



**Environmental
Protection Agency**

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

September 20, 2011

RE: PHEASANT RUN WWTP
PERMIT NO. 3PW00001
LORAIN COUNTY
LAGRANGE TOWNSHIP

Ms. Jessica Collier, Office Manager
Pheasant Run Association
200 East Lake Drive
P.O.Box 522
Lagrange, Ohio 44050

Dear Ms. Collier:

On September 11, 2012, a follow-up inspection of the above referenced facility was conducted. The initial inspection was conducted on July 19, 2012. During both inspections, the facility was represented by Mr. Steve Howe, Class III Waste Water Treatment Plant Operator and you. The purpose of the inspections was to evaluate the operation and maintenance of the treatment system along with the facility's compliance status with respect to the terms and conditions of the above referenced National Pollutant Discharge Elimination System (NPDES) permit.

During the inspections, the following items were observed/discussed:

1. Uni-tech is no longer being contracted to operate the wastewater treatment plant.
2. Mr. Steve Howe from Ake Environmental has been contracted and placed in charge of the technical operations of the wastewater treatment plant since March 1, 2012.
3. Mr. Howe is also responsible for the collection of the effluent samples, entering the analytical results into Ohio EPA's Surface Water Information Management System, and pinning the monthly report.
4. In accordance with Ohio Administrative Code 3745-7-04, the sewage treatment facility is classified as a Class I facility. The classification requires that the Operator of Record be physically present at the treatment works 3 days per week for a minimum of 1.5 hours per week.
5. Mr. Howe indicated that he visits the plant 5 days per week for approximately 2 hours per day.
6. Mr. Howe maintains a log book of daily activities on the premises.
7. Ake Environmental has been awarded a 2-year contract to operate the wastewater treatment plant along with its associated duties.
8. You indicated that Mr. Howe will attend Pheasant Run's quarterly board meetings.
9. On Mr. Howe's first day of taking over the technical operations of wastewater treatment system, He noted the following issues:
 - a. The final pump station was turned off. Mr. Howe turned the pump back on.
 - b. Alum was not being fed to the system for phosphorus removal. There was no pump at the plant. A new pump had to be purchased. Alum is currently being fed to the system.

- c. A significant portion within the fenced perimeter of the treatment plant was flooded due to some of the tanks overflowing. Mr. Howe provided this office with pictures he took on his first day at the treatment plant.
 - d. Mr. Howe turned off the turbidity meter which is installed on the discharge line of the disk filters. The turbidity meter is programmed to shut the effluent pumps and the blowers off when the turbidity hits 25 NTU's. When this occurs, the disk filters go into constant backwash mode, the backwash flows into a pseudo flow equalization tank, and the levels in the treatment tanks rise. He indicated that he believed this was causing the plant to back up.
 - e. The mixed liquor suspended solids readings in the aeration tanks were elevated. Mr. Howe indicated they were in the range of 5800 mg/l-8180 mg/l. During the follow-up inspection, Mr. Howe indicated the readings were down to 5,000 mg/l.
10. A new motor for one of the blowers was installed in April 2012.
 11. Mr. Howe indicated that refrigerators are being purchased for the automatic samplers. The portable automatic samplers are currently being iced down.
 12. Mr. Howe also had the flow meter recalibrated.
 13. Due to the elevated mixed liquor suspended solids readings, Mr. Howe indicated that he immediately began to have 8,000 gallons of solids pumped from the system every two weeks. The solids were being hauled to the Canton WWTP by Ake Environmental.
 14. During the follow-up inspection, you indicated that Pheasant Run has changed haulers. The current hauler is Supeck Septic Services LLC. The solids are now being hauled to French Creek WWTP. You provided this office with a running tally of the amount of solids hauled from the plant from January 1, 2012 through September 11, 2012 along with the cost. Approximately 224,600 gallons of solids has been removed from the treatment plant at a cost of \$ 36,997 dollars.
 15. During the initial inspection, the blowers were running and the plant was receiving good aeration on the original aeration tanks and the newer southern aeration tanks. The newer northern aeration tanks were not being aerated. Mr. Howe indicated that he believed the air lines were plugged. During the follow-up inspection, all of the aeration tanks were receiving good aeration. Mr. Howe indicated that the aeration problem at the northern tanks was resolved within a week after the July 19, 2012 inspection. He indicated that the tanks were pumped down and the air lines were blown out.
 16. During the initial inspection, the surfaces of the aeration tanks were covered with a thick layer of filamentous bacteria. Mr. Howe indicated that he had been spraying the bacteria floating on the surface of aeration tanks with a liquid 12% chlorine spray for the past two weeks. Mr. Howe indicated that the problem appeared to be getting better.
 17. Mr. Howe indicated that he was considering switching to a 70% granular chlorine feed which would be fed to the system at the sludge return well. During the follow-up inspection, Mr. Howe indicated he was now adding 800-1200 grams/day of 70% granular chlorine to the sludge return well. He indicated that at one point all of the filamentous bacteria had disappeared but returned following a recent storm event. There were less filamentous bacteria on top of the tanks and the problem appeared to be getting better.
 18. During both inspections, scum/ solids deposition was floating on top of the settling tanks. These solids should be removed on a regular basis.

