

PART 8: PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

LIMB AND BODY PROTECTION

- Leg protection** **8.21** (1) Leg protective devices must be worn by a worker operating a chain saw if there is a danger of leg injury.
- (2) Leg protective devices **referred to in subsection (1)** must meet **or exceed**
- (a)** the requirements **respecting the protective material coverage and stability set out in** *of WCB Standard, PPE 1-1997 Leg Protective Devices*; **and**
 - (b)** the cut-resistance test protocol of one of the following:
 - (i)** *WCB Standard, PPE 1-1997 Leg Protective Devices* (at a threshold chain speed of 18.3 metres per second or 3 600 feet per minute);
 - (ii)** *ASTM F 1414-04, Standard Test Method for Measurement of Cut Resistance to Chain Saw in Lower Body (Legs) Protective Clothing* (at a threshold chain speed of 16.8 metres per second or 3 300 feet per minute);
 - (iii)** *ISO 11393-2: 1999, Protective clothing for users of hand-held chain-saws - Part 2: Test methods and performance requirements for leg protectors* (at a Class 2 threshold chain speed of 24 metres per second or 4 724 feet per minute);
 - (iv)** *BS EN 381-5: 1995, Protective clothing for users of hand-held chain saws - Part 5: Requirements for leg protectors* (at a Class 2 threshold chain speed of 24 metres per second or 4 724 feet per minute).
- (3) Every leg protective device **referred to in subsection (1)** must have a label **that**
- (a)** **is** permanently affixed to the outer surface of the device, indicating the standard it meets; **and**
 - (b)** **clearly indicates**
 - (i)** the standards referred to in subsection (2) (a) and (b) that the leg protective device meets or exceeds;
 - (ii)** the associated threshold chain speed or Class referred to in subsection (2) (b) for the standard that the leg protective device meets or exceeds; and
 - (iii)** the name or trademark of the manufacturer of the leg protective device.
- (4) The requirement to wear leg protective devices does not apply to a firefighter using a chain saw at the scene of a structural fire.

Explanatory Note:

Section 8.21(2) of the Occupational Health and Safety Regulation currently references one standard for leg protective devices, *WCB Standard PPE 1-1997 Leg Protective Devices* ("the Standard"). Compliance with the Standard requires cut-resistance testing in accordance with equipment and procedures specified in the Standard. There was one test facility able to perform these tests, and it has closed. The likelihood of another test facility opening up to test to the WCB Standard performance requirements is remote.

The WCB Standard was developed by WorkSafeBC in the 1970s because at that time there were no published standards for protective clothing for chain saw operators. The Standard was updated in the mid-1990s. There are now several other published, internationally recognized standards which facilitate testing and certification of this type of clothing, and which, despite their differing test methodologies (hence their different threshold chainspeeds) ensure equivalent (or better) cut-resistance protection to that provided by the WCB Standard. These other standards are from the American Society for Testing Materials, the International Standards Organization and the European Committee for Standardization. Therefore, section 8.21 has been reviewed to phase out industry's use of the cut-resistance testing aspect of the WCB Standard and to update the section to reflect the development of these internationally recognized testing standards.

The protective material coverage (length and width) and stability (i.e., effectively secured, shrinkage limit, unravelling/fraying prevention) requirements of the WCB Standard (as distinct from the cut-resistance testing aspect) sometimes exceed the coverage/stability requirements of the other standards, and so these requirements of the WCB Standard are proposed for retention in the OHSR [section 8.21(2)].

Regarding proposed section 8.21 (2)(b)(ii): WorkSafeBC's Engineering Department recommended an increase to 3,300 feet per minute (fpm) from the 3,000 fpm threshold chain speed (TCS) quoted within the ASTM 1414-04 Standard itself, as Engineering felt this increase was required for that Standard's test protocol to render adequately safe results. The TCS's listed in section 8.21 (2)(b) for the three other Standards' test protocols are felt to be adequate and originate from within the respective Standards themselves.

These changes will ensure manufacturers have options for performance testing, regular re-testing, and certification of their products, and will provide their customers with legal use of a broader choice of products. Stakeholders, including manufacturers, will not need to contact WorkSafeBC for clarification on product testing and acceptability. Worker safety will be maintained or enhanced.