

Construct NSW

Improving fire safety

Industry report on reforms to improve fire safety in new and existing buildings



October 2021

Message from the Director, Office of the Building Commissioner

It is with great pleasure that I present this report into improving fire safety. It forms part of the Construct NSW transformation strategy to establish a more trustworthy residential building and construction industry by 2023.

Fire systems are critical to ensuring the safety of our buildings and their occupants. While much of NSW's current approach is robust, the data from building audits and recent research highlighted that there was room for improvement. In response, this industry working group was formed and tasked with developing practical responses to three issues facing the sector:

- Provide building owners and industry practitioners clear information on how to manage and maintain fire safety systems by producing a template building manual,
- Outline the roles, experience and qualifications of fire safety practitioners throughout the building lifecycle (design, construct, maintain) to increase awareness and provide an evidence-base to inform reform discussions, and
- Identify ways to enhance the trustworthiness of Fire Safety Schedules, Fire Safety Certificates and Annual Fire Safety Statements given their critical role in ensuring that fire safety systems are appropriately installed and maintained.

This report includes well-developed proposals in response to each of these challenges, putting forward options that were developed through close collaboration between government regulators, local councils and industry practitioners associated with the design, installation and maintenance of fire safety systems.

I would like to thank Michael Lambert for chairing the working group and consolidating our many deliberations, and recognise the significant input from Bill Lea, Gordon Stalley and Stephen Durnford who led specific workstreams. I also acknowledge the many other working group members who contributed to this report, sharing knowledge and experience gained through years of professional practice.

Matt Press



Message from Michael Lambert, Chair of the Working Group

It was my privilege to serve as the chair of the Fire Safety Working Group, appointed on behalf of the NSW Building Commissioner and Minister for Better Regulation and Innovation.

Fire safety is a vital part of the overall area of building safety and amenity and one where there is a clearly identified need for further reform to improve both building regulation and industry practice. This need was underscored by data from research on recently completed apartment buildings and the results of Fair Trading's new building audit program which shows it is the second most common serious defect.

The report that we have produced identifies the following areas for reform:

- Putting in place the fire safety component of a building manual and consistent maintenance standards for fire safety measures,
- Exploring the implementation of a holistic approach to fire safety design and implementation,
- A comprehensive and consistent approach to the regulation of fire safety functions and practitioners,
- Improving key fire safety documentation, and
- Enhancing the role of government regulators and bodies responsible for fire-related compliance.

Each of these is covered in detail in this report within four themes, summarising the issues and putting forward baseline analysis to assist government and industry stakeholders progress additional consultation and policy development processes.

I acknowledge the dedication and commitment of all members of the working group and express my great appreciation for the effort, experience and sound judgment of each of the working party sub-chairs - Bill Lea, Gordon Stalley and Stephen Durnford - as well as the assistance of the Department of Customer Service team - Dominic Wong, Donna Quinn, Michael Marks and Helen Ting.

Michael Lambert



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2. Executive Summary

While there have been a range of reforms to improve fire safety, there remains room for improvement. Serious defects in fire safety systems are the second most common defect identified by inspections of class 2 buildings undertaken under Fair Trading's occupation certificate (OC) audit program, arising in around 46% of buildings.¹ Also, recently published research found serious fire-related defects were in around 14% of strata buildings completed in the last six years.²

This project was commissioned by the Office of the Building Commissioner (OBC) to draw upon specialist industry expertise to identify a range of practical responses that the NSW Government could apply to help improve fire safety in class 2 residential buildings.

A working group was formed involving senior representatives of fire practitioners, certifiers, strata and building managers, engineers, educators and regulators.³ Members were invited to join the group based on having expert knowledge of the relevant NSW legislation and technical standards.⁴

Considering the current state of the industry and research into fire safety, the working group identified three issues where it would focus its attention:

- Ensuring that building owners and fire practitioners are provided with a building manual that provides relevant information on how to manage and maintain fire safety systems,
- Providing clarity on the roles, experience and qualifications of fire safety practitioners throughout the building lifecycle (design, construct, maintain) to help better inform the industry and community of the current requirements and provide the baseline information necessary to be able to discuss opportunities for reform, and
- Identifying options to enhance the trustworthiness of Fire Safety Schedules (FSS), Fire Safety Certificates (FSC) and Annual Fire Safety Statements (AFFS) given their critical role in ensuring fire safety systems are appropriately installed and maintained.

Over a period of nine months these issues were interrogated within sub-committees established to deliver feedback to an overall working group chaired by Mr Michael Lambert.

¹ OC audits are targeted on class 2 projects under construction that exhibit high-risk characteristics. This figure related to audits conducted from September 2021 to September 2022.

² Research report on serious defects in recently completed strata buildings across New South Wales, OBC and SCA (NSW), page 27, September 2021.

³ Membership of the working group is listed in Appendix 7.1.

⁴ Relevant knowledge included the Australian Standards, the National Construction Code, the *Environmental Planning and Assessment Act 1979* the *Building and Development Certifiers Act 2018*, the *Design and Building Practitioners Act 2020* and the *Strata Schemes Management Act 2015*.

