

**WORKSAFE SERVICES DIVISION
OCCUPATIONAL HEALTH AND SAFETY
LEGISLATIVE INTERPRETATIONS**



Topic	Welding - Flame retardant clothing	Issued by: V.P., WorkSafe Services
Statute	<i>Regulation 91-191</i>	Date Issued: September 8, 1997
Section	276	Date Revised:

276 An employer shall ensure that an employee engaged in a welding, cutting, burning or soldering operation wears, and an employee engaged in such an operation shall wear, appropriate protective equipment except that:

- a) the protective gloves required by paragraph 42(a) shall be leather gauntlet type gloves with arm protection, and
- (b) the adequate body covering required by paragraph 42(c) shall be flame retardant work clothing and an apron of leather or of other material offering equivalent protection

Question

Please define flame retardant clothing and material offering equivalent protection.

Response:

The intention of this new section is to ensure that workers wear protective equipment appropriate for the task they are performing. The concern in welding is the hazard presented by showers of sparks. Workers should be wearing clothing made of natural fibres such as 100% wool, cotton or denim. It is important, also, that such clothing be clean, that is, not soaked with grease, oil or other such combustible products. Workers should not be wearing clothing made of synthetic fibres some of which have been known to burst into flame or melt on the skin.

There is a section on Protective Clothing in a book entitled Welding Safety, Reference Guide, published by the Northern Alberta Institute of Technology. It recommends denim and cotton and suggests that the protective nature of the clothing can be increased by laundering it in Borax.

The second question asks for a definition of materials that provide protection equivalent to a leather apron. Leather is normally used in the welding trade. Asbestos aprons were also used because of the excellent fire retardancy factor but other health issues have made this material unattractive.

The Commission has no defined acceptable equivalent to leather, but other materials are not precluded from use if they are fire retardant, do not tend to hold welder's sparks and do not pose other health and safety concerns. This provision would cover something new that comes on the market.