


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

<b>File No: 06-0047B</b>	<b>INTERPRETATION</b>	<b>Page 1 of 2</b>
Interpretation Date:	June 16, 2009	
Building Code Edition:	BC Code 2006	
Subject:	Electrical wires or cables penetrating a vertical fire separation	
Keywords:	Electrical wiring, service penetration, fire separation	
Building Code Reference(s):	3.1.9.3.(2)	
<b>Question:</b>  In a Part 3 building, a non-combustible electrical service panel is installed adjacent to a vertical fire separation. Electrical wires, with combustible jackets, connect to the panel and penetrate an assembly with 1 hour fire-resistance rating. Each individual wire or group of wires is not more than 25 mm in diameter. The total aggregate dimension of all the electrical wires connected to the panel will be more than 25 mm. Does this arrangement comply with the Code?		
<b>Interpretation:</b>  Yes, with conditions.  The intent of Sentence 3.1.9.3.(2) is to allow electrical wires or cables, single or grouped, with combustible jackets, penetrating an assembly required to have a fire-resistance rating without being incorporated in the assembly at the time of testing provided that		
<ul style="list-style-type: none"><li>• the cable has a minimum FT4 rating, [Ref. 3.1.5.18.(1)(a)]</li><li>• the overall diameter of each penetration, single or grouped, is not more than 25 mm,</li><li>• the penetration is sealed by a listed fire stop system that meets ULC-S115, and [Ref. 3.1.9.1.(1)(a)]</li><li>• the fire stop system has an F rating not less than the fire-protection rating per Table 3.1.8.4. [Ref. 3.1.9.1.(1)(a)]</li></ul>		
 <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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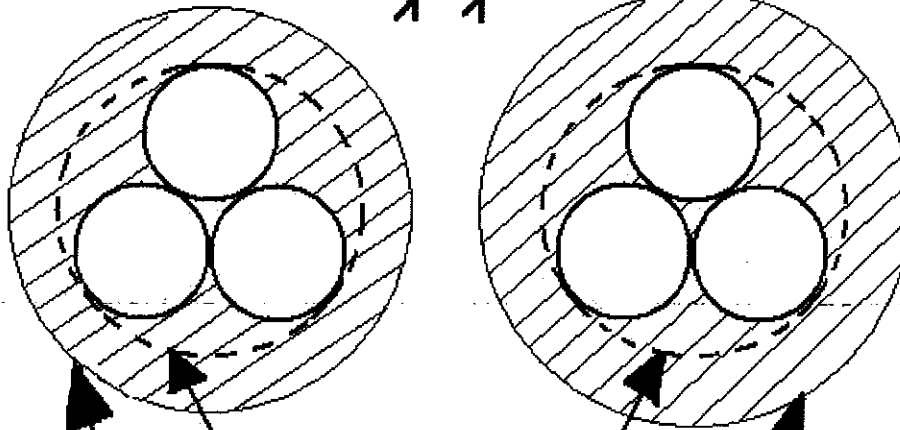
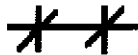
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The Code is silent regarding how far apart each penetration should be. The spacing between each penetration should follow the fire stop system manufacturers' technical literature in order to have enough space to install the fire stop system properly.

It should be noted that if electrical wires or cables penetrating a firewall, the penetration shall be sealed by a fire stop system that meets ULC-S115 with an FT rating not less than the fire-resistance rating of the firewall.

Spacing between penetrations is not regulated. Minimum spacing should be provided in order to maintain the structural integrity of the wall assembly between penetrations.



**Overall diameter of wires (single or grouped) is not more than 25 mm**

**Penetrations provided with listed fire stop system meets ULC-S115**

*R. J. Light*  
R. J. Light, Committee Chair

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