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COMMITTEE FP-017

DR 10029 CP

(Project ID: 7039)

Combined Postal Ballot/Draft for Public Comment Australian Standard

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FOR COMMENT:**

15 September 2010

Planning for emergencies in facilities

(Revision of AS 3745—2002)



STANDARDS
Australia

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Draft for Public Comment

Australian Standard

The committee responsible for the issue of this draft comprised representatives of organizations interested in the subject matter of the proposed Standard. These organizations are listed on the inside back cover.

Comments are invited on the technical content, wording and general arrangement of the draft.

The method for submission of comment on this document is to download the MS Word comment form found at <http://www.standards.org.au/LinkClick.aspx?fileticket=U4tr2CKfhU%3d&tabid=411>.

When completing the comment form ensure that the number of this draft, your name and organization (if applicable) is recorded. Please place relevant clause numbers beside each comment.

Editorial matters (i.e. spelling, punctuation, grammar etc.) will be corrected before final publication.

The coordination of the requirements of this draft with those of any related Standards is of particular importance and you are invited to point out any areas where this may be necessary.

Please provide supporting reasons and suggested wording for each comment. Where you consider that specific content is too simplistic, too complex or too detailed please provide an alternative.

If the draft is acceptable without change, an acknowledgment to this effect would be appreciated.

When completed, this form should be returned to the Projects Manager, Gerry Haddad via email to gerry.haddad@standards.org.au.

Normally no acknowledgment of comment is sent. All comments received electronically by the due date will be put before the relevant drafting committee. Because Standards committees operate electronically we cannot guarantee that comments submitted in hard copy will be considered along with those submitted electronically. Where appropriate, changes will be incorporated before the Standard is formally approved.

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STANDARDS AUSTRALIA

Committee FP-017—Emergency Management Procedures

DRAFT

Australian Standard

Planning for emergencies in facilities

(Revision of AS 3745—2002)

(To be AS 3745—201X)

Comment on the draft is invited from people and organizations concerned with this subject. It would be appreciated if those submitting comment would follow the guidelines given on the inside front cover.

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This document is a draft Australian Standard only and is liable to alteration in the light of comment received. It is not to be regarded as an Australian Standard until finally issued as such by Standards Australia.

PREFACE

This Standard was prepared by the Standards Australia Committee FP-017, Emergency Management Procedures, to supersede AS 3745—2002, *Emergency control organization and procedures for buildings, structures and workplaces*.

The objective of this Standard is to enhance the safety of people in facilities, by providing a framework for emergency planning, utilizing the built facilities as appropriate.

The objective of this revision is to make a greater distinction between emergency plans and emergency/evacuation procedures. It also includes expanded and revised sections on—

- (a) developing the emergency plan;
- (b) the duties of the emergency planning committee and emergency control organization;
- (c) provisions for occupants with a disability;
- (d) education and training; and
- (e) guidance on how to determine the size of the emergency control organization.

Changes have been made to the indemnity clauses affecting members of both the emergency planning committee and the emergency control organization

Where AS 4083—1997, *Planning for emergencies—Healthcare facilities* is used in conjunction with this Standard, it should be noted that the nomenclature of the emergency control organization (ECO) personnel is different for patient or resident occupied areas.

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is only for information and guidance.

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FOREWORD

The development and implementation of emergency plans and procedures are essential for the effective and efficient management of any emergency in a facility.

The requirements and recommendations in this Standard have been kept general so that they can be adapted to suit most facilities. Regardless of size and complexity of a facility, continual effort is needed to ensure that the arrangements are effective in an emergency.

All occupants and visitors regardless of their abilities have some obligation to take responsibility for their own safety and prepare a plan for evacuation during an emergency.

This Standard concerns emergency planning at the level of individual facilities. The emergency plan created using this Standard may form part of higher level emergency management or disaster management plan.

This Standard applies only to the human/life safety aspects of emergencies within facilities. Organizations may be assisted by taking into account how their emergency planning interacts with their other internal organizational strategies. These include the relationship between security and emergencies, management of different types of risk, and the business resilience of an organization following an emergency or disaster.

Standards Australia has published a range of standards that may provide assistance in developing an understanding of the broader context in which emergency procedures may function. These include:

AS/NZS ISO 31000 *Risk management—Principles and guidelines*

HB 436 *Risk Management Guidelines*

HB 167 *Security risk management*

AS 4421 *Guards and patrols*

HB 292 *A practitioner's guide to business continuity management*

HB 293 *Executive guide to business continuity management*

AS 3806 *Compliance programs.*

AS/NZS 5050 *Business continuity—Managing disruption-related risk*

STANDARDS AUSTRALIA

Australian Standard

Planning for emergencies in facilities

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard outlines the minimum requirements for the establishment, validation and implementation of an emergency plan for a facility to provide for the safety of occupants of that facility and its visitors leading up to, and during an evacuation.

It includes the following:

- (a) The formation, purpose, responsibility and training of the emergency planning committee.
- (b) Emergency identification.
- (c) The development of an emergency plan.
- (d) The development of emergency response procedures.
- (e) The establishment, authority and training of an emergency control organization.
- (f) The testing and validation of emergency response procedures.
- (g) Emergency related training.

This Standard does not cover facility operational incidents, community disaster management, business continuity, security management or major environmental impacts beyond the facility.

NOTES:

- 1 Guidance on planning and response for fire and smoke emergencies is given in Appendix A.
- 2 Guidance on planning and response for bomb threat is given in Appendix B.
- 3 Guidance on planning and response for civil disorder and illegal occupancy is given in Appendix C.
- 4 The information and guidance in Appendices A, B and C is not comprehensive enough to adequately plan for fire and smoke emergencies, bomb threat, and civil disorder and illegal occupancy.

1.2 APPLICATION

This Standard applies to buildings, structures or workplaces occupied by people, with the exception of Class 1a buildings as defined in the Building Code of Australia, unless that dwelling is also used as a workplace.

This Standard does not attempt to over-ride legislative obligations in providing for the safety of occupants and visitors in facilities.

It does, however, provide guidance for the planning and implementation of effective EPC and ECO procedures, covering emergency situations up until the appropriate Emergency Service arrives to manage the situation, at which time, the ECO shall work in conjunction with that service.

The emergencies referred to in this Standard do not exclusively represent the likely range of emergencies that may occur in a facility. The range of specific emergencies shall be identified for each facility.

1.3 NORMATIVE REFERENCES

The following documents are indispensable to the application of this Standard:

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

AS

2700 Colour Standards for general purposes

AS/NZS

1841 Portable fire extinguishers

1841.1 Part 1: General requirements

Australian Bomb Data Centre, Bombs, Defusing the Threat

Building Code of Australia

Commonwealth Disability Discrimination Act 1992 (DDA)

1.4 DEFINITIONS

For the purpose of this Standard, the definitions below apply.

1.4.1 Assembly area(s)

The designated place or places where people assemble during the course of an evacuation.

1.4.2 Bomb

A device of any size or shape, which can look obvious or be camouflaged, may vary in its sophistication, and may not necessarily explode (i.e. incendiaries, toxic/noxious substances, sharps, animals/reptiles). May be referred to as an improvised explosive device (IED).

NOTE: Specific types of bombs are described in Appendix B, Paragraph B8.

1.4.3 Bomb threat

A threat, written or verbal, delivered by electronic, oral, or other medium, threatening to place or use an explosive, chemical, biological, or radiological device at a time, date, place or against a specific person or organization. It is not necessary for any other action to be taken by the offender.

1.4.4 Class 1a buildings

A single dwelling being—

- (a) a detached house; or
- (b) one of a group of two or more attached dwellings, each being a building, separated by a fire-resisting wall, including a row house, terrace house, town house or villa unit.

NOTE: This definition is taken from the Building Code of Australia.

1.4.5 Competent person

A person who has acquired through training, education, qualification, experience, or a combination of these, the knowledge and skill enabling him/her to correctly perform the required task.

1.4.6 Emergency

An event that arises internally, or from external sources, which may adversely affect the occupants or visitors in a facility, and which requires an immediate response.

1.4.7 Emergency control organization (ECO)

A person or persons appointed by the emergency planning committee to direct and control the implementation of the facility's emergency response procedures.

1.4.8 Emergency mitigation

Measures taken to decrease the likelihood of emergencies occurring and the associated impacts on people, the facility and the environment.

1.4.9 Emergency plan

The written documentation of the emergency arrangements for a facility, generally made during the planning process. It consists of the preparedness, prevention and response activities and includes the agreed emergency roles, responsibilities, strategies, systems and arrangements.

1.4.10 Emergency planning committee (EPC)

Persons responsible for the documentation and maintenance of an emergency plan.

1.4.11 Emergency preparedness

The arrangements made to ensure that, should an emergency occur, all those resources and services that are needed to cope with the effects can be efficiently mobilized and deployed.

NOTE: Examples of emergency preparedness are: the membership, structure and duties of the EPC; emergency identification; the appointment of an ECO; development and maintenance of emergency procedures; training; organizing the temporary removal of people and property from a threatened location; facilitating timely and effective rescue.

1.4.12 Emergency prevention

The measures taken to eliminate the incidence of emergencies. These include the regulatory and physical measures to ensure that emergencies are prevented.

NOTE: Examples of emergency prevention are the implementation of suitable policies and procedures, regular maintenance and servicing of appliances, alarm systems, plant and equipment; training in the safe use of installed equipment; correct storage practices; good house keeping measures such as the reduction or removal of excessive fuel loads.

1.4.13 Emergency response exercise

A site-specific exercise implemented to determine the effectiveness of the emergency response procedures.

1.4.14 Emergency response procedures

A documented scheme of assigned responsibilities, actions and procedures within a designated section of the emergency plan, to respond to and manage emergencies.

1.4.15 Emergency response team (ERT)

Specialist personnel, appointed to attend specific incidents, to contain, control or eliminate the emergency using emergency response equipment.

1.4.16 Evacuation

The orderly movement of people from a place of danger.

1.4.17 Evacuation diagram

Emergency and evacuation information about the facility, comprising a pictorial representation of a floor or area and other relevant emergency response information.

1.4.18 Evacuation exercise

An emergency response exercise in which the exercise simulates an emergency that requires an evacuation.

1.4.19 Facility

A building, structure or workplace that is, or may be, occupied by people (occupants).

NOTE: See also workplace (Clause 1.4.32).

1.4.20 Facility operational incidents

Facility operational incidents are non-life threatening and may not require the activation of the ECO e.g. computer failure, escalator failure, blocked toilets

1.4.21 May

Indicates the existence of an option.

1.4.22 Occupant

A person attending a facility on a permanent or temporary basis, such as an employee, contractor, student or resident, but not a visitor.

1.4.23 Occupant warning equipment

Systems and devices that operate to alert people within a facility to an emergency.

NOTES:

- 1 Examples of occupant warning equipment are emergency warning and intercommunication systems (EWIS), sound systems for emergency purposes (s.s.e.p.), smoke alarms, pagers, visual warning systems including strobe lights, hand-held alarm devices, and intercom systems.
- 2 Occupant warning equipment may operate as part of a fire detection and alarm system and may function in conjunction with other emergency detection systems, such as those for storms, earthquakes and bomb threats.

1.4.24 Occupant/visitor with a disability

A person who requires—

- (a) more time or different forms of communication, compared with other occupants, to respond to an emergency; or
- (b) assistance to respond to an emergency or evacuate from a facility.

NOTES:

- 1 The definition above is taken from the Commonwealth Disability Discrimination Act 1992 (DDA).
- 2 'Disability' includes but is not limited to the meaning given in Section 4.(1), sub-sections (a) to (h) for 'Disability', within the Commonwealth Disability Discrimination Act 1992 (DDA).
- 3 'Occupant/visitor with a disability' also includes an associate of a person with a disability as defined in the DDA, or a companion animal.

1.4.25 Personal emergency evacuation plan (PEEP)

An individualized emergency plan designed for an occupant with a disability who may need assistance during an emergency.

1.4.26 Refuge

An area on a floor or area that is specifically designed to protect people from heat, smoke and toxic gases and which provides direct access to an exit.

NOTES:

- 1 An area of refuge is intended to facilitate a safe delay in egress from the floor or area, thus constituting a space for people to await assistance for their evacuation.
- 2 Refuges are normally nominated by the relevant certifier.

1.4.27 Shall

Indicates that a statement is mandatory.

1.4.28 Should

Indicates a recommendation.

1.4.29 Staging area

An area in a facility where occupants and visitors are intended to gather in preparation for an evacuation.

1.4.30 Structure

- 1 A building (fixed or transportable), mast, tower, a steel or reinforced concrete construction, structural cable or telecommunications structure, underground works (including shafts and road, rail, telecommunications and interconnecting tunnels).
- 2 A railway line, airfield, dock or harbour, water storage or supply system, electricity or gas generation facility, transmission or distribution facility; or production, storage or distribution facilities for heavy industries; or fixed plant.

1.4.31 Visitor

A person who is within a facility who is temporarily visiting the facility and is not—

- (a) employed at or for the facility, either on a permanent casual, temporary, contracting basis;
- (b) a resident/inmate; or
- (c) studying at the facility.

NOTE: Visitors include customers and clients.

1.4.32 Warden intercommunication point (WIP)

The location on a floor or evacuation zone, that includes a handset provided through which instructions can be received from the intercommunication panel via the emergency intercom system.

1.4.33 Workplace

Any place where work is, or is to be, performed by—

- (a) a person engaged for work for gain or reward, or on a voluntary basis;
- (b) a person conducting a business or undertaking; or
- (c) as defined by the relevant Commonwealth, State and Territory occupational health and safety statutes for the definition of 'workplace.'

NOTES:

- 1 See also facility (Clause 1.4.19).
- 2 For example, offices, shops, factories, construction sites and hospitals. It also includes many other types of less obvious workplaces, such as mines, underground tunnels, railway stations, care facilities, gaols, etc.

