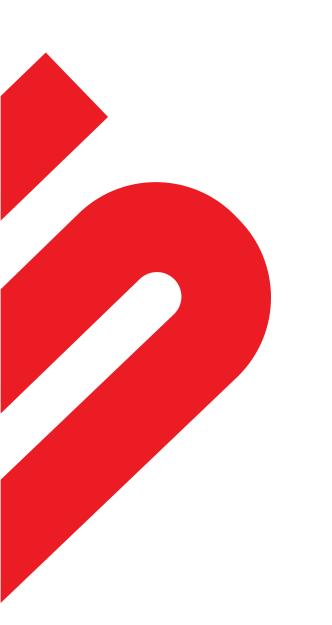




SINGAPORE STANDARD Code of practice for automatic fire sprinkler system

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Foreword

This Code of Practice was prepared by the Technical Committee on Building Services under the purview of the Building and Construction Standards Committee (BCSC).

This code is intended to provide good guidance on design, installation, commissioning and maintenance of automatic fire sprinkler systems.

Automatic fire sprinkler systems will not be regarded as complying with these recommendations unless the installation is designed and supervised by professional engineers recognised by the relevant authority as being in this class of work.

In this revision, new clauses were added and existing ones reviewed to bring the code in line with the latest in sprinkler systems concept and technology.

The following main topics were introduced:

- a) Disallowing the use of suction lift pumps;
- b) Incorporating the special sprinkler systems, e.g. ESFR, large drop and deluge sprinkler systems;
- c) Vortex inhibitor;
- d) Remote test valve;
- e) System component fault monitoring;
- f) Location of sprinkler control valve;
- g) Protection against exposure hazard; and
- h) Full hydraulic calculations.

The following changes were made:

- a) Including more definitions;
- b) Revising the criteria of defining the limit to a single sprinkler installation to area of protection instead of number of sprinklers;
- c) Updating the list of hazard classification to follow closely to AS standards;
- d) Renaming of hazard classification;
- e) Revising the submission procedures for water services for the sprinkler systems;
- f) Removing re-cycling pre-action sprinkler system;
- g) Revising requirements of pump sets;
- h) Revising requirements for water alarm gong;
- i) Revising exemption list for non provision of sprinkler; and
- (j) Increasing maximum spacing between sprinklers for ordinary hazard group.

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

- a) AS 2118: 1999 Code for automatic fire sprinkler systems
- b) AS 4118: 1996 Code for components of automatic fire sprinkler systems
- c) AS 2941: 1995 Code for fixed fire protection installation Pumpset systems
- d) NFPA 13: 1999 Installation of sprinkler systems
- e) NFPA 20: 1999 Installation of stationary pumps for fire protection
- f) Fire Precautions for Buildings 2002

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

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.
- 3. Compliance with a SS or TR does not exempt users from any legal obligations.

Code of practice for automatic fire sprinkler system

1 Scope

This code sets out requirements for the installation of automatic sprinkler systems in buildings. It also provides for occupancy classification.