

Table 4B- Boilers Firing #2-Oil

Queens Fresh Meadows Facility
67-10 192nd St., Flushing, NY 11365

PTE and Maximum Annual Fuel Consumption Emissions

Boilers - No. 2 Oil (For Boilers less than 100 MMBtu/hr) PTE Actual
1,146 gal/hr ⁺ 290,763 gallons/year

Compound	CAS No.	Emission Factor ¹ (lb/10 ³ gal)	Potential to Emit (lb/yr) ²	Potential to Emit (tpy) ²	Actual Emissions (lb/yr) ³	Actual Emissions (tpy) ³
PM	NY075-00-0	2.00	20,073	10.04	582	0.29
PM-10	NY075-00-5	1.00	10,036	5.02	291	0.15
NOx	NY210-00-0	20	200,729	100.36	5,815	2.91
CO	00630-08-0	5	50,182	25.09	1,454	0.73
CO2	00124-38-9	22,300	223,812,994	111,906	6,484,015	3,242
SO2 ⁴	07446-09-5	0.21	2,138	1.07	62	0.03
SO3	07446-11-9	0.003	30.11	0.015	1	4.36E-04
VOC ⁵	NY998-00-0	0.34	3,412	1.71	99	0.05
Total HAPs*	-	-	68.9	0.034	2.0	9.97E-04
Trace Elements from Distillate Fuel Oil Combustion (lb/10¹² BTU)						
Arsenic*	07440-38-2	4	5.62	2.81E-03	0.16	8.14E-05
Beryllium*	07440-41-7	3	4.22	2.11E-03	0.12	6.11E-05
Cadmium*	07440-43-9	3	4.22	2.11E-03	0.12	6.11E-05
Chromium*	07440-47-3	3	4.22	2.11E-03	0.12	6.11E-05
Copper	07440-50-8	6	8.43	4.22E-03	0.24	1.22E-04
Lead*	07439-92-1	9	12.65	6.32E-03	0.37	1.83E-04
Manganese*	07439-96-5	6	8.43	4.22E-03	0.24	1.22E-04
Mercury*	07439-97-6	3	4.22	2.11E-03	0.12	6.11E-05
Nickel*	07440-02-0	3	4.22	2.11E-03	0.12	6.11E-05
Selenium*	07782-49-2	15	21.08	1.05E-02	0.61	3.05E-04
Zinc	07440-66-6	4	5.62	2.81E-03	0.16	8.14E-05

Notes:

+ Potential emissions are based on the maximum operation of 8 boilers at one time (at 100% load) for 8760 hours per year.

* Hazardous Air Pollutants (HAPs); Total HAPs is the sum of all HAP compounds.

¹ Source: USEPA AP-42; Section 1.3 Fuel Oil Combustion.

² Potential emissions based on annual operation of 8 boilers (based on operational design limitations) for 8,760 hours per year.

³ Actual emissions are based on actual maximum annual fuel consumption for the years 2011 - 2021

⁴ Based on a maximum fuel oil sulfur content of 0.0015% as per 6 NYCRR Part 225-1.2(f).

NOx emission factor is based on controlled - Low NOx burners with flue gas recirculation.

Sulfur Content of Residual Oil: 0.0015

⁵ Reported as total non-methane hydrocarbon; assumed entire fraction as VOC.

⁶ Heating Value of No. 2 Fuel Oil 140,000 BTU/gal