1.5 LIST OF ABBREVIATIONS

The following abbreviations are used in this Standard or are commonly used in emergency planning literature:

ABDC	Australian Bomb Data Centre
AS	Australian Standard
AS/NZS	Joint Australian/New Zealand Standard
BCA	Building Code of Australia
CCTV	closed-circuit television
CIE	control and indicating equipment
ECO	emergency control organization
ECP	emergency call point (white)
EPC	emergency planning committee
ERT	emergency response team
EWIS	emergency warning and intercommunication system
FIP	fire indicator panel
HB	handbook
IED	improvised explosive device
MCP	manual call point (red)
PA	public address system
PEEP	personal emergency evacuation plan
s.s.e.p.	sound system for emergency purposes
WIP	warden intercommunication point

SECTION 2 EMERGENCY PLANNING COMMITTEE

2.1 GENERAL

An emergency planning committee (EPC) shall be formed for each facility by the person or persons responsible for the facility or its occupants and visitors. Depending on the nature of the particular facility(ies), the EPC may be formed either for an individual facility, or group of facilities. The EPC shall be appropriate for the particular facility(ies).

Those responsible for a facility or its occupants shall ensure that the EPC has adequate resources to enable the development and implementation of the emergency plan.

NOTES:

- 1 The EPC should ensure applicable legislative requirements are met.
- 2 Those responsible for a facility or its occupants should ensure that leases include obligations to participate in emergency activities, including evacuation exercises.
- 3 Resources include time, finance, equipment and personnel.
- 4 Building/facility owners, agents, occupiers, lessors, or employers are typically those responsible for a facility or its occupants.
- 5 Due to regulatory and other local factors, it may not be appropriate to form an EPC covering a group of facilities in different States/Territories.
- 6 The EPC should consider the need for appointment of specialist advice.

2.2 RESPONSIBILITIES

The EPC, where necessary in collaboration with facility owners, managers, occupiers and employers, shall be responsible for the development, implementation and maintenance of the emergency plan, emergency response procedures and related training. This may be undertaken in conjunction with relevant external organizations.

NOTE: If the EPC becomes aware of features of the facility that could jeopardize the evacuation of the occupants and visitors, the EPC should notify the persons responsible for the facility.

The duties of the EPC shall include the following:

- (a) Identifying events that could reasonably produce emergency situations.
- (b) Developing an emergency plan in accordance with Section 3.
- (c) Ensuring that resources are provided to enable the development and implementation of the emergency plan.
NOTE: Resources include time, finance, equipment and personnel.
- (d) Nominating the validity period for the emergency plan and the evacuation diagram. The validity period should not exceed 5 years.
NOTE: The validity period may be less than 5 yearly, depending on the requirements of a maintenance cycle, a major change to the facility or an accreditation regime.
- (e) Ensuring that the emergency plan is readily identifiable and available to the appropriate persons.
- (f) Establishing an emergency control organization (ECO) to operate in accordance with the emergency plan.
- (g) If deemed necessary, establishing a specialist emergency response team (ERT).

- (h) Authorizing, or having authorized, the release and implementation of the emergency plan. The following shall apply to the implementation process:

- (i) *Awareness of the emergency response procedures* Information about the procedures shall be disseminated to occupants. The information shall be in a suitable format.

NOTE: Suitable formats are listed in Clause 6.7.

- (ii) *Training* A formalized training schedule shall be developed to ensure that relevant training is provided to ECO members and facility occupants. The training program shall be based on the emergency response procedures and be in accordance with Section 6.

- (iii) *Testing the emergency procedures* The EPC should ensure that the emergency procedures are tested in accordance with Clause 7.2.

- (iv) *Review of procedures* The effect of the procedures on an organization should be monitored at all stages of the implementation process. Amendments shall be made to rectify any deficiencies or inaccuracies that are identified in the procedures.

- (i) Establishing arrangements to ensure the continuing operation of the ECO.

NOTE: For example, resignation, holidays, training of deputies, etc.

- (j) Ensuring that the register of ECO members is current and readily available.

- (k) Establishing strategies to ensure visitors are made aware of emergency response procedures.

- (l) Ensuring that the emergency response procedures remain viable and effective by reviewing, and testing the emergency response procedures at least annually.

- (m) Ensuring that the emergency plan is reviewed at the end of the validity period, after an emergency, an exercise, or any changes that affect the emergency plan.

- (n) Ensuring that a permanent record of events for each emergency is compiled and retained.

- (o) Identifying and rectifying deficiencies and opportunities for improvement in the emergency plan and emergency response procedures.

2.3 MEMBERSHIP

The EPC shall consist of not less than two people who shall be representative of the stakeholders in a facility one of which shall be management, unless the facility is owned or occupied and operated by a single person, in which case the EPC may be the sole person who is the owner/occupant.

At least one member of the EPC shall be a competent person (as defined in Clause 1.4.4).

NOTES:

- 1 In most facilities, the EPC would comprise senior management, tenants, chief warden and specialist facility personnel, such as the maintenance engineer and, where reasonably available, an occupant with a disability. The effectiveness of an emergency planning committee with respect to all occupants includes the extent to which it provides for occupants with a disability.
- 2 External contractors, consultants or others engaged by the facility to provide specialist advice should not be members of the EPC but may attend EPC meetings.

2.4 MEETINGS

The EPC shall meet at least annually.

A record of EPC meetings shall be made and retained in accordance with the relevant legislative requirements.

NOTE: This may include minutes of meetings, communication, financial position, reports and specialist advice.

2.5 INDEMNITY

Facility owners, managers, occupiers and employers should obtain professional advice on the level of indemnity provided to EPC members. The EPC members should be advised of the level of indemnity provided.

SECTION 3 EMERGENCY PLAN

3.1 GENERAL

An emergency plan shall be developed and maintained for each facility.

The emergency plan shall document the organizational arrangements, systems, strategies and procedures relating to the response and management of emergencies. The EPC in collaboration with the facility owners, managers, occupiers and employers shall determine which types of emergencies warrant specific emergency response procedures within the emergency plan (see Clause 3.2).

The EPC, ECO, the management of the facility and nominated staff shall participate in the implementation and maintenance of the emergency plan, as appropriate to their role within the organization.

Maintenance and review of the emergency plan shall be in accordance with Section 8.

NOTES:

- 1 Advisors for the emergency planning process should hold recognised qualifications/competencies in a relevant discipline.
- 2 Where security officers occupy or are engaged by a facility, their security operating procedures/site instructions should reflect, and be consistent with the emergency plan.
- 3 The EPC should consider its emergency plan in conjunction with all emergency plans/procedures developed by neighbouring facilities and other relevant agencies, for example, local municipal council and Emergency Services. The use and location of the facility may determine how the EPC will integrate its procedures with those developed by other agencies.
- 4 Consideration should be given to developing the emergency plan in conjunction with appropriate specialist advice, including advice on provisions for occupants with a disability.

The emergency plan shall include, but not be limited to, the following:

- (a) Emergency prevention (see Clause 1.4.12).
- (b) Emergency preparedness (see Clause 1.4.11).
- (c) Emergency mitigation (see Clause 1.4.9).
- (d) Activities for preparing for, and prevention of emergencies, such as training, and maintenance.
- (e) Overall control and coordination arrangements for emergency response (see Section 4). This shall include evacuation strategies for occupants with a disability.
- (f) The agreed roles and responsibilities of the emergency control organization and occupants of the facility in preparation for, during and after an emergency.

3.2 EMERGENCY IDENTIFICATION AND ANALYSIS

Identification and analysis of potential emergencies likely to impact on the facility shall be undertaken for each individual facility to determine which events require consideration as emergencies in the emergency plan.

The emergency identification and analysis shall include the following:

- (a) Identifying specific emergency events and scenarios that might affect the people in a facility. This should include emergency events and scenarios arising from sources—
 - (i) internal to the facility;

- (ii) external to the facility; and
- (iii) within the facility that affect other facilities.

NOTES: The following are examples of types of emergencies to be considered:

- (a) *Human* Bomb; bomb threat; building invasion/armed intrusion; personal threat; chemical, biological and radiological/nuclear incidents; civil disorder; medical emergency; arson, explosion; suspicious object.
 - (b) *Natural* Bushfire/grass fire; cyclones, including storm surge; earthquake; explosion; fire and smoke; flood; severe weather/storm damage.
 - (c) *Technological* Hazardous substances incidents; industrial incidents; structural instability; transport incidents; toxic emissions.
- (b) Identifying the possible consequences of each emergency to people within the facility and their vulnerability before, during and after the emergency.
 - (c) After following the steps above, deciding which types of potential emergencies are to be included in the emergency plan.

Potential emergencies for inclusion in the emergency plan may also be identified from documentation such as fire safety engineers' reports, fire safety plans, other safety reports and risk assessment reports.

3.3 KEY CONSIDERATIONS

In identifying potential emergencies and developing and maintaining the emergency plan, the following shall be taken into account:

- (a) The size and complexity of the facility.
- (b) Fire engineered or life safety features of the facility.
NOTE: The regulatory approval process, fire engineering reports, occupant evacuation analyses, fire safety plans and other building reports should be used to determine the fire engineered or life safety features of the facility.
- (c) Security systems, procedures and protocols.
- (d) The number and nature of occupants and visitors.
- (e) The hours of occupancy.

3.4 STRUCTURE OF THE EMERGENCY PLAN

The emergency plan shall include, but not be limited to, the following elements:

- (a) A clear statement of purpose and scope.
- (b) Information on the structure and purpose of the EPC.
- (c) Identification of the facilities to which it applies.
- (d) Descriptions of the fire safety and emergency features of the facility.
- (e) The organisational arrangements for the facility.
- (f) Separate sections for the following:
 - (a) The emergency identification outcomes.
 - (b) The emergency response procedures, in accordance with Section 4.
 - (c) The evacuation diagram, in accordance with Clause 4.4.
 - (d) Training arrangements, in accordance with Section 6.
- (g) A statement of the extent of distribution of the emergency plan or excerpts from the emergency plan.

- (h) A record of distribution, including where personal emergency evacuation plans for people with disabilities are held.
- (i) Details of the hours of occupancy of the facility.
- (j) The EPC nominated validity period for the emergency plan.
- (k) The date of issue or amendment date on each page of the emergency plan.

If an electronic format is used for the emergency plan, at least one printed copy shall be available on site.

NOTE: Figure 3.1 provides a representation of the broad structure of an emergency plan.

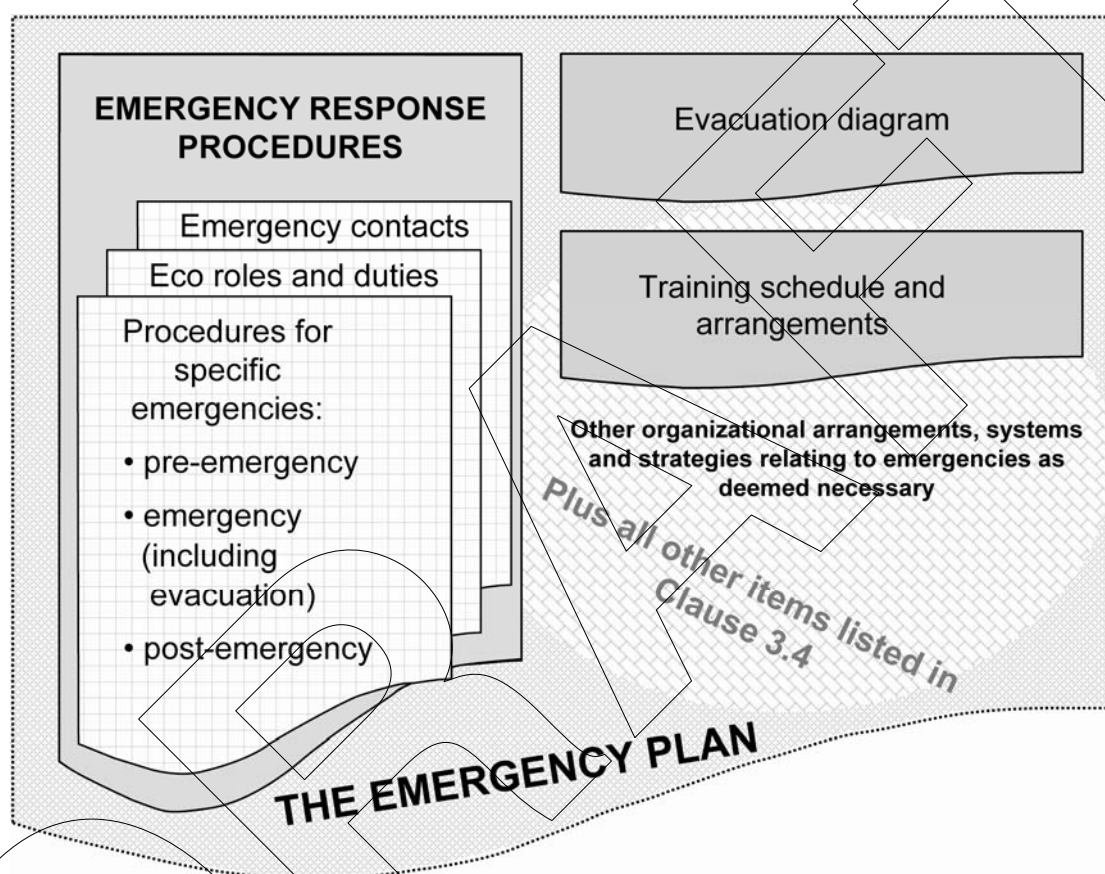


FIGURE 3.1 STRUCTURE OF THE EMERGENCY PLAN

3.5 EVACUATION DIAGRAMS

3.5.1 General

Evacuation diagrams that provide emergency and evacuation information shall be displayed in all facilities in accordance with Clauses 3.4.2, 3.4.3, 3.4.4 and 3.4.5.

NOTES:

- 1 Optional elements of the evacuation diagram are given in Clause 3.4.7.
- 2 An example of an evacuation diagram is shown in Appendix E.

3.5.2 Number and location

Evacuation diagrams shall be displayed in locations where occupants and visitors are able to view the diagrams. The location within the facility and number of evacuation diagrams shall be determined by the EPC.

3.5.3 Position

The evacuation diagram should be positioned within a zone at a height not less than 1200 mm and not more than 1600 mm above the plane of the finished floor.

