

BC BUILDING CODE INTERPRETATION COMMITTEE

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

File No: 12-0004

INTERPRETATION

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Interpretation Date:	May 21, 2013
Building Code Edition:	BC Building Code 2012
Subject:	Combustible & Non-combustible Pipe Transitions
Keywords:	Fire Stop Assemblies, Transitions
Building Code Reference(s):	2.2.10.4.(2) ; 3.1.9.2.(1) ; 3.1.9.4. ; 3.2.1.2. ; 9.10.9.7.

Question:

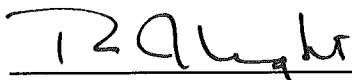
As transitions of combustible and non-combustible DWV are permitted in Part 7 of the BCBC where can they take place when buildings are constructed above a common 3.2.1.2. concrete slab fire separation?

Interpretation:

Where a project consists of a single or multi storey building constructed on top of a common parking garage the concrete slab above the parking garage is constructed in accordance with Article 3.2.1.2. and the pipe penetrations must include a listed fire stop assembly with a minimum FT rating.

Articles 3.1.9.4. and 9.10.9.7. require the fire stop assembly to be tested in accordance with ULC-S115-05 with a pressure differential of 50 Pa between the exposed and unexposed sides of the penetration, with the higher pressure on the exposed side. Also Sentence 3.1.9.2.(1) states that all combustible components of a fire stop assembly must be in place at the time of testing.

Part 8 of ULC-S115-05 indicates that the testing apparatus for piping being tested through the fire separation must extend to the dimensions noted above and below the fire stop penetration being tested. This would mean that any pipe couplings, connectors or transition fittings must be in the testing apparatus and if the test successfully obtained the necessary rating the added fittings would be noted in the listing drawing. Such is the case where cUL-F-B-2009 received a 2HR-FT rating with combustible piping through the separation and a transition coupling to non-combustible pipe located at 12 inches above the concrete fire separation.



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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Further information can be obtained in previous Interpretation 06-0070 that explains in detail where pipe transitions can occur above the 3.2.1.2.concrete slab fire separation where Part 3 multi storey buildings are constructed on top of the slab. Note that the 915mm dimension for transitions above the concrete slab is used because it would be above the required height of the fire stop assembly test apparatus indicated in ULC S115-05.

Also, previous Interpretation 98-0160 shows the same 915mm dimension for pipe transitions where buildings without horizontal fire separations at the floor levels above the parking garage concrete slab are constructed on top of a 3.2.1.2.concrete fire separation.

While a transition can be made anywhere above the noted 915mm any proposed transition below that point and the top of the slab must have a listed fire stop assembly that includes a transition fitting in the listing drawing for the chosen fire stop assembly through the concrete slab

It is also noted that where transition fittings are installed Sentence 2.2.10.4.(2) of the BC Plumbing Code requires the mechanical couplings be certified in compliance with CAN/CSA –B602 Standard for Mechanical Couplings used with DWV piping.



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