

BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing
AIBC, EGBC, BOABC

File No: 18-0024

INTERPRETATION

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Interpretation Date:	December 17, 2019
Building Code Edition:	BC Building Code 2018
Subject:	Smoke venting for basement storage garage levels of a high building
Keywords:	Smoke venting, high building, basement, storage garage
Building Code Reference(s):	3.2.6.6.(1), Note A-3.2.6.6.(1), 3.2.6.7.(2)(i)(i), Note A-3.2.6.7.(2), 3.2.7.9.(1)(d)

Question:

1. Basement storage garage levels below a high building are typically interconnected by vehicle ramps as permitted by Sentence 3.2.8.2.(2). Is smoke venting in the basement storage garage of a high building required to be controlled on a floor by floor basis?
2. Is the smoke venting in the basement storage garage of a high building required to be actuated automatically?

Interpretation:

1. Yes.

Sentence 3.2.6.6.(1) requires means of smoke venting of each floor area to the outdoors to be provided by windows, wall panels, smoke shafts, or the building exhaust system - See Notes to Part 3, A-3.2.6.6.(1).

Notes to Part 3, A-3.2.6.6.(9) indicates that the building air handling system may be used for smoke venting, provided the system can maintain an exhaust to the outdoors at the rate of 6 air changes per hour from any floor area, and emergency power is provided to the exhaust fans per Clause 3.2.7.9.(1)(d).

2. No.

Assuming there is no continuously staffed auxiliary equipment control centre, Subclause 3.2.6.7.(2)(i)(i) requires that a high building central alarm and control facility provide means as appropriate to actuate auxiliary equipment identified in Article 3.2.6.6 (venting to aid in firefighting). This does not specify manual or automatic actuation. Manual controls should be provided so that the responding fire department are able to control the smoke venting system based on their specific assessment of conditions and firefighting operations. However, smoke control systems that are also actuated automatically are deemed to meet the intent of Subclause 3.2.6.7.(2)(i)(i).



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

The views expressed are the consensus of the joint committee with members representing AIBC, EGBC and BOABC, which form the BC Building Code Interpretation Committee. The Building and Safety Standards Branch, Province of BC and the City of Vancouver participate in the committee's proceedings with respect to interpretations of the BC Building Code. The purpose of the committee is to encourage uniform province wide interpretation of the BC Building Code. These views should not be considered as the official interpretation of legislated requirements based on the BC Building Code, as final responsibility for an interpretation rests with the local *Authority Having Jurisdiction*. The views of the joint committee should not be construed as legal advice.

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Notes to Part 3, A-3.2.6.7.(2) clarifies that "depending on the method of mechanical venting and air control that is selected for the building, additional controls may be required at the central alarm and control facility. These additional controls include those with a capability of opening closures to vents in shafts, stopping air-handling systems, and initiating mechanical air supply to stair shafts."

Consultation with the local fire department is advisable on the smoke venting system design and controls.

Refer also to past BC Building Code interpretation 12-0031 on controls for auxiliary equipment in a high building.



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