Environmental Protection

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May 9, 2014

Samuel Lieblich, P.E.
Region II Air Pollution Control Engineer
NYS DEC Region II
47-40 21st Street
Long Island City, NY 11101-5407

Re: North River WWTP
DEC ID: 2-6202-00007
Part 201 Air Facility Title V Permit
Opacity Monitoring Quarterly Report
First Quarter of 2014

Dear Mr. Lieblich:

The New York City Department of Environmental Protection (DEP) hereby submits to the New York State Department of Environmental Conservation (DEC) the North River Wastewater Treatment Plant's (WWTP) First Quarter of 2014 Continuous Opacity Monitoring (COM) Report for the five pump and five blower engines. This report is submitted as required by Condition 54, Item 54.2 of the WWTP Part 201 Title V Air Facility Permit.

DEP conducted an investigation of all exceedances of the 20% opacity 6-minute averages for the first quarter of 2014 and was able to identify the possible causes of all of these exceedances.

CHRONOLOGICAL REVIEW OF >20% OPACITY EVENTS

On January 7, 2014, at 16:42 hours, a single 6-minute average >20% but ≤27% opacity value or >27% opacity value was reported for each of the five pump engines at the same time, including pump engines 1, 2 and 3 which were not in operation and pump engines 4 and 5 which were in service. During that time, Plant Operations staff accidentally tripped a breaker in an Electrical Room, causing a momentary loss of power in the Engine Room. DEP has previously investigated similar abnormal readings and concluded that brief power outages may cause all the continuous opacity monitors to register faulty high opacity readings simultaneously.

The following list is a chronological review of DEP's operational record that verifies the likely causes of 6-minute average > 20% opacity events in the report for each Pump and Blower Engine at the WWTP.

Pump Engine 1

01/07/14 As discussed above, the 6-minute average >20% but ≤27% event was concluded to be a faulty reading, caused by a momentary power outage.

02/28/14 Operational record indicated one 6-minute average >20% but ≤27% event may have been caused by engine maintenance.

03/02/14 Operational record indicated one 6-minute average >27% exceedance event may have been caused by engine maintenance.

03/29/14 Operational record indicated one 6-minute average >27% exceedance event may have been caused by engine start up.

Pump Engine 2

01/05/14 Operational record indicated two 6-minute average >27% exceedance events may have been caused by engine startup.

01/07/14 As discussed above, the 6-minute average >20% exceedance event was concluded to be a faulty reading, caused by a momentary power outage.

01/11/14 Operational record indicated one 6-minute average >27% exceedance event may have been caused by engine startup.

01/13/14 Operational record indicated one 6-minute average >20% but ≤27% event may have been caused by engine startup.

01/14/14 Operational record indicated one 6-minute average >20% but ≤27% event may have been caused by engine startup.

01/17/14 Operational record indicated one 6-minute average >20% but ≤27% event may have been caused by engine startup.

01/28/14 Operational record indicated two 6-minute average >20% but ≤27% or >27% exceedance events may have been caused by engine startup.

02/03/14 Operational record indicated two 6-minute average >27% exceedance events may have been caused by engine startup.

02/05/14 Operational record indicated one 6-minute average >20% but ≤27% event may have been caused by engine startup.

02/13/14 Operational record indicated one 6-minute average >27% exceedance event may have been caused by engine startup.

02/19/14 Operational record indicated three 6-minute average >27% exceedance events may have been caused by engine startup.

02/21/14 Operational record indicated two 6-minute average >27% exceedance events may have been caused by engine startup.

02/26/14 Operational record indicated one 6-minute average >20% but ≤27% event may have been caused by engine maintenance, and two 6-minute average >20% but ≤27% or >27% exceedance events may have been caused by engine startup.

02/27/14 Operational record indicated three 6-minute average >20% but ≤27% or >27% exceedance events may have been caused by engine maintenance.

03/04/14 Operational record indicated one 6-minute average >27% exceedance event may have been caused by engine shutdown.

03/11/14 Operational record indicated four 6-minute average >20% but ≤27% or >27% exceedance events may have been caused by engine maintenance.

03/12/14 Operational record indicated one 6-minute average >27% exceedance event may have been caused by engine startup.

03/18/14 Operational record indicated three 6-minute average >20% but ≤27% or >27% exceedance events may have been caused by engine startup.

03/19/14 Operational record indicated two 6-minute average >27% exceedance events and one >20% but ≤27% event may have been caused by engine startup.

