



Fire Safety Guideline
Emergency Evacuation of Cinemas

MFS Fire Safety Guideline for the Emergency Evacuation of Cinemas

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Emergency Evacuation of Cinemas

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Glossary	Updated
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Definitions	Added

CONTENTS

Glossary.....	4
Referenced Documents.....	4
Definitions	4
1 Purpose.....	5
2 Fundamental Principles of Evacuation	5
3 Staged Evacuation	5
4 Occupant Information Systems.....	5
5 Automatic Detection Systems.....	6
6 Occupant Warning Systems	6
7 Suggested Emergency Procedures	6
7.1 Fire in a Cinema	6
7.2 Fire in Areas Other than a Cinema.....	7
8 Other System Features.....	7
9 Written Procedures	7
10 Evacuation Rehearsal and Staff Training.....	7
Appendix A – Cinema Emergency Alarm Information – Example Visual Screen Message	9
Appendix B – Cinema Evacuation – Example Visual Screen Message	10

Fire Safety Guideline

Emergency Evacuation of Cinemas

GLOSSARY

AS	Australian Standard
CSRD	MFS Community Safety and Resilience Department
EWICIE	emergency warning control and indicating equipment (refer Definitions, sometimes referred to as a “MECP”)
EWIS	emergency warning and intercommunication system
FDCIE	fire detection control and indicating equipment (refer Definitions)
MECP	Master Emergency Control Panel (see EWICIE)
MFS	South Australian Metropolitan Fire Service
NCC	National Construction Code
SECP	Secondary Emergency Control Panel
WHS	workplace health and safety

REFERENCED DOCUMENTS

The following documents are referred to in this Guideline:

- AS 1670.1 Australian Standard 1670.1 – *Fire detection, warning, control and intercom systems – System design, installation and commissioning – Part 1: Fire*
- AS 1670.4 Australian Standard 1670.4 – *Fire detection, warning, control and intercom systems – System design, installation and commissioning – Part 4: Emergency warning and intercom systems*
- AS 3745 Australian Standard 3745 – *Planning for emergencies in facilities*

Australian Building Codes Board, *National Construction Code, Volume One, Building Code of Australia*, (Edition applicable at the time of Development Approval), Australian Building Codes Board, Canberra.

South Australian Metropolitan Fire Service, *Built Environment Section Policy 037 Fire alarm conditions of connection – Schedule 1*, MFS, Adelaide.

DEFINITIONS

Emergency warning control and indicating equipment (EWICIE) is as defined in AS 1670.4.

Fire detection control and indicating equipment (FDCIE) is as defined in AS 1670.1.

1 PURPOSE

This guideline has been compiled to assist designers, fire officers and approving authorities, to meet the intent of the Building Rules, Workplace Health and Safety (WHS) Regulations, legislation for disability discrimination and common law duty of care.

The recommendations made within this guideline are in addition to or should complement other relevant legislative requirements, including those of the National Construction Code (NCC) and workplace and public health and safety requirements.

2 FUNDAMENTAL PRINCIPLES OF EVACUATION

For an effective evacuation of a cinema complex, the following issues should be addressed:

1. Some occupants will need to be warned that an emergency exists.
2. All occupants need to understand the warning signals.
3. All patrons will need assistance to evacuate (e.g. where to go, how to get there and what to do once assembled) to an emergency assembly point.
4. Some occupants will need specific assistance due to disabilities.
5. Sufficient staff will need to be present to effectively manage the emergency evacuation.
6. Exits will need to be clearly identified and recognisable by patrons.
7. Procedures will need to be written, maintained and regularly rehearsed.

3 STAGED EVACUATION

In most cinema complexes it is not possible (or desirable) to effectively manage a simultaneous evacuation of all cinemas. Typical cinema construction is designed to minimise sound transmission and will likely reduce the rate of fire spread from one cinema to another, thus permitting patrons to remain for a short time in those cinemas that are not directly affected by fire.

A structured procedure is needed, utilising fire wardens to control patron flow either to the outside of the building or, where safe to do so, through the cinema foyer. Sufficient staff must be present at all times to take control of the installed emergency warning and intercommunication system (EWIS) and assist in evacuation to a defined emergency assembly point as required.

It will be necessary to give special consideration to the needs of occupants with a disability.

4 OCCUPANT INFORMATION SYSTEMS

Prior to the screening of a movie, an informative visual message should be displayed on the screen, informing patrons how a fire alarm will be sounded in the cinema auditorium and advising that staff will be in attendance (wherever possible). Advice regarding utilisation of identified exits, where to assemble and the need to assist others to evacuate should also be given (refer Appendix A).

In the event of an evacuation signal sounding within the cinema, a second visual message should be displayed reinforcing the emergency evacuation voice message (refer Appendix B). Having due regard to particular communities likely to frequent the cinema, messages may need to be multilingual.

5 AUTOMATIC DETECTION SYSTEMS

An automatic smoke and fire detection system complying with the requirements of AS 1670.1 should be installed in all staff and public areas of the complex, with the exception that extended grid smoke detection is acceptable in cinemas under the NCC. The detection system will need to be fully addressable or individually zoned for each cinema, foyer and cafeteria areas, the bio-box and any plant room so that the evacuation system can be appropriately programmed.

Where cinemas form a part of a larger complex (e.g. a shopping centre), the cinema fire detection control and indicating equipment (FDCIE) will likely be a sub FDCIE to the main FDCIE serving the whole complex. The FDCIE/Sub FDCIE may provide information to Cinema Management for the purpose of organising an effective evacuation.