3.5.4 Orientation

Individual evacuation diagrams shall have the correct orientation with regard to the direction of egress and its location to the 'YOU ARE HERE' point. Where an assembly area diagram is included, the assembly diagram area shall have the same orientation to the rest of the diagram.

3.5.5 Minimum elements

The following shall be included in each evacuation diagram:

- (a) A pictorial representation of the floor or area, which shall be at least 200 × 150 mm.
- (b) The title 'EVACUATION DIAGRAM'.
- (c) The 'YOU ARE HERE' location.
- (d) The designated exits in the facility, which shall be green.
- (e) The following communications equipment, where installed:
 - (i) Warden intercommunication points (WIPs), which shall be red.
 - (ii) Manual call points (MCPs), which shall be red and emergency call points (ECPs), which shall be coloured white, or have a black border.
 - (iii) Main controls/panels for the occupant warning equipment.
- (f) Hose reels, which shall be red.
- (g) Hydrants, which shall be red.
- (h) Extinguishers, which shall be red with an additional appropriate colour as specified in AS/NZS 1841.1.
- (i) Fire blankets, which shall be coloured red.
- (j) Fire indicator panel (FIP), if provided.
- (k) Refuges, if present.
- (l) Validity date.
- (m) Location of assembly area(s), either stated in words or pictorially represented.
- (n) A legend, which shall reflect the symbols used.

3.5.6 Optional elements

The following additional information may be considered by the EPC for inclusion on the evacuation diagram:

- (a) Direction of opening of doors on designated exits.
- (b) North.
- (c) First aid stations and kits (denoted by a white cross on a green background).
- (d) Hazardous chemical store.
- (e) Spill response kits.
- (f) Emergency information.

NOTE: For example, emergency telephone numbers, and emergency response procedures, assembly areas, fire orders etc.

- (g) Warden details.
- (h) Paths of travel, coloured green.

3.5.7 Size

The minimum size of the evacuation diagram shall be A4 (i.e., 210 × 297 mm).

If any additional information is included, other than those items specified in Clauses 4.4.5—

- (a) the minimum size of the evacuation diagram shall be A3 (i.e., 297 × 420 mm); and
- (b) the minimum size of the pictorial representation of the floor or area, shall be A4 (i.e., 210 × 297 mm).

3.6 DISTRIBUTION OF THE EMERGENCY PLAN

The emergency plan shall be distributed to members of the EPC. As a minimum, distribution of sections within the emergency plan shall comply with the following:

- (a) Sufficient information from the emergency response procedures shall be distributed to members of the ECO to enable them to carry out their required duties.
- (b) Sufficient information from the emergency response procedures shall be distributed to facility occupants to explain the actions they are to take with regard to an emergency.
- (c) The evacuation diagram shall be displayed in the facility, in accordance with Clause 4.4.
- (d) The information shall be distributed in an appropriate format that can be comprehended by the recipient.

NOTE: Examples of formats are listed in Clause 6.7.

The EPC shall determine whether any additional distribution is needed.

Figure 3.2 provides a representation of the minimum distribution requirements for the emergency plan and procedures.

NOTE: The amount of specific content from the emergency response procedures that is distributed, and the extent of its distribution will vary between facilities.

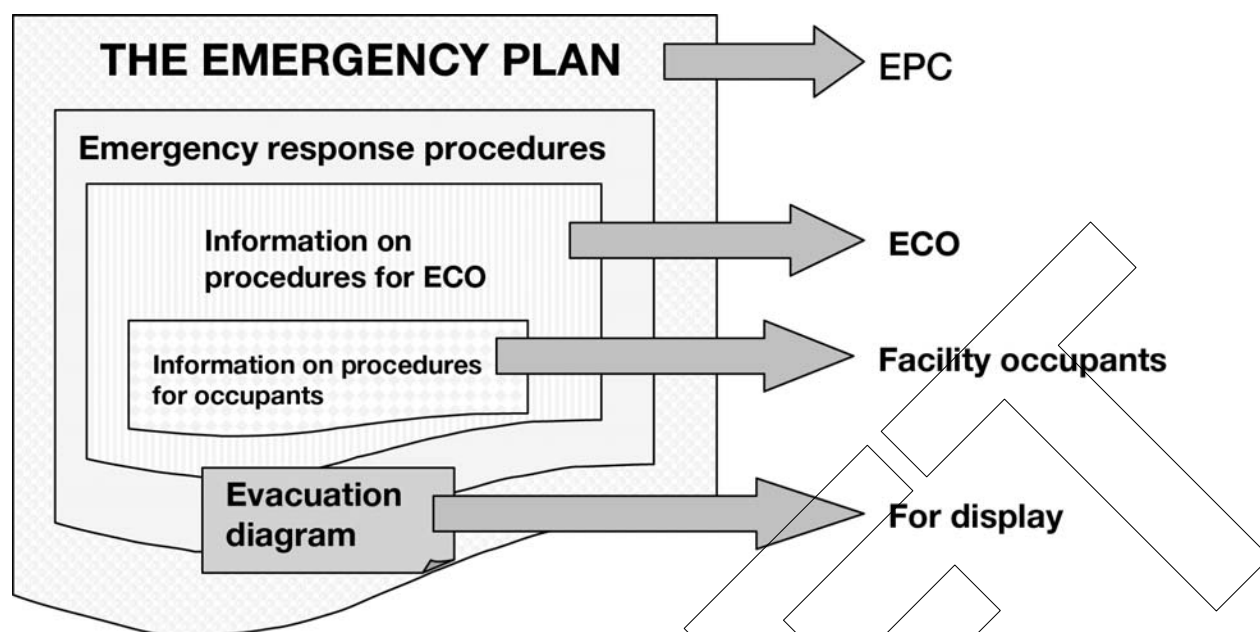


FIGURE 3.2 MINIMUM DISTRIBUTION FOR ELEMENTS OF THE EMERGENCY PLAN

3.7 REVIEW AND AMENDMENT OF THE EMERGENCY PLAN

The emergency plan should be maintained in accordance with Section 8.

SECTION 4 EMERGENCY RESPONSE PROCEDURES

4.1 GENERAL

An emergency response procedure shall be developed for all facilities addressing the following:

- (a) responsibilities and duties of the ECO and the actions they are to take during an emergency, including those roles and duties set out in Clause 5.7.
- (b) The responsibilities of facility occupants and the actions they are to take in an emergency.
- (c) The arrangements for evacuating the facility.
- (d) The arrangements for emergency preparedness, response, and re-occupation/ re-location.
- (e) The current emergency contact details.

4.2 KEY ELEMENTS AND CONSIDERATIONS FOR INCLUSION IN THE EMERGENCY RESPONSE PROCEDURES

4.2.1 General

The specific information included in the emergency response procedures shall be determined by the EPC in collaboration with the facility owners, managers, occupiers and employers in accordance with this Clause (4.2). The EPC shall also determine any other information that is to be included, as appropriate to each specific facility.

NOTES:

- 1 Several key elements and considerations to be taken into account by the EPC when developing and maintaining the emergency response procedures are listed in this Clause however the list is not exhaustive.
- 2 The list is arranged in alphabetical order.
- 3 This Clause contains both normative and informative text as follows:
 - (a) Mandatory, i.e. 'shall'.
 - (b) Mandatory to consider, i.e. 'shall be considered'.
 - (c) Recommendations, i.e. 'should'.

4.2.2 After-hours procedures

The specific needs of people who may be present outside the normal hours of business/operation shall be considered.

4.2.3 Communication

4.2.3.1 *Communicating the emergency*

The emergency procedures shall address the method of warning and communication to be used during an emergency.

The needs of occupants and visitors with a disability shall be considered when developing procedures for emergency warning. This may entail alternative means of communicating emergency information and warnings.

4.2.3.2 *Neighbouring facilities*

Consideration shall be given to communications with neighbouring facilities.

4.2.3.3 *Communications equipment*

For continuity of communications in an emergency, consideration shall be given to the following:

- (a) The utilization of multi-modal communication systems for emergency responses.

NOTE: Multi-modal communication systems are intended to ensure continuity of communication in the event of the failure of the primary communication system. Examples are—

- (a) s.s.e.p (e.g., EWIS);
- (b) visual and tactile signals;
- (c) telephones (including mobile and satellite telephones);
- (d) radio;
- (e) paging systems;
- (f) public address systems; and
- (g) runners.

- (b) The limitations of transmitting equipment technology in certain types of emergencies.

- (c) The potential effects of using equipment producing electromagnetic radiation in situations where such signals could have adverse effects on explosive devices or essential equipment, such as sensitive medical equipment, that may be in the same location.

NOTE: Equipment producing electromagnetic radiation includes mobile phones, radio sets and appliances using wireless technology transmission.

- (d) Any battery-powered equipment that needs fully charged batteries available.

- (e) The potential failure of equipment that is mains-powered without battery backup.

4.2.4 **Control and coordination**

The procedures should identify an appropriate location from which the chief warden can establish control, communication and coordination, and liaise with the Emergency Services.

NOTE: This is sometimes referred to as the 'emergency control point'.

An alternative location(s) should be nominated in the emergency response procedures to allow for contingencies.

4.2.5 **Emergency response equipment**

The procedures should include appropriate information and instructions on the use of any emergency response equipment that is in place in a facility.

NOTE: Emergency response equipment includes fire extinguishers, fire hose reels, first aid kits, spill cleanup kits, breathing apparatus and the like.

4.2.6 **Evacuation**

4.2.6.1 *General*

The emergency response procedures shall address the actions that are to be taken to evacuate the facility by members of the ECO, occupants and visitors.

NOTE: As appropriate to the facility, the emergency response procedures should include requirements that the ECO members—

- (a) check their area of responsibility to determine whether all persons have been evacuated; and
- (b) report the result of the check to the chief warden, including whether any refuge is occupied.

This function is of greater importance than a later physical count of those evacuated.

4.2.6.2 *Occupants and visitors with a disability*

The evacuation arrangements for persons with a disability shall be considered in the development of the emergency response procedures.

4.2.6.3 *Evacuation options*

The procedures shall address the extent of evacuation from a facility that is necessary for different types of emergencies. Consideration shall be given to the following evacuation options, as appropriate to the facility:

- (a) *Full evacuation* This measure is used to clear a building or facility of all occupants (see Notes 1 and 2).
- (b) *Partial evacuation* This measure is an alternative to a total evacuation in some buildings such as hospitals, aged care facilities and multi-storey buildings. Partial evacuation may—
 - (i) include evacuation into or through smoke and fire compartments;
 - (ii) be used to evacuate individuals closest to a situation and to prevent congestion in the stairways; or
 - (iii) be utilized when evacuation of several floors is sufficient to protect occupants while the hazard is being eliminated, i.e., to move people away from a localized emergency within a building or facility (see Note 3).
- (c) *Shelter in place (no evacuation)* This measure is an emergency response option that allows occupants and visitors to remain inside a facility on the basis that an evacuation to an external-to-building location might reasonably expose evacuated people to a greater level of danger. An assessment of the shelter or refuge to determine the suitability and sustainability of the shelter should be carried out for certain emergencies, where shelter in place option is being considered.

The success of this strategy will depend, to a large extent, on the degree to which premises have been prepared. The most appropriate decision will be made after the assessment of all the available information. Decision-makers should seek and evaluate expert advice (see Note 4).

NOTES:

- 1 Full evacuation would normally be carried out in response to a potentially catastrophic, life-threatening situation or where the building cannot function due to a severe services malfunction.
- 2 In some buildings, the alarm system is automatically set to the evacuate tone without utilizing an alert tone facility. Emergency response procedures should reflect these situations.
- 3 Examples of where a partial building evacuation may be carried out include a localized fire, a localized flood, a chemical spill, or a bomb threat specified for a certain area.
- 4 Numerous situations can occur that make it advisable for those inside a building to remain inside for their own protection. These procedures may be warranted if, for example, an industrial strike action that is taking place outside the building turns violent.

4.2.6.4 *Evacuation routes*

The likely effect that a particular emergency may have on evacuation routes and normal paths for leaving the facility shall be considered.

4.2.6.5 Assembly area(s)

Assembly areas shall, so far as is reasonably practicable, be sufficiently distant from the emergency for the protection of evacuees.

NOTES:

- 1 Ideally the areas selected should be sheltered from the affected facility and should allow for further movement away from the emergency. Consideration should be given to dangers such as smoke and flying/falling debris and other objects.
- 2 An assembly area should be accessible by a route suitable for people who walk with difficulty or use mobility aids, including walking frames and wheelchairs, and prams.
- 3 The movement of large numbers of people has its inherent dangers, particularly in heavy traffic. Careful thought should be given to determine the safest routes from the facility to the nominated places of assembly, including alternatives, and to ensure access for emergency vehicles is not hindered.
- 4 Evacuation may be to another nominated internal or external area, such as another floor or refuge.
- 5 Alternative assembly area(s) may be necessary if the nominated assembly area is unsuitable.

4.2.7 External sources

The characteristics of, and hazards from, external sources shall be considered.

4.2.8 First aid officers

Where first aid officers exist, their duties during an emergency should be considered by the EPC.

The roles of the first aid officers and wardens should be separate and distinct.

4.2.9 Lifts and escalators

Lifts and escalators should not be relied upon as a means of evacuation from fire unless their suitability for that purpose has been nominated through a regulatory approval process.

NOTE: Lifts and escalators may be appropriate for use in other types of emergencies and in some circumstances, particularly in emergencies other than fire.

4.2.10 Media response

Restrictions should be placed on contacting print or electronic media during the emergency. All media statements should be provided, released and authorized by nominated persons.

4.2.11 Occupants and visitors with a disability

When developing emergency response procedures, consideration shall be given to occupants and visitors who for one reason or another are unlikely to be able to act optimally in an emergency. This would include but not be limited to occupants and visitors who –

- (a) are accompanied by an assistant;
- (b) have a guide or companion animal;
- (c) use alternative forms of information and communication;
- (d) have an ambulatory disability;
- (e) use a wheeled mobility appliance, including wheelchair or scooter;
- (f) are easily fatigued;
- (g) easily experience acute anxiety in an emergency; or
- (h) easily experience extreme confusion in an emergency.