Pump Engine 3

01/07/14 As discussed above, the 6-minute average >20% but ≤27% event was concluded to be a faulty reading, caused by a momentary power outage.

01/24/14 Operational record indicated two 6-minute average >20% but ≤27% exceedance events may have been caused by engine startup.

02/05/14 Operational record indicated one 6-minute average >27% exceedance event may have been caused by engine startup.

02/20/14 Operational record indicated one 6-minute average >20% but ≤27% event may have been caused by engine start up.

Pump Engine 4

01/07/14 As discussed above, the 6-minute average >27% exceedance event was concluded to be a faulty reading, caused by a momentary power outage.

01/11/14 Operational record indicated one 6-minute average >20% but ≤27% event may have been caused by engine startup.

01/13/14 Operational record indicated one 6-minute average >20% but ≤27% event may have been caused by engine maintenance.

02/05/14 Operational record indicated one 6-minute average >27% exceedance event may have been caused by engine shutdown.

02/20/14 Operational record indicated one 6-minute average >27% exceedance event may have been caused by engine start up.

Operational record indicated one 6-minute average >20% but ≤27% event may also have been caused by engine startup.

03/19/14 Operational record indicated one 6-minute average >20% but ≤27% event may have been caused by engine maintenance.

Pump Engine 5

01/07/14 As discussed above, the 6-minute average >27% exceedance event was concluded to be a faulty reading, caused by a momentary power outage.

01/16/14 Operational record indicated one 6-minute average >20% but ≤27% event may have been caused by engine maintenance.

Blower Engine 1

09/01/14 Operational record indicated one 6-minute average >27% exceedance event may have been caused by engine maintenance.

01/31/14 Operational record indicated six 6-minute average >27% exceedance events may have been caused by engine startup.

Operational record indicated five 6-minute average >20% but ≤27% exceedance events may have also been caused by engine startup.

02/19/14 Operational record indicated three 6-minute average >20% but ≤27% exceedance events may have been caused by engine maintenance.

02/20/14 Operational record indicated four 6-minute average >20% but ≤27% exceedance events may have been caused by engine startup.

03/10/14 Operational record indicated five 6-minute average >20% but ≤27% or >27% exceedance events may have been caused by engine startup.

03/11/14 Operational record indicated four 6-minute average >20% but ≤27% or >27% exceedance events may have been caused by engine startup.

03/12/14 Operational record indicated five 6-minute average >20% but ≤27% or >27% exceedance events and one 6-minute average >20% but ≤27% event may have been caused by engine maintenance.

Blower Engine 2

There was no >20% opacity 6-minute average event for Blower Engine 2 during the report period.

Blower Engines 3 and 4

Blower engines 3 and 4 are currently out of service due to a fire which occurred at the plant on July 20, 2011. The opacity monitors at these two engines were kept in operation for equipment maintenance purpose only. Data during this time period was considered invalid and was removed.

Blower Engine 5

01/15/14 Operational record indicated one 6-minute average >20% but ≤27% event may have been caused by engine startup.

02/11/14 Operational record indicated two 6-minute average >27% exceedance events may have been caused by engine startup.

02/13/14 Operational record indicated eight 6-minute average >20% but ≤27% or >27% exceedance events may have been caused by engine maintenance.

02/14/14 Operational record indicated five 6-minute average >20% but ≤27% or >27% events may have been caused by engine startup.

03/10/14 Operational record indicated six 6-minute average >20% but ≤27% or >27% exceedance events may have been caused by engine maintenance.

03/18/14 Operational record indicated two 6-minute average >20% but ≤27% exceedance events and one 6-minute average >20% but ≤27% event may have been caused by engine startup.

03/19/14 Operational record indicated two 6-minute average >20% but ≤27% events may have been caused by engine startup.

03/24/14 Operational record indicated that this engine was not in operation when one 6-minute average >20% but ≤27% event occurred. This opacity event was concluded to be a faulty reading.

03/27/14 Operational record indicated one 6-minute average >20% but ≤27% event may have been caused by engine startup.

03/30/14 Operational record indicated one 6-minute average >20% but ≤27% event may have been caused by engine startup.

If you need any additional information, please feel free to contact Leslie Lipton, Chief of Division of Planning and Permitting at (718) 595-5014 or Wayne Kuang at (718) 595-4988.

Very truly yours,

Vincent Sapienza, P.E.
Deputy Commissioner

Attachments

c: Thomas John (NYSDEC Region II, w/o attachments)
Robert Bolt (NYSDEC Region II, w/o attachments)