AS 1670.4:2018

Australian STANDARD

Fire detection, warning, control and intercom systems—System design, installation and commissioning

Part 4: Emergency warning and intercom systems

STANDARDS Australia

AS 1670.4:2018

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Department of Health and Human Services, Vic.
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Preface

This Standard was prepared by the Standards Australia Committee FP-002, Fire Detection, Warning, Control and Intercom Systems, to supersede AS 1670.4–2015, *Fire detection, warning, control and intercom systems — System design, installation and commissioning*, Part 4: *Emergency warning and intercom systems*.

The objective of this Standard is to specify the design, installation and commissioning requirements for emergency warning systems and emergency intercom systems used in buildings for the evacuation of building occupants in the event of a fire or other type of emergency.

This Standard specifies the use of emergency warning control and indicating equipment (EWCIE) which conforms to AS 4428.16, Grades 1. Four equipment Standards referenced in this Standard contain an applicable period. These Standards are listed at the end of Clause 1.3.

Maintenance requirements for emergency warning and intercom systems are given in AS 1851.

Appendices have been aligned with AS 1670.1 where the topics are the same.

The terms “normative” and “informative” have been used in this Standard to define the application of the appendices to which they apply. A “normative” appendix is an integral part of a Standard, whereas an “informative” appendix is only for information and guidance.

This edition also permits the use of two editions of relevant Standards relating to components. See Table 1.8 for the list of relevant editions of the Standards which apply throughout this document.

Notes to clauses in this Standard do not form a mandatory part for conformance with this Standard. They are of an advisory nature only and are used to give explanation or guidance to the user on recommended considerations or technical procedures, or to provide an informative cross-reference to other documents or publications.

Statements expressed in mandatory terms in notes to figures and tables are deemed to be requirements of this Standard.

Contents

Introduction

An emergency warning system and emergency intercom system functions as a life-safety system when it is installed within a building or site. It may utilize control and indicating equipment with full manual controls (e.g. AS 4428.16, Grade 1) in combination with an emergency intercom system (e.g. AS 4428.4).

The purpose of a system installed to this Standard is to facilitate an orderly evacuation, relocation or direction of personnel in emergencies such as, but not limited to, fire, smoke, civil commotion, bomb threats, siege, explosion, leakage of toxic substances or fumes, and structural damage. A guide to the development of evacuation procedures is described in AS 3745.

To achieve this aim, the emergency warning and emergency intercom system has the following capabilities as appropriate:

(a) Receive alarm signals from an emergency detection system.

(b) Delivery of intelligible speech for emergency announcements and directions.

(c) Provide audible, and where required, visual emergency warning signals.

(d) Provision for automatic and manual operation.

(e) Continuous operation under conditions of the emergency.

(f) Independence from other systems in manual operation.

(g) Provide means of communication between the chief warden and the floor or area wardens.

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Section 1 Scope and general

1.1 Scope

This Standard specifies requirements for the design, installation and commissioning of emergency warning and emergency intercom systems comprised of components conforming to the requirements of the applicable normatively referenced Standards.

NOTE 1 The general procedures for the use of the emergency warning and intercom system and the response of personnel are given in AS 3745.

NOTE 2 Where an installer's statement is requested a typical example is given in Appendix F.

1.2 Application

Where the emergency warning system functions are required, they shall be installed to meet the requirements of Sections 1, 2, 3 and 4 of this Standard. AS 4428.16 Grade 2 and Grade 3 emergency warning control and indicating equipment (EWCIE) shall not be used to satisfy the requirements of this Standard.

Where the emergency intercom system functions are required, they shall be installed to meet the requirements of Sections 1, 2, 3 and 5 of this Standard.

1.3 Normative references

The following are the normative documents referenced in this Standard:

NOTE 1 Documents referenced for informative purposes are listed in the Bibliography.

NOTE 2 See Clause 1.8 for the list of acceptable editions of the listed relevant normative references.

AS 1269, *Occupational noise management* (series)

AS 1603.11, *Automatic fire detection and alarm systems, Part 11: Visual warning devices*

AS 1603.17, *Automatic fire detection and alarm systems, Part 17: Warning equipment for people with hearing impairment*

AS 1670.1, *Fire detection, warning, control and intercom systems—System design, installation and commissioning, Part 1: Fire*

AS 1670.4 *Fire detection, warning, control and intercom systems—System design, installation and commissioning, Part 4: Emergency warning and intercom systems*

AS 2220.1, *Emergency warning and intercommunication systems in buildings, Part 1: Equipment design and manufacture*

AS 2484.2, *Fire—Glossary of terms, Part 2: Fire protection and firefighting equipment*

AS 4428.4, *Fire detection, warning, control and intercom systems—Control and indicating equipment, Part 4: Emergency intercom control and indicating equipment*

AS 4428.16, *Fire detection and alarm systems, Part 16: Emergency warning control and indicating equipment*