The working group concluded by identifying four recommendations that should be given consideration by the NSW Government to help improve fire safety:

Recommendation 1: Establish a customer-facing building manual

The working group produced a template building manual that is specific to fire safety systems (refer to Appendix A). It is intended to provide clarity on the type of information that is necessary for building owners to manage these important systems, including their legal obligations and specific maintenance responsibilities. The manual also includes technical information that is necessary for fire practitioners to be able to undertake appropriate testing and maintenance of the systems installed within each building. To produce this guidance the template manual applied Australian Standard 1851:2012 'Routine service of fire protection systems and equipment' (AS1851) with the intention of ensuring that practitioners undertake a more consistent approach to inspection and testing services. AS1851 is currently voluntary in NSW but referenced in other Australian jurisdictions.

It is recommended that there be further consultation on this template manual and the implementation pathway with the objective of mandating adoption by both new and existing buildings of various classes over a suitable timeframe.

Recommendation 2: Ensure the effective regulation of fire safety practitioners

Fire safety practitioners operate in a complex regulatory landscape. They provide many different services throughout the building lifecycle accompanied by varying degrees of regulation or industry accreditation.

The working group produced comprehensive schedules outlining the roles, responsibilities and relevant legislation across the various stages of building – pre-design, design, installation, commissioning and certification. It is recommended that this information be applied to produce educative material for the industry and community as it would help both practitioners and customers ensure that only appropriately qualified persons are performing each function.

It was noted that although some roles are regulated, many others are not. It was the opinion of the working group that all fire safety practitioners should be appropriately licensed, registered or accredited. They also identified that a priority reform for consideration would be to enhance the regulation of fire safety measures. This could be achieved, for example, by enhancing the integrity of the FSC through the creation of a new category of accredited practitioner to assess and verify that the fire safety measures specified on the FSS have been installed and are capable of performing to the required standard prior to occupation.

The working group suggested that any discussion on future approaches to regulation should seek to establish a more holistic approach to fire safety. This would consider how to forge greater cross-disciplinary integration between the roles of the fire system designer, fire safety engineer and contractor to ensure there is a single point of responsibility for the integrity of the entire fire safety system within buildings (i.e. active systems, passive systems, fire prevention measures, the fire management strategy and so on). It was recognised that this would be a significant challenge to implement and would require

collaboration between government and industry stakeholders, including providers of training and education.

The schedules produced by the working group are intended to provide the foundational information needed for industry and community stakeholders, policymakers and educational institutions to be able to have an evidence-based discussion on these and any other potential reform options.

Recommendation 3: Enhance the trustworthiness of Fire Safety Schedules, Fire Safety Certificates and Annual Fire Safety Statements

Fire Safety Schedules (FSSs), Fire Safety Certificates (FSCs) and Annual Fire Safety Statements (AFSSs) are critical documents, underpinning the commissioning and ongoing testing of fire safety systems within buildings. Proposals were developed to help enhance the quality of these documents so they can be relied upon by building owners and practitioners.

The working group identified that the industry and community would benefit from a standardised approach to FSSs and developed a template to energise further consultation on this approach. It was also suggested that such a reform could be applied to update all existing FSSs by developing appropriate triggers (e.g. buildings subject to a new development consent or issued with a Fire Safety Order).

The working group identified a need for regulatory amendments to create mechanisms to correct minor errors and omissions in FSSs (and replacement of a lost FSS) for existing buildings. Some practical options were developed for further consideration.

It was also noted that it would be beneficial to undertake a review of the statutory fire safety measures that underpin a FSS in the light of advancements in technology and approaches that are becoming more commonplace.

Recommendation 4: More effective regulatory and compliance action

In analysing each of the three issues that were the focus of the working group, there was discussion about the various bodies that play a role in regulating fire safety issues – namely agencies of the NSW Government, local councils and industry associations. The key bodies include the Department of Planning, Industry and Environment (DPIE), the Department of Customer Service (DCS), Fire and Rescue NSW (FRNSW), local councils, registered certifiers, the Fire Protection Association Australia (FPAA), the National Fire Industry Association (NFIA) and Engineers Australia Society of Fire Safety (EA SFS). The working group identified opportunities for some of these entities to enhance the way they administer their respective functions.

A significant portion of the legislation that regulates fire safety systems is contained in the *Environmental Planning and Assessment Act 1979* and its associated Regulation, which is managed by DPIE. However responsibility for ensuring compliance largely resides with NSW Fair Trading (an agency of the DCS) which is within the portfolio of the Minister for Better Regulation and Innovation. The working group recommends that consideration be given to

providing the Minister responsible for Fair Trading with, at a minimum, joint responsibility for all relevant matters pertaining to building regulation, including fire safety.

The administration of fire-related compliance during the construction phase is jointly managed by Fair Trading and FRNSW. It was noted that Fair Trading and FRNSW have established a closer working relationship through the implementation of the OC audit program which seek to take a proactive approach to compliance.⁵ However, it was observed that it would be beneficial for there to be greater involvement of FRNSW in the review of all performance solutions relating to fire safety systems. This could include, for example, requiring FRNSW to be consulted at the design stage with set time frames for it to respond.

