr., Village Manager
Village of Orwell
179 W. Main Street
Orwell, OH 44079

Dear Mr. Nettis:

On March 15, 2012, a site inspection was conducted at the above referenced facility. The inspection was conducted by John Schmidt of this office. You and Mr. Greg Hogue, Wastewater Superintendent, represented the Village of Orwell during the inspection. The purpose of the inspection was to evaluate the facility's compliance status with respect to the terms and conditions of the facility's National Pollutant Discharge Elimination System (NPDES) permit. The last compliance inspection was conducted on March 3, 2011.

The system consists of primary screening, pre-aeration and grit removal, additional screening, lift station, equalization basin, oxidation ditch, clarification, sand filtration, UV disinfection, and post disinfection aeration. Sludge management consists of aerobic digestion and a settling lagoon, with sludge land applied via subsurface injection to fields owned by the Village to the southeast of the facility. The facility discharges to a tributary of the Grand River west of the facility at Parker Road.

Observations and Notations

Following are observations made during the inspection:

1. Log books, operation and maintenance manuals, and facility records were available and compliant with Ohio Administrative Code (OAC) 3745-7-09.
2. The overall condition of the treatment plant during this inspection was satisfactory with the plant well kept. Screenings and grit are containerized for disposal at a solid waste landfill.
3. Influent sampler is noted as flow proportional and maintained at the proper temperature and condition.

4. Inspection of the headworks of the facility indicated that there is now sufficient grit removal capacity with the conversion of one of the older oxidation ditches into additional grit removal capacity, and work was completed in September-October 2010. Screenings are manually removed with a pitchfork from the screen, and containerized for off-site disposal.
5. The content of the aeration tank had good color and mixing, with minimal foaming. Surface aerators were noted as in operating condition. Sludge returns were a chocolate brown color, with minimal foaming. This is an indicator of a properly operating biological system.
6. The surface of the clarifier was clear. The effluent trough was clean and there was no scum around the effluent baffle or the trough in areas not exposed to sunlight, but there was algal growth on areas exposed to sunlight. Effluent channels and weirs exposed to sunlight should be cleaned as soon as weather conditions permit.
7. The sand filter was free of sludge. The east filter was operational at the time of the inspection, with the west filter out of service for repairs. The effluent discharged to the sand filter during the inspection was clear and free of color and turbidity. The wastewater percolated freely through the sand indicating that the beds were not clogged.
8. The final effluent sampler is noted as a time proportional sampler and maintained at the proper temperature and condition.
9. The Orwell WWTP laboratory performs monitoring of BOD, suspended solids, pH, temperature, and dissolved oxygen. Orwell contracts with Microbac Laboratories of Meadville, PA for metals, ammonia-nitrogen, oil and grease, bacteria (E. Coli), volatile organic compounds and semi-volatile organic compounds. Samples are collected on Wednesdays and Fridays each week.
10. During the inspection, it was noted that the receiving stream flows through a farm field west of Parker Road immediately downstream of the discharge that contains horses with access to the stream. The discharge was of acceptable visual quality.

NPDES Permit Compliance Review

A review of the electronic discharge self-monitoring reports (eDMRs) received by Ohio EPA for the period February 1 2011 through February 1, 2012 indicates violations of the terms and conditions of your NPDES permit. Specific instances of noncompliance are as follows:

Limit Violations

The following limit violations were noted:

Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
001	00400	pH	1D Conc	6.5	6.3	5/19/2011
001	00400	pH	1D Conc	6.5	6.4	5/23/2011
001	00610	Nitrogen, Ammonia (NH3-N)	7D Conc	1.5	2.5	6/1/2011

A written explanation as to why this event occurred must be provided, along with measures to ensure that they are not repeated.

