

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

INTERPRETATION		
Interpretation Date:	March 27, 2002 (Admended May 17, 2002)	File No:
Building Code Edition:	BC Building Code 1998	98-0014
Subject:	Openings in Guards	
Keywords:	Openings, guards, climbability	
Building Code Reference(s):	3.4.6.5.; 3.4.6.7.; 9.8.8.4.; 9.8.8.5.	Page: 1 of <u>2129</u>

Question:

1. Does the 100mm opening referred to in Sentence 3.4.6.5.(5) (or Article 9.8.8.4.) apply to the triangular area between the tread, riser and a line drawn through the nosing of the stairs?
2. How is climbability of a guard measured along a flight of stairs?

Interpretation:

1. Yes.

Sentence 3.4.6.5.(5) specifically limits the size of any opening through a guard to not more than 100mm. The entire vertical plane alongside the stair needs to be protected by a guard, including the triangular portion created by the treads and risers. The code does not exempt any part of the guard, therefore the opening limit of 100mm applies to the entire vertical plane alongside the stair.

As a note of clarification, the previous BCBC, 1992 specifically exempted the triangular space created by the tread, riser and bottom rail of the guard from the 100mm minimum dimension of guard opening. Therefore, B.C. design and construction practices disregarded the minimum opening restriction for this triangular area when the 1992 BCBC was in effect.

2. Regarding climbability of a guard, Sentence 3.4.6.5.(7) does not permit any climbable members, attachment or opening between 140mm and 900mm above the level being protected by the guard. The datum point for measuring climbability of a guard is the entire surface of the stair tread, since this would be the surface upon which a person would be standing. This means that the guard design must preclude any climbable surface such as a stair stringer or curb at the side of the stair, since such a member would invariably be higher than 140mm above the stair tread. Similar requirements apply to Part 9 stairs with minor dimensional variations. (see spreadsheet on Page 2)

Sentence 3.4.6.5.(2) requires that the guard would have to be an absolute minimum of 920mm above the stair nosing.

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.

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

98-0014

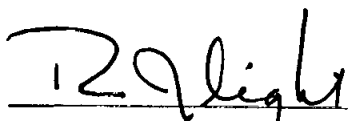
Page 2 of 2

Although this is the literal interpretation of the code, the Committee recognizes that this interpretation is not current industry practice in B.C. and would have a significant impact on the design and installation of guards. The Committee made a recommended code change to both the NBC and BCBC to respond to current industry practice. NRC has responded to this proposed code change with an alternate proposed code change. Until such time that a code change is formally adopted, the interpretation as noted above applies. See attached for details of the Committee's proposed code change and NRC's response.

We note further inconsistencies between Part 3 and Part 9 summarized in the Table below:

Guards and Climability - Differences Between Part 3 and Part 9

Subject	PART 3	PART 9	COMMENTS
Height of guard	<p>EXIT STAIRWAYS Not less than <u>920 mm</u> 3.4.6.5 (2).</p> <p>SERVICE STAIRWAYS May not conform to exit stairways. 3.3.1.13.(2)</p>	Not less than <u>900 mm</u> 9.8.8.2 (3)	Illustrates another example of different code wording within Part 9.
Maximum size opening through a guard	"...there shall be no opening that <u>permits</u> the passage of a sphere whose diameter is more than 100 mm" 3.4.6.5.(5).	"...shall be of a size which will <u>prevent</u> the passage of a spherical object having a diameter of 100 mm " 9.8.8.4(1).	Part 3 would permit a sphere of 100mm, while Part 9 would prevent a sphere of 100 mm.
Guards to prevent climbing	between <u>140mm</u> and 900mm above the level being protected by the guard. 3.4.6.5.(7) Applies to all occupancies	between <u>100mm</u> and 900mm above the floor or walking surface 9.8.8.5.(1). Applies only to residential occupancies.	-



R.J. Light, Committee Chair

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.