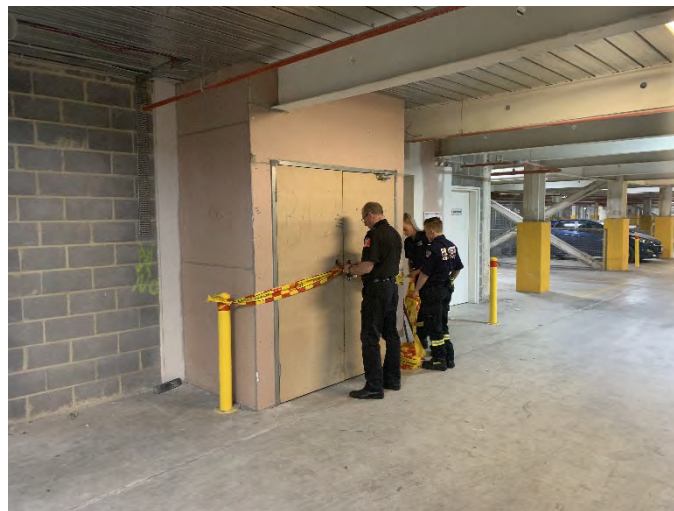


Figure 1: Officers from Fire and Rescue NSW and Fair Trading securing an unsafe lift well

It was also observed that FRNSW does not issue Fire Safety Orders that require changes to a FSS and therefore the current regulatory requirement for FRNSW to issue a new FSS with an order is redundant. It was noted that removal of this requirement on FRNSW could also enhance clarity of roles between councils and FRNSW regarding enforcement.

Once a building is completed and becomes occupied, Fair Trading administers the statutory warranties and general maintenance obligations for strata buildings, and local councils are provided with the AFSSs which are issued by building owners. It was observed that approaches and capabilities of councils with respect to AFSSs vary greatly across NSW. The working group suggests that NSW Government and Local Government NSW work together to help improve the administration of AFSSs. Strategies could include creating a framework to clarify the role of local councils, encourage greater mentoring and capability sharing across nearby councils, and additional support from Fair Trading and FRNSW.

The working group observed that Crown developments are currently exempt from the certification requirements in the *Environmental Planning and Assessment Act 1979* which means they are not subject to the same fire safety requirements at the design or maintenance stages as non-government developments. However, there is voluntary application of fire safety certification across Crown developments. It proposed that the NSW

⁵ Collaboration activities include the sharing of data and intelligence, technical advice, education initiatives and joint inspections.

Government should give consideration to removing this exemption and adopting the same approach for crown developments that apply to all other types of building work.

Finally, the working group noted that the industry should invest in building its capacity and capability to support the extension of co-regulatory approaches. Currently the FPAA administer the Fire Protection Accreditation Scheme (FPAS) which is formally recognised under NSW legislation to administer four classes of accreditation.⁶ There is a role for other peak industry bodies, such as the NFIA and EA, to consider establishing similar schemes. Also, the working group suggested that it would be beneficial for all industry associations to consider establishing Professional Standards Schemes (PSSs).⁷ Having an association recognised under this Scheme would help to lift standards of practice within their membership and likely create opportunities for government and industry to discuss additional co-regulatory approaches (e.g. recognising industry accreditation as a licensing pathway under legislation). It was noted that the Australian Institute of Building Surveyors (AIBS) recently established a national scheme for registered certifiers, and other industry bodies are in the process of developing PSSs.

⁶ Practitioners must be accredited under FPAS if they wish to perform certain 'regulated work' under the Environmental Planning and Assessment Regulation 2000.

⁷ Occupational associations can apply to manage schemes that are formally recognised under the *Professional Standards Act 1994*. For more information refer to www.psc.gov.au.

3. Establishing a customer-facing building manual

There is not an industry-wide practise of providing a building manual for owners at completion of a building project. It does occur regularly for certain classes of commercial buildings but not for class 2 buildings, and in cases where a manual is provided the format varies greatly and information is often poorly tailored to the specific needs of building owners. In addition, building owners regularly do not receive a full set of documents relating to the design and construction of the building, including ongoing maintenance and management requirements and not in a convenient form easily understood by the owner.

The lack of information for owners on the fire safety systems in buildings, their maintenance requirements, how to minimise fire safety risks, what to do in the event of a fire, can all impact on the overall fire safety of a building and its occupants. By providing building owners with greater clarity on the timing and nature of maintenance responsibilities it will help them implement this information in their capital works and maintenance plans.

It was noted that this issue was recognised in the Building Confidence Report which recommended that each jurisdiction establishes a comprehensive building manual that should be lodged with the building owners and made available to successive purchasers of the buildings.⁸

3.1 A template building manual for fire safety information

The working group has developed a template building manual that is specific to fire safety information (refer to 7.2). The manual has two components. The first section is non-technical and directed at building owners (including owners corporations, strata managers and building managers). The second section is technical and directed at fire safety practitioners working on and maintaining fire safety systems, including those involved in the repair or upgrade of buildings into the future.

⁸ Recently the ABCB released a discussion paper on the topic to seek feedback in informing the development of a nationally consistent approach.

