

Table 7 – Extremes of temperature hazards

Area of exposure	Risks	Protection
Whole body	Heat exhaustion, heat stress, burns, scalding, contact with hot surfaces	Respiratory equipment, fire protective clothing, gloves
	Contact with cold surfaces, frostbite, hypothermia	Thermal clothing, footwear, headwear, gloves

People who may be exposed to extremes of temperature include: welders, foundry workers, electricians, mechanics, metal workers, chemical process operators, agricultural workers, machine operators, labourers, transport drivers, glass and ceramic workers, boilermakers, chefs and cooks, train drivers and engineers, drycleaners, firefighters, cold store workers, mechanical services plumbers, and all persons working in high or low ambient temperatures.

3.5.6 Radiation hazards

Electromagnetic radiation includes ultraviolet radiation, lasers and microwaves. A range of risks are associated with electromagnetic radiation including cancer, skin burns, reproductive toxicity, and changes to the nervous or cardiovascular systems. Radiation can lead to long term health problems.

Due to the wide range of the spectrum of electromagnetic radiation, the risk assessment must identify the type of radiation that workers are exposed to and the risks presented by that exposure. Various types of shields, aprons and masks are available where it is not practicable to protect workers from radiation by other means.

It is often possible, and always preferable, to isolate workers from radiation through controls other than personal protective equipment. For example, medical workers have adopted the simple procedure of leaving the room where a patient is undergoing an X-ray.

Ultra violet radiation from the sun is recognised as a hazard to the health of outdoor workers. The risk of exposure to sunlight should preferably be reduced by providing shade or scheduling outdoor work to hours other than the middle of the day.

Where this is not practicable, personal protection should be provided by protective clothing eg broad brimmed hat, long sleeve shirt and sunscreen lotion (SPF 15+) in accordance with AS/NZS 2604 *Sunscreen products - Evaluation and classification*.

See Appendix 6
Other sources
of information

Light may present a hazard whether it originates from natural or artificial sources. Continuous exposure to glare from the sun reflecting off surfaces may cause irritation and swelling of the eyes. It can also lead to accidents resulting from poor vision. Sunglasses can reduce the risk to the eyes.

Intense forms of light from welding operations are another source of hazard. Electric arc welding flash can cause damage to the eyes so welding operations should be shielded by suitable flash-resistant screens to protect workers other than the welder. The welder will require a welder's helmet or other appropriate shield to protect the eyes.

Table 8 summarises some of the risks associated with radiation hazards. It also indicates some of the occupations commonly exposed to these risks and appropriate personal protective equipment designed to protect against them, where the other controls (eg design, substitution, redesign etc) are not practicable.