6 OCCUPANT WARNING SYSTEMS

An occupant warning system in accordance with AS 1670, which incorporates a public address system, should be zoned individually for each cinema, foyer / cafeteria / toilet areas and administration / bio-box / plant room areas.

Where cinemas form a part of a larger complex (e.g. a shopping centre) the evacuation control panel will likely be a Secondary Evacuation Control Panel (SECP) to the Master Evacuation Control Panel (MECP) serving the whole complex. Cinema Management should use the SECP to organise an effective evacuation.

As per MFS Built Environment Section Policy 037 *Fire Alarm Conditions of Connection – Schedule 1*, MFS preference is that a pre-recorded female voice message be incorporated in both alert and evacuate signals.

7 SUGGESTED EMERGENCY PROCEDURES

The following are suggested emergency procedures only in the event of a fire in a cinema complex. Actual emergency procedures should be specifically tailored for each cinema complex.

7.1 Fire in a Cinema

In the event of an alarm signal emanating from an individual cinema being received by the cinema FDCIE/Sub FDCIE, an alert signal via the cinema MECP/SECP should be initiated in all staffed areas (e.g. public foyers and back of house). Consideration should be given to the use of a discrete alarm within the bio-box, which only alerts staff in that area (e.g. a pager alarm).

If the alert tone is not acknowledged within a given time period (adjustable between 0-3 minutes), an evacuation tone should automatically sound in the affected cinema. The evacuation tone should be followed by a digitally recorded female voice message as below.

‘Attention Attention, we have an emergency, you must leave now by the nearest exit’

The occupant warning signal and voice message may sound through the cinema audio system. At the time of operation, a flashing green strobe light (where installed) should automatically activate at each emergency exit.

Simultaneous with the operation of the **evacuation** tone in the affected cinema, the projector should automatically stop, the lights should come on and a visual screen message (refer Appendix B) advising patrons to evacuate through the nearest exit identified by an illuminated exit sign, and as directed by staff, should automatically be projected on the screen of the cinema required to evacuate.

Once the system has been automatically initiated, unless there is a change in status of the fire detection and alarm system necessitating the evacuation of another cinema, further control of the evacuation system should be manual only by authorised personnel.

Manual activation of the evacuation signal in a particular cinema should automatically stop the projector in that cinema, and the message shown in Appendix B should be displayed on the screen.

7.2 Fire in Areas Other than a Cinema

In the case of a fire alarm emanating from a toilet, foyer or cafeteria area, the bio- box or any plant room, the alert signal should automatically sound so that staff may take the appropriate action. All cinemas should continue to function normally at this time unless after investigation staff consider it necessary to manually activate the evacuation signal.

8 OTHER SYSTEM FEATURES

Both the alert and evacuate signals, once automatically initiated, should run through a minimum of three (3) cycles each.

If the EWIS system has not been acknowledged within five (5) minutes, the whole complex should automatically revert to the evacuate signal.

Where necessary, warden phones may be logically located in common foyer areas and paths of egress to assist staff in co-ordinating the evacuation.

9 WRITTEN PROCEDURES

Written procedures with respect to the function of each staff member at time of emergency should be maintained. These should be available to every staff member and should be read by each new member at the time of induction.

Notices for staff, giving basic emergency instruction, should be provided in all staff areas.

Written procedures should adhere to the principles detailed in AS 3745 and should interface with the operational procedures of the local fire brigade. Generally, this will require fire wardens to proceed to the cinema within which a fire alarm has occurred to assist patrons to evacuate to a predefined assembly area. Provision should be made to accommodate the specific needs of mobility and intellectually impaired persons, who will likely require additional assistance. The supervised use of lifts to assist with the evacuation of such persons may be acceptable subject to further discussion with the MFS Community Safety and Resilience Department (CSRD).

10 EVACUATION REHEARSAL AND STAFF TRAINING

The evacuation procedures should also address other types of emergencies as detailed in AS 3745. These procedures should be rehearsed at least annually, be reviewed and any necessary procedural changes made.

Fire Safety Guideline

Emergency Evacuation of Cinemas

Staff should be trained and be familiar with the evacuation procedures for their designated roles. In addition, the Chief and Deputy Fire Wardens should have recognised industrial fire safety training. The Chief Fire Warden will likely be the duty manager, provided that they are not likely to leave the building when patrons are present.

All staff should be familiar with the evacuation plan and procedures and be trained to act in more than one capacity, so that the procedure is flexible enough to accommodate staff absenteeism due to sickness and holidays.

The emergency evacuation procedures, together with the installed fire safety systems, should form part of the building approval and be registered as part of the essential safety provisions to be recorded by the approving authority. This will require the owner to confirm annually that the approved systems are being maintained.

APPENDIX A – CINEMA EMERGENCY ALARM INFORMATION – EXAMPLE VISUAL SCREEN MESSAGE

IN THE EVENT OF AN EMERGENCY ALARM

1. The film will STOP.
2. The lights will come on.
3. EXIT DOORS will be identified by illuminated EXIT SIGNS.
4. An Evacuation tone and a message will sound, telling you to leave NOW by the nearest exit.
5. A MESSAGE will be shown on the screen repeating this information.
6. STAFF will assist the mobility impaired or those requiring assistance.

APPENDIX B – CINEMA EVACUATION – EXAMPLE VISUAL SCREEN MESSAGE

ATTENTION

ATTENTION

We have an EMERGENCY,

You must leave now by the NEAREST EXIT

Staff will assist the mobility impaired

REMAIN CALM, DO NOT RUSH