Reporting Violations

No reporting code violations were noted, however the following reporting frequency violations were noted:

Station	Reporting Code	Parameter	Sample Frequency	Expected	Reported	Violation Date
001	00530	Total Suspended Solids	2/Week	2	1	04/22/2011
001	00610	Nitrogen, Ammonia (NH3)	2/Week	2	1	04/22/2011
001	80082	CBOD 5 day	2/Week	2	1	04/22/2011
001	00530	Total Suspended Solids	2/Week	2	1	11/08/2011
001	00530	Total Suspended Solids	2/Week	2	1	11/22/2011
001	00610	Nitrogen, Ammonia (NH3)	2/Week	2	1	11/08/2011
001	00610	Nitrogen, Ammonia (NH3)	2/Week	2	1	11/22/2011
001	80082	CBOD 5 day	2/Week	2	1	11/08/2011
001	80082	CBOD 5 day	2/Week	2	1	11/22/2011
001	00530	Total Suspended Solids	2/Week	2	1	12/22/2011
001	00610	Nitrogen, Ammonia (NH3)	2/Week	2	1	12/22/2011
001	80082	CBOD 5 day	2/Week	2	1	12/22/2011
601	00530	Total Suspended Solids	2/Week	2	1	04/22/2011
601	80082	CBOD 5 day	2/Week	2	1	04/22/2011
601	00530	Total Suspended Solids	2/Week	2	1	11/08/2011
601	00530	Total Suspended Solids	2/Week	2	1	11/22/2011
601	80082	CBOD 5 day	2/Week	2	1	11/08/2011
601	80082	CBOD 5 day	2/Week	2	1	11/22/2011
601	00530	Total Suspended Solids	2/Week	2	1	12/22/2011
601	80082	CBOD 5 day	2/Week	2	1	12/22/2011

During the site visit, Mr. Hogue indicated that this may be due to the last day of the month falling in the middle of the week. Orwell has historically collected samples twice weekly, with samples collected by your contract laboratory on Wednesdays and Fridays. Part II, Item 1 of your NPDES permit recognizes Week 1 as Day 1-7, Week 2 as Day 8-14, Week 3 as Day 15-21, and Week 4 as Day 22-28. If samples are to be collected twice weekly, then two samples must be collected during each prescribed set of days. Please note that Ohio EPA expects schedules to be adjusted over holiday periods to ensure that the parameters are collected at the frequencies as prescribed by your NPDES permit. Mr. Hogue will be following up with Microbac to ensure that samples are collected as prescribed in your NPDES permit.

Compliance Schedule

Regarding the compliance schedule, Ohio EPA notes the following:

Permit Effective Date	Permit Expiration Date	Schedule Due Date	Completion Date	Event Code	Schedule Type	Schedule Milestone
8/1/2010	7/31/2015	3/1/2012	8/1/2011	95999	Other	E. Coli Status Report
8/1/2010	7/31/2015	8/1/2011	NA	—	Other	Submit PTI if Needed
8/1/2010	7/31/2015	9/1/2011	8/1/2012	95999	Other	E. Coli Status Report
8/1/2010	7/31/2015	3/1/2012	8/1/2012	05699	Other	Achieve Final Limits
8/1/2010	7/31/2015	8/1/2011	NA	—	Other	NPDES Mod if Needed
8/1/2010	7/31/2015	8/1/2011	NA	—	Other	Apply for Hg Variance if Needed
8/1/2010	7/31/2015	8/1/2011	NA	—	Other	Individual Hg Variance if Needed

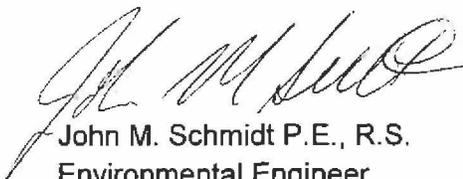
Other Violations:

Composite Sample Collection: Part II, Item G of your NPDES permit requires that composite samples be collected over a 24-hour period and proportionate in volume to the wastewater flow rate at the time of sampling. Your effluent sampler must be able to collect samples proportionate to the flow of the final effluent. Most composite samplers have provisions of collecting either time-weighted samples or flow proportionate samples, and flow proportionate sampling requires a signal from the flow meter. Please provide documentation that sampler has been converted to a flow-proportionate sampler

Please inform this office, in writing, within 30 days of the date of this letter as to the actions we discussed that have been or will be taken to correct the above violations or explanations if you believe items are in error. Your response to this letter should include the dates that the actions have been or will be completed.

If you have any questions or comments regarding this notification, please feel free to contact me at (330) 963-1175.

Respectively,



John M. Schmidt P.E., R.S.
Environmental Engineer
Division of Surface Water

JMS/cs

cc: Greg Hogue, Wastewater Superintendent, Village of Orwell

File: Municipal/Orwell WWTP/PC