19. The discharge was clear during both inspections. No impact to the receiving stream was observed.
20. It should be noted that a permanent marker is required to be posted at outfall 3PW00001001 per the requirement of Part II, Letter L of the facility's NPDES permit.
21. Mr. Howe indicated that as of September 11, 2012, no tanks have overflowed since Ake Environmental has taken over operation of the plant.
22. Gravel intermingled with sludge was dumped and spread out on the back side of the disk filter building. You were directed that this material needed to be removed and sent to a solid waste landfill. During the re-inspection, it was confirmed that the material was removed and disposed.
23. During the initial inspection, you provided this office with a Wastewater Treatment Plant Hydraulic Evaluation which was prepared by GRW Engineers Inc. The report recommends improvements to the equalization basin. These improvements consist of the following:
 - a. Diverting the influent flows directly to the equalization basin.
 - b. Installation of 2 new submersible pumps for delivering flow to the aeration basins.
 - c. Installation of new flow meters on the equalization pumps and existing sludge pumps.

The estimated cost of these improvements is \$ 98,450 dollars.
24. **This office does not object to the recommended improvements to the wastewater treatment system. However, this office does not view the improvements as the total solution. These improvements should help reduce overflow occurrences, and overflow volumes by better utilizing existing storage capacity to dampen peak flows. These improvements will also provide the operator more control of the rate that flow is introduced to the treatment process.**
25. During the re-inspection, Ms. Collier indicated that she received a quote for \$ 28,000 dollars to dye test five streets. This represents approximately 25% of the development. This office recommends that this be pursued as part of the long term solution to eliminating the tank overflows at the treatment plant.

This office has recently reviewed your self-monitoring reports covering the period September 1, 2011 through August 31, 2012 for the referenced facility. Our review indicates violations of the terms and conditions of your NPDES permit. The specific instances of noncompliance are as follows:

Limit Violations

Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
001	00530	Total Suspended Solids	7D Qty	6.8	8.54085	9/8/2011
001	00530	Total Suspended Solids	7D Qty	6.8	6.90763	10/15/2011
001	00610	Nitrogen, Ammonia (NH3)	7D Conc	10.2	10.85	11/1/2011
001	00610	Nitrogen, Ammonia (NH3)	30D Qty	2.5	3.26551	11/1/2011
001	00610	Nitrogen, Ammonia (NH3)	30D Conc	6.8	12.425	11/1/2011
001	00610	Nitrogen, Ammonia (NH3)	7D Conc	10.2	14.	11/15/2011
001	00530	Total Suspended Solids	7D Qty	6.8	7.12526	12/1/2011

