

**Environmental
Protection Agency**

**Governor
Lt. Governor
Director**

October 31, 2011

RE: MAHONING COUNTY
WASTEWATER
FFY 20121 CEI
NPDES PERMIT NO. 3PR00442

Mr. George Beaver
Angels for Animals
4630 South Range Road
Canfield, OH 44406

Mr. Beaver:

On October 26, 2011, this writer conducted an inspection of the wastewater treatment plant for Angels for Animals. The intent of the inspection was to evaluate operations and maintenance, and to review compliance with the National Pollutant Discharge Elimination System (NPDES) Permit. Representing Animal Charities during the inspection was the certified operator, Mr. Firl Byers. Mr. Byers indicated that he maintains the system on a daily basis.

Observations

Following are observations made during the inspection:

1. It was understood that Angels for Animals recently replaced the equalization tank pumps. Both pumps were able to be operated automatically at the time of the inspection. It was understood that the hour meters for the pumps were not operational. The hour meters must be repaired so that flow through the treatment system can be reported and for routine maintenance purposes. This is the second inspection where the hour meters were found to be inoperable.
2. The color of the mixed liquor return sludge in the aeration tank was medium brown at the time of the inspection. The condition of the aeration tank has improved significantly over the last couple of years. The contents of the aeration tank in the past had the appearance of gray wastewater with no biosolids available for treatment. However, as a result of efforts on the part of Angels for Animals such as reducing the effects of chemicals and controlling the flow rate through the system, conditions in the aeration tank have improved over time.
3. The effluent discharging from the clarifier was clear at the time of the inspection. The effluent trough in the clarifier was free of sludge and debris, as were the weir plates. There was a floating mass of hair and sludge on the surface of the clarifier that did not appear to affect operations, but, such a mass could be a

problem if hair through the system is not controlled. Efforts must be taken to reduce hair into the system so that equipment and effluent quality are not affected in the future.

4. The sand filters are in need of attention. The sand currently in the filters is not approved filter sand. As a result, wastewater percolation through the sand filters was very slow. Standing water approximately 6-inches deep was observed during the inspection. New filter sand is on site to replace the sand currently in the filter beds. The filter sand currently in the filter beds should be replaced with the new sand as soon as possible to prevent operational problems throughout the winter months.
5. In addition to off-spec sand, the east filter bed leaks wastewater through a joint in the wall of the bed. This writer agreed that the top portion of the filter bed should be removed and a new seal be placed between the two sections. It was understood that in the past, efforts were made to stop the leak using hydraulic cement. However, the hydraulic cement failed and the leak returned. Efforts should be made as soon as possible to seal the system by pulling the top portion of the bed and inserting a rubber/bitumen seal or similar between the section. Having only one functioning filter bed available going into the winter months is not acceptable, especially considering the off-spec sand which will cause wastewater to pond and freeze in the filter.
6. The effluent in the disinfection tank was clear and free of odor at the time of the inspection.
7. Mr. Byers was pumping down the wastewater storage lagoon in order to provide adequate capacity throughout the winter months. Wastewater from the lagoon was being pumped to the spray irrigation field. Only nine spray heads were operational and none of those nine nozzles covered the entire irrigation field. The spray irrigation system should be checked annually to make sure that all nozzles are active and that the nozzles are not partially plugged with debris.

This is the third consecutive inspection where concerns about the condition of the spray irrigation field were identified. The system must be inspected and all problems corrected prior to the irrigation season in 2012. The irrigation system must evenly distribute treated wastewater over the entire 0.54 acre field as intended and approved by Ohio EPA.

Compliance Review

Following the inspection, the monthly operating reports were reviewed for the period covering April 2010 through September 2011. The reports were reviewed for

compliance with the NPDES Permit. Comparing the reported data submitted by Angels for Animals to the permit limits identified the following violations in the Ohio EPA compliance tracking system.

Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
April 2010	601	E. coli	1D Conc	2.0	3.	4/12/2010
April 2010	601	Nitrogen, Ammonia	1D Conc	1.5	3.66	4/12/2010
April 2010	601	Nitrogen, Ammonia	30D Conc	1.0	3.66	4/1/2010
March 2011	601	Nitrogen, Ammonia	1D Conc	1.5	4.27	3/15/2011
March 2011	601	Nitrogen, Ammonia	30D Conc	1.0	4.27	3/1/2011
February 2011	601	Nitrogen, Ammonia	1D Conc	1.5	3.66	2/8/2011
February 2011	601	Nitrogen, Ammonia	30D Conc	1.0	3.66	2/1/2011
June 2010	601	Nitrogen, Ammonia	30D Conc	1.0	1.46	6/1/2010
Sept.2010	601	Nitrogen, Ammonia	30D Conc	1.0	1.11	9/1/2010
May 2010	601	Nitrogen, Ammonia	1D Conc	1.5	3.721	5/4/2010
May 2010	601	Nitrogen, Ammonia	30D Conc	1.0	3.721	5/1/2010
May 2011	601	Nitrogen, Ammonia	1D Conc	1.5	3.66	5/3/2011
May 2011	601	Nitrogen, Ammonia	30D Conc	1.0	3.66	5/1/2011
June 2011	601	Nitrogen, Ammonia	1D Conc	1.5	4.27	6/7/2011
June 2011	601	Nitrogen, Ammonia	30D Conc	1.0	4.27	6/1/2011
April 2011	601	Nitrogen, Ammonia	1D Conc	1.5	4.27	4/5/2011
April 2011	601	Nitrogen, Ammonia	30D Conc	1.0	4.27	4/1/2011
March 2011	601	Total Suspended Solids	30D Conc	12.0	18.	3/1/2011
October 2010	601	Total Suspended Solids	1D Conc	18.0	22.	10/21/2010
October 2010	601	Total Suspended Solids	30D Conc	12.0	22.	10/1/2010
June 2011	601	Total Suspended Solids	1D Conc	18.0	21.	6/7/2011
June 2011	601	Total Suspended Solids	30D Conc	12.0	21.	6/1/2011

Angels for Animals seems to be unable to consistently comply with the permit limit on ammonia. Currently there is an option to eliminate the NPDES Permit and cover the treatment and disposal system with a Land Application Management Plan (LAMP). The LAMP will enable the spray irrigation system to be regulated to protect the environment and human health; but, also be able to operate at different effluent limits that are more appropriate for a spray irrigation system.

In order for this office to rescind the NPDES Permit and apply the LAMP program to the wastewater treatment system, Angels for Animals must submit a Land Application Management Plan to this office in accordance with Ohio Administrative Code 3745-42-13(E)(1). Attached are the forms necessary for submitting the management plan. You

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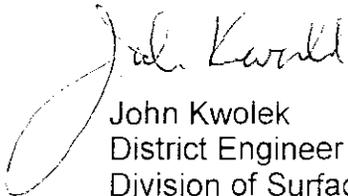
will note that at the end of Form C2, the information necessary to process a LAMP is listed.

1. Two copies of the Permit-to-Install/Plan Approval Application Form A.
2. Two copies of the site and soil evaluation required in accordance with rule 3745-42-13(N). This information is not required since it was reviewed when the system was previously approved by Ohio EPA.
3. One copy of the effluent pollutant sampling and flow monitoring records for the last five years. This is not necessary since that information is already available to this office.
4. Four copies of this management plan and any attachments.
5. Fee check payable to "Treasurer, State of Ohio." The appropriate fee is \$200.00; however, this office will utilize the fee paid for the NPDES Permit renewal application that was submitted in August 2011. There is no need to submit an additional fee for the LAMP.

It is recommended that you complete the forms and forward them to this office for processing in lieu of renewing the NPDES Permit.

You may contact this writer at (330) 963-1251 or at john.kwolek@epa.state.oh.us to discuss any questions you may have.

Sincerely,



John Kwolek
District Engineer
Division of Surface Water

JK/cs

Cc. Joe Mansky, Mahoning County Department of Health