## WorkSafe Services

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## Services de travail sécuritaire

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October 22, 2007

"The Employer"

The Chief Compliance Officer is writing in response to the employer's letter of July 31, 2007, in which the employer requests a deviation from *Occupational Health and Safety Act* General Regulation 91-191 section 97 (2) that states:

A guardrail shall be made of wood, metal pipe, angle iron or wire rope and

- (a) if made of wood, the top rail, vertical supporting posts and intermediate rail shall be constructed of at least 50 mm  $\times$  100 mm No. 1 grade or better spruce or fir;
- (b) if made of metal pipe,
  - (i) the top rail and vertical supporting posts shall be at least 40 mm in diameter, and
  - (ii) the intermediate rail shall be at least 25 mm in diameter;
- (c) if made of angle iron,
  - (i) the top rail and vertical supporting posts shall be at least 40 mm  $\times$  40 mm  $\times$  5 mm, and
  - (ii) the intermediate rail shall be at least 32 mm  $\times$  32 mm  $\times$  3 mm; or
- (d) if made of wire rope,
  - (i) the vertical supporting posts shall be made of steel at least 40 mm in diameter or of a material of equivalent strength, and
  - (ii) the top rail and intermediate rail shall be at least 10 mm in diameter, be attached to a welded fastening on the vertical supporting posts with metal clips to prevent unnecessary sagging and be easily distinguishable from the background.

The employer indicates the following in the employer's request:

The employer is presently using a system which used ½" nylon rope as a top rail and intermedial rail. The guardrail system is placed daily and the rope is much easier to handle.

A visual inspection is done daily when the system is installed.

The system is installed when one of the four following employees are required to work on the roof (Air exchanger installer, the plumber, the electrician, roof insulation installer).

There is a fall arrest system in place in another location of the building where there is roofing installed.

The employer has provided photos of the system that is currently in place.

Before a deviation can be considered, the Chief Compliance Officer requires additional information as to the effectiveness of the employer's system to safely protect workers from falling. The information required is as follows and must be confirmed by the manufacturer of the system or an engineer competent on this matter.

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## The guardrail system must:

- (a) be pre-engineered and manufactured to be of sufficient strength and rigidity to support loads which may be imposed on it, with the following minimums:
  - i) 675 N (150 lbs) in any direction, at any point along the top rail,
  - ii) 450N (100lbs) in any direction, at any point along the intermediate rail and
  - iii) 900N (200 lbs) in any direction, at any point along the top rail, intermediate rail and toeboard if the guardrail is used on a surface that is sloped more than 3 in 12 and less than 6 in 12.
- (b) have a height of not less than 900 mm or more than 1.07 m from the floor level,
- (c) have vertical supporting posts not more than 2.4 m apart along its entire length unless otherwise specified in manufacturers specifications
- (d) have a toe board
  - (i) at least 127 mm high,
  - (ii) fastened to the inside of the vertical supporting posts, and
  - (iii) with a space not more than 6 mm between the bottom of the toeboard and the floor.
- (e) the vertical posts shall be adequately fastened to the structure to support the loads imposed upon it.
- (f) unless otherwise required by the manufacturer of the pre-engineered guardrail system, the top rail shall be fastened to the top or inside of the vertical supporting posts and the intermediate rail fastened to the inside of the vertical supporting posts midway between the top rail and the floor level.

By copy of this letter, the Chief Compliance Officer has advised WHSCC staff of the decision.

Yours truly,

Chief Compliance Officer