

BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing
AIBC, EGBC, BOABC

File No: 18-0107

INTERPRETATION

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Interpretation Date:	July 20, 2021
Building Code Edition:	BC Building Code 2018
Subject:	Waiver of Fire & Smoke Dampers
Keywords:	smoke dampers, fire dampers, supply ducts
Building Code Reference(s):	3.1.8.8.(2)(a)(i), 3.1.8.9.(2)(a)(i)

Question:

Subclauses 3.1.8.8.(2)(a)(i) and 3.1.8.9.(2)(a)(i) waive the requirement for fire dampers and smoke dampers respectively when all the following conditions are met:

1. The ducts are noncombustible with a melting point above 760° C.
2. The ducts are branch lines.
3. The ducts penetrate a fire separation.
4. The ducts have a cross sectional area of not more than 0.013 m².
5. The ducts serve only air-conditioning units or combined air-conditioning and heating units.
6. The ducts discharge air not more than 1.2 m. above the floor.

Is it the intent that the location of the penetration through the vertical fire separation coincide with the location of the air discharge louvre?

Interpretation:

No

Subclauses 3.1.8.8.(2)(a)(i) and 3.1.8.9.(2)(a)(i) do not stipulate where the air discharge louvres are in relationship to the penetration of the vertical fire separation.

Since the supply ducts are so small and the air discharge louvres are located low on the wall, the risk of fire and smoke migration into the vertical duct shaft is relatively low.

It should be noted that it is critical to avoid other entry points for fire and smoke into the branch ducts, so all joints in the branch duct network must be carefully sealed to prevent smoke infiltration. The perimeter of the duct penetration through the vertical fire separation must be fire-stopped.



Patrick Shek, P.Eng., CP, FEC, Committee Chair

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