# Appendix F
# Proposed Air Quality (E) Designations

# Appendix F: Proposed Air Quality (E) Designations

## INTRODUCTION

Under the proposed zoning, (E) Designations are proposed to avoid impacts on privately owned parcels on projected or potential development sites with respect to air quality (heating systems). A description of the requirements of those (E) Designations follows. A list of the sites, blocks, and lots affected by the (E) Designations is presented in **Tables F-1 and F-2**.

Under the Proposed Actions, for each of the 30 projected and potential development sites (21 projected and 9 potential development sites) development sites that failed the heating and hot water system screening analysis, a refined analysis was performed utilizing the AERMOD dispersion model (see Chapter 15,"Air Quality"). The results indicated that all 30 of the sites that failed the screening analysis for No. 2 oil also failed the refined analysis, and 19 of 20 sites that failed the screening analysis for natural gas also failed the refined analysis.

*E-DESIGNATIONS*

To preclude the potential for significant adverse air quality impacts on other projected and potential developments from the heating and hot water system emissions, an (E) Designation would be incorporated into the proposed rezoning for each of the affected sites. The descriptions and requirements of the proposed (E) Designations for these sites with respect to heating and hot water systems are presented in **Tables F-1 and F-2**.

**Table F-1**
**(E) Designations for Projected Development Sites**
**(Heating and Hot Water System Restrictions)**

| Development Site | Block | Lots | Proposed (E) Designation |
|---|---|---|---|
| 1 | 1754 | 33,40 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 80 feet away from the lot line facing East 129th Street, and at least 10 feet away from the lot line facing East 130th Street, and no more than 82 feet away from the lot line facing Park Avenue, to avoid any potential significant air quality impacts. |
| 4[1] | 1775 | 3,6,165,168 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water stack(s) stack(s) is located at least 10 feet away from the lot line facing East 126th Street, or at least 10 feet away from the lot line facing East 128th Street, to avoid any potential significant air quality impacts. |
| 5[2] | 1751 | 40,137,33, 37,132,35,38,3, 6 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, to avoid any potential significant air quality impacts. |
| 6 | 1746 | 33 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, to avoid any potential significant air quality impacts. |
| 9 | 1774 | 68 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, to avoid any potential significant air quality impacts. |

[1] For the City-owned parcel located within Projected Development Site 4 (Block 1775, Lot 71), the implementation of the restrictions would be required through the Land Disposition Agreement between HPD and future developer with oversight provided through HPD. This agreement would require that any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water stack(s) stack(s) is located at least 10 feet from the lot line facing East 126th Street, or at least 10 feet from the lot line facing East 128th Street, to avoid any potential significant air quality impacts.

[2] For the City-owned parcel located within Projected Development Site 5 (Block 1751, Lot 34), the implementation of the restrictions would be required through the Land Disposition Agreement between HPD and future developer with oversight provided through HPD. This agreement would require that any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, to avoid any potential significant air quality impacts.

**Table F-1 (cont'd)**
**(E) Designations for Projected Development Sites**
**(Heating and Hot Water System Restrictions)**

| Development Site | Block | Lots | Proposed (E) Designation |
|---|---|---|---|
| 13 | 1786 | 4,47 | Any new residential and/or commercial development must either be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, **OR** must exclusively use natural gas as the type of fuel for heating and hot water systems and ensure that the heating and hot water systems stack(s) is located at least 52 feet away from the lot line facing East 122nd Street, and is at least 205 feet above grade, to avoid any potential significant air quality impacts. |
| 19[3] | 1634 | 34,35,36,37,38, 33 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, to avoid any potential significant air quality impacts. |
| 20 | 1654 | 3,4,45 | Any new residential and/or commercial development must either be fitted with low NOx (30ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 85 feet away from the lot line facing East 105th Street, **OR** must exclusively use natural gas as the type of fuel for heating and hot water systems and ensure that the heating and hot water systems stack(s) is located at least 138 feet away from the lot line facing East 105th Street, to avoid any potential significant air quality impacts |
| 21 | 1632 | 37,40,35 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, to avoid any potential significant air quality impacts. |
| 22 | 1771 | 33,36 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, to avoid any potential significant air quality impacts. |
| 27[4] | 1785 | 104 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 128 feet above grade, to avoid any potential significant air quality impacts. |

[3] (E) Designation is required as a result of the cluster analysis.

[4] For the City-owned parcel located within Projected Development Site 27 (Block 1785, Lot 1), the implementation of the restrictions would be required through the Land Disposition Agreement between HPD and future developer with oversight provided through HPD. This agreement would require that any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 128 feet above grade, to avoid any potential significant air quality impacts.

