

Radiation Safety Act 1999

RADIATION SAFETY STANDARD

PR008:2010

Standard for premises at which Class 4 lasers are used to carry out cosmetic or health related procedures

Preface

Under section 17 of the *Radiation Safety Act 1999*, a possession licensee who, under a licence, possesses a laser apparatus to carry out a radiation practice, must ensure that the laser apparatus is not used unless the premises comply with the relevant standard.

This radiation safety standard PR008:2010 *Standard for premises at which Class 4 lasers are used to carry out cosmetic or health related procedures* is made under section 16 of the *Radiation Safety Act 1999*.

This standard sets the minimum safety criteria for premises at which laser apparatus are used to carry out cosmetic or health related procedures. Compliance with this standard will assist in ensuring that public and occupational exposure to radiation is minimised.

Queensland Health has prepared this standard based on information derived from reputable sources such as Standards Australia and Standards New Zealand.

The standard will be reviewed periodically to re-evaluate its currency and its appropriateness as the standard for premises at which laser apparatus is used to carry out cosmetic or health related procedures.

By ensuring compliance with this radiation safety standard, radiation protection in and around premises in Queensland will continue to be in accordance with the high standard set in this State for many years.

I, Paul Lucas, Deputy Premier and Minister for Health, pursuant to section 16(1) of the *Radiation Safety Act 1999*, make the radiation safety standard PR008:2010 *Standard for premises at which Class 4 lasers are used to carry out cosmetic or health related procedures*, for the purposes of the Act.

SIGNED

PAUL LUCAS MP
Deputy Premier
Minister for Health

19 / 08 / 2010

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Standard for premises at which Class 4 lasers are used to carry out cosmetic or health related procedures

Section 1 – General

1.1 Scope

This radiation safety standard sets out the minimum requirements for premises at which Class 4 lasers are used to carry out cosmetic or health related procedures.

1.2 Expiry

This radiation safety standard expires on 1 September 2020.

1.3 Documents

Documents which may provide some useful information are listed in Appendix A.

1.4 Definitions

In this standard –

“**Class 4 laser**” means a laser which permits human access to laser radiation in excess of the accessible emission limits in Table 4 for Class 3B of the Australian/New Zealand Standard *Laser Safety Part 1: Equipment classification, requirements and user’s guide* AS/NZS 2211.1:1997¹.

“**laser**” means any device which can be made to produce or amplify electromagnetic radiation in the wavelength range from 100 nanometres to 1 millimetre primarily by the process of controlled stimulated emission.

“**laser warning sign**” means the non-ionising radiation hazard symbol as described in Figure 2 of the Australian/New Zealand Standard *Laser Safety Part 1: Equipment classification, requirements and user’s guide* AS/NZS 2211.1:1997.

“**maximum permissible exposure**” means the non-ionising radiation limits which, under normal circumstances, persons may be exposed without suffering adverse effects. Maximum permissible exposure values are provided in Tables 7 and 8 of the Australian/New Zealand Standard *Laser Safety Part 1: Equipment classification, requirements and user’s guide* AS/NZS 2211.1:1997.

¹ Copies of the Australian/New Zealand Standard are available from Standards Australia, 232 St Pauls Terrace, Fortitude Valley, Brisbane.

Section 2 - Standard – Laser apparatus premises

Test	Compliance Test	Criteria for Passing the Test
Warning signs		
1	Radiation warning signs	<p>All entrances must display a laser warning sign.</p> <p>All access doors must have:</p> <p>(a) a visible warning sign which illuminates when the laser is in use; and</p> <p>(b) a warning sign which includes the following information:</p> <ul style="list-style-type: none"> • warning • laser in operation • do not enter when light above door is illuminated.
Ventilation		
2	Ventilation	<p>In cases where significant amounts of airborne debris are likely, ULPA filters, 99.999% efficient, with collection devices held not more than 2 centimetres from the point of evolution, must be available to capture 0.12 viral particulates, as well as the balance of contaminants (gases, bacteria, carbon etc), and removed by localised exhaust ventilation.</p> <p>The ventilation must be designed to ensure that infective agents are not passed downstream in the air handling/exhaust system.</p>
Fire extinguishing equipment		
3	Fire extinguishing equipment	<p>Fire extinguishing equipment (eg. fire extinguishers, fire blankets, wet cloth drapes) must be available in the laser treatment area. Non-flammable surgical drapes must be available for procedures where there is a risk of accidental irradiation.</p>
Windows		
4	Windows	<p>For premises in which lasers other than carbon dioxide lasers are used, non-flammable screens must be fitted inside any windows to protect a person outside the window from non-ionising radiation levels greater than the maximum permissible exposure from the radiation.</p>

Appendix A

Documents

Australian/New Zealand Standard. *Part 1: Equipment classification, requirements and user's guide.* AS/NZS 2211.1:1997.

Australian/New Zealand Standard. *Guide to the safe use of lasers in health care.* AS/NZS 4173:1994.