Informal Interpretation Report
Number 7711

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Section 907.3.1

Question:

Are duct mounted smoke detectors required in both supply and return air ducts in units with 2000 cfm and above?

Answer

This item went before the FBC in the Fall of 2015, the commission stated that there was "not a conflict" between the building and fire codes. That leaves the interpretation up to the local AHJ. Building requires it in the return and fire requires it in the supply..... So, if there is no conflict..... it is required on both sides.

Commentary:

It should be noted that FBC Code does not reference NFPA 90A, but NFPA 90A still requires smoke detectors in the supply. FBC diverges from NFPA 90A because the International Code now also diverges. Both the International Code and the FBC require smoke detectors in the return.

The Building Departments generally require compliance with FBC and the Fire Departments usually require compliance with NFPA 90A, so as a practical matter there are two detectors required, one in the supply and one in the return. This is true, even though analysis of unreferenced NFPA 90A is (now) beyond the scope of this forum.

One detector (The one in the return) gives "earliest warning" of a fire in the space; the one in the supply heralds a fire in the air handling unit or fan.

Bottom Line, put 'em both in.

Notice:
The Building Officials Association of Florida, in cooperation with the Florida Building Commission, the Florida Department of Business & Professional Regulation, ICC, and industry and professional experts offer this interpretation of the Florida Building Code in the interest of consistency in their application statewide. This interpretation is informal, non-binding and subject to acceptance and approval by the local building official.