BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing

AIBC, APEGBC, BOABC, POABC

File No: 06-0070 **INTERPRETATION**

Interpretation Date:	May 18, 2010
Building Code Edition:	BC Building Code 2006
Subject:	Combustible DWV Piping
Keywords:	DWV Piping, flame spread rating
Building Code Reference(s):	3.1.5.16. ; 3.1.9.4.(3)(4)(5) ; 9.10.9.7.

Question:

1. Where a project consists of combustible townhouses or apartments built on top of a storage garage, is it acceptable to change the drain, waste and vent (DWV) piping material from noncombustible to combustible in multiple locations?
2. If so, would the change take place above or below the floor assembly required to be a fire separation above the storage garage that is not classified as a separate building?
3. If the storage garage is required to be of noncombustible construction in accordance with Subsection 3.2.2., are there specific requirements regarding the use of combustible DWV material?

Interpretation:

1. Yes - In accordance with Sentences 3.1.9.4.(4) and 9.10.9.7.(3), combustible piping is permitted through penetrations of a fire separation required to have a fire resistance rating where the installation is fire stopped and not located in a vertical shaft in conformance with Clauses 3.1.9.4.(4)(a)&(b) and 9.10.9.7.(2)&(3). If these requirements cannot be met, then the DWV piping system must be non-combustible throughout in accordance with Sentences 3.1.9.4.(3) and 9.10.9.7.(4)&(5).

2 It should be noted that where combustible DWV piping is used, combustible piping penetrations of fire separations required to have a fire resistance rating must use a listed fire stop system in accordance with Clauses 3.1.9.4.(a) and 9.10.9.7.(3). In accordance with CAN4-S115-M testing criteria, a change from non-combustible to combustible piping must occur a minimum of 915 mm above the fire separation. This includes fixture trap arms and sanitary tees located within this distance. (See drawing on Page 2). To comply with the fire stop assembly testing of a non-combustible pipe penetration, all drain , waste and vent piping below such penetration must be non-combustible piping material.

3. Where a combustible DWV piping system is used, the combustible piping materials must meet the requirements of Article 3.1.5.16. with regards to flame spread rating of not more than 25 and where necessary, a smoke development classification of not more than 50 for high

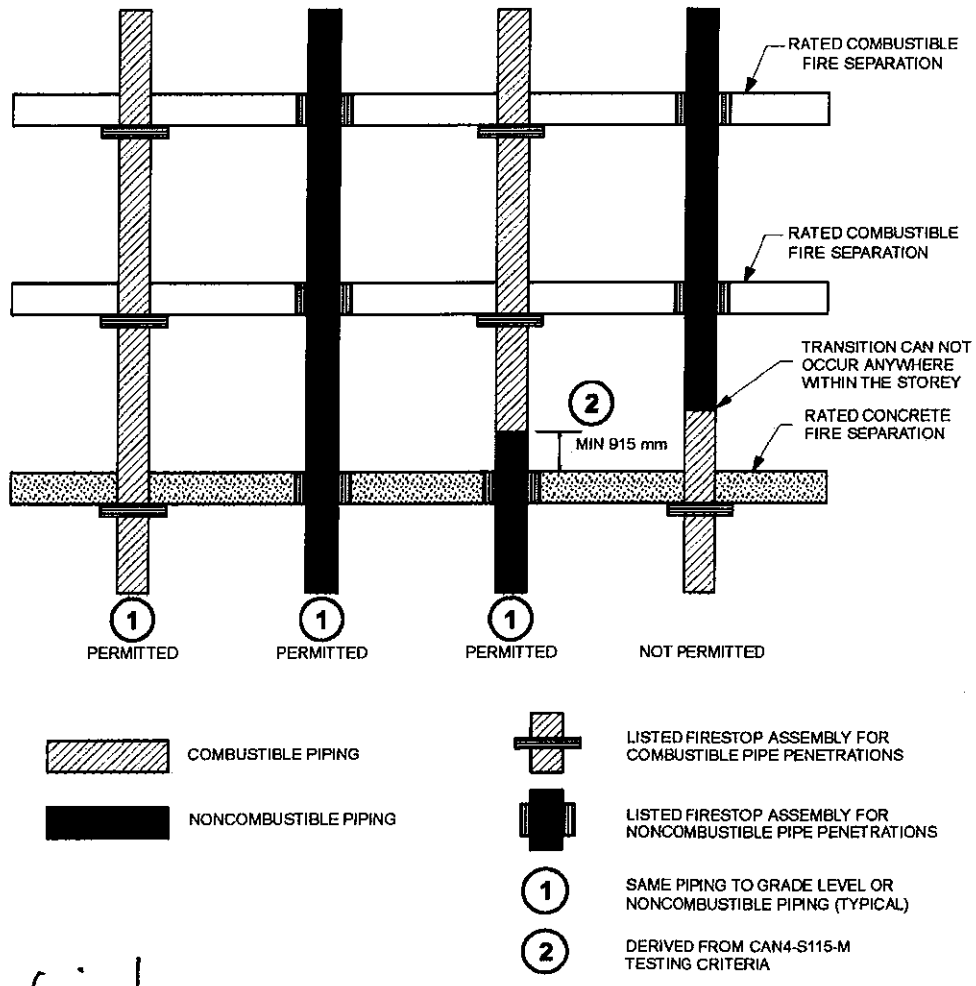
R. J. Light, Committee Chair

buildings in accordance with Subsection 3.2.6.. In accordance with Subsection 3.1.9. all penetrations must have a listed fire stop assembly consistent with the material utilized.

See drawings below illustrating these piping transition principles.

The example marked Not Permitted indicates that the transition from combustible to noncombustible piping is not acceptable anywhere within that storey. If the combustible pipe melts off due to a fire located within that storey it would result in an opening through the upper floor/ceiling fire separation, and therefore compromising the fire stop assembly.

Also, see previous Interpretation 98-0139 which contains the same conclusion.



R. J. Light, Committee Chair