



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2

290 BROADWAY

NEW YORK, NY 10007-1866

March 31, 2022

Mr. Robert LoPinto
Mr. Massimiliano Lelli
Walden Environmental Engineering
16 Spring Street
Oyster Bay, NY 11771

Re: Applicability Determination Request Regarding 40 C.F.R. Part 60, Subpart Db, Concerning Four Boilers at Parkchester South Condominium

Dear Mr. LoPinto & Mr. Lelli:

The U.S. Environmental Protection Agency (EPA) has reviewed your letter dated November 18, 2021, concerning Parkchester South Condominium (“Parkchester” or “facility”), located at 2020 E Tremont Avenue in Bronx, New York, regarding the increase in the heat input capacity of the four boilers from 99 to 133 MMBTU/hr, and whether it qualifies as a modification under 40 C.F.R. § 60.14. Specifically, you have requested that EPA determine whether these four boilers are subject to 40 C.F.R. Part 60, Subpart Db, the “Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units” (NSPS Subpart Db), for each regulated pollutant to which a standard applies.

Parkchester operates four identical boilers. These boilers supply steam for space heating of the facility buildings/apartments and are also used to provide hot water for the facility. In 2019, Parkchester increased the heat input capacity of the four boilers from 99 to 133 MMBTU/hr. In addition, the secondary fuel was converted from #6 fuel oil to #2 fuel oil (ultra-low sulfur distillate fuel oil with 15 ppm sulfur content), and the facility replaced the oil guns (2 on each boiler). These modifications to the four boilers were approved by the New York State Department of Environmental Conservation (NYSDEC) through a permit modification under New York’s Operating Permit Program (approved under Title V of the Clean Air Act), which was issued on September 3, 2019.

In the Appendices to your November 18, 2021 letter, the facility cited a decrease in the emission rates for NO_x and PM in its 2021 stack test results compared to its 2014 stack test results. Also, the facility stated that the ratio of the SO₂ emission rate when firing fuel oil during its 2021 stack test decreased by approximately a factor of 200 compared to its 2014 stack test. However, while EPA acknowledges there was a decrease in the emission rates for these pollutants, as explained below, we do not agree with Parkchester’s conclusion regarding NSPS Subpart Db applicability, and have determined that the four boilers are subject to NSPS Subpart Db.

Appendix C to the November 18, 2021 letter cited emission rates, both before and after the increase in heat input capacity resulting from the 2019 modification. However, the emission information and calculations did not directly address the change in emission rates in terms of units of mass per time. Under 40 C.F.R. § 60.14(a), a modification is defined as “*any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which*

a standard applies and for which there is an increase in the emission rate to the atmosphere.” 40 C.F.R. § 60.14(b) further states that an “emission rate shall be expressed as kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable.”

Adhering to the definition of “modification” in 40 C.F.R. § 60.14, EPA used the emission rates in Appendix C and the corresponding heat input capacity values to determine the emission rates in units of mass per time, both before and after the increase in heat input capacity from 99 to 133 MMBTU/hr. Table 2 in Appendix C of your November 18, 2021 letter cites emission rates for NOx and PM based on a 2021 stack test (following the increase in heat input capacity), while Table 3 provides emission rates for NOx and PM based on a 2014 stack test (before the increase in heat input capacity). SO₂ emission rates for natural gas were based on AP-42 Chapter 1.4.2 values.

Based on the calculations performed in the two tables below, the increase in heat input capacity outweighs the decrease in emission rates. Therefore, EPA has concluded that the increase in heat input capacity resulted in an increase in the emission rates for NOx, SO₂, and PM. EPA determines that this is a “modification” under 40 C.F.R. § 60.14, and Parkchester is subject to NSPS Subpart Db for NOx, SO₂, and PM.

Emission Rates Before Heat Input Capacity Increase					
Pollutant	Fuel	Emission Rate (lb/MMBTU)	Heat Input (MMBtu/hr)	Emission Rate (lb/hr)	Emission Rate (kg/hr)
NOx	Natural Gas	0.1123	99	11.12	5.04
PM	Fuel Oil	0.0275	99	2.723	1.23
SO ₂	Natural Gas	5.88E-04*	99	0.058	0.0264

Emission Rates After Heat Input Capacity Increase					
Pollutant	Fuel	Emission Rate (lb/MMBTU)	Heat Input (MMBtu/hr)	Emission Rate (lb/hr)	Emission Rate (kg/hr)
NOx	Natural Gas	0.1103	133	14.67	6.65
PM	Fuel Oil	0.0265	133	3.525	1.60
SO ₂	Natural Gas	5.88E-04*	133	0.078	0.0355

*Emission rate (in lb/MMBTU) based on AP-42 Chapter 1.4.2, Table 1.4-2 (0.6 lb SO₂/10⁶ scf)

Parkchester’s Title V permit must be revised to include NSPS Subpart Db requirements for NOx, SO₂, and PM. If you have any further questions, please contact Brian Marmo at 212-637-4352 or Marmo.Brian@epa.gov.

Sincerely,

Kirk Wieber

Kirk Wieber, Chief
Air Programs Branch

cc: Michael Cronin, NYSDEC
Thomas John, NYSDEC
Denise Grattan, NYSDEC

Diana Menasha, NYSDEC
Sam Lieblich, NYSDEC
Stephen Watts, NYSDEC
Gaetano LaVigna, 2ECAD-ACB
Ray Slizys, 2ECAD-ACB
Liliana Villatora, 2ORC-AB
Erick Ihlenburg, 2ORC-AB
Suilin Chan, 2ARD-APB
Brian Marmo, 2ARD-APB