A current list of the names, workplaces and other necessary information about occupants with a disability should be kept at the locations where the chief warden exercises control.

Suitable strategies in an emergency or evacuation should be discussed with those occupants from the facility who have a disability and a personal emergency evacuation plan (PEEP) developed for each of those persons.

Information on the PEEP shall be disseminated to all people responsible for its implementation.

NOTE: An example of a PEEP is given in Appendix D.

4.2.12 Organization of the facility

The organizational arrangements for each facility shall be considered. This includes the human resources aspects of the facility's organization.

4.2.13 People unfamiliar with the emergency response procedures

The needs of people who may be within a facility and are not familiar with the emergency response procedures shall be considered.

4.2.14 Personal effects

When being evacuated, occupants and visitors may be asked to take their immediately available personal effects such as handbags, wallets and car keys if it is safe to do so.

4.2.15 Refuges

Refuges are areas where occupants and visitors may wait for their delayed independent evacuation, or assisted evacuation by Emergency Services or other nominated personnel.

NOTE: Refuges are normally nominated by the relevant certifier.

Occupants who have a disability should be attended in the refuge by another person.

4.2.16 Specialist staff

The roles of security guards, receptionists/switchboard operators and other specialist staff shall be considered.

4.2.17 Stairway evacuation device

Consideration should be given to the use and suitability and storage arrangements of stairway evacuation devices for people who use wheelchairs or who otherwise would need to be carried down the stairway.

NOTE: Any stairway evacuation device should be operated by a competent person.

4.2.18 Use and characteristics of the facility

The use and characteristics of each facility and the appropriateness and adequacy of physical facilities shall be considered. This includes the physical construction and layout as well as the type of activity that takes place within the facility.

4.2.19 Vehicle entry points

Consideration shall be given to imposing restrictions on vehicular movement during an emergency.

NOTES:

- 1 Persons should be nominated by the chief warden to restrict vehicle movements into the facility.
- 2 Persons should be nominated by the chief warden to be at entry points to the facility to meet responding Emergency Service(s).

4.3 EMERGENCY COLOUR CODES

A standardized colour code for notification, identification and response activation may be used in the emergency response procedures:

- (a) Where colour codes are used for specific emergencies the colours should—
 - (i) be as shown in Column 2 of Table 4.1; and
 - (ii) approximate those listed in Table 4.1, either from AS 2700, or the colour settings for printing (See Notes 1, 2 and 3).
- (b) For the verbal ‘all clear’ notification, the relevant colour code shall be stated followed by the words ‘ALL CLEAR’.

NOTES:

- 1 These colour codes are consistent with those used in AS 4083—1997.
- 2 The correlations between the AS 2700 codes and the RGB and CMYK codes are approximations only.
- 3 CMYK values are highly device-dependent, therefore their values in Table 4.1 are not suitable for careful colour rendition.
- 4 The colour green is reserved for uses related to safety and first-aid.
- 5 Using colour codes other than those listed in Table 4.1 may lead to confusion.

TABLE 4.1
EMERGENCY COLOUR CODES

Emergency	Colour	AS 2700 Code	Colour Settings for printing	
			RGB	CMYK
Fire and/or smoke	Red	R13	227, 66, 52	0, 71, 77, 11
Bomb threat	Purple	P12	128, 0, 128	66, 87, 0, 0
Medical emergency	Blue	B22	0, 47, 167	98, 84, 0, 0
Personal threat*	Black	N61	0, 0, 0	0, 0, 0, 100
Internal emergency†	Yellow	Y26	255, 215, 0	0, 16, 100, 0
External emergency	Brown	X54	150, 75, 0	0, 50, 100, 41
Evacuation	Orange	X13	255, 127, 0	0, 50, 100, 0

* For example, armed or unarmed persons threatening injury to others or to themselves.

† For example, failure or threat to essential services.

SECTION 5 EMERGENCY CONTROL ORGANIZATION (ECO)

5.1 GENERAL

The ECO shall be appropriate to the facility and to the emergency response procedures.

The titles of 'chief warden', 'communications officer', 'floor warden' or 'area warden' and 'warden' should be used when these positions are included in the ECO. Titles for other positions may be determined by the EPC.

5.2 POSITIONS ON THE ECO

The ECO shall consist of a chief warden or equivalent as a minimum. The following positions shall be included if they are deemed necessary by the EPC and in accordance with the requirements of this Standard:

- (a) Deputy chief warden.
- (b) Communications officer and deputy.
- (c) Floor/area wardens and deputies.
- (d) Wardens and deputies.

Other ECO positions may be incorporated into the ECO, for example, runners, stair wardens, roll call wardens, traffic wardens.

An up-to-date register of all ECO members shall be kept readily available, with or via the chief warden.

5.3 NUMBER OF ECO MEMBERS

The number of ECO members shall be determined in accordance with—

- (a) the size of the facility, floor or area;
- (b) the number of occupants and visitors; and
- (c) the installed occupant warning equipment.
- (d) the fire engineered and life safety features of the facility.

The positions and number of ECO members shall be considered by the EPC.

NOTES:

- 1 Guidance on determining ECO numbers is given in Appendix F.
- 2 In single tenancies, the ECO may consist of one person, who would be the 'chief warden'.

5.4 AUTHORITY

During emergencies, instructions given by the emergency control organization (ECO) personnel shall take precedence over the normal management structure.

NOTES:

- 1 Nothing in this clause is intended to over-ride or change the legislative responsibility of the facility owners, managers, occupiers and employers in ensuring the safety of all occupants and visitors to the facility.
- 2 Authority given to the ECO to act during an Emergency must be acknowledged by the facility owners, managers, occupiers and employers as part of the Emergency planning activities
- 3 The EPC should ensure that the appropriate people, such as senior management, are advised of the authority of the ECO during emergencies.

- 4 This authority is intended to ensure that, during an emergency situation, life safety takes precedence over asset protection, environmental considerations, production operations and business continuity.

5.5 INDEMNITY

Facility owners, managers, occupiers and employers should obtain professional advice on the level of indemnity provided to ECO members. The ECO members should be advised of the level of indemnity provided.

5.6 SELECTION CRITERIA FOR ECO MEMBERS

5.6.1 Chief warden

The person appointed as chief warden should—

- (a) be capable of performing their duties;
- (b) be capable of leading and taking command;
- (c) display effective decision-making skills;
- (d) demonstrate the capability to remain calm under pressure;
- (e) be available to undertake their appointed duties;
- (f) be capable of effectively communicating with occupants and visitors;
- (g) be familiar with the facility; and
- (h) be able to undergo relevant training.

5.6.2 Communications officer

The person appointed as communications officer should—

- (a) be capable of performing their duties;
- (b) display effective decision-making skills;
- (c) demonstrate the capability to remain calm under pressure;
- (d) be available on-site to undertake their appointed duties;
- (e) be capable of effectively communicating with occupants and visitors; and
- (f) be able to undergo relevant training.

5.6.3 Floor or area wardens

Floor or area wardens should be appointed consistent with the level of their day-to-day responsibilities.

The floor or area warden responsibilities should be attached to a specific position, to ensure where possible, that the person appointed to the position, in either a permanent or temporary capacity, carries out the necessary functions.

Persons appointed as floor/area wardens should—

- (a) be capable of performing their duties;
- (b) have leadership qualities and the ability to command authority;
- (c) display effective decision-making skills;
- (d) demonstrate the capability to remain calm under pressure;
- (e) be available on-site to undertake their appointed duties
- (f) be capable of effectively communicating with occupants and visitors;

- (g) be capable of deputizing for other positions on the ECO; and
- (h) be able to undergo relevant training.

5.6.4 Wardens

Persons appointed as wardens should—

- (a) be capable of performing their duties;
- (b) have leadership qualities and command authority;
- (c) be available to undertake their appointed duties;
- (d) be capable of communicating with occupants and visitors;
- (e) be capable of deputizing for other positions; and
- (f) be able to undergo relevant training.

5.6.5 Deputies

The appointment of deputies shall be considered, to ensure the effective functioning of the ECO. Persons appointed as deputies shall have the same capabilities and personal attributes as required for the substantive position.

5.7 PRIMARY ROLES AND DUTIES

5.7.1 General

The primary role of the ECO is to give top priority to the safety of the occupants and visitors of the facility during an emergency. Life safety is to take precedence over asset protection during an emergency.

The ECO should have clearly documented pre-emergency, emergency and post-emergency duties and responsibilities.

This Clause lists the duties of each member of the ECO, when it comprises the full range of roles. In cases, where the ECO does not include all of the roles defined in this Standard, the duties listed in Clauses 5.7.2 to 5.7.4 shall be addressed in the emergency response procedures and assigned to the existing ECO membership, as appropriate to the organizational structure of the facility.

5.7.2 Pre-emergency

The actions to be undertaken by the ECO prior to an emergency event should be as set out in the emergency response procedures and may include the following:

- (a) *Chief warden:*
 - (i) Maintain a current register of ECO members.
 - (ii) Replace ECO members when a position becomes vacant.
 - (iii) Conduct regular drills/exercises.
 - (iv) Ensure the emergency response procedures are kept up-to-date.
 - (v) Attend meetings of the EPC, as appropriate.
 - (vi) Attend training and emergency exercises, as required by the EPC.
 - (vii) Ensure personal ECO identification is available.
- (b) *Communications officer:*
 - (i) Ensure personal proficiency in operation of facility communication equipment.
 - (ii) Maintain records and logbooks and make them available for emergency response.

- (iii) Ensure that ECO members are proficient in use of the facility communication equipment.
- (iv) Ensure that emergency communication contact details are up-to-date.
- (v) Attend training and emergency exercises, as required by the EPC.
- (c) *Floor/area warden:*
 - (i) Confirm sufficient wardens for area of responsibility.
 - (ii) Assist in preparation of personal emergency evacuation plans.
 - (iii) Report on deficiencies of emergency equipment.
 - (iv) Ensure that wardens have communicated the emergency response procedures to all occupants within their nominated areas.
 - (v) Ensure that occupants are aware of the identity of their wardens.
 - (vi) Coordinate safety practices (e.g., clear egress paths, access to first-attack equipment and disposal of rubbish) by wardens throughout their area of responsibility.
 - (vii) Attend training and emergency exercises, as required by the EPC.
 - (viii) Ensure personal ECO identification is available.
- (d) *Wardens:*
 - (i) Ensure that all occupants are aware of the emergency response procedures.
 - (ii) Carry out safety practices (e.g., clear egress paths, access to first-attack equipment and disposal of rubbish).
 - (iii) Coordinate the completion of PEEP documentation.
 - (iv) Ensure personal ECO identification is available.
 - (v) Attend training and emergency exercises, as required by the EPC.
- (e) *Emergency response team:*
 - (i) Attend regular training.
 - (ii) Practise use of specialized equipment.
 - (iii) Maintain specialised equipment as per manufacturers' specifications.
NOTE: Examples of specialized equipment include spill-kits and breathing apparatus.
 - (iv) Ensure that personal protective equipment is maintained and available.
 - (v) Ensure personal ERT identification is available.
 - (vi) Pre-emergency planning.
 - (vii) Attend training and emergency exercises, as required by the EPC.

5.7.3 Emergency

The actions to be undertaken by the ECO in the event of an emergency shall include, but not be limited to, the following:

- (a) *Chief warden* On becoming aware of an emergency, the chief warden should:
 - (i) Respond and take control, as appropriate.
 - (ii) Ascertain the nature of the emergency and implement appropriate action.
 - (iii) Ensure that the appropriate Emergency Service has been notified.
 - (iv) Ensure that floor or area wardens are advised of the situation, as appropriate.

- (v) If necessary, after evaluation of the situation and using all of the information, and resources available, initiate an action plan in accordance with the emergency response procedures and control entry to the affected areas.
 - (vi) Monitor the progress of the evacuation and record any action taken in an incident log.
 - (vii) Brief the Emergency Services personnel upon arrival on type, scope and location of the emergency and the status of the evacuation and, thereafter, act on the senior officer's instructions.
 - (viii) Any other actions as considered to be necessary or as directed by Emergency Services.
- (b) *Deputy chief warden* The deputy chief warden shall assume the responsibilities normally carried out by the chief warden if the chief warden is unavailable, and otherwise assist as required.
- (c) *Communications officer* The communications officer, on becoming aware of the emergency, shall take the following actions:
- (i) Ascertain the nature and location of the emergency.
 - (ii) Confirm that the appropriate Emergency Service has been notified.
 - (iii) Notify appropriate ECO members.
 - (iv) Transmit instructions and information.
 - (v) Record a log of the events that occurred during the emergency.
 - (vi) Act as directed by the chief warden.
- (d) *Floor/area wardens* On hearing an alarm or on becoming aware of an emergency, the floor or area wardens shall take the following actions:
- (i) Implement the emergency response procedures for their floor or area.
 - (ii) Ensure that the appropriate Emergency Service has been notified.
 - (iii) Direct wardens to check the floor or area for any abnormal situation.
 - (iv) Commence evacuation if the circumstances on their floor or area warrant this.
 - (v) Communicate with the chief warden by whatever means available and act on instructions.
 - (vi) Advise the chief warden as soon as possible of the circumstances and action taken.
 - (vii) Co-opt persons as required to assist a warden during an emergency.
 - (viii) Confirm that the activities of wardens have been completed and report this to the chief warden or a senior officer of the attending emergency services if the Chief Warden is not contactable.
- (e) *Wardens* Persons selected as wardens shall carry out activities as set out in the emergency response procedures and as directed by the floor or area warden. Wardens' activities may include the following:
- (i) Act as floor or area wardens.
 - (ii) Operate the communication system(s) in place.
 - (iii) Check that any fire doors and smoke doors are properly closed.
 - (iv) Close or open other doors in accordance with the emergency response procedures.