The structure of the template manual is summarised in the following table:

Section and part	Brief explanation
Section 1: Owners Information	
Part 1: Introduction	Sets out purpose of document
Part 2: Building Description	Describes the key features of the building, including building class and size
Part 3: Definitions	Definitions of key terms used and list of acronyms
Part 4: Owners Legal Responsibilities	Summary of the owner's legal responsibilities particular to the class of building
Part 5: Overview of Fire Safety Strategy	Sets out an explanation of the fire safety systems installed in the building and what to do in the event of a fire
Part 6: General housekeeping	Good practice housekeeping to minimise fire risks in the building
Part 7: Maintenance matrix	Sets out all fire safety measures installed in the building, their maintenance frequency and the standard to which they are required to be maintained (including the relevant standard when AS 1851 does not apply).
Part 8: Accredited fire safety practitioners	Access to a list of accredited practitioners who can assess the fire safety measures
Part 9: Owner's checklist	List of key fire safety responsibilities required of a building owner
Section 2: Technical information	
Part 1: Introduction	Purpose of the section
Part 2: Fire safety schedule	Copy of the certified fire safety schedule prepared to set out the fire safety measures installed in the building
Part 3: Fire engineering report (if applicable)	Is provided to set out the performance requirements for any fire safety Performance Solutions installed in the building
Part 4: Technical information matrix	Schedule of all fire safety measures in the building, with a link to the technical details of each
Part 5: Occupation certificate	Copy of the Occupation Certificate for the building and supporting documentation issued at the time the building was authorised for occupation
Part 6: As built drawings	Copies of the drawings of the building at completion included with the Occupation Certificate.

4. Ensuring the effective regulation of fire safety practitioners

Fire safety practitioners operate in a complex regulatory landscape. There are many different services that they provide throughout the building lifecycle accompanied by varying degrees of regulation or industry accreditation. A comprehensive review of the current fire protection regulatory landscape was undertaken across the full building cycle, namely:

- Pre detailed design of fire safety systems
- Design of essential fire safety measures
- Installation, commissioning and certification of essential fire safety measures
- Fire safety maintenance and maintenance of egress pathways, and
- Annual assessment of the fire safety system.

This review also identified all NSW legislation and regulation that covered all aspects of fire safety regulation in buildings, segmenting this according to the fire safety functions across the full building cycle.

The working group produced comprehensive schedules outlining the roles, responsibilities and relevant legislation across all stages of construction (refer to 7.4). This information can be used to identify the functions that are not formally recognised. It is also proposed that the schedules are applied to produce educative material for the industry and community, helping both practitioners and customers to ensure that only appropriately qualified persons are performing each function.

It was noted that although some roles are regulated, many others are not. It was the opinion of the working group that all fire safety practitioners should be appropriately licensed, registered or accredited. They also identified that a priority reform for consideration would be to enhance the regulation of fire safety measures. This could be achieved, for example, by enhancing the integrity of the FSC through the creation of a new category of accredited practitioner, to assess and verify that the fire safety measures specified on the FSS have been installed and are capable of performing to the required standard prior to occupation.

The working group also suggested that any discussion on future approaches to regulation should seek to establish a more holistic approach to fire safety design and implementation. This would consider how to forge greater cross-disciplinary integration between the roles of fire system design, fire safety engineer and contractor to ensure there is a single point of responsibility for the integrity of the entire fire safety system (active and passive) within a building.

It was acknowledged that while this type of approach is applied internationally, significant analysis and consultation is necessary to appropriately assess how it could be applied and implemented in NSW. For example, consideration would need to be given to matters such as:

- Establishing a common understanding and acceptance of the proposed function within industry and government stakeholders,
- Defining the function and providing clarity on its purpose, how it would interact with existing roles and which buildings it would be applied to,
- Determining the necessary regulatory and administrative frameworks to manage accreditation (or licensing) and compliance, including how it would interact with the National Construction Code,
- Determining the qualifications, knowledge and experience that would be required to support the function,
- Determining the availability of suitably qualified and experienced persons able to undertake the role,
- Determining an appropriate timeframe for implementation, and
- Undertaking appropriate analysis on the costs and benefits of the role and broader proposal.

It was recognised that progressing such a proposal would require significant investment and collaboration between government and industry stakeholders, including providers of training and education.

5. Enhance the trustworthiness of Fire Safety Schedules, Fire Safety Certificates and Annual Fire Safety Statements

FSSs are prepared on behalf of the owner/developer at the construction certificate (CC) or complying development certificate (CDC) stage of building work. They are also prepared by councils when issuing a fire safety order or granting consent for a change of building use. They list the proposed (and any existing) fire safety measures (both statutory and non-statutory), their required standard of performance and identify any critical fire safety measures.

FSCs are prepared before the issue of the OC and verify that each fire safety measure in the FSS has been checked by a properly qualified person and found to be capable of achieving the standard of performance set out in the FSS. A copy is provided to FRNSW and the council and is required to be prominently displayed in the building with the FSS.

The AFSS is issued by the building owner. It verifies that each fire safety measure in the building has been checked by an accredited fire safety practitioner and has been assessed as meeting the performance standard set out in the FSS and that no fire safety exit breaches have been identified. A copy is provided to both the local council and FRNSW and the AFSS is required to be displayed in the building together with a copy of the FSS.

The processes relating to the FSS, FSC and AFSS are summarised below (refer to 7.5).

While in recent years a template was developed for the AFSS and FSC, the working group identified that there was a need to review the AFSS and FSC templates, establish a template for the FSS, and generally improve associated processes and guidance documentation.

