Maintenance of Essential Safety Measures

2007 Seminar Series
**Program**

- 4:00pm  Introduction
- 4.10pm  Setting the scene – CFA/MFB
- 4.40pm  Regulatory Requirements
- 5.45pm  Break
- 6.15pm  The local perspective - MBS
- 6.45pm  Essential Safety Measures Manual Fourth Edition
- 7.45pm  Questions
- 8.00pm  Finish
Regulatory Requirements of Maintenance

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Overview

- Occupation of a Building - Part 5 of the Building Act 1993
- Part 12 of the Building Regulations 2006
  - What is a safety measure?
  - Building Code of Australia Part I
  - Pre and Post 1 July 1994 Buildings
- Owners Responsibilities
- Enforcement
- Summary
Occupation of Buildings

- Part 5 of the *Building Act 1993*
  - Sets out requirements for occupation and when occupancy permits (OP) need to be obtained

- If a building permit requires an OP to be issued;
  - OP must be obtained (s39 (1))
  - A person must not occupy a building until OP is obtained (s39 (2))
  - Substantial penalty applies to owners

- Importantly a person must not occupy a building in contravention of a current OP (s40)
  - This includes any conditions on the OP - Maintenance
Building Regulations 2006 - Part 12

- Part 12 sets out the requirements for maintenance of buildings
- Defines Essential Safety Measures (change from Essential Service)
- Sets the Classes of buildings that essential safety measures are required to be maintained
- Division 1 – Maintenance of Essential Safety Measures
  - Subdivision 1 – Buildings Built after 1 July 1994
  - Subdivision 2 – Building built prior 1 July 1994
  - Subdivisions 3 – Maintenance of exits
- Division 2 – Swimming pool and Spa Maintenance
Essential safety measures

- The term *essential safety measures* is defined in the Regulations as including:
  - Safety measures as listed in table I1.1 to I1.11, excluding artificial lighting contained in Table I1.4, of the BCA;
  - Mechanical ventilation system, hot water or cooling system;
  - Any other item listed as an essential safety measure (e.g. result of alternative solution);
  - Essential service as defined under the Building Regulations 1994 (Previous Regulations).
BCA – Section I Maintenance

- Contains 13 sub-tables
  - Table I 1.1 - Building Fire integrity which deals with protection of fire separation
  - Table I 1.2 – Means of Egress – to ensure egress is not obstructed
  - Table I 1.3 – Signs - that signs are still functional and are not obscured
  - Table I 1.4 - Lighting – emergency lighting is still functioning (Artificial lighting not applicable in Victoria at this point)
  - Table I 1.5 - Fire Fighting Services and Equipment - equipment is still meeting its design purpose
BCA – Section I Maintenance

- Table I 1.6 – Air Handling Systems - mainly dealing with smoke control
- Table I 1.7 – Automatic Fire Detection and Alarm Systems
- Table I 1.8 – Occupant Warning Systems
- Table I 1.9 – Lifts
- Table I 1.10 – Standby Power Supply Systems
- Table I 1.11 – Building Clearance and Fire appliances
- Table I 1.12 – Other Measures (glazed assemblies, balconies, balustrades, refrigerated chambers). (Not applicable in Victoria)
- Table I 1.13 – Building Use and Application - to ensure that the hazard of the building has not changed. (Not applicable in Victoria)
## Example Table I1.5 – Fire Fighting Services and Equipment

<table>
<thead>
<tr>
<th>Essential safety measure</th>
<th>BCA provisions for determining standard of performance</th>
<th>Nature and or Frequency of Test or Inspection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire hydrant system (including on-site pump set and fire-service booster connection)</td>
<td>E1.3</td>
<td>Weekly to AS 1851 – 2005 Section 4 where pumps are installed or six monthly to AS1851 - 2005 Section 4</td>
</tr>
<tr>
<td>Fire hose reel system</td>
<td>E1.4</td>
<td>Every 6 months to AS 1851 - 2005 Section 14</td>
</tr>
<tr>
<td>Sprinkler system</td>
<td>E1.5, H1.2, G3.8</td>
<td>Weekly to AS 1851 – 2005 Section 2</td>
</tr>
<tr>
<td>Portable fire extinguishers</td>
<td>E1.6</td>
<td>Every six months to AS 1851-2005 Section 15</td>
</tr>
<tr>
<td>Fire control centres (or rooms)</td>
<td>E1.8</td>
<td>Annual inspection to ensure compliance of construction and contents with BCA</td>
</tr>
<tr>
<td>Provisions for special hazards</td>
<td>E1.10</td>
<td>Inspection regime to be developed in consultation with designer utilising appropriate Australian standards, manufacturer specifications, etc.</td>
</tr>
</tbody>
</table>
Subdivision 1 – Post 1 July 1994