- (v) Search the floor or area to ensure all people have evacuated. This function is of greater importance than a later physical count of those evacuated.
- (vi) Ensure orderly flow of people into protected areas, for example, stairways.
- (vii) Assist occupants with disabilities.
- (viii) Act as leader of groups moving to nominated assembly areas.
- (ix) Report status of required activities to the floor or area warden on their completion.
- (f) *Emergency response team* Members of the emergency response team shall carry out activities as set out in the emergency response procedures and the following:
 - (i) Respond to the emergency as directed by the chief warden.
 - (ii) Communicate the status of the situation with the chief warden.
 - (iii) Hand over and brief Emergency Services on arrival.

5.7.4 Post-emergency

The actions to be undertaken by the ECO after an emergency should include, but not be limited to, the following:

- (a) *Chief warden:*
 - (i) When the emergency incident is rendered safe or the Emergency Service returns control, notify the ECO members to have occupants return to their facility, as appropriate.
 - (ii) Organize a debrief with ECO members and, where appropriate, with any attending Emergency Service.
 - (iii) Compile a report for the EPC and management.
- (b) *Communications officer* Collate records of events during the emergency for the debrief and ensure they are secured for future reference.
- (c) *Floor/area wardens and wardens* Compile a report of the actions taken during the emergency for the debrief.
- (d) *Emergency response team:*
 - (i) Clean and service used specialised equipment.
 - (ii) Replace specialized equipment as necessary.

Note: The re-entry and post emergency actions should be done in collaboration with the facility owners, managers, occupiers and employers .

5.8 IDENTIFICATION

The members of the ECO shall be identifiable in accordance with the following:

- (a) ECO members shall be identifiable by the use of coloured apparel that shall be at least one of the following:
 - (a) Helmets.
 - (b) Caps.
 - (c) Hats.
 - (d) Vests.
 - (e) Tabards.

- (b) Where in-house first aid personnel respond with the ECO, they shall be identified by a white cross on a green background
- (c) Identification apparel should be prominently marked with the wearer's ECO title (see Note 3).
- (d) The type of identification used for each ECO designation shall be consistent throughout the facility.

NOTES:

- 1 If there is an emergency response team included in the ECO, they should be clearly identified.
- 2 The identification colours white, yellow, red and orange should approximate the AS 2700, RGB or CMYK colours listed in Table 5.1.
- 3 The specific floor, area or building may also be identified.

TABLE 5.1
ECO IDENTIFICATION COLOURS

ECO position	Colour	AS 2700	RGB	CMYK
Chief warden	White	N14	255, 255, 255	0, 0, 0, 0
Deputy chief warden	White	N14	255, 255, 255	0, 0, 0, 0
Communications officer	White	N14	255, 255, 255	0, 0, 0, 0
Floor/area warden	Yellow	Y26	255, 215, 0	0, 16, 100, 0
Warden	Red	R13	227, 66, 52	0, 71, 77, 11
First aid officers	Green†	G21	14, 171, 114	62, 0, 22, 33

† White cross on a green background.

SECTION 6 TRAINING

6.1 GENERAL

Training shall be conducted—

- (a) for at least one member of the EPC, to enable the EPC to competently execute their obligations;
- (b) for the ECO, in accordance with Clauses 6.3 and 6.5; and
- (c) for facility occupants, in accordance with Clauses 6.4 and 6.5.

NOTES:

- 1 The EPC should be trained in accordance with Clause 6.2.
- 2 ECO training may be carried out over a number of sessions to impart the range of necessary skills and knowledge. This should be done as soon as is reasonably practicable, as determined by the EPC.
- 3 Training programs may be structured to embrace one or more of the classifications set out in this Section, in order to meet individual organizational needs.
- 4 A recognized competency standard should be used to develop the training.

All training and skills retention activities shall be conducted or supervised by competent person(s), as defined by Clause 1.4.5. Training shall include information on the subject of occupants and visitors with a disability.

6.2 EPC TRAINING

Training provided to a EPC member to enable them to competently execute their obligations in accordance with Clause 6.1a should address, but not necessarily be limited to, the following:

- (a) Developing, managing and maintaining an emergency plan.
- (b) The duties of the EPC and ECO as described in the emergency response procedures and emergency plan.
- (c) The duties of the ERT, where it exists, as described in the emergency response procedures and emergency plan.
- (d) The conduct of site-specific emergency identification and analysis.
- (e) Establishing and managing an ECO (see Clause 2.2).
- (f) The management of appropriate documentation.
- (g) The management and development of assessment activities.
- (h) The development and implementation of training activities including emergency exercise management.
- (i) Emergency mitigation, emergency preparedness and emergency prevention.
- (j) The installed fire safety systems, for example, sprinkler systems, fire doors and installed emergency communications, notifications and warnings
- (k) Liaison with Emergency Services.
- (l) Post-evacuation management.

6.3 ECO TRAINING

6.3.1 All ECO members

6.3.1.1 General

All ECO members, including nominated deputies, shall be trained to develop the skills and knowledge necessary to undertake the duties set out in the emergency response procedures.

There shall be sufficient personnel trained in all positions within the ECO to allow for projected absences.

NOTE: Re-training should be conducted following a revision of the emergency response procedures.

6.3.1.2 Content

The training shall address, but not necessarily be limited to, the following:

- (a) The duties of the ECO as described in the emergency response procedures and emergency plan.
- (b) Procedures for the specific emergencies contained in the emergency plan.
- (c) Responding to alarms and reports of emergencies.
- (d) Reporting emergencies and initiating the installed emergency warning equipment.
- (e) Communication during emergencies.
- (f) Pre-emergency activities
- (g) Emergency activities.
- (h) Post-emergency activities.
- (i) Occupants and visitors with disabilities.

NOTE: This may need to include training on personal emergency evacuation plans.

- (j) Human behaviour during emergencies.
- (k) The use of installed emergency response equipment.

NOTE: Examples include evacuation chairs, evacuation sheets and WIP phones.

- (l) The performance of the building and its installations during a fire or other emergency.

NOTE: Examples include fire doors, emergency lights, exit-signage, sprinklers, ventilation and smoke control systems and fire-rated stairs.

The training shall include exercises and assessment.

6.3.2 Chief warden, deputy chief warden, communications officer

In addition to the training for all ECO members listed in Clauses 6.3.1 and 6.3.2, persons appointed to the positions of chief warden, deputy chief warden and communications officer, along with the nominated deputies for each position, shall have additional training, including but not limited to the following:

- (a) His or her roles and responsibilities within the emergency plan.
- (b) The duties of the EPC.
- (c) The duties of the ERT, where it exists, as described in the emergency response procedures.
- (d) Decision-making, command and control.
- (e) Record keeping.
- (f) Actions for the specific emergencies contained in the emergency response procedures.

- (g) Coordination of communications(s) during emergencies, including use of any installed specialised communications equipment.
- (h) Liaison with Emergency Services.
- (i) Coordination of evacuation activities.
- (j) Implementation of post-emergency activities in accordance with the emergency plan.

6.3.3 First-attack firefighting

Where first-attack firefighting by specific occupants is included in the emergency procedures, these occupants shall be trained to enable them to competently execute their duties.

The training for first-attack firefighting shall address, but not necessarily be limited to, the following:

- (a) The duties of the ECO, and ERT, where it exists.
- (b) Preparing for site-specific fires.
- (c) Reporting fires.
- (d) Evacuating from endangered areas.
- (e) Identifying, reporting and correcting unsafe conditions.
- (f) Responding to fire emergencies.
- (g) Identifying the classes of fire.
- (h) Selecting the correct first-attack equipment.
- (i) Safe operating procedures for first-attack equipment.
- (j) Determining if it is safe and appropriate to use first-attack equipment.
- (k) Procedures to be followed after first-attack equipment has been used.
- (l) Post evacuation activities.

NOTE: For example, extinguisher re-fill.

6.3.4 Emergency response skills training

Where a specialist ERT has been deemed necessary, training specific to the emergencies identified in the emergency plan shall be developed and carried out. In addition to the training detailed in Clause 6.3.3, response skills training shall address but not necessarily be limited to the following:

- (a) Command and control.
- (b) Safe, effective actions to take control of workplace emergencies.
- (c) Pre-emergency planning.
- (d) Reacting safely to emergencies.
- (e) Emergencies that may occur.
- (f) Procedures for specific emergencies.
- (g) Specialized equipment use.
- (h) Pre and post-emergency servicing requirements
- (i) Responding to identified emergencies.

6.4 OCCUPANTS AND VISITORS

6.4.1 Occupants working at a facility

All occupants working at a facility shall receive training to enable them to act in accordance with the emergency response procedures.

The training set out in this Clause should be provided for all new occupants including casual occupants/employees, at the commencement of their duties in a workplace or their occupancy of a structure.

The training should include, but not necessarily be limited to, the following:

- (a) Occupant responsibilities within the facility emergency response procedures.
- (b) The types of emergencies contained in the emergency plan.
- (c) How to report emergencies including activation of alarm systems, if installed.
- (d) Recognising and reporting unsafe conditions, and correcting unsafe conditions when appropriate.
- (e) The authorities, roles, responsibilities and identification of ECO members.
- (f) Reacting safely to emergencies and alarms.
- (g) Evacuation procedures.
- (h) The location of internal and external staging and assembly areas, as contained in the emergency plan.
- (i) The location of egress routes.
- (j) Post-emergency protocols.
- (k) Procedures for specific emergencies.

6.4.2 Occupants not working at a facility

Occupants of a facility, who do not work at that facility, should receive training to enable them to act in accordance with the emergency response procedures. The training should include, but not necessarily be limited to, the items listed in Clause 6.4.1. If training is not given, equivalent information should be provided.

6.4.3 Visitors

Visitors at the facility should be provided with appropriate information on the emergency response procedures, as determined by the EPC.

6.5 SKILLS RETENTION

6.5.1 ECO skills retention

6.5.1.1 General

ECO members, including nominated deputies, shall attend a skills retention activity at intervals not greater than 6 months.

Skills retention activities shall—

- (a) be determined by the EPC, based on the specific requirements for the facility and its emergency plan;
- (b) include revision of roles and responsibilities as set out in the emergency response procedures; and
- (c) include instruction on the operation of the communications system (if installed).

Skills retention activities may also include, but not necessarily be limited to, table-top exercises and evacuation exercises for the ECO.

6.5.2 Occupant skills retention

In workplaces, occupants should participate in skills retention activities at intervals not greater than 12 months, to enable them to act in accordance with the emergency response procedures.

Occupants' skills retention activities shall address the following:

- (a) Responding to alarms and reports of emergencies.
- (b) Personal emergency evacuation plans, where these are in place.
- (c) Procedures for specific emergencies as contained in the emergency response procedures.
- (d) Identification of ECO members

Occupant skills retention may be delivered by various methods (e.g., verbal, classroom, diagrams and online).

6.5.3 First-attack firefighting

Where first-attack firefighting by specific occupants is included in the emergency procedures, these occupants shall attend a skills retention activity in first-attack firefighting at intervals not greater than two years.

6.5.4 Emergency response

Where a specialist ERT has been deemed necessary, the ERT members shall attend a skills retention activity in their specific procedures at intervals not greater than one year.

6.6 COMMUNICATIONS SYSTEM

All ECO members shall be instructed on the operation of the communication system (if installed).

Regular checks of the communication system should be carried out, either at monthly intervals, or as determined by the EPC. Records shall be retained.

NOTES:

- 1 Communication systems include EWIS, s.s.e.p., PA systems, paging, portable occupant warning equipment, strobe lights and colour-coded lights.
- 2 The conduct of regular checks by ECO members provides the necessary practice in the effective use of the system and the timely identification of any system faults.
- 3 AS 1851 sets out step-by-step requirements and time intervals for the verification of elements and equipment relating to emergency response procedures.

6.7 TRAINING MATERIALS

The ECO and occupants shall be supplied with training materials appropriate to each person's role and level of responsibility as determined by the emergency plan. Training materials shall be site specific.

Materials shall be supplied in a format that can be comprehended by the recipient, which may include, but not be limited to, the following formats:

- (a) Printed.
- (b) Large print.
- (c) Electronic.
- (d) Audio.

- (e) Braille.
- (f) Languages other than English.
- (g) Single reference charts/flip charts.

When emergency colour codes are used, they shall be in accordance with Clause 4.3.

DRAFT

SECTION 7 EMERGENCY RESPONSE EXERCISES

7.1 GENERAL

A program of site-specific emergency response exercises shall be developed in collaboration with the facility owners, managers, occupiers and employers each facility to determine the effectiveness of the emergency response procedures, ECO actions and occupants' response, both when first developed and on an ongoing basis.

The initial testing and implementation of the emergency response exercises and first full-scale evacuation shall be in accordance with Clause 7.2. The ongoing program of emergency response exercises shall be in accordance with Clause 7.3.

The following should apply for all emergency response exercises (see Notes 1 and 2):

- (a) Emergency response exercises should be consistent with the identified emergencies in the emergency plan.
- (b) Simple objectives and outcomes for emergency response exercises should be identified (see Notes 3 and 4).
- (c) Observers should be appointed for all emergency response exercises. The observers shall use a checklist to record the details of the emergency response exercise (see Notes 5 and 6).
- (d) Each emergency response exercise should be prefixed by an announcement that it is an exercise only.
- (e) Debriefing sessions should be held in accordance with Clause 7.6.
- (f) A report shall be forwarded to the EPC following each emergency response exercise. The report shall include any deficiencies in the evacuation exercise that were identified at the debriefing session.

NOTES:

- 1 Emergency response exercises should be conducted during the operating hours of the facility to appropriately test the ECO, emergency response procedures and responses of the occupants and visitors.
- 2 An example of objectives for an emergency response exercise is to gauge ECO response and to identify and correct any deficiencies in communication system(s), training, emergency response procedures, or their implementation.
- 3 The targeted outcomes for emergency response exercises should include the following, as appropriate to the emergency response procedures:
 - (a) ECO initiates the emergency procedure without waiting for instructions.
 - (b) ECO responds to alarms.
 - (c) ECO searches their allocated area without delay.
 - (d) ECO reports the location of any occupants and visitors with a disability.
 - (e) Simulated calls made to the Emergency Service, as appropriate.
 - (f) Effective ECO communication.
 - (g) The designated location for controlling the emergency is staffed immediately by the chief warden.
 - (h) The evacuation sequence is carried out in accordance with the procedures.
- 4 An observer's role is to observe and note the action taken by ECO members and occupants during the evacuation exercise.
- 5 See Appendix G for an example of an observers' checklist.