PHEASANT RUN WWTP
 SEPTEMBER 20, 2012
 PAGE 4 OF 5

Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
001	00530	Total Suspended Solids	7D Qty	6.8	7.4432	12/15/2011
001	80082	CBOD 5 day	7D Qty	5.7	9.92238	1/22/2012
001	00530	Total Suspended Solids	30D Conc	12.0	18.7142	3/1/2012
001	00530	Total Suspended Solids	30D Qty	4.5	19.8571	3/1/2012
001	00530	Total Suspended Solids	7D Qty	6.8	13.0544	3/1/2012
001	00610	Nitrogen, Ammonia (NH3)	30D Qty	2.5	2.76608	3/1/2012
001	80082	CBOD 5 day	30D Qty	3.8	5.70562	3/1/2012
001	00665	Phosphorus, Total (P)	30D Qty	0.38	.62311	3/1/2012
001	00530	Total Suspended Solids	7D Conc	18.0	88.	3/8/2012
001	00530	Total Suspended Solids	7D Qty	6.8	91.9300	3/8/2012
001	80082	CBOD 5 day	7D Qty	5.7	15.6699	3/8/2012
001	00665	Phosphorus, Total (P)	7D Qty	0.57	.94019	3/8/2012
001	00530	Total Suspended Solids	7D Conc	18.0	20.	3/15/2012
001	00530	Total Suspended Solids	7D Qty	6.8	15.4428	3/15/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Conc	10.2	10.4	3/15/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Qty	3.8	8.03026	3/15/2012
001	80082	CBOD 5 day	7D Conc	15	19.	3/15/2012
001	80082	CBOD 5 day	7D Qty	5.7	14.6706	3/15/2012
001	00300	Dissolved Oxygen	1D Conc	5.0	4.1	3/30/2012
001	00610	Nitrogen, Ammonia (NH3)	30D Conc	6.8	14.55	4/1/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Conc	10.2	17.2	4/1/2012
001	00610	Nitrogen, Ammonia (NH3)	30D Qty	2.5	4.65277	4/1/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Qty	3.8	8.46326	4/1/2012
001	00665	Phosphorus, Total (P)	30D Conc	1.0	1.26	4/1/2012
001	00665	Phosphorus, Total (P)	30D Qty	0.38	.61998	4/1/2012
001	00665	Phosphorus, Total (P)	7D Qty	0.57	.61998	4/1/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Conc	10.2	18.	4/22/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Qty	3.8	4.0878	4/22/2012
001	00610	Nitrogen, Ammonia (NH3)	30D Conc	1.5	13.05	5/1/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Conc	2.3	13.65	5/1/2012
001	00610	Nitrogen, Ammonia (NH3)	30D Qty	0.57	3.59096	5/1/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Qty	0.87	5.06319	5/1/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Conc	2.3	11.	5/15/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Qty	0.87	2.58137	5/15/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Conc	2.3	14.5	5/22/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Qty	0.87	3.1283	5/22/2012
001	00610	Nitrogen, Ammonia (NH3)	30D Conc	1.5	25.025	6/1/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Conc	2.3	20.8	6/1/2012
001	00610	Nitrogen, Ammonia (NH3)	30D Qty	0.57	7.23314	6/1/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Qty	0.87	8.26644	6/1/2012
001	00665	Phosphorus, Total (P)	30D Conc	1.0	2.54	6/1/2012
001	00665	Phosphorus, Total (P)	30D Qty	0.38	1.1056	6/1/2012
001	00665	Phosphorus, Total (P)	7D Conc	1.5	2.54	6/15/2012
001	00665	Phosphorus, Total (P)	7D Qty	0.57	1.1056	6/15/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Conc	2.3	29.25	6/22/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Qty	0.87	6.19983	6/22/2012
001	00610	Nitrogen, Ammonia (NH3)	30D Conc	1.5	19.35	7/1/2012

Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
001	00610	Nitrogen, Ammonia (NH3)	30D Qty	0.57	5.64514	7/1/2012
001	00665	Phosphorus, Total (P)	30D Conc	1.0	3.63	7/1/2012
001	00665	Phosphorus, Total (P)	30D Qty	0.38	1.08542	7/1/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Conc	2.3	32.5	7/8/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Qty	0.87	9.71799	7/8/2012
001	00665	Phosphorus, Total (P)	7D Conc	1.5	3.63	7/8/2012
001	00665	Phosphorus, Total (P)	7D Qty	0.57	1.08542	7/8/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Conc	2.3	6.2	7/22/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Qty	0.87	1.57229	7/22/2012
001	00610	Nitrogen, Ammonia (NH3)	30D Conc	1.5	1.6	8/1/2012
001	00610	Nitrogen, Ammonia (NH3)	7D Conc	2.3	2.9	8/1/2012
001	00665	Phosphorus, Total (P)	30D Conc	1.0	1.29	8/1/2012

Frequency Violations

Station	Reporting Code	Parameter	Sample Frequency	Expected	Reported	Violation Date
001	00610	Nitrogen, Ammonia (NH3)	1/2Weeks	1	0	02/01/2012

No code violations were noted.

Please notify this office in writing, within 30 days receipt of this letter, with an update on items 9e, 11, 23, and 25. The letter should include dates either actual or proposed.

Please be advised that such instances of noncompliance may be cause for further enforcement actions pursuant to the Ohio Revised Code, Chapter 6111.

Should you have any comments or questions concerning this letter, please feel free to call me at (330) 963-1143.

Respectfully,



Michael W. Stevens
 Environmental Engineer
 Division of Surface Water

MWS/oo

cc: Janean Weber, Attorney General's Office