



**Environmental  
Protection Agency**

Technical Support, Governor  
Liaison to the Lt. Governor  
Operations and Maintenance, Director

May 7, 2010

RE: CUYAHOGA COUNTY  
CITY OF N.ROYALTON  
N. ROYALTON 'A' WWTP  
COMPLIANCE EVALUATION INSPECTION  
(OH0026794 / 3PD00030)

Mayor and Council  
City of North Royalton  
City Hall  
13834 Ridge Road  
North Royalton, OH 44133

Dear Mayor and Council:

On April 22, 2010, a Compliance Evaluation Inspection (CEI) was conducted at the City of North Royalton 'A' Wastewater Treatment Plant (WWTP). Present during the inspection were Messrs. Tim Tigue and Tom Kuehn, representing the City of North Royalton, and this writer.

The purpose of the inspection was to evaluate the overall operation and maintenance of the WWTP, as well as the facility's compliance with National Pollutant Discharge Elimination System (NPDES) permit effluent limits, and terms and conditions of its permit. The last compliance enforcement inspection of the North Royalton 'A' WWTP was October 22, 2008.

At the time of the April 22<sup>nd</sup> inspection, the following observations were made:

- 1) The barscreens, grit removal facilities, and compactors, were operating satisfactorily.
- 2) Two of three primary settling tanks were operational, and tank contents were the typical turbid gray color. The Number 1 primary settling tank was out of service due to a broken drive shaft, and is awaiting repair. Scum in the primary tanks is removed by manual skimmers.
- 3) All three extended aeration tanks were being well aerated, and contents were medium brown. Mixed Liquor Suspended Solids (MLSS) concentrations were in the approximate 2300 mg/l range. A fourth aeration tank (500,000 gallons) is used as a flow equalization tank during high flows caused by wet weather events. Ferrous chloride (150 gpd) continues to be added at the end of the aeration tanks to aid in phosphorous removal.

- 4) Both final settling tanks (750,000 gallons each) were in use, and the sludge blanket in the final settling tanks was down well below the surface. The effluent troughs of the final settling tanks did contain a slight algal growth.
- 5) Three of six rapid sand filters were in use. At flows of 5 MGD or greater, all six rapid sand filters are placed in operation.
- 6) The Ultra Violet disinfection units were in not use, as effluent disinfection is not required between November 1<sup>st</sup> and April 30<sup>th</sup>.
- 7) Effluent from the WWTP was post aerated prior to discharge. Observation of the effluent being discharged revealed no visual signs of floating debris, oil and grease, or high levels of solids.

A review of the electronic Discharge Monitoring Reports (eDMR's) reported for the North Royalton 'A' WWTP for the period of October 1, 2008 through April 1, 2010, found the following NPDES permit effluent violations:

**NORTH ROYALTON 'A' WWTP  
NPDES Permit No. 3PD00030  
Effluent Limit Numerical Violations  
(Oct. 1, 2008 – Apr. 1, 2010)**

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
August 2009	pH, Minimum	1D Conc	6.5	5.8	8/27/2009
August 2009	pH, Minimum	1D Conc	6.5	6.2	8/28/2009

A review of the eDMR's for the same period found no reporting code or frequency violations.

Various items were discussed with Messrs. Tigie and Kuehn during the inspection. The following is a summary of items discussed, and observations made, during the inspection:

- 1) The FOG (fat, oil, & grease) program is in place throughout the City, and new ordinances were approved a few months ago. Inspection activity of targeted users (restaurants, etc.) will increase in the near future.
- 2) One odor complaint was received since the last inspection. The odor complaint was related to the sludge compost facility, and not the wastewater

treatment plant. There were no odor complaints received due to the North Royalton 'A' WWTP.

- 3) The City is approximately 2 ½ years into the City's I/I (Inflow/Infiltration) reduction plan, and expects to finish the program in 2012. Daily inspection of sanitary sewers, by TV camera, is being conducted to search for sources. There have been 449 homes dye tested and 454 homes smoke tested. A total of 387 homes tested failed the test, and 290 connections have been repaired.
- 4) There are 18 full-time employees at the WWTP, with coverage 24 hours per day, 7 days per week.
- 5) The City continues its three-year cleaning cycle of the entire sewer system. Locations with persistent trouble are cleaned quarterly, semi annually, or annually, depending on need.
- 6) Grit and screenings generated at the WWTP are disposed of at the Rumpke Landfill in Shiloh, Ohio, and the City acts as hauler.
- 7) Analysis of all conventional pollutants is conducted at the WWTP laboratory, and heavy metal samples are sent out to a commercial lab (Cardinal Lab) for analysis. Results of the most recent DMR-QA Study (No. 29) for the North Royalton WWTP lab found all parameters tested to be in an 'acceptable' range for the performance evaluation.
- 8) The North Royalton Compost Facility was closed on March 1, 2010. Sludge is currently being disposed of at the Quasar / PPG Lime Lakes facility in Barberton, OH. Landfilling of sludge is the backup alternative. The City is waiting on N-Viro in Mahoning County to get Ohio EPA approval, at which time disposal of sludge is planned at N-Viro.
- 9) The sludge gravity belt thickener is operated twice weekly, 3 to 4 hours per run. The sludge belt press is operated 5 days per week, 4 hours per run, in the evening / night hours to prevent odor complaints.
- 10) Two NPDES permit compliance schedule items were discussed:
  - a. An Operator of Record Form was due to be submitted to the Ohio EPA by February 1, 2010. The form was submitted on January 29, 2010.

- b. An effluent outfall information permanent marker was to have been posted on the shoreline of the WWTP outlet pipe by April 1, 2010.

According to Mr. Tigue, the sign was posted on the concrete headwall of the outlet pipe. However, at the time of the inspection the sign was missing. It is noted there was evidence of the sign being attached to the concrete headwall.

The NPDES permit required sign should be reposted as soon as possible, and this office informed as such.

- 11) As a reminder, beginning no later than September 2010, the City has to initiate an effluent biomonitoring program to determine the toxicity of the WWTP effluent from its outfall. Specific requirements on the biomonitoring program can be found in Part II, Section AA, of the current NPDES permit.

The City of North Royalton 'A' WWTP appears to be well operated and maintained. The City of North Royalton should continue with all efforts that will enable the WWTP to consistently meet its NPDES Permit limits.

If there are any comments or questions concerning this document, you may contact me at (330) 963-1110.

Respectfully,



Charles E. Allen  
Environmental Engineer  
Division of Surface Water

CEA/mt