7.2 INITIAL TESTING AND IMPLEMENTATION

Once the EPC has established that the emergency response procedures are satisfactory and workable and the ECO has been trained, the emergency response procedures shall be tested within the first 12 months. The first emergency response exercise should be an evacuation exercise (see Note 1).

When the ECO and procedures have been proven to be satisfactory, the first large-scale evacuation should be held.

The EPC in collaboration with the facility owners, managers, occupiers and employers should arrange for occupants to be notified before the evacuation exercise takes place. Adequate planning time, including the proposed date, shall be given since the first evacuation can be difficult enough without the added confusion brought about by surprise.

All occupants and ECO members shall have participated in an evacuation exercise in the first 12 months of the implementation of the emergency response procedures.

NOTES:

- 1 If the facility is large or a multi storey building, a partial evacuation may be undertaken to test the emergency response procedures and the ECO in the first instance.
- 2 Notification may be carried out by various members of the ECO facility owners, managers, occupiers and employers thus enabling the occupants to identify their warden(s) and become aware of their responsibilities.
- 3 Realistic performance targets may be considered as a measure of the procedures' effectiveness.
- 4 The ECO should be briefed to give extra assistance to staff during the initial evacuations.
- 5 It should be accepted by management that the emergency response procedures be properly tested and that all ECO members have sufficient practice to ensure their effectiveness in an emergency situation. In less complex facilities this may only be a matter of sounding the alarm, having people walk to the assembly area and accounting for people. With the experience gained from the first evacuation, subsequent evacuation exercises will become more realistic.

7.3 ONGOING PROGRAM

Following the implementation phase, a program of site-specific emergency response exercises shall be developed for each facility. A program of evacuation exercises shall be included.

The size and configuration of the facility, together with the type of occupancy, will determine the type and time interval between emergency response exercises. These may be conducted either as partial emergency response exercises or a total emergency response exercise covering the entire facility. All areas of a facility shall participate in at least one emergency response exercise in each 12 monthly period.

All occupants of the floor(s) or area(s) involved in the emergency response exercise shall take part, unless the EPC grants a written exemption prior to conducting the emergency response exercise.

NOTES:

- 1 The aim of emergency response exercises is to have all occupants participate in at least one emergency response exercise per year consistent with the nature of the facility and its identified emergencies.
- 2 For training purposes, exemptions may be treated by the ECO as refusals for the emergency response exercise.
- 3 Where exemptions to remain are given, the ECO should report the exempted occupants to the chief warden.

7.4 ECO BRIEFING

When planning any emergency response exercise, consideration shall be given to briefing the ECO. The briefing may address, but not be limited to the following:

- (a) The location of the planned scenario.
- (b) The identity of the wardens.
- (c) The type of alarms and alarm system, (if installed).
- (d) Actions that the ECO is to take in response to the alarm signals.
- (e) The method of reporting emergencies.
- (f) The location of the staging area on the occupants' floor or area if applicable.
- (g) The evacuation routes to be taken.
- (h) The location of assembly or designated alternative areas that provide safe refuge, internally or externally.
- (i) Occupants who have approved exemptions prior to the exercise.
- (j) Notification of any current temporary hazards within the facility and known systems failure relating to systems and equipment.
- (k) What is required at the completion of the exercise.

7.5 OBSERVERS' CHECKLIST

An observers' checklist shall be prepared for the specific facility where the evacuation exercises take place.

NOTES:

- 1 The checklist should be completed for each evacuation exercise and should provide the basis for discussion at the debriefing.
- 2 An example of a checklist is given in Appendix G.

7.6 EMERGENCY RESPONSE EXERCISE DEBRIEFING SESSION

Immediately after an emergency response exercise, the ECO and other key participants shall attend a debriefing session conducted by the chief warden.

Where an evacuation exercise is conducted, the observer's checklist shall be analysed during debriefing sessions and any deficiencies shall be reported to the EPC.

The EPC shall arrange the amendment of the procedures, where necessary, and disseminate the information to all ECO members.

7.7 AN EMERGENCY DURING AN EMERGENCY RESPONSE EXERCISE

A pre-determined word or phrase, for example, 'NO DUFF' shall be disseminated to all ECO members, for use when an actual emergency incident takes place during an emergency response exercise. The word or phrase shall signify that the emergency response exercise has been terminated and that the ECO are to stand by for further instruction.

NOTE: The word or phrase may be repeated in groups of three to overcome background noise and other distractions.

SECTION 8 REVIEW AND MAINTENANCE

8.1 EMERGENCY PLAN

The emergency plan and associated elements developed to meet the requirements of this standard shall be inspected, tested and maintained.

Checking and testing of emergency plan elements are categorized in AS 1851 into the following two categories:

- (a) Critical emergency evacuation system elements.
- (b) Other emergency evacuation system elements and procedures.

Any deficiency in the emergency plan or associated elements shall be reported to management at the completion of the inspection or testing and shall be rectified with the minimum of delay. Confirmation of the rectification shall be forwarded to the EPC.

Records shall be kept of all inspection, testing and maintenance activities.

NOTE: Australian Standard AS 1851 provides guidance on carrying out the emergency plan and the associated elements inspection, testing and maintenance activities.

8.2 COMMUNICATION SYSTEM

Regular checks of the communication system shall be carried out, either at monthly intervals, or as determined by the EPC. Records shall be retained.

NOTES:

- 1 Communication systems include s.s.e.p. (EWIS, PA systems, paging, portable occupant warning equipment), strobe lights and colour coded lights.
- 2 The conduct of regular checks by ECO members provides the necessary practice in the effective use of the system and the timely identification of any system faults.

APPENDIX A

FIRE/SMOKE

(Informative)

A1 GENERAL

This Appendix provides basic guidance on planning and response for fire and smoke emergencies. The information contained in this appendix is not sufficient, in itself, to adequately plan for a fire/smoke emergency in a facility.

A2 ESSENTIAL STEPS

Fire response within facility-specific emergency response should embrace the following four essential steps, which in most cases will need to be initiated concurrently:

- (a) *Life safety* Ensuring the immediate safety of anyone within the facility in a fire situation takes precedence over commercial operations and property/asset protection.
- (b) *Call the fire brigade* Calling the fire brigade in all incidents of fire or suspicion of fire (e.g., smell of smoke) as per facility emergency response procedures. There should be no criticism of any person who uses initiative in this respect nor should such action need another person's permission.

It is very important that where the fire brigade has been called by automatic means or by activating a manual call point, this is followed by a telephone call to confirm receipt of alarm and provide further information; for example, confirmation of the fire and its location.

- (c) *Evacuation* The emergency response procedures should have specific detail of emergency evacuation actions in a fire situation:
 - (i) *Effective warning arrangement* A suitable arrangement to advise occupants and visitors of a fire emergency should be available and outlined in the emergency response procedures.
 - (ii) *Assessment of all evacuation routes* Egress routes should be assessed for safety during the emergency. The effects of smoke in a fire situation may require alternative egress routes. It is important that these assessments include the requirements of occupants and visitors with a disability.
- (d) *Fight the fire* Many facilities have fire hose reels or portable fire extinguishers. Where these are installed, information should be provided to cover their selection, use and operation, (see also Section 6 for training requirements); however, immediately it becomes obvious that there are unacceptably high risks associated with attempts to control a fire, occupants should withdraw, closing but not locking doors behind them.
- (e) In facilities where layflat hoses are installed, occupants are not to attempt to use them unless specialized training has been provided; for example, to members of designated facility emergency response teams.

APPENDIX B

BOMB THREAT

(Informative)

B1 GENERAL

This Appendix provides basic guidance on planning and response in case of a bomb threat. The information contained in this Appendix is not sufficient, in itself, to adequately plan for a bomb threat.

Bomb threat is a serious public nuisance of modern times. Each bomb threat could be a prank or a warning of an impending bomb attack. Usually, they are committed by individuals seeking to create a state of alarm and confusion on an otherwise peaceful organization. The problem may be minimized by proper site-specific planning and nomination of appropriate decision-making authorities.

B2 THREATS

Bomb threats may be in one of the following forms:

- (a) *Written threat* If a bomb threat is received in writing, it should be kept, including any envelope or container. Once a message is recognized as a bomb threat, further unnecessary handling should be avoided. Every possible effort has to be made to retain evidence such as possible fingerprints, handwriting or typewriting, paper and postmarks. Such evidence should be protected by placing the evidence in an envelope (preferably a plastic envelope).
- (b) *Telephone threat* An accurate analysis of the telephone threat can provide valuable information on which to base recommendations, action and subsequent investigation. The person receiving the bomb threat by telephone should, as soon as possible, complete the information required by a bomb threat checklist. A bomb threat checklist should be held by telephonists and other persons who regularly accept incoming telephone calls.

NOTE: An example of a phone threat and bomb threat checklist is given in Appendix H.

- (c) *Suspect object* A suspect object is any object found on the premises and deemed a possible threat by virtue of its characteristics, location and circumstances.

B3 EVALUATION

B3.1 General

Following an analysis of information received, the chief warden, or in his absence, the deputy chief warden should categorize the bomb threats, which may be either specific or non-specific as follows:

- (a) *Specific threat* The caller will provide more detailed information, which could include statements describing the device, why it was placed, its location, the time of activation and other details. Although less common, the specific threat is the more credible.
- (b) *Non-specific threats* An individual may make a simple statement to the effect that a device has been placed. Generally very little, if any, additional detail is conveyed before the caller terminates the conversation.

The non-specific threat is the more common, but neither threat can be immediately discredited without investigation. In other words, every threat has to be treated as genuine until proven otherwise.

B3.2 Actions

The following four options are a guide to action following the evaluation of the threat:

- (i) Take no further action.
or
- (ii) Search without evacuation.
or
- (iii) Evacuate and search.
or
- (iv) Evacuate (without search).

Each of these options will have advantages and disadvantages related to safety, speed of search, thoroughness, productivity and morale, and has to be assessed against the potential risk.

B4 NOTIFICATION

Upon receipt of a threat or discovery of a suspect object, the Police should immediately be advised; however, it should not be assumed that the Police will conduct bomb searches. An advantage to having developed a bomb incident plan is that coordination with public safety organizations will have been arranged with a clear understanding of exactly what services can be provided, by whom and when.

An analysis of a threat or the discovery of a suspect object should determine the requirements to evacuate the building, structure or workplace. In any circumstance where an occupier determines that an evacuation of their area is necessary, the affected occupier should first notify the ECO so that the emergency plan can be implemented.

B5 SEARCH

B5.1 General

The most appropriate personnel to carry out a search, in any given area, are the occupants of the building, structure or workplace because they have the knowledge of 'what belongs' or 'what does not belong' in a location at any given time.

The aim of the search is to identify any object that is not normally found in an area or location, or for which an owner is not readily identifiable or becomes suspect for any other reason, for example—

- (a) a suspiciously labelled object;
- (b) an object similar to that described in the threat;
- (c) an object of unusual size, shape and sound; or
- (d) the presence of pieces of tape, wire, string or explosive wrappings, or other unfamiliar materials.

On locating a suspect object, search personnel should not touch, cover or move it.

The location should be conspicuously marked, for example, a paper trail to the nearest exit is most suitable. After ensuring there are no other suspect objects in the vicinity, the area should be evacuated and isolated. Search of other areas should continue to ensure that there are no other suspect objects.

NOTES:

- 1 Law enforcement authorities, i.e., the police, do not normally assist occupants of buildings, structures or workplaces in searching for suspect bombs unless a suspect bomb has been located by the site occupants.
- 2 Care should be exercised with mobile phones, radio sets, wireless technology transmission and any other equipment producing electromagnetic radiation in situations where improvised explosive devices are suspected. Such equipment should not be used until clearance is given by the attending bomb technicians.

B5.2 Search sequence

General priorities for searching should follow the following sequence:

- (a) Outside areas including evacuation assembly areas.
- (b) Building entrances and exits and, particularly, paths people will use to evacuate.
- (c) Public areas within buildings.

NOTE: Most buildings contain public areas that are accessible for the placement of an 'object'. These areas usually provide a means of exit, which evacuees have to pass through, or be in proximity to, during an evacuation.

- (d) Other areas.

NOTE: Once external and public areas have been declared clear, a search should be conducted beginning at the lowest levels and continuing upwards until every floor, including the roof, has been searched. Once a floor or room has been searched, it should be distinctively marked to avoid duplication of effort. The ECO members, due to their intimate knowledge of the building, should assist the relevant authorities in these procedures.

B6 EVACUATION OPTIONS**B6.1 General**

If the decision to evacuate is made, people should be requested to remove all personal belongings, e.g. handbags, briefcases, shopping or carry bags, when evacuating. This will facilitate the identification of suspect objects.

B6.2 Limitations of total evacuation

At first thought, immediate and total evacuation would seem to be the most appropriate response to any bomb threat. However, the evacuation procedures in response to a bomb threat do not necessarily follow those for a fire, for example, doors and windows should be opened, to lessen blast effect, and not closed as in the case of fire. Additionally, there are significant safety and economic factors associated with a bomb threat, which may weigh against an immediate evacuation, as follows:

- (a) *Risk of injury* As a general rule, the easiest area in which to plant an object is in the shrubbery sometimes found outside a building, an adjoining car park or in an area to which the public has the easiest access. Immediate evacuation through these areas might increase the risk of injury and car parks should not normally be used as assembly areas.
- (b) *Response limitation* Total and prompt evacuation will remove personnel who may be required to make a search.
- (c) *Panic* A sudden bomb threat evacuation may cause panic and unpredictable behaviour, leading to unnecessary risk of injury.
- (d) *Essential services* Some evacuations may be precluded by the essential nature of the operations conducted within the building.