5.1 Fire Safety Schedules

The working group determined that there would be value in establishing a standard template for the FSS, and providing improved clarity regarding its preparation and how it is updated. Without a standard template there can be significant differences in both the format of the information provided and in the coverage of information. Furthermore, it creates opportunity for FSSs to be inconsistent with the statutory requirements.

It is recommended that a template FSS should include all fire safety measures, both all statutory fire safety measures and all other essential fire safety measures, together with any Fire Engineering Report supporting any performance solutions, the standards of

performance, location of the fire safety measures and information on the path of travel and exit systems related to a building.

The working group also considered the statutory fire safety measures that underpin a FSS in the light of advancements in technology and new approaches to fire safety that are becoming more commonplace. It produced a template FSS and accompanying guidance for consideration and further consultation (refer to 7.6).

5.2 Amending and Updating FSSs

While a template FSS and guidance would help to improve the quality of these documents, the working group identified that there also a need to provide a suitable mechanism to correct minor errors and omissions to FSSs and replace a lost FSS. Example of the issues include the following:

- FSSs are issued at the CC/CDC stage and may not be fully accurate once the building reaches the OC stage as some changes in the fire safety system could have occurred throughout construction,
- There can be a lack of clarity about how performance solutions are included in the FSS,
- Practitioners may be unsure how to list fire safety measures when there are alterations, upgrades, additions and routine maintenance, or
- Many practitioners believe that only statutory fire safety measures can be listed in the FSS whereas they are required to contain all fire safety measures included in a building.

The working group produced a process to support the review, correction and replacement of FSSs under certain circumstances for consideration and further consultation (refer to 7.7).

5.3 Applying the FSS template to existing buildings

It was noted that if a new FSS template were adopted to apply to new buildings there would need to be an appropriate process to apply it to existing buildings over a suitable timeframe. The working group considered this issue and proposed various events that could be used to trigger an existing building being required to apply the new FSS template, such as:

- The building is subject to a CC or CDC related to additions or alterations to the building.
- The building is subject to a Fire Safety Order issued by a consent authority.
- The building is subject to a development consent issued by a consent authority for a material change of use for the building where no building works are proposed.

6. More effective regulatory and compliance action

There are many government bodies involved with the regulation of fire safety systems – the Department of Planning, Industry and Environment (DPIE), the Department of Customer Service (DCS), Fire and Rescue NSW (FRNSW) and local councils. The working group identified opportunities for each of these entities to enhance the way that they administer their respective regulatory functions.

6.1 NSW Fair Trading / DPIE

A significant portion of the legislation which regulates fire safety systems is contained in the *Environmental Planning and Assessment Act 1979* and its associated Regulation and is currently managed by DPIE. However the responsibility for ensuring compliance primarily resides with NSW Fair Trading (an agency of DCS) which is within the portfolio of the Minister for Better Regulation and Innovation.

The working group proposed that consideration be given to providing the Minister responsible for Fair Trading with, at a minimum, joint responsibility for all relevant matters pertaining to building regulation, including fire safety.

6.2 FRNSW

FRNSW undertakes both a regulated role in regard to the building certification process in respect to fire safety performance solutions and also provides a consulting service at the design stage for fire safety performance solutions. The role includes three specific processes where practitioners must involve FRNSW.⁹ The formal inclusion of fire authorities in the review of fire safety systems being installed in new buildings is regarded as best practice and in recent years FRNSW has increased the resources it applies to this role. However, the working group observed there is merit in refining the current approach having regard to the following considerations:

- Taking a proactive approach that allows for early engagement at the design stage of construction,
- Enhancing the referral process and accompanying requirements, and
- Increasing the accountability of certifiers in regard to actions undertaken upon receipt of a final fire safety report or a fire safety system report.

Working closely with FRNSW, the working group developed a set of proposals that respond to these issues for consideration and further consultation (refer to 7.8). In particular, it was

⁹ Refer to clauses 188, 144 and 152A of the *Environmental Planning and Assessment Regulation 2000*.

observed that it would be beneficial for there to be greater involvement of FRNSW in the review of all performance solutions relating to fire safety systems. This could include, for example, requiring FRNSW to be consulted at the design stage with set time frames for it to respond.

It was also noted that Fair Trading and FRNSW have established a closer working relationship through the implementation of the new OC audit program, ensuring both agencies take a coordinated and proactive approach to ensuring the safety and amenity of buildings.¹⁰

6.3 Local councils

Councils have broad compliance and enforcement powers regarding development and building work including, in the case of fire safety, to issue Fire Safety Orders that can require (amongst other things) rectification of defective fire safety systems, cease building use or to seek the evacuation of buildings. They also have the power to fine building owners if the AFSS (and supplementary FSS) are not lodged in time.

Members of the working group observed that both the application of penalty notices for overdue AFSSs and the approach undertaken by councils in administering their responsibilities in respect to AFSSs appeared to be applied inconsistently across NSW.