- Applies to:
  - Class 1b, 2, 3, 5, 6, 7, 8, or 9 buildings
  - Class 4 Part of a building
  - Places of public entertainment

- The Relevant Building Surveyor (RBS) must identify which essential safety measures provided for the building or place of public entertainment are required to be maintained

- An RBS must list the maintenance requirements for the building on the Occupancy Permit or Certificate of Final Inspection

- Maintenance schedule or determination and annual reports must be available for inspection within 24 hours

- Owner must ensure that an annual report is prepared

- Contents of the report are specified in Regulation 1209
Maintenance requirements of essential safety measures

For each essential safety measure the RBS must:

- specify and document the standard of performance the essential safety measure must provide in order to fulfil its purpose;
- specify and document the way in which each essential safety measure needs to be
  • Verified;
  • Inspected; and
  • Tested.
Consolidation of maintenance determinations

- Regulation 1206 permits a Municipal Building Surveyor or a Private Building Surveyor to create a consolidated list of essential safety measures and their maintenance requirements

- In creating a maintenance schedule the Building Surveyor must ensure that any safety measure that exists in the building is listed

- When creating the schedule the building surveyor must list the essential safety measures in chronological order
Updating maintenance schedules

- Regulation 1206 also allows:
  - A Municipal Building Surveyor or a Private Building Surveyor to update maintenance schedules.
  - Where additional safety measures and related maintenance requirements have are require to be provided

- Can not use this process to amend minimum maintenance requirement listed on Occupancy permit or in a Determination on Certificate of Final Inspection
Use of alternative solutions

- Where an alternative solution is used the RBS must list appropriate maintenance.
- RBS should consult with the designer to determine the appropriate maintenance requirements and frequency.
- Note: *Building Regulations 2006* now require alternative solution to be listed on occupancy permit.
Subdivision 2 – Pre 1 July 1994 buildings

– Applies to Class 1b, 2, 3, 5, 6, 7, 8 and 9 buildings and places of public entertainment

– Essential Safety Measures must be maintained, by the owner, to a working condition that enables them to fulfil their purpose

– Essential safety measures means any measure provided for the safety of persons using a building or place of public entertainment

– Includes an item of equipment, form of construction or safety strategies

– Now requires owner to ensure an annual report is prepared. 1\textsuperscript{st} report by 13 June 2009
Subdivision 2 (Cont)

– Subdivision 2 does not explain or define the terms ‘item of equipment’, ‘form of construction’ or ‘safety strategies’

– Owners can engage suitably qualified persons to establish the essential safety measures, and outline a level of maintenance

– May be a difficult task and may involve detailed inspection

– The level of maintenance should not be greater than that required at the time the safety measure was installed
Subdivision 2 (Cont)

- Relevant Australian Standards available at the time may be used as a guide to the level of adequate maintenance

- If there was no relevant Australian Standard in existence at the time of installation, then the first published edition of a relevant Standard may be used

- The enforcement provisions of Part 8 of the Act provide for an Municipal Building Surveyor (MBS) or Private Building Surveyor (PBS) where appointed, to review any risk to the life, safety, or health of any occupant in a building

- As part of the enforcement process consideration could be given to upgrading the essential safety measures to current standards and practices
Subdivision 3 - Maintenance of exits

- Subdivision 3 sets out the requirement for maintenance of exits and paths of travel to exits

- Regulation 1218
  - requires the occupier to ensure exits and paths of travel are maintained in an efficient condition.

- Does not remove the responsibility of the owner under subdivision 1 or 2, but it also makes the occupier responsible
Division 2 – Swimming pool and spa maintenance

- Requirements for pool and spa maintenance
- Applies to class 1, 2, 3, and 10 buildings
- Applies to the occupier
- Must take reasonable steps to ensure that the barrier and all components are maintained and effectively working
- Occupier must ensure any gate or door providing access is closed when not in use
- Note: does not remove owner responsibilities.
- Penalties applies – 50 penalties units
Owner’s responsibilities

– Regulation 1209 - places the responsibility on the owner to ensure that the maintenance of the essential safety measures is carried out

– Appropriate records of maintenance, service and repair work are kept

– Similar provisions are provided in regulation 1214 for subdivision 2 buildings (Pre 1 July 1994)
Owner’s responsibilities (cont)

- Owners can engage an agency or suitably qualified person to carry out inspections, testing or completion of the annual essential safety measures report.
- In this case the law dealing with ‘agency’ applies and correct written authority is provided by the owner.
- Occupier must ensure exits and paths of travel are maintained in an efficient condition it does not remove the responsibility of the owner.
- Owner not required to display the annual report.
- Annual report must be made available within 24 hours.
What happens if an owner doesn’t comply?

- Councils are primarily empowered for administration of the Regulations within its Municipality. Fire Brigade can also inspect and forward report to council for action.
- Council can take a variety of enforcement action:
  - Infringement Notices
  - Notices and Orders
  - Prosecution
  - Emergency Orders
- Commission can take similar actions, however does not as a policy, unless warranted.
Offences may include

- Failure to maintain an essential safety measure to the required standard is an offence under Section 40 of the Building Act 1993 and Part 12 of the Regulations
- Failing to complete and maintain the required documentation
- Failure to maintain any safety equipment, safety fitting or essential safety measure in a state that allows it to fulfil its purpose
- Removal of any safety equipment, safety fitting or essential safety measure from its approved location unless for maintenance purposes
- Failure to ensure that exits and paths of travel are maintained.

Infringement notice may also be issued to occupier
A Practical Approach - Practice Note 2006-23

- Provides Guidance, clarification and interpretation of Part 12 of the Building Regulations 2006

- Provides the following information:
  - Reference to BCA Clauses and relevant installation and maintenance Australian standard (if applicable).
  - Indicates a level of maintenance
  - Practice note does not require the use of AS 1851 – 2005
  - Provide examples if RBS wishes to use standard to outline maintenance requirements
  - Review to be undertaken to ensure practice note provides relevant information to building practitioners
Summary

• Maintenance is a legal requirement of occupying a building
• The owner is responsible for ensuring that maintenance is undertaken on the building.
• Introduction of Part 12 also has made occupier responsible for maintenance of exits and swimming pools and spas
• MBS and Chief officer can undertake enforcement
• If you don’t maintain the building penalties can be applied
QUESTIONS
Welcome
Break

Approx 30 mins
Essential Safety Measures
Maintenance Manual

A guide to maintaining your essential safety measures
Overview

- Background
- 4th Edition Format
- Use of AS 1851 – Existing Buildings
Background

- The manual is aimed at building owners and building managers
- Provides guidance on maintenance and documentation
- Does not cover specialised systems outside of BCA requirements
- The manual is not referenced in legislation and may not be best practice in every case
- RBS is still responsible for ensuring appropriate maintenance and level of frequency is listed for each safety measure
Designed to aid building owners, building property managers etc in regulatory requirements.

- Provides the following information:
  - Reference to BCA and relevant installation and maintenance Australian standard (if applicable)
  - Brief description of the purpose, equipment, requirements and method of operation
  - Recommendations on maintenance programs and record keeping
4th Edition Format

- Introduction
- Part 0 – Alternative Solutions
- Part 1 – Building built after 1 May 2004
- Part 2 – Buildings built between 1 July 1994 and 1 May 2004
- Part 3 – Buildings built prior to 1 July 1994
- Appendices
  - Part 12 of Building Regulations 2006
  - Annual Report
  - Log Sheets for Parts 1 and 2
Introduction

• Updated definitions:
  • What is a safety measure?
  • Inclusion of Part 12 Definition of Essential Safety Measure
• Owners responsibility
• Requirements for buildings built prior to 1 July 1994
• Inclusion of definition of competent person
• Inclusion of specific reference to cooling tower requirements
• Summary of Performance based system
• Key terms - “appropriate to” and “to the degree necessary”
• Determining compliance with Performance Requirements
• Considerations of assessment methods and maintenance
• Where an alternative solution is used which effects maintenance RBS must list appropriate maintenance
• RBS should consult with the designer to determine the appropriate maintenance requirements and frequency
• Note: Building Regulations 2006 now require alternative solution to be listed on occupancy permit
Based on Tables within Part I of the BCA.

Similar layout to current manual
- reference BCA clause and relevant Australian Standard (if applicable)
- brief description of the purpose, equipment, requirements and method of operation
- Recommendations on maintenance programs and record keeping
1.1 BUILDING ELEMENTS REQUIRED TO SATISFY PRESCRIBED FIRE-RESISTANCE LEVEL

PURPOSE
Certain elements and structures within a building must have a fire-resistance level to maintain structural ability during a fire and restrict the spread of fire.

REQUIREMENTS
A fire-resisting structure must—

a) Be provided with the fire-resistance level specified in the Building Code of Australia; and

b) Have all openings protected with doors, windows, shutters, panels or other means rated to provide the required fire-resistance level.

MAINTENANCE CHECKS
It is recommended that the relevant building surveyor should require an annual inspection of these structures. The owner may delegate this function to another person or body where necessary or appropriate.

To ensure the integrity and safety of fire-resisting structures, inspections should ensure—

a) No unauthorised penetration or attachment has occurred.

b) Proper operation of devices protecting openings.

c) No damage has occurred.

MAINTENANCE RECORDS
The following information must be recorded—

a) The dates the yearly inspection was carried out; and

b) The name of the person conducting inspection; and

c) Any problems identified in the inspection; and

d) Actions taken to rectify problems identified; and

e) Date the rectification occurred; and

f) Signature of the person conducting the inspection.

A log sheet to record this information is provided in Appendix C of this manual.
• No real change from previous edition
• Similar layout to previous editions
• Reference BCA 90 and 96 clauses and relevant installation and maintenance Australian standard (if applicable)
• Brief description of the purpose, equipment, requirements and method of operation
• Recommendations on maintenance programs and record keeping
• Includes reference to older version of AS 1851 to maintain historical information

→ Part 2
Buildings constructed between 1 July 1994 and 1 May 2004

→ Egress and access
→ Electrical services
→ Fire-detection and suppression equipment
→ Fire-resistance
→ Mechanical services
1.2 EXIT DOORS

PURPOSE
To provide a means of egress from any part of a building.

REQUIREMENTS OF THE EQUIPMENT
To provide sufficient and safe egress from a building, with a minimum of effort and delay and to present a minimum of obstruction in an exit path.

METHOD OF OPERATION
An exit door must be capable of simple operation to fulfil its designed purpose.

It must be able to be opened readily without a key, from the side facing a person seeking their way out, by a single-handed downward or pushing action on a single device located between 900 mm and 1.2 m from the floor.

It could be fitted with a fail-safe device which unlocks the door automatically when any sprinkler, smoke or heat detector system in the building is activated, or open automatically if fitted with a door which is power operated upon malfunction or failure of the power source.

MAINTENANCE CHECKS
It is recommended that the relevant building surveyor should require exit doors to be inspected every three months. The owner may delegate this function to another person or body where necessary or appropriate.

Maintenance checks should be carried out to ensure the exit door is:-

a) Intact
b) Operational
c) Fitted with hardware that conforms to the requirements of the Building Code of Australia, Section D (the hardware necessary to enable its operation as outlined above)

MAINTENANCE RECORDS
A sheet to record the maintenance and inspections carried out is included Appendix C of this manual.
• New section
• Aimed at owners of building to better understand pre 1994 requirements
• Definition of Essential Safety Measure for pre 1994 buildings
• Guidance on the level of maintenance and development of maintenance schedule.
• Guidance on whether upgrading is required
• Cooling towers – Building Regulations and Health Regulations
• Level of documentation.
• Preparation of annual report
• Appendix A – Building Regulation 2006 - Part 12 extract
• Appendix B – Copy of annual essential safety measures report form
• Appendix C – Log sheets
• Logs sheets provided for both parts 1, 2 and 3
• Note: where AS1851 – 2005 has been nominated in Part 1 log sheets have not been provided
• Logs sheets for older versions of AS 1851 have been retained for historical purposes
AS1851 Maintenance of Fire Protection System and Equipment
Use of AS 1851 – 2005 for existing Buildings

- Maintenance must occur as listed on the occupancy permit or maintenance determination.
- There is currently no requirement for the automatic use of AS 1851 – 2005.
- Building owners, occupiers and service providers each need to carefully consider their own individual situations in relation to their statutory and public safety duties and responsibilities.
- Ensure that all building measures related to people safety continue to perform as originally intended.
Use of AS 1851 – 2005 for existing Buildings cont…

• A Municipal Building Surveyor may amend an existing occupancy permit maintenance conditions under section 70 of the Act

• Must consider the life safety of the occupants

• The MBS must consider testing and maintenance requirements of AS 1851 – 2005 must be appropriate for the fire safety systems installed in the building

• Fire protection systems and equipment are required to be ready to operate at all times, or a substantial threat to occupants and property may exist
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  www.buildingcommission.com.au

- Practitioner Manual – Practice Notes / Guideline

- Victorian Parliamentary and Legislation Documentation
  www.dms.dpc.vic.gov.au
QUESTIONS
Welcome
Building Commission

The Building Commission is a forward-thinking body. It strives to create buildings through its leadership, its partnership, its education of the Victorian building industry.