Re: Fresh Air Requirements
Section C26-1206.3 E.C.

Dear Mr. Masters:

Your recent letter asking for an interpretation of Section C-26 1206.3 E.C. concerning fresh air requirements for a fan-coil cooling heating system in a building having operable windows and a mechanical toilet and/or kitchen exhaust has been received.

In your letter you desire to utilize air leakage or infiltration around windows caused by the exhaust of air from the bathroom and kitchens as the source of supply air required by Table 12-2 of Section C26-1206.3. This premise is in error for the following reasons:

a. The exhaust system for bathrooms of apartment houses is not operated continuously whereas the fresh air specified in Table 12-2 is required during the continuous occupancy of the apartment. The Multiple Dwelling Law specifies that the exhaust system for bathrooms be operated continuously only from 6 A.M. to 12 mid-night.

b. Table 12-2 of Section C26-1206.3 for air conditioned rooms specifies required minimum supply and exhaust air quantities. The implication is that the supply air comes from a natural ventilation source specified in Section C26-1205.5 and not come as a result of leakage or infiltration. Note that Sections C26-1206.3(c) and (d) permit leakage or infiltration to make the exhaust system effective, but does not extend this option to the supply air.

c. The assumption that the air entering the apartment as a result of the exhaust from the bathroom and kitchen occurs only as a result of leakage around the windows is erroneous. Undesirable air can also enter the apartment through leakage or infiltration at the corridor doors and at cracks or openings in walls, floor and ceiling of adjoining apartments.

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d. Air infiltration or leakage is variable and non-uniform throughout the year, depending on the temperature, materials and clearances at the windows. In addition, the rooms closest to the exhaust will receive the major share of the infiltration, whereas more distant rooms will receive little to no fresh air.

Should you desire further clarification or interpretation, please communicate with me.

Sincerely,

[Signature]

Philip E. Olin, P.E.
Ass't. Dir. of Operations

PEO/sl

cc: J. Stein, J. Cooke, T.V. Burke,
I.E. Linkin,
Borough Superintendents
J. Calabro (Ethlyn), P. Crapo (Man.)
S. Eller (Queens)
M. Hassman, H. Reitman (Queens)
C.I.O.I.