The working group suggested it would be beneficial for the NSW Government and Local Government NSW to discuss opportunities to improve consistency and capability across councils utilising existing resources. It provided the following suggestions to help progress further dialogue:

- Consider mechanisms to facilitate greater information sharing, training and capability building (e.g. forums to share technical or administrative advice on issues relating to AFSSs and FSSs)
- Explore the adoption of 'spoke and hub' models or regional networks that facilitate councils providing each other with greater support (e.g. councils with greater technical resources supporting councils that have fewer applications), and
- Leverage the NSW Planning Portal to help councils and building owners manage fire safety documentation and compliance responsibilities more efficiently (e.g. using the NSW Planning Portal for the lodgement of AFFSSs).

6.4 Crown developments

The working group observed that Crown developments are not required to be subject to the same fire safety requirements as privately-owned buildings. However, a number of portfolios voluntarily apply the standard building certification and fire safety processes. The working group suggested that the NSW Government review this position and consider the merits of

¹⁰ Collaboration activities include the sharing of data and intelligence, technical advice, education initiatives and joint inspections.

adopting a consistent approach across all relevant building types, including those which are owned by the Crown.

6.5 Industry associations

The working group acknowledged that producing better fire safety outcomes for the NSW community was not solely a responsibility of government, and that the industry itself has a significant role to play.

It was suggested that peak industry associations representing fire practitioners should invest in building their capacity and capability to support the extension of co-regulatory approaches. Currently the FPAA administer the Fire Protection Accreditation Scheme (FPAS) which is formally recognised under NSW legislation to administer four classes of accreditation.¹¹ The working group observed that there is role for other associations (such as the NFIA and EA) to consider establishing similar accreditation schemes.

The working group also suggested that it would be beneficial for all industry associations to consider establishing Professional Standards Schemes.¹² Having an association recognised under this Scheme would help to lift standards of practice within their membership and likely create opportunities for government and industry to discuss additional co-regulatory approaches (e.g. recognising industry accreditation as a licensing pathway under legislation). It was noted that the Australian Institute of Building Surveyors (AIBS) recently established a national scheme for registered certifiers.

It was identified that some practitioners find it challenging to interpret relevant provisions of the National Construction Code (NCC) and Australian Standards. The working group noted that it would be beneficial for associations and practitioners to be made aware that the Australian Building Codes Board (ABCB) and Standards Australia will respond to clarification questions provided by industry associations.

¹¹ Practitioners must be accredited under FPAS if they wish to perform certain 'regulated work' under the Environmental Planning and Assessment Regulation 2000.

¹² Occupational associations can apply to manage schemes that are formally recognised under the *Professional Standards Act 1994*. For more information refer to www.psc.gov.au.

7. Appendix

7.1 Membership of the working group

The following lists the persons and organisations involved in the fire safety working group:

- Australian Institute of Building Surveyors - Jeremy Turner
- Association of Australian Certifiers - James Deters
- Consult Australia - Edmund Ang
- Department of Customer Service - Matt Whitton, Stephen Durnford, Angus Abadee, Helen Ting, Trevor Fan, Dominic Wong, Michael Marks, Donna Quinn
- Facility Management Association of Australia - Rob Broadhead
- Fire and Rescue NSW - Stephen Netting, John Hawes, John Bruscano
- Fire Protection Association of Australia - Bill Lea
- Hydraulic Consultants Australasia - Nick Soden
- Individual (Chair) - Michael Lambert
- Local Government NSW - Greg O'Donnell, Stephen Poulter
- National Fire Industry Association - Gordon Stalley
- NATSPEC - Richard Choy
- Office of the NSW Building Commissioner - Matt Press
- Royal Institution of Chartered Surveyors - Ben McDonald
- Engineers Australia Society of Fire Safety - Peter Johnson, Sarnia Rusbridge
- Standards Australia - Alison Scotland (until April 2021), Henrietta Tan (after April 2021)
- Strata Community Association (NSW) - Chris Duggan
- University of Queensland - David Lange
- Western Sydney University - Payam Rahnamayiezekavat

7.2 Template Building Manual for Fire Safety Systems

NSW Building Manual Fire Safety



Site Name: Smithy's Tower

Site address: 27 Smith Street, Sydney

Compiled by: John Smith of Smith Consulting
Accreditation/registration no. XXXX
27 John Street, Smithtown 2999

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Section 1: Owner's Information

- I. Introduction
- II. Definitions and acronyms
- III. Building description
- IV. Owner's legal obligations
- V. Overview of Fire Safety Strategy
- VI. General housekeeping
- VII. Maintenance matrix
- VIII. Accredited Practitioners - Fire Safety
- IX. Owner's checklist

Section 2: Technical information

- I. Introduction
- II. Fire Safety Schedule
- III. Performance Based Design Brief (formerly the Fire Engineering Report, if applicable)
- IV. Technical information matrix
- V. Occupation certificate
- VI. As-built drawings

Appendices

- A. Owner's legal obligations
- B. Fire Safety Strategy – example for a less complex building
- C. Fire Safety Strategy – example for a more complex building
- D. Technical information matrix

Section 1. Owner's instructions

I. Introduction

This chapter of your Building Manual relates to fire safety and is divided into two sections:

Section 1

This section is a plain English guide to the fire safety features contained within your building, including your fire safety plan and the obligations of owners and occupiers. This manual is unique to your building and was prepared by a specialist with their name and details on the first page.

