November 18, 2008

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 October 22, 2008, 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 May 21, 2007.

At the time of the inspection, the general operation of the plant could be rated as satisfactory. All treatment components were in operation, and 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 June 1, 2007, through October 1, 2008, found the following NPDES permit effluent violations:

**NORTH ROYALTON ‘A’ WWTP**
NPDES Permit No. 3PD00030
Effluent Limit Numerical Violations
(June 1, 2007 through Oct. 1, 2008)

<table>
<thead>
<tr>
<th>Reporting Period</th>
<th>Station</th>
<th>Parameter</th>
<th>Limit Type</th>
<th>Limit</th>
<th>Reported Value</th>
<th>Violation Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2007</td>
<td>001</td>
<td>Copper, Total Recoverable</td>
<td>30D Conc</td>
<td>17</td>
<td>20.0</td>
<td>6/1/2007</td>
</tr>
<tr>
<td>August 2007</td>
<td>001</td>
<td>Copper, Total Recoverable</td>
<td>30D Conc</td>
<td>17</td>
<td>28.5</td>
<td>8/1/2007</td>
</tr>
</tbody>
</table>
A review of the eDMRs for the same period also found the following effluent reporting code violations:

**NORTH ROYALTON ‘A’ WWTP**  
NPDES Permit No. 3PD00030  
**Reporting Code Violations**  
(June 1, 2007 through Oct. 1, 2008)

<table>
<thead>
<tr>
<th>Reporting Period</th>
<th>Station</th>
<th>Reporting Code</th>
<th>Parameter</th>
<th>Limit Type</th>
<th>Limit</th>
<th>Reported Value</th>
<th>Violation Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2008</td>
<td>601</td>
<td>50286</td>
<td>Mercury, Total (Low Level)</td>
<td>AB</td>
<td>1/2/2008</td>
<td></td>
<td></td>
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<tr>
<td>January 2008</td>
<td>001</td>
<td>50286</td>
<td>Mercury, Total (Low Level)</td>
<td>AB</td>
<td>1/2/2008</td>
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<tr>
<td>January 2008</td>
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<td></td>
</tr>
</tbody>
</table>

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

1) An inspection / training program has been started for restaurants and other food service operations in the City, in an effort to reduce oil and grease discharged to the sanitary sewer system. The program is known as the FOG (fat, oil, & grease) program.

2) Since the last inspection, Tim Tigue has been named WWTP Superintendent. Mr. Tigue has a Class IV wastewater operator’s license, and started with the City on May 1, 2008. The City also hired a new Service Director, Mr. Kris Kamp.

3) The City has received no odor complaints regarding the WWTP, or sludge compost facility, since the last inspection.

4) The City continues working on I/I (Inflow/Infiltration) reduction throughout the City. Daily inspection of sanitary sewers, by TV camera, is being conducted to search for sources. Letters are issued to sanitary sewer system users whose downspouts are connected to sanitary sewers.
5) There are 17 full-time employees at the WWTP, with coverage 24 hours per day, 7 days per week.

6) The City continues the three-year cleaning cycle of the entire sewer system. The City has compiled a list of trouble areas in the City, and cleans the sewers in those areas approximately four times per year.

7) Both barscreens, grit removal, and compactors were in operation.

8) Grit and screenings generated at the WWTP are disposed of at the American Landfill in Malverne, Ohio. The City hauls the grit and screenings to the landfill in a new vehicle which was purchased recently. Approximately 16 cubic yards are hauled to the landfill about eight times per year.

9) All three primary settling tanks were operational, and tank contents were the typical turbid gray color. Scum in the tanks is removed using manual skimmers.

10) Three extended aeration tanks were being well aerated, and contents were a medium brown in color. Mixed Liquor Suspended Solids (MLSS) were at a concentration of approximately 2300 mg/l. Fine bubble diffusers in the aeration tanks were cleaned during the past year.

11) A fourth aeration tank is being utilized as a flow equalization tank during high flows caused by wet weather events.

12) Ferrous chloride continues to be added at the end of the aeration tanks. Ferrous chloride is added to aid in phosphorous removal.

13) Both final clarifiers were in use. The sludge blanket in the final clarifiers was down well below the surface, and there was a slight floating pinfloc in the effluent troughs.

14) Three of six rapid sand filters were in operation (only use three during low flow periods). At flows at 5 MGD all six rapid sand filters are put online.

15) UV disinfection units were in use (only half of banks due to low flow conditions). At flows greater than 5 MGD, both UV channels are in operation.

16) Effluent from the WWTP is post aerated prior to discharge.
17) Analysis of all conventional pollutants is conducted at the WWTP laboratory. Heavy metal samples and Compost Facility fecal coliform samples are sent out to a commercial lab (Cardinal Lab) for analysis.

18) Results of the DMR-QA Study No. 28 for the North Royalton WWTP lab found all parameters tested to be in an ‘acceptable’ range for the performance evaluation.

19) The North Royalton Compost Facility treats sludge from the North Royalton WWTPs only. Operator of the Compost Facility is Mr. John Simon.

20) The biofilter at the Compost Facility is tentatively planned for change / renewal in 2009.

21) One of three aerated sludge tanks was in use at the time of the inspection.

22) The sludge gravity belt filter is run approximately one day per week, for an eight hour period. The two sludge belt filter presses are operated five days per week, approximately eight to ten hours per day (during evening hours).

Should you have any questions or comments regarding the inspection report or this letter, please contact me at this office, or call (330) 963-1110.

Respectfully,

Charles E. Allen
Environmental Engineer
Division of Surface Water

CEA/mt