# SINGAPORE STANDARD SS 546 : 2009

(ICS 13.320; 91.120)

### CODE OF PRACTICE FOR Emergency voice communication systems in buildings

(Formerly CP 25)

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#### Foreword

This Singapore Standard was prepared by the Technical Committee on Emergency Alarm and Communication Systems under the purview of the Electrical and Electronic Standards Committee. This standard is the result of the revision of Singapore Standard CP 25 : 1999 and has been renumbered as SS 546.

This Singapore Standard was revised to keep abreast of the progress of voice communication technology in building and to align the requirements with the new generation of high-rise buildings constructed in the recent years. The principal changes made in this revision were the addition of new clauses/sections for:

- a) messages, fault monitoring, power amplifiers, loud speaker zones and interface with the fire alarm system for 1-way EVC system;
- b) calls made from master handset at control station to remote handsets for 2-way EVC system;
- c) power supply in terms of forms of supply, battery charger and capacity;
- d) cable and wiring installation requirements to cover conductor sizing, protection of cables against fire and mechanical damage, transmission requirements of signals, and environmental conditions;
- e) recommended service plan for 1- and 2-way EVC systems;
- f) guidance for the design of emergency voice communication (EVC) systems (Annex A).

In preparing this standard, reference was made to the following British Standards:

- BS 5839 : Fire detection and alarm systems for buildings
  - Part 8 : 1998 Code of practice for the design, installation and servicing of voice alarm systems

Part 8 : 2008 Code of practice for the design, installation and servicing of voice alarm systems

Part 9 : 2003 Code of practice for the design, installation, commissioning and maintenance of emergency voice communication systems

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. SPRING Singapore shall not be held responsible for identifying any or all of such patent rights.

#### NOTE

1. Singapore Standards are subject to periodic review to keep abreast of technological changes and new technical developments. The changes in Singapore Standards are documented through the issue of either amendments or revisions.

2. Compliance with a Singapore Standard does not exempt users from legal obligations.

## Code of practice for emergency voice communication systems in buildings

#### Section One – General

#### 1.1 Scope and normative references

#### 1.1.1 Scope

This code applies to the planning, design, installation, maintenance and testing of emergency voice communication (EVC) systems in buildings and sets out the requirements for the basic system. Recommended procedures for the use of the system and other information of an advisory nature are given in the Annexes.

Section 1 covers General requirements. In Section 2, design considerations such as control station, system designs and their operational requirements are covered. Section 3 covers installation and maintenance requirements.

#### **1.1.2** Normative references

SS 299 : -	Fire resistant cables	
	Part 1 : 1998 Performance requirements for cables required to maintain circuit integrity under fire conditions	
SS CP 5 : 1998	Code of practice for electrical installations	
SS CP10 : 2005	Code of practice for installation and servicing of electrical fire alarm systems	
SS CP 19 : 2000	Code of practice for the installation and maintenance of emergency lighting and power supply systems in buildings	

#### 1.2 Definitions

For the purpose of this code the following definitions shall apply:

#### 1.2.1 Alarm sounding devices

Devices such as bells, sirens, horns etc., meant to emit a loud sound to alert the building occupants of an emergency.

#### **1.2.2** Central alarm and control station

A station or cabinet in which all the operational facilities for the emergency voice communication (EVC) system, the main fire alarm panel or repeater / mimic panel, sprinkler status indicators, lift supervisory panel, mechanical ventilation supervisory / control panel and status indicators for the essential building services are accommodated.

#### 1.2.3 Control station

A station or cabinet in which the operational facilities of the emergency voice communication (EVC) system are housed.