Section 2

This section contains all of the technical information required by the organisation(s) you select to maintain your building. Access to this information is via the NSW Government's e-portal. Owners are provided with a unique key that allows them to access, but not modify, this information.

II. Definitions and acronyms

Accredited Practitioner – Fire Safety (APFS)

The NSW Government introduced reforms to fire safety effective from 1 July 2020 aimed at improving the quality of checks made throughout the design, approval, construction and maintenance phases of a building. Certain functions under the *Environmental Planning and Assessment Regulation* must be undertaken by an APFS or a registered certifier, including:

- endorsing plans and specifications for relevant fire safety systems
- endorsing fire safety performance solution reports
- endorsing exemptions to the Building Code of Australia for minor works to existing relevant fire safety systems
- assessing the ongoing performance of essential fire safety measures in a building and endorsing the annual fire safety statement.

Annual Fire Safety Statements (AFSS)

An Annual Fire Safety Statement is a statement made by the building owners or their representative on a standard form, which confirms the Essential Fire Safety Measures are performing at the same standard when the measures were installed.

Building Code of Australia (BCA)

Since 1990, Australia has had a set of uniform building regulations, known as the Building Code of Australia, with this being a subset of the National Construction Code (NCC). Your

building's Essential Fire Safety Measures have been designed and installed in accordance with these regulations.

Construction Certificate (CC)

A Construction Certificate (CC) is required after development consent is issued and before any building work is carried out.

Critical Fire Safety Measures (CFSM)

A Critical Fire Safety Measure (CFSM) is a measure identified in a Fire Safety Schedule as being critical due to its nature and/or due to its implementation in an environment or in such circumstances that the measure requires periodic assessment and certification at intervals of less than 12 months.

Essential Fire Safety Measures (EFSMs)

Essential Fire Safety Measures (EFSMs) are equipment or systems installed in your building that can assist in the suppression and containment of fires, as well assisting occupants to evacuate the building in the event of a fire.

Fire Safety Schedule (FSS)

A Fire Safety Schedule (FSS) is a document issued with the Construction Certificate. The FSS details all of the EFSMs required in your building. Prior to issuing the Occupation Certificate (OC), which allows the building to be occupied, the Principal Certifying Authority (PCA) ensures all of the measures detailed in the FSS have been installed correctly.

Fire Safety Certificate (FSC)

A Fire Safety Certificate (FSC) must be prepared showing that all of the measures of the FSS have been inspected and comply with standard listed on the FSS. Once complete, the FSC is submitted to the PCA in order for the OC to be issued.

Maintenance (Inspection and Testing, or I&T)

Maintenance or 'Inspection and Testing' (I&T) of fire protection is important to the reliability and longevity of a building's life safety systems. It allows the owners to meet their obligations under cl. 182 of the EP&A Regulation, with further explanation in section VI of this document. I&T may also provide evidence used for performance assessment for a building's AFSS; however, it is a separate process with increased frequencies that should be undertaken concurrently to maintain life safety in between annual assessments.

Occupation Certificate (OC)

An Occupation Certificate (OC) is required to be issued by the PCA before a new building can be occupied.

Performance Based Design Brief (PBDB)

Formerly more commonly known as the Fire Engineering Report, the Performance Based Design Brief (PBDB) is part of the National Construction Code's required documentation where a Performance Solution is proposed to meet a performance requirement. The PBDB is developed in consultation with key stakeholders.

Principal Certifying Authority (PCA)

The PCA oversees the development's construction phase and completes mandatory building inspections, known as critical stage inspections, to make sure that relevant building standards are met.

Supplementary Fire Safety Statement (SFSS)

A Supplementary Fire Safety Certificate (SFSS) is issued on behalf of the building owner for all fire safety measures that are required to be reviewed and tested more frequently than annually, and states that each of the fire safety measures has been assessed and found to be capable of performing to the required standard set out in the FSS.

III. Building description

- Brief description of the building or part (building use, construction type, external cladding, etc): _____
- Building class(es): _____
- Proposed date of issue of Occupation Certificate: _____
- Rise in storeys (as per the National Construction Code): _____
- Effective height (as per the National Construction Code): _____
- Number of Sole Occupancy Units: _____ / _____
- National Construction Code version: _____

IV. Owner's legal obligations

The pertinent Acts and Regulations in NSW that building owners are required to comply with are as follows:

- *Environmental Planning and Assessment (Act and Regulation)*
- *NSW Work Health and Safety Act 2011*
- *Strata Schemes Management Act 2015 and Strata Schemes Management Regulation 2016*, and
- *Fair Trading Act 2019* (short-term accommodation).

Summary details for the various owner's obligations are located in Appendix A.

V. Overview of Fire Safety Strategy

This section will contain a plain English overview of the building's fire safety, giving the owner a broad understanding of how occupants will interact with the building and the fire safety systems installed within the building in the event of a fire.

The Fire Safety Strategy, whether in a building that is Deemed to Satisfy (DtS) or has Performance Solutions (PS), should cover the following:

- systems for detecting a fire
- systems for alerting occupants and, if required, the fire brigade
- methods of evacuating the building in the event of a fire
- occupant behaviour
- what parts of the building have a fire rating and why, and
- a brief description of the systems that are installed in the building to assist in the suppression of fires.

