

EVACUATION AND RESCUE

G32.4(1) [Rope replacement](#)

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Regulatory excerpt

Section 32.4(1) of the *OHS Regulation* ("Regulation") states:

- (1) Ropes and associated rigging equipment used only for rescue or evacuation or training in such procedures must
 - (a) be of low stretch (static) kernmantle construction or equivalent,
 - (b) when new, have a minimum safety factor of 10 to 1, based upon a one-person load of 140 kilograms (300 pounds), and
 - (c) be replaced at intervals stated by the manufacturer, but not exceeding 5 years.

Section 32.5 of the *Regulation* states:

- (1) Ropes and associated equipment must be inspected visually and physically by qualified workers after each use for rescue, evacuation or training purposes.
- (2) Equipment must not be used after it
 - (a) has been overstressed,
 - (b) has been subject to temperatures above 150°C (300°F), or
 - (c) shows significant damage due to contact with chemicals or due to any other cause.

Section 32.6 of the *Regulation* states, in part:

- (2) Maintenance records must be kept, including but not limited to
 - ...
 - (c) the date put into service,
 - ...
- (3) Maintenance records must be available upon request to any worker concerned with the safe operation of the equipment or to an officer.

Section 4.3 of the *Regulation* states, in part:

- (2) Unless otherwise specified by this Regulation, the installation, inspection, testing, repair and maintenance of a tool, machine or piece of equipment must be carried out
 - (a) in accordance with the manufacturer's instructions and any standard the tool, machine or piece of equipment is required to meet, or
 - ...

Purpose of guideline

The purpose of this guideline is to clarify when rope needs to be replaced and the application of 32.4(1)(a) and (c) to associated rigging.

Associated rigging

The low stretch (static) kernmantle construction requirement of section 32.4(1)(a) and the five year replacement requirement of section 32.4(1)(c) do not apply to metallic rigging components such as carabiners. If a component has both textile and metallic parts only the textile components are subject to the minimum five year replacement interval. If the manufacturer of any rigging component specifies replacement intervals more frequent than the *Regulation*, section 4.3(2)(d) of the *Regulation* requires that they be followed.

The factor of safety requirements of 32.4(1)(b) apply to all associated rigging.

Rope replacement

The age of a rope is the time from when it was first put into service. A rescue rope is considered to be "in service" if it is available for use in life safety applications. Rescue ropes need to be replaced five years after they are put into service. The date put into service needs to be recorded in the maintenance records for the rope (the "rope log"). Manufacturer and user group test results on old ropes indicate that rope does not age until it

is first put into service.

A rope may need to be replaced before it is five years old based on the results of an inspection. Most manufacturers provide inspection criteria. If inspection criteria are provided section 4.3(2)(d) of the *Regulation* requires they be used. If a rope does not pass inspection because of wear or damage it needs to be replaced, even if it is not five years old.

Section 32.4(1)(c) requires that if a manufacturer recommends replacing ropes more frequently than every five years, their recommendations must be followed.