



BUILDINGS BULLETIN 2014-004
Technical

Supersedes: None

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Purpose: This document clarifies when a redundant smoke detector required by section MC 607.3.2.1, Item 1, may be omitted.

Related Code/Zoning Section(s):

MC 607.3.2.1	BC 907.11
MC 606.2	

Subject(s): Air distribution system, supply air system, smoke damper, smoke detector; Air distribution system, return air system, smoke damper, smoke detector; Smoke damper, smoke damper actuation, smoke detector; Smoke detector, duct

Section MC 607.3.2.1 of the 2008 NYC Mechanical Code requires that smoke dampers, installed in duct systems, close upon the actuation of a listed smoke detector or detectors. Additionally section MC 607.3.2.1, Item 1, requires that a smoke detector be installed within 5 feet of a smoke damper installed within a duct. However, the Department interprets that a smoke detector at each damper in ducted supply and return air systems meeting all of the following conditions below is deemed redundant and may be omitted:

1. Supply Air Systems:
 - a. A duct smoke detector shall be installed upstream and within 5 feet of the first smoke damper located downstream of the supply air fan. Upon actuation of this smoke detector, the supply air fan shall shut down and all smoke dampers, associated with the supply air system shall automatically close.
 - b. All supply air fan systems serving the floor or area of alarm shall shutdown and all associated smoke dampers shall close upon the actuation of any automatic alarm initiating device located on the alarm floor(s). Such initiating devices shall include, but not be limited to, area smoke detectors and water flow switches. Area alarm initiating devices shall be connected to the buildings fire alarm system as required by the New York City Building Code.
 - c. A smoke detector shall be installed in ducted supply air systems within 5 feet, on the downstream side, of any electric duct reheat coil before any branch outlet in the supply air ducts.
 - d. Supply air systems shall be equipped with duct smoke detectors as required by sections BC 907.11 and MC 606.2.

2. Return Air Systems:
 - a. All return air fan systems serving the floor or area of alarm shall shutdown and all associated smoke dampers shall close upon the actuation of any automatic alarm initiating device located on the alarm floor(s). Such initiating devices shall include, but not be limited to, area smoke detectors and water flow switches. Area alarm initiating devices shall be connected to the buildings fire alarm system as required by the New York City Building Code.
 - b. Non-ducted return air systems shall have a smoke detector located within 5 feet, on the upstream side, of each return air opening required to be protected by a smoke damper, in all 2 hour fire rated barriers.
 - c. Ducted return air systems shall have a smoke detector located within 5 feet upstream of each smoke damper. Where no return air inlets are present downstream of such smoke detector, additional smoke detectors shall not be required within 5 feet of smoke dampers located downstream of such smoke detector.
 - d. Return air systems shall be equipped with duct smoke detectors as required by sections BC 907.11 and MC 606.2.
3. For the purpose of this bulletin, combination fire/smoke dampers shall be treated and controlled as smoke dampers.