- (e) *Loss to business services* While the protection of life should outweigh any economic loss, repeated threats may increase loss of business and interruption of services to an unacceptable level.

There are some conditions that make immediate total evacuation an undesirable response to the bomb threat. Total and immediate evacuation, whilst risky, is the easy decision, and having taken the easy way, the hard decision of when to return still has to be made.

B6.3 Partial evacuation

One alternative to total evacuation is a partial evacuation. This response is particularly effective when the threat includes the specific or general location of the placed object or in those instances where a suspicious object has been located without prior warning.

Partial evacuation may reduce risk of injury by removing non-essential personnel. Personnel essential to a search may remain, critical services may be continued and, in cases of repeated threat, loss of output will be minimized. Partial evacuation requires a high degree of planning, training, supervision, coordination and rehearsal.

Suspect mail items have many similarities in common with other 'suspect articles', which may be encountered by any enterprise or individual. The philosophy of handling these items varies and is outside the scope of this document, but in the context of this Standard the procedures are the same.

B7 SUSPECT ITEMS

B7.1 Identifying an item as suspect

Suspect items may be encountered by any enterprise or individual. It is not possible to provide a definitive list of indicators that would cause an item to be considered suspect. The following questions provide a means of assessing if an item should be considered suspect:

- (a) Is the item unidentified?
- (b) Is the item unusual or foreign to its environment? / Is the item typical for its environment?
- (c) Is the item obviously a bomb?
- (d) Is the item hidden or concealed in any way?
- (e) Has there been any unauthorized access to the area?
- (f) Has there been a perimeter breach?

This series of questions may be remembered using the mnemonic, 'HOT-UP' as shown in Figure B1.



FIGURE B1 'HOT-UP'

B7.2 Actions to be taken

The following actions should be considered for dealing with a suspect item:

- (a) The supervisor is to be informed.
- (b) Cordon-off immediate area.
- (c) Advise ECO/Security who will assess the need to alert Emergency Services.
- (d) Respond to the directions of Emergency Services if they are contacted.

A suspect item should not be moved or touched.

B8 SUSPECT MAIL ARTICLES

Suspect mail items have many similarities in common with other 'suspect articles', which may be encountered by any enterprise or individual. The philosophy of handling these items varies and is outside the scope of this document.

All occupants responsible for handling mail should be trained in the identification and subsequent handling of suspect mail items. Where large quantities of mail are received, or where the organization is considered at high risk, then consideration for the installation of specialized equipment has to be a management priority. Where necessary, further information can be obtained through the Australian Bomb Data Centre (ABDC).

NOTE: The ABDC has produced a handbook for managers, which provides detailed guidelines for planning for bomb threats and identifying/handling suspect mail items titled, *Bombs Defusing the Threat, Incorporating Mail Bomb Countermeasures*. Organizations may obtain the publication by writing to the Australian Bomb Data Centre, Australian Federal Police Headquarters, Canberra.

B9 TYPES OF BOMB DELIVERY

Types of bomb delivery include the following:

- (a) *Courier-delivered bomb* An explosive device delivered by a courier.
- (b) *Improvised explosive device (IED)* A device fabricated in an ad hoc manner which contains explosive components designed to, or capable of, causing unlawful injury or damage.
- (c) *Mail bomb* An IED sent through the postal system
- (d) *Placed bomb* An explosive device hand-delivered or purposefully placed.
- (e) *Vehicle bomb* A bomb in which a vehicle is used as the means of delivery. It may be designed to use the vehicle as fragmentation.

APPENDIX C
CIVIL DISORDER AND ILLEGAL OCCUPANCY
(Informative)

C1 GENERAL

This Appendix provides basic guidance on planning and response for civil disorder and illegal occupancy. The information contained in this Appendix is not sufficient, in itself, to adequately plan for civil disorder and illegal occupancy.

Planning for these emergencies may be done in consultation with the police or other specialist advisers and should be specific to the facility. This planning should be consistent with the facility's security standard operating procedure.

There have been many examples where industrial unrest, an emotional international situation or an unpopular political decision, have led to public demonstrations.

Planning for emergencies should include the development of procedures and guidelines aimed at minimizing the danger to facility occupants and visitors, and may include the risks of asset and revenue loss.

The ECO, together with managers and supervisors may be responsible for co-ordinating the response to such incidents, until the arrival of police to whom they should provide such assistance as may be required.

Managers and supervisors can contribute in a practical way to the satisfactory resolution of these emergencies by ensuring withdrawal of their staff where necessary, supervising the locking up of offices, securing records, files, cash and other valuable property while at the same time promoting an air of confidence and calm.

C2 RESPONSE

Immediately the chief warden is aware of civil disorder occurring in, or in the vicinity of, the facility, the imminence of such an event, or an unauthorized entry into the facility by a disaffected person or group, the chief warden or any senior member of the ECO who is in a position to act, should take the following action:

- (a) Notify the police and request assistance;
- (b) Alert members of the ECO;
- (c) Inform facility occupants and visitors of restrictions to be implemented; and
- (d) Initiate the following actions:
 - (i) *For illegal occupants—*
 - (A) restrict illegal occupants to affected area;
 - (B) restrict facility occupants' and visitors' access to affected area;
 - (C) inform occupants and visitors of unaffected areas to remain at their location unless otherwise advised; and
 - (D) implement specific facility security protocols.
 - (ii) *For civil disorder—*
 - (A) restrict access to and egress from the facility;
 - (B) inform occupants and visitors of unaffected areas to remain at their location unless otherwise advised;

- (C) restrict contact between the demonstrators and the facility occupants;
- (D) implement specific facility security protocols;
- (E) restrict the use of external non-emergency communication; and
- (F) notify managers and supervisors.

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APPENDIX D

EXAMPLE OF A PERSONAL EMERGENCY EVACUATION PLAN (PEEP)

(Informative)

PERSONAL EMERGENCY EVACUATION PLAN

Occupant's Name:

Location:

Building/Facility

Floor

Room Number

Is an Assistance Animal involved? Yes ☐ No ☐Are you trained in the emergency response procedures (including the evacuation procedures)? Yes ☐ No ☐

Preferred method of receiving updates to the emergency response procedures:

(Please state, e.g. text, Braille, email, etc.)

Preferred method for Notification of Emergency:

(Please state, e.g. visual alarm, personal vibrating device, SMS, etc. Add lines as necessary)

Type of assistance required:

(Please list procedures necessary for assistance. Add lines as necessary)

Equipment required for evacuation:

(Please list. Add lines as necessary)

Egress procedure:

(Give step by step details. Add lines as necessary)

1.
2.
3.
4.

Designated assistants and Contact details:

(Please list name, phone, mobile, email. Add lines as necessary)

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Are your designated assistants trained in the emergency response procedures
(including the evacuation procedures)?

Yes ☐ No ☐

Are your designated assistants trained in the evacuation equipment?

Yes ☐ No ☐

Diagram of preferred route for assisted evacuation:

(Please provide diagram)

Issue Date: / /

Review Date: / /

Occupant approved: Date: / /
(signature)

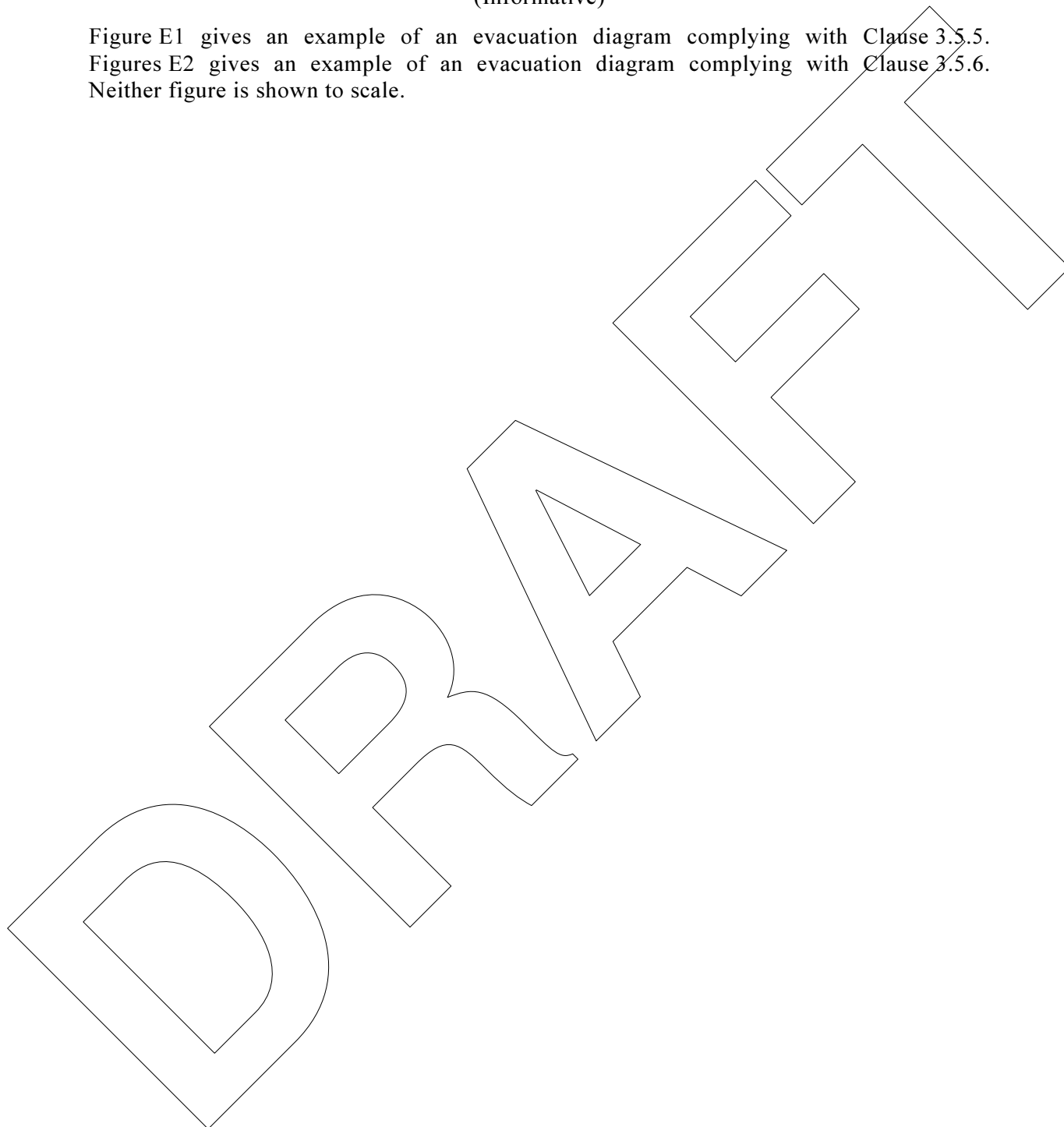
Chief Warden: Date: / /
(signature)

APPENDIX E

EXAMPLE EVACUATION DIAGRAMS

(Informative)

Figure E1 gives an example of an evacuation diagram complying with Clause 3.5.5. Figure E2 gives an example of an evacuation diagram complying with Clause 3.5.6. Neither figure is shown to scale.

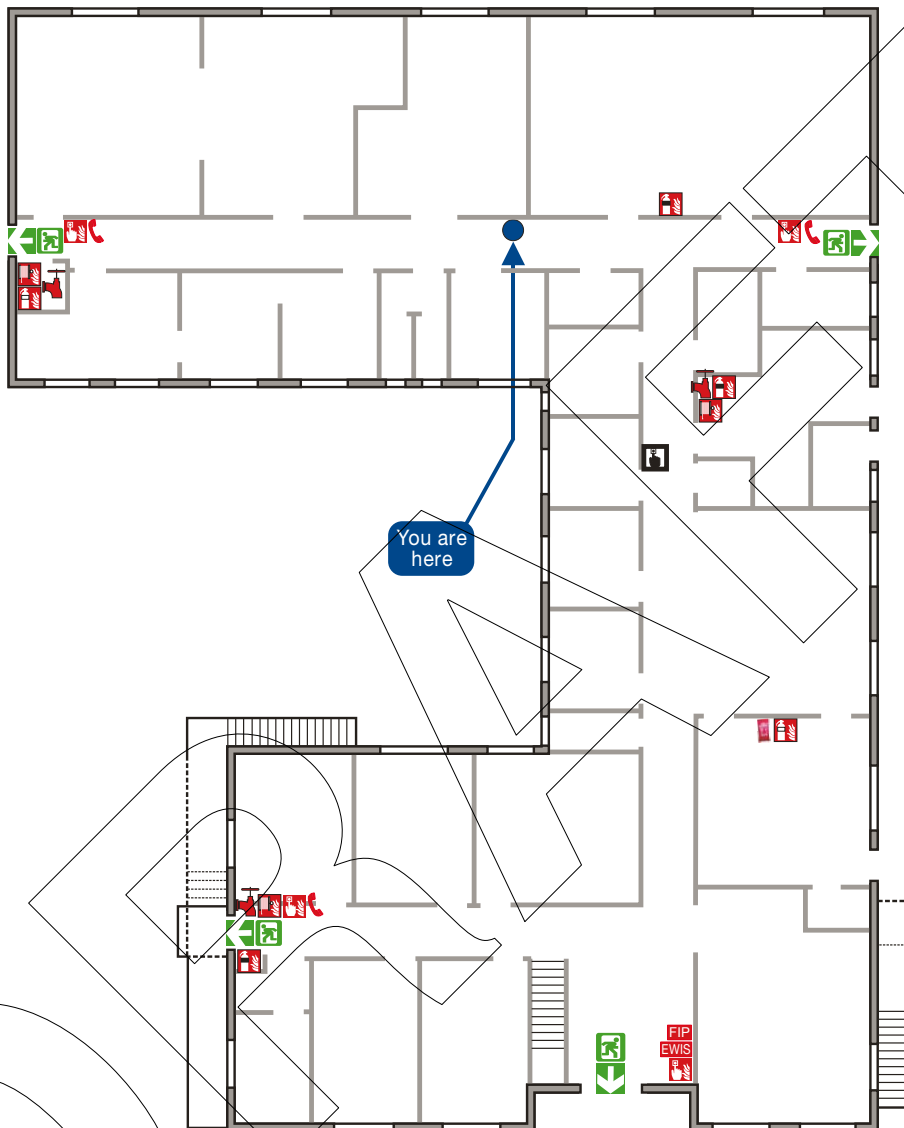


Evacuation Diagram

Name

Address

Assembly Area:



	CO ₂ extinguisher		Fire indicator panel		Fire blanket		Emergency Warning and Intercommunication System
	Dry chemical powder extinguisher		Manual call point		Fire hydrant		Emergency phone (WIP)
	Fire hose reel		Emergency call point		Emergency exit		

Date Issued: D MM YYYY

Validation Date: D MM YYYY

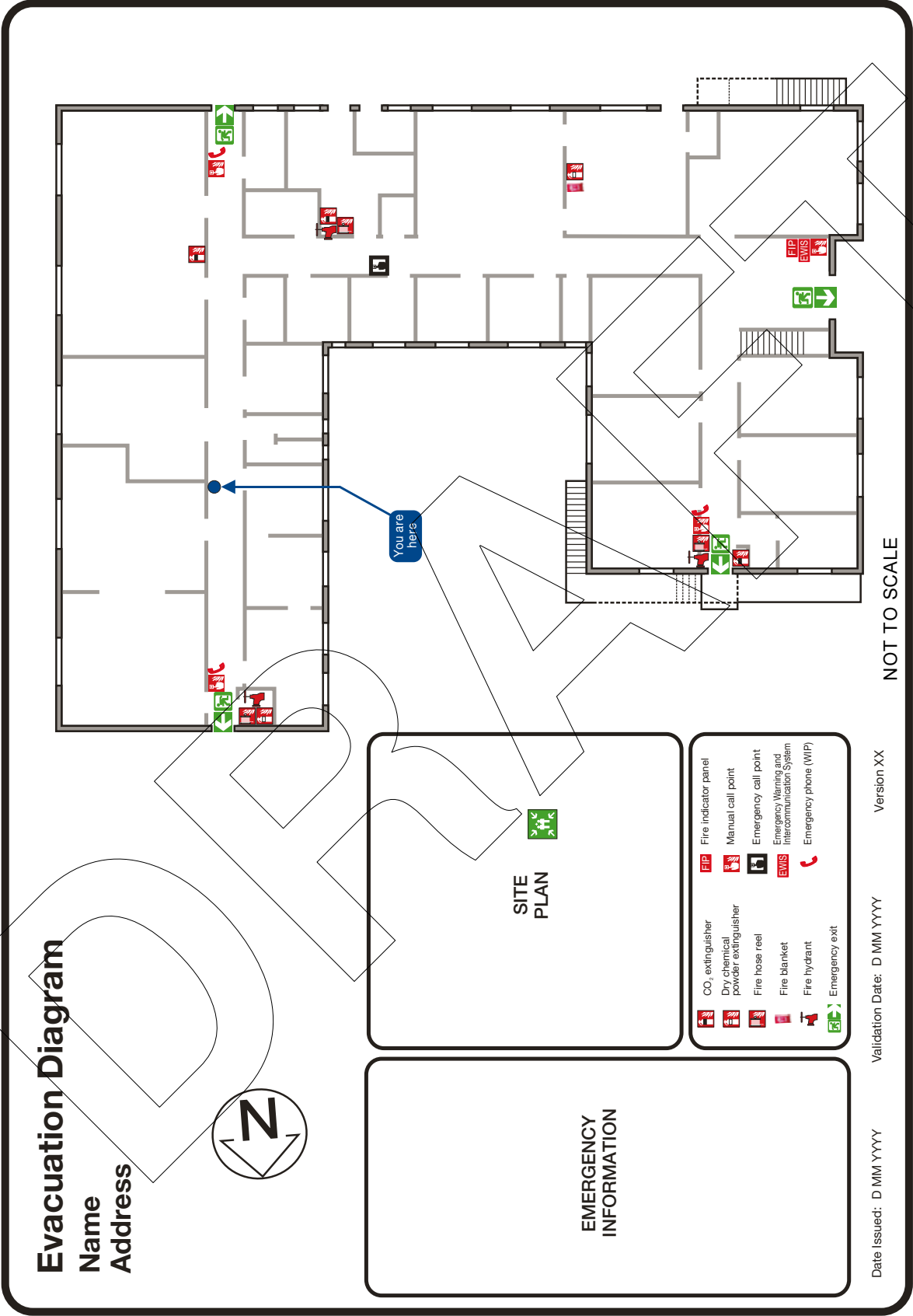
Version XX

NOT TO SCALE

NOTES:

- 1 Refer to Clause 3.5.5 for the list of minimum elements to be included on an evacuation diagram.
- 2 A refuge is not depicted in this diagram. Refuges are included if they are present at the facility.

FIGURE E1 EXAMPLE OF AN EVACUATION DIAGRAM DISPLAYING MINIMUM ELEMENTS—A4 MINIMUM SIZE



NOTE: Refer to Clause 3.5.6 for the list of optional elements that may be included on the evacuation diagram.

FIGURE E2 EXAMPLE OF AN EVACUATION DIAGRAM DISPLAYING MINIMUM AND OPTIONAL ELEMENTS—A3 MINIMUM SIZE

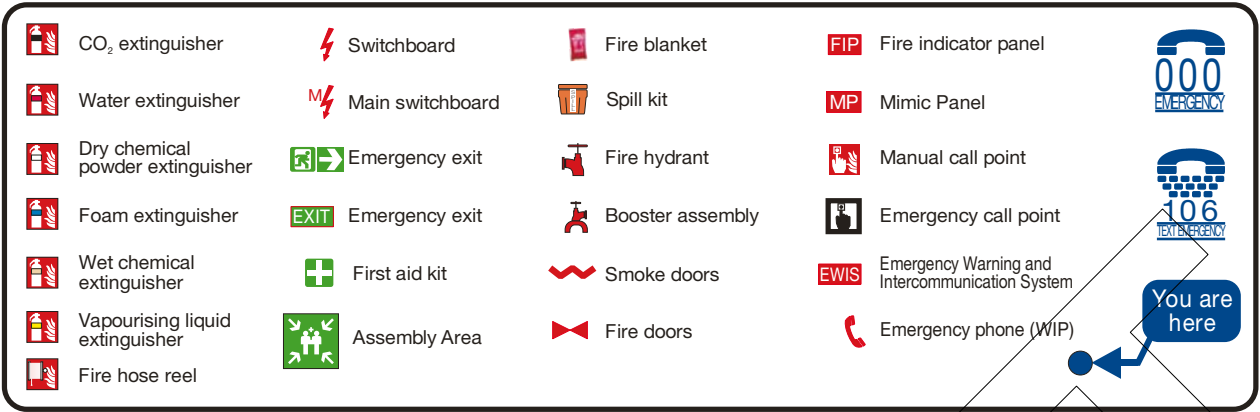


FIGURE E3 EXAMPLES OF SYMBOLS USED IN EVACUATION DIAGRAMS

APPENDIX F

GUIDANCE ON DETERMINING ECO NUMBERS

(Informative)

F1 GENERAL

A sufficient number of ECO members need to be appointed to ensure that whenever the facility is occupied, ECO members are available to respond to a facility emergency and to enable the facility to be checked and evacuated quickly and efficiently without compromising any occupants' and visitors' safety.

The number of ECO members required for a facility will vary depending upon the facility's structural and occupant/visitor characteristics. Characteristics that may impact on the number of ECO members are listed in Paragraphs F2 and F3. In addition, life safety and management and use provisions need to be considered such as—

- (a) fire safety audits;
- (b) risk assessments;
- (c) fire safety engineering reports;
- (d) fire safety plans;
- (e) method of warning occupants and visitors;
- (f) the evacuation strategy (staged, horizontal, etc);
- (g) use of evacuation routes; and
- (h) use of lifts.

Once all of the necessary information has been collected, an analysis of the needs relating to occupant and visitor evacuation should be made to assist in determining the appropriate number of ECO members to be selected.

The analysis may be based on data from the literature, field studies or simulated evacuations and engineering judgement. In some cases the regulatory approval process may have required a fire engineering report or the analysis of occupant and visitor evacuation and this could be used for this process.

F2 FACILITY STRUCTURAL CHARACTERISTICS

The following facility structural characteristics should be taken into account when determining ECO numbers:

- (a) *Occupancy* Including—
 - (i) building classification; and
 - (ii) facility usage, particularly unusual uses.
- (b) *Location* Including—
 - (i) proximity to other buildings and boundaries; and
 - (ii) proximity to other hazards.
- (c) *Size and shape* Including—
 - (i) number and size of floors/zones/areas;
 - (ii) layout; and

- (iii) egress.
- (d) *Structure* Including—
 - (i) construction materials;
 - (ii) openings, shafts and ducts; and
 - (iii) ventilation and air movement.
- (e) Unusual features.
- (f) Hazards to occupants and visitors.
- (g) Fire safety measures.
- (h) Management and use.
- (i) Training of occupants.
- (j) Maintenance frequency and adequacy of maintenance regimes.
- (k) Firefighting concerns.

F3 OCCUPANT AND VISITOR CHARACTERISTICS

Occupant and visitor characteristics that should be considered include the following:

- (a) Number, gender, age, location and state, for example awake or asleep, intoxicated or sober, unconscious or fully conscious.
- (b) Physical attributes, for example, mobility, speed of travel.
- (c) Hearing ability.
- (d) Vision ability.
- (e) Mental attributes.
- (f) Level of understanding.
- (g) Potential emergency behaviour.
- (h) Ability to interpret cues.
- (i) Ability to take and implement decisions independently.
- (j) Level of assistance required, for example, requires full assistance, requires some assistance or does not require assistance.
- (k) Level of assistance available.
- (l) Shift schedules.
- (m) Staff, occupant and visitor numbers and type at any time in facility.
- (n) Emergency training, for example trained or untrained.
- (o) Occupant (group) roles, for example, parent or child, teacher or student, nurse or patient, staff or customer.
- (p) Activity at the outbreak of fire, for example, asleep or awake.
- (q) Working in a noisy environment.
- (r) Watching a performance.
- (s) Familiarity with the building, i.e., unfamiliar, relatively familiar or familiar.

APPENDIX G
EXAMPLE OF AN EMERGENCY EVACUATION EXERCISE
OBSERVERS' CHECKLIST

(Informative)

DATE:

ADDRESS:

FLOOR OR AREA:

EVACUATION SEQUENCE	TIME	
	HOURS	MINUTES
Alarm sounded		
Warden(s) respond		
Wardens check floor or area		
Evacuation commenced		
Wardens report floor or area clear		
Persons with disabilities accounted for		
Arrive at assembly area, safe place		
Wardens check personnel present (where appropriate)		
Evacuation completed		
Exercise terminated		

COMMENTS:

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OBSERVER:

(CAPITALS)

SIGNED:

APPENDIX H EXAMPLE OF A PHONE THREAT CHECKLIST

(Informative)

This Appendix provides an example of a typical phone threat and bomb threat checklist (see next page). It is reproduced from the Australian Bomb Data Centre Bomb Safety Awareness Kit, with the permission of the Australian Bomb Data centre.

PHONE THREAT CHECK LIST® KEEP CALM RECIPIENT

Name (print):
Telephone number:
Signature:

GENERAL QUESTIONS TO ASK:

1. What is it ?
2. When is the bomb going to explode ?
OR
When will the substance be released ?
3. Where did you put it ?
4. What does it look like ?
5. When did you put it there ?
6. How will the bomb explode ?
OR
How will the substance be released ?
7. Did you put it there ?
8. Why did you put it there ?

CHEMICAL / BIOLOGICAL THREAT QUESTIONS

1. What kind of substance is in it ?
2. How much of the substance is there ?
3. How will the substance be released ?
4. Is the substance a liquid, powder or gas ?

BOMB THREAT QUESTIONS

1. What type of bomb is it ?
2. What is in the bomb ?
3. What will make the bomb explode ?

EXACT WORDING OF THREAT:

CALLER'S VOICE

Accent (specify):
Any impediment (specify):
Voice (loud, soft, etc):
Speech (fast, slow, etc):
Diction (clear, muffled):
Manner (calm, emotional, etc):
Did you recognise the caller ?
If so who do you think it ?
Was caller familiar with the area ?

THREAT LANGUAGE

Well spoken:
Incoherent:
Irrational:
Taped:
Message read by caller:
Abusive:
Other:

BACKGROUND NOISES

Street noises:
House noises:
Aircraft:
Voices:
Music:
Machinery:
Other:
Local Call:
STD Call:

NOTES:

OTHER

Sex of caller: Estimated age:

CALL TAKEN:

Date: Time:
Duration of call:
Number called:

ACTION (OBTAIN DETAILS FROM SUPERVISOR)

Report call immediately to:
Phone number:

AUSTRALIAN BOMB DATA CENTRE
GPO Box 401 CANBERRA ACT 2601
Telephone: 02 6287 0750 Facsimile: 02 6287 0770

BIBLIOGRAPHY

- AS
1851 Maintenance of fire protection systems and equipment
4083 Planning for emergencies—Health care facilities

*** END OF DRAFT ***

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PREPARATION OF AUSTRALIAN STANDARDS

Australian Standards are prepared by a consensus process involving representatives nominated by organizations drawn from all major interests associated with the subject. Australian Standards may be derived from existing industry Standards, from established international Standards and practices or may be developed within a Standards Australia technical committee.

During the development process, Australian Standards are made available in draft form at all sales offices and through affiliated overseas bodies in order that all interests concerned with the application of a proposed Standard are given the opportunity to submit views on the requirements to be included.

The following interests are represented on the committee responsible for this draft Australian Standard:

Association of Consultants in Access, Australia
Australasian Fire and Emergency Service Authorities Council
Australia Post
Australian Bomb Data Centre
Department of Defence (Australia)
Department of Human Services (Victoria)
Fire Protection Association Australia
Physical Disability Council of Australia
Property Council of Australia
Safety Institute of Australia (Incorporated)
University of Western Sydney

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