

SINGAPORE STANDARD

**Code of practice for safe use of lasers in
the building and construction industry**

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Kodi Engineering Services Pte Ltd
Ministry of Manpower
Nanyang Technological University
National Environment Agency
National University of Singapore
SETSCO Services Pte Ltd
Singapore Contractors Association Ltd
Singapore Institute of Surveyors and Valuers
Singapore Institution of Safety Officers

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Foreword

This Singapore Standard was prepared by Working Group appointed by the Technical Committee on Workplace Safety and Health under the direction of the General Engineering and Safety Standards Committee.

It is a revision of CP 86 : 2000 – ‘Code of practice for safe use of lasers in the building and construction industry’ and has been re-designated as SS 622.

The summary of changes from the 2000 edition is as follows:

- (a) Inclusion of risk management concepts.
- (b) Inclusion of summary of “Laser hazards and control measures” (Annex B) to provide readers an easy reference guide on laser hazards for different classes of laser instruments.
- (c) Inclusion of “Sample laser warning labels” in Annex A to provide readers an easy reference guide with common warning labels to be observed when using laser instruments of various classes.
- (d) Revision to align with the provisions of IEC 60825 – “Safety of lasers products” and its various parts.
- (e) Revision to align with local regulations and current industry practices.

In preparing this standard, reference was also made to the following publications:

1. AS 2397 Safe use of lasers in the building and construction industry
2. IEC 60825 Safety of laser products
3. IEC 60825-1 Safety of laser products – Part 1 : Equipment classification and requirements
4. IEC 60825-14 Safety of laser products – Part 14 : A User’s guide
5. Code of Practice on Workplace Safety and Health (WSH) Risk Management
6. Radiation Protection Act
7. Radiation Protection (Non- ionising Radiation) Regulations
8. Workplace Safety and Health Act
9. Workplace Safety and Health (Construction) Regulations
10. Workplace Safety and Health (Risk Management) Regulations

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Code of practice for safe use of lasers in the building and construction industry

1 Scope

1.1 This code sets out the specification and procedure for the safe use of lasers for the purpose of alignment, levelling, control and survey tasks in building operations or any work of engineering in the construction industry.

1.2 It replicates and complements the specifications found in IEC 60825, "Safety of laser products" that are relevant to such work, but excludes the design and manufacture of lasers and the use of lasers in other applications

1.3 This code is intended as a reference for persons concerned with the use of lasers for alignment, levelling, control and survey tasks in building operations or any work of engineering in the construction industry.

NOTE – Even though the code focus towards those building operations and construction as defined above, a substantial part of the material in the code is used for guidance for other similar laser applications, for instance in outdoor land surveys, marine surveys, metrology and machine alignment.

2 Normative references

The following referenced documents are indispensable for the application of this code. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60825-1	Safety of laser products – Part 1 : Equipment classification and requirements
Radiation Protection Act	