DEPARTMENTAL MEMORANDUM

TO: Borough Superintendents

FROM: Director of Operations; Irving E. Minkin, P.E.

SUBJECT: VENTILATION FOR ENCLOSED BOILER ROOMS

I. APPLICABILITY

1. The following details described in item II shall be applicable to existing or replacement boilers or furnaces in buildings occupied as multiple dwellings and built under the provisions of law other than the new code (1968). Fire retarding and ventilation for spaces containing boilers or furnaces installed in any building built or altered under the provisions of the new code (1968) must comply with the provisions of sub-article C26-704.0 entitled "Boiler and Furnace Rooms," and section C26-1408.1, together with the relevant provisions of RS 14-2 for gas appliances or RS 14-3 for fuel oil installations.

2. Under the provisions of department memorandum dated September 13, 1971, entitled "Boiler Room Enclosures, Section 65 M.D.L.," unless stipulated otherwise by the applicant, all applications filed for boiler room enclosures shall be presumed to be filed for examination under the old Building Code, and related building laws.

II. BOILER ROOM VENTILATION - OLD BUILDING CODE

The room in which the boiler is located shall have adequate fixed fresh air supply to insure proper combustion. Such minimum required fixed fresh air supply shall be as follows:

1. Oil fired boilers - fixed ventilation of 15 square inches per gallon of oil fired.

2. Gas fired boilers - fixed ventilation of one square inch per 1,000 B.T.U. input.

The fixed fresh air supply to the boiler room may be obtained by any of the following methods. Fire dampers shall be provided at all fresh air intakes except as otherwise noted herein.
1. When one of the enclosing walls of the boiler room is also an exterior wall of the building which faces a rear yard, front yard, area way or court whose least dimension is 20 feet, the fresh air supply to the boiler room may be obtained by providing a fixed louver with screen in the exterior wall.

2. When no enclosing wall of the boiler is also an exterior wall of the building which faces a rear yard, front yard, area way or court whose least dimension is 20 feet, the fresh air supply to the boiler room must be obtained by constructing a duct from the boiler room to such exterior wall. The duct shall be constructed of 26 gauge sheet metal, have a minimum cross-sectional area of 144 square inches and be supported in accordance with Rule No. 26 of the "Rules Relating to the Installation of Ventilating and Air Conditioning Systems" (June 1, 1959); and shall be fire-retarded with metal or gypsum lath and one (1) inch of cement or gypsum plaster, metal lath and one (1) inch vermiculite plaster or any combination of incombustible materials providing a minimum equivalent fire-resistant rating of one (1) hour.

3. The fire retarding of the duct noted in 2. above may be omitted if the fire damper required at the fresh air intake is placed instead at the boiler room enclosing wall.

4. Under no circumstances can the fresh air intake in cellars or basements be from an adjoining room or space within the building. In levels wholly above grade, the Borough Superintendent may authorize a fresh air intake of proper size and fire damper to be located so as to obtain air from an adjoining interior space, provided such space either has adequate mechanical ventilation to meet the needs of both spaces; or, alternately, is a habitable room without storm windows and in which the natural ventilation meets the needs of both spaces.

III BOILER ROOM VENTILATION - NEW BUILDING CODE

Boiler room ventilation (and related fire protection thereof) described above for existing buildings under the old Building Code can be utilized under the new Building Code, provided sub-article 704.0 is also complied with.

Alternately, the provisions of sub-article 704.0, C26-1408.1, and either Reference Standard RS 14-2 or Reference Standard RS 14-3, as appropriate, shall be complied with, subject to the following restrictions:
1. Oil fired boilers - an air supply of 36 cfm/gal. oil/hr. specified in section C26-1408.1 supersedes any lesser provision of Reference Standard RS 14-3.

2. All boilers - the fresh air intake location, duct fire retarding, and fire damper requirements shall conform to the details described in item II above.

Irving E. Minkin, P.E.
Director of Operations

CC: Commissioners
Exec. Staff
BCAC