**Table F-1 (cont'd)**
**(E) Designations for Projected Development Sites**
**(Heating and Hot Water System Restrictions)**

| Development Site | Block | Lots | Proposed (E) Designation |
|---|---|---|---|
| 31 | 1622 | 33 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located no more than 15 feet away from the lot line facing East 116th Street, to avoid any potential significant air quality impacts. |
| 33[5] | 1655 | 1,3,102 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, to avoid any potential significant air quality impacts. |
| 36 | 1772 | 55 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water system, and ensure that the heating and hot water stack(s) is located no more than 53 feet away from the lot line facing Lexington Avenue, to avoid any potential significant air quality impacts. |
| 42 | 1638 | 56 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that heating and hot water stack(s) is located at least 75 feet above grade, to avoid any potential significant air quality impacts. |
| 43 | 1637 | 51,52,21,22 | Any new residential and/or commercial development must either be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water stack(s) is located no more than 110 feet away from the lot line facing East 110th Street and is at least 83 feet above grade, **OR** must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that heating and hot water stack(s) is located at least 95 feet above grade, to avoid any potential significant air quality impacts. |
| 45 | 1635 | 149,150 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems and ensure that the heating and hot water system stack(s) is located no more than 28 feet away from the lot line facing Lexington Avenue, to avoid any potential significant air quality impacts |
| 47 | 1634 | 158 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 10 feet away from the lot line facing Park Avenue, to avoid any potential significant air quality impacts |

[5] (E) Designation is required as a result of the cluster analysis.

**Table F-1 (cont'd)**
**(E) Designations for Projected Development Sites**
**(Heating and Hot Water System Restrictions)**

| Development Site | Block | Lots | Proposed (E) Designation |
|---|---|---|---|
| 49 | 1643 | 41 | Any new residential and/or commercial development must be fitted with low NOx (20 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 30 feet away from the lot line facing East 116th Street, and at least 58 feet away from the lot line facing Third Avenue, and is at least 120 feet above grade, to avoid any potential significant air quality impacts. |
| 50 | 1667 | 102 | Any new residential and/or commercial development must be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, to avoid any potential significant air quality impacts. |
| 53 | 1786 | 28 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 10 feet away from the lot line facing East 121st Street, to avoid any potential significant air quality impacts |
| 54 | 1786 | 123,23,22,121 | Any new residential and/or commercial development must be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 39 feet away from the lot line facing East 122nd Street, to avoid any potential significant air quality impacts |
| 55 | 1785 | 23,22,21 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, to avoid any potential significant air quality impacts. |

**Table F-2**
**(E) Designations for Potential Development Sites**
**(Heating and Hot Water System Restrictions)**

| Development Site | Block | Lots | Proposed (E) Designation |
|---|---|---|---|
| E | 1644 | 37,38,39 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, to avoid any potential significant air quality impacts. |
| H[6] | 1633 | 39,38 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, to avoid any potential significant air quality impacts. |
| I | 1643 | 38,40,39 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems. In the event that development occurs on Block 1643, Lots 33, 35, 37, and 137, ensure that the heating and hot water system stack(s) is located at least 225 feet above grade, to avoid any potential significant air quality impacts. |
| J | 1639 | 39,40,41,38,137 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, to avoid any potential significant air quality impacts. |
| R | 1748 | p/o 1 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, to avoid any potential significant air quality impacts. |
| S | 1667 | 45 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, to avoid any potential significant air quality impacts. |
| U | 1655 | 45 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water system. In the event that development occurs on Block 1655, Lots 1, 3 and 102, ensure that the heating and hot water system stack(s) is located at least 265 feet above grade, to avoid any potential significant air quality impacts. |

[6] (E) Designation is required as a result of the cluster analysis.

**Table F-2**
**(E) Designations for Potential Development Sites**
**(Heating and Hot Water System Restrictions)**

| Development Site | Block | Lots | Proposed (E) Designation |
|---|---|---|---|
| V | 1775 | 170 | Any new residential and/or commercial development must either be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 220 feet above grade, **OR** must exclusively use natural gas as the type of fuel for heating and hot water systems and ensure that the heating and hot water systems stack(s) is located no more than 70 feet away from the lot line facing East 128th Street, and is at least 220 feet above grade, to avoid any potential significant air quality impacts. |
| AB | 1635 | 51,52 | Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, to avoid any potential significant air quality impacts. |
| AE | 1643 | 48,47 | Any new residential and/or commercial development must be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 40 feet away from the lot line facing Lexington Avenue, to avoid any potential significant air quality impacts. |

*CITY-OWNED PARCELS*

For the City-owned parcels located within Projected Development Sites 4 (Block 1775, Lot 71), 5 (Block 1751, lot 34), and 27 (Block 1785, Lot 1) the implementation of the restrictions would be required through the Land Disposition Agreement between HPD and future developer with oversight provided through HPD. ✷