


**BC BUILDING CODE INTERPRETATION COMMITTEE**  
**AIBC, APEGBC, BOABC, POABC**

<b>File No: 06-0005</b>	<b>INTERPRETATION</b>	<b>Page 1 of 2</b>
Interpretation Date:	January 29, 2008	
Building Code Edition:	BC Building Code 2006	
Subject:	Fire-resistance rating of kitchen exhaust duct shaft	
Keywords:	commercial cooking equipment, grease duct enclosure	
Building Code Reference(s):	1.5.1.2.; 2.7.2.1.(1); 3.6.3.1.; 2.7.2.1.; 6.2.2.6.(1); NFPA 96-2001, 4-7.2.2	
<b>Question:</b>	<p>NFPA 96-2001 edition requires commercial kitchen exhaust duct enclosures to have a 2 hour fire-resistance rating in buildings 4 storeys or more in building height. Sentence 6.2.2.6.(1) of the BC Building Code 2006 requires systems for commercial kitchen exhaust ducts to comply with NFPA 96, except as required by Sentence 3.6.3.1.(1) and Article 3.6.4.2. Sentence 3.6.3.1.(1) requires the fire separation for vertical service spaces (that is, shaft wall assemblies) to have a fire-resistance rating based on the adjacent floor assembly fire-resistance rating. Therefore, the minimum required fire-resistance rating for the vertical service space will be either ¾-hour or 1-hour fire-resistance rating depending on the required fire-resistance rating of the floor assembly.</p> <p>Does the commercial kitchen exhaust duct enclosure require a 2-hour fire-resistance rating in conformance with NFPA 96?</p>	
<b>Interpretation:</b>	<p>No. Article 2.7.2.1. clarifies that in the case of conflict between the provisions of the BC Building Code and those of a referenced document (such as NFPA 96), the provisions of the BC Building Code shall govern.</p> <p>Therefore, even though NFPA 96 requires a 2-hour fire-resistance rated enclosure for buildings 4-storeys or more in building height, Sentence 3.6.3.1.(1) only requires up to a 1-hour fire-resistance rating. It is interpreted that specific references from Sentence 6.2.2.6.(1) to Sentence 3.6.3.1.(1) (which determine the minimum fire-resistance rating of vertical service spaces) is intended to ensure that Sentence 3.6.3.1.(1) is used to determine the fire-resistance rating of kitchen exhaust duct enclosures.</p> <p>It is understood that standard construction practice is generally to comply with NFPA 96 and Sentence 3.6.3.1.(1), resulting in a 2-hour fire-resistance rated shaft enclosure in the above example. However, the application of the BC Building Code in this manner is not consistent with the code requirements. It is interpreted that this is not required. Consideration has been given to other code requirements that cross-reference aspects of other standards or additional code references.</p>	
 <b>R. J. Light, Committee Chair</b>		
<small>The views expressed are the consensus of the joint committee of 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.</small>		

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**Page 2 of 2**

Consideration has been given to:

1. Compatibility issues between the BCBC and the NFPA standards. That is, the fire-resistance ratings for floor assemblies are determined based on building height, building area, occupancy and the provision of automatic sprinkler protection. NFPA standards use different criteria to determine the fire-resistance rating for floor assemblies. Based on differences in determining building height alone may result in a different height classification under NFPA standards than required by the BCBC.
2. The logic used in other code requirements that cross-reference aspects of other standards or other code requirements. For example, Sentence 3.6.3.3.(2) states that a refuse chute shall have a fire-resistance rating conforming to 3.6.3.1.(1), but not less than required by Clause 3.6.3.1.(1)(a) or Article 6.2.2.6. To require the fire-resistance rating requirement of NFPA 96 to overrule the vertical service shaft requirements of Sentence 3.6.3.1.(1), similarly explicit wording would be expected.

Therefore, it is interpreted that specific references from Sentence 6.2.2.6.(1) to Sentence 3.6.3.1.(1) are intended to ensure that Sentence 3.6.3.1.(1) is used to determine the fire-resistance rating of kitchen exhaust duct enclosures.

  
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