

SINGAPORE STANDARD

**Code of practice for factory layout –
Safety, health and welfare considerations**

(Formerly CP 27)



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Code of practice for factory layout – Safety, health and welfare considerations

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Singapore Civil Defence Force
Singapore Institution of Safety Officers
Singapore Manufacturers' Federation

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Foreword

This Singapore Standard was prepared by the 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 27 : 1999 – ‘Code of practice for factory layout – safety, health and welfare considerations’ which has been re-numbered as SS 567.

The purpose of this Code is to provide guidelines on safety, health and welfare to be taken into consideration when planning factory layout. In this revision, the Code is brought up-to-date in consideration of the transformation of the safety and health at work legislation in Singapore since 2006. In particular, with the shift from prescriptive regulations to goal-setting laws in the Workplace Safety and Health Act, the Code has been incorporated with recommended guidelines and good practices as specified by relevant national and international standards as well as documents issued by Singapore authorities. The language used has been simplified to enable easy understanding. The main revisions are:

1. Inclusion of a section on risk assessment to emphasise the importance of conducting assessment of risks arising from the work intended to be carried out and incorporating suitable risk control measures in the consideration for factory layout planning.
2. Alignment of the guidelines in site planning, means of escape and for flammable and explosive substances, to the updated requirements of the Code of Practice for Fire Precautions in Building.
3. Revision of the section on cranes to clarify the guidelines for bridge, gantry and overhead travelling cranes.
4. Update of requirements on lighting, ventilation, noise, heat and first aid.
5. Broadening of guidelines for toxic substances to cover hazardous substances.

This Code makes reference to the Code of Practice for Fire Precautions in Buildings, which is mentioned under the Fire Safety Act 1993 and the Fire Safety Regulations 1994 issued by the Singapore Civil Defence Force.

In revising this Code, references were made to the following publications:

- | | | |
|----|--|---|
| 1. | BS 1710 : 1984 (2007) | Identification of pipelines and services |
| 2. | BS EN ISO 6385 : 2004 | Ergonomic principles in the design of work systems |
| 3. | BS EN ISO 14122 series | Safety of machinery – Permanent means of access to machinery |
| 4. | BS EN 27243 : 1994 | Hot environments – Estimation of the heat stress on working man, based on the WBGT – index (wet bulb globe temperature) |
| 5. | SS 531 series | Code of practice for lighting of work places |
| 6. | SS 563 series | Code of practice for the design, installation and maintenance of emergency lighting and power supply systems in buildings |
| 7. | ACGIH Threshold limit values for chemical and physical agents 2011 | |

8. Code of practice for fire precautions in buildings 2007
9. Workplace Safety and Health Act 2006
10. Industrial ventilation: A manual of recommended practice, ACGIH 17th edition

Acknowledgement is made for the use of information from the above publications.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.*
2. *An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR.*
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Code of practice for factory layout – safety, health and welfare considerations

Section One – General

1.1 Scope and purpose

1.1.1 Scope

The Code shall apply to all premises which are used or intended to be used as factories.

1.1.2 Purpose

The purpose of this Code is to provide guidelines on the safety, health and welfare considerations to be taken in planning the factory layout. This Code is intended for factory occupiers, factory owners, engineers, architects, workplace safety and health professionals, developers and all those concerned directly or indirectly with factory layout.

1.2 Normative references

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

AS/NZS 1221	Fire hose reels
BS 1710	Identification of pipelines and services
BS 3169	Specification for first aid reel hoses for fire-fighting purpose
BS 4800	Schedule of paint colours for building purposes
ISO 817	Refrigerants – Designation system
SS CP 29	Code of practice for fire hydrant systems and hose reels
SS CP 55	Code of practice for use and maintenance of portable fire extinguishers
SS 232 series	Specification for portable fire extinguishers
SS 508 : -	Graphical symbols – Safety colours and safety signs Part 3: Safety signs used in workplaces and public areas
SS 531 series	Code of practice for lighting of work places.
SS 537 : -	Code of practice for safe use of machinery Part 1: General requirements
SS 550	Code of practice for installation, operation and maintenance of electric passenger and goods lifts

SS 553	Code of practice for air-conditioning and mechanical ventilation in buildings
SS 563 series	Code of practice for the design, installation and maintenance of emergency lighting and power supply systems in buildings
SS 569	Code of practice for manual handling
SS 586 : -	Specification for hazard communication for hazardous chemicals and dangerous goods Part 2: Globally harmonised system of classification and labelling of chemicals – Singapore’s adaptations Part 3: Preparation of safety data sheets (SDS)

Code of practice for fire precautions in buildings

WSH (Noise) Regulations

WSH (First Aid) Regulations and Guide to WSH (First Aid) Regulations

WSH (General Provisions) Regulations

WSH (Scaffolds) Regulations