In addition, PSs and their fire engineering analysis that effect the occupants' use of the buildings should be noted, including lifts for evacuation; any limitations on the use of common areas such as foyers, or podiums, atria and apartment balconies; and special hazards, such as car stackers or energy generation and storage systems (solar panels and Lithium-ion batteries).

For simpler buildings in full compliance with the DtS provisions or a limited performance report, no more details may be necessary other than those set out above. A worked example of a Fire Safety Strategy for a less complex building is provided at Appendix B.

Further details of the Fire Safety Strategy and its assumption, limitations and fire safety measures may be found in the PBDB, where one has been developed. Appendix C is a worked example of a more comprehensive detailed Fire Safety Strategy, developed through early engagement of a Fire Safety Engineer, with the owner/compiler able to include the produced document as an appendix to the FSCBM.

VI. General housekeeping

While your building may have good active and passive fire measures, these will be of little use if there is poor building maintenance and management, and bad housekeeping. It is the responsibility of all owners and occupants to ensure that good housekeeping and effective building management are met. Examples of good practice housekeeping and building maintenance and management matters are provided in Table 1 below.

Table 1: Good practice housekeeping

Item	Explanation
Keeping fire isolated stairs and escape routes clear	Escape routes should be free of any obstruction – with strictly no storage anywhere on common escape stairs and in corridors. Storage in escape routes can contribute to fire load and render the building unsafe. Obstructions make it difficult to exit in a fire evacuation event and hinder access for firefighters.
Keeping fire hose reel and fire extinguisher cabinets storage-free	The storage of materials in fire cabinets or cupboards can delay access for occupants or firefighters who may require the equipment in an emergency. The stored material can also be combustible, which presents an additional hazard.
Not interfering with fire safety components	<p>It is essential that any fire safety service is not interfered with, as this could affect its operation in an emergency event. This includes (but is not limited to):</p> <p><i>Never tampering with smoke alarms</i> – smoke detection and alarm systems play an important part in providing building occupants with warning in the event of a fire, particularly where occupants are sleeping; and</p> <p><i>Never storing things high up that could block sprinkler heads or smoke alarms</i> – blocking these fire safety components or hanging things off sprinkler heads could lead to ineffective operation and affect the occupant’s ability to safely escape the building.</p>
Reducing fire hazards	<p>It is important to reduce the chance of a fire and prevent it from spreading into escape routes. Examples include (but are not limited to):</p> <p><i>Power board electrical safety</i> – poor maintenance and incorrect usage of power boards can start a fire. Make sure power boards are placed in a location that is adequately vented and in a way that power leads do not become dislodged, are not overloaded, are protected and cleaned from dust build up, and cables are protected from damage.</p> <p><i>Never wedge open fire doors</i> – a fire door is required to be self-closing, which is important in restricting fire or smoke from spreading into escape areas and giving occupants sufficient time to safely escape. Wedging open a fire door to an escape route, such as your unit door or a door into a fire exit, allows extremely dangerous toxic smoke from a fire to enter and may compromise the safe evacuation of the building’s occupants.</p>
Minimising the amount of combustible materials in and around the building	<p>Excessive amounts of combustible materials, including household rubbish, should not be stored in or around the building, including (but not limited to) balconies and inside individual units. Ensure rubbish bins are not stored against the external walls or exits of the building.</p> <p>Note: Fire exits and corridors are for emergency exit and should be free from any combustible material and not be used for storage.</p>
Fixing defects found in fire safety equipment	Fix or promptly report faulty fire safety issues to the responsible person for immediate rectification. This may include issues like faulty escape lighting (light flickering or not working), faulty smoke

Item	Explanation
	<p>alarms (flashing light and/or beeping sound), damaged signage, fire doors not self-closing or latching properly, penetrations through fire-rated walls or floors not appropriately sealed or protected. If your smoke alarm is beeping, change the battery or have it replaced, rather than remove it or tamper with the device.</p> <p>If the building owner is unsure about the condition or compliance of the fire safety systems in the building, then he or she should seek professional advice to ensure that the building is fit to occupy in accordance with relevant legislation. Routine servicing is essential to demonstrate that fire safety systems and equipment are continuing to operate, and to identify faults or defects requiring rectification or repair.</p>
Reducing unwanted alarms	<p>Unwanted automatic fire alarms (also known as 'false alarms') have a significant economic and community impact on the productivity and amenity of building occupants/residents. FRNSW provides the following information on unwanted alarms and measures to reduce them (see https://www.fire.nsw.gov.au/page.php?id=9028)</p> <p><i>Main causes of false alarms</i></p> <ul style="list-style-type: none"> ▪ Poor ventilation ▪ Burnt toast ▪ Cooking fumes ▪ Steam ▪ Aerosol sprays ▪ Cigarettes and candles ▪ Tradespeople and cleaners ▪ Dust ▪ Dirty smoke detectors ▪ Damage to 'break glass alarms' or 'manual call points' ▪ System malfunction ▪ Poorly maintained systems and poor building maintenance ▪ Insufficient maintenance frequency in harsh environments, and ▪ Insect infestations. <p><i>Avoiding false alarms</i></p> <p>For tenants:</p> <ul style="list-style-type: none"> ▪ Ensure any fans and vents are operating and, if possible, windows are open before cooking