BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing AIBC, APEGBC, BOABC, POABC

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Interpretation Date:	May 19, 2015
Building Code Edition:	BC Building Code 2012
Subject:	Fire separation and means of egress from roof-top enclosure
Keywords:	Roof-top enclosures, service room, fire separation, egress
Building Code Reference(s):	3.1.8.3.(2)(c); 3.2.5.3.(1)(b), 3.3.1.3.(5)&(6); 3.3.1.14.(2); 3.6.2.1.(10)

Question:

This project is a one-storey building with multiple suites and multiple major occupancies (Groups A, D and E). The building has a roof-top enclosure that is less than 200 sq.m. which contains with fuel-fired mechanical equipment. This roof-top enclosure straddles 2 separate suites below, so the fire separation wall between 2 adjacent suites is directly beneath the roof-top enclosure. Subsection 3.2.2. does not require the roof assembly to have any fire resistance rating for this building based on size and occupancy.

- 1. Is the walking surface of the roof-top enclosure required to be constructed as a fire separation with a fire-resistance rating to satisfy the requirements of Sentence 3.6.2.1.(1)?
- 2. Can the fire separation wall between the 2 adjacent suites terminate at the underside of the roof assembly below the roof-top enclosure?
- 3. Can the means of egress from a roof-top enclosure be via a roof access hatch and fixed ladder?

Interpretation:

The answer to these questions depends upon the type of roof-top enclosure. The term "roof-top enclosure" is not defined the building code, so it could take a variety of forms. For example it could simply be a weather protection cover over a roof-top appliance that is open on the sides (i.e. an umbrella). Alternatively it could be a fully enclosed "service room" containing fuel-fired mechanical equipment.

R. J. Light, Committee Chair

The views expressed are the consensus of the joint committee with members representing AIBC, APEGBC, BOABC, and POABC, which form the BC Building Code Interpretation Committee. 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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The following answers apply to a weather protection cover:

- 1. No Refer to previous interpretation 06-0046. The building code requirements for this issue have not changed from the 2006 BCBC to the 2012 BCBC. A vertical fire separation demising wall that separates 2 suites may terminate at the underside of the roof deck as per 3.1.8.3.(2)(c)
- Yes There is no requirement to provide fire separation between a roof-top appliance and the building it serves - see 3.6.2.1.(10).
- 3. Yes Access to and egress from a "roof" is permitted to be via a fixed ladder and a roof hatch as per Clause 3.2.5.3.(1)(b).

The following answers apply to an enclosed rooftop service room:

- 1. Yes The walking surface of an enclosed roof-top service room would be considered to be a floor rather than a roof deck. In order to maintain the continuity of the vertical fire separation wall between adjacent suites, the wall may terminate at the underside of a floor assembly, provided that the floor assembly is constructed as a fire separation with the same fire-resistance rating as required for the demising wall between the 2 adjacent suites as per Clause 3.1.8.3.(2)(a) and Sentence 3.1.8.3.(4).
- 2. Yes provided the roof assembly is constructed as a fire separation as noted in Item 1 above.
- 3. No Clause 3.3.1.3.(5)(a) permits a roof-top enclosure to have an access to exit that leads to an exit that is located on the storey immediately below the roof.

Sentence 3.3.1.14.(2) waives the stair rise and run requirements for "stairs" that serve service spaces that are intended for occasional use for servicing equipment and machinery.

A vertical fixed ladder is not considered to be a "stair" for the purposes of Sentence 3.3.1.14.(2).

Note also that access to service equipment is also subject to the requirements of WorkSafe BC and access to elevator machine rooms is subject to the requirements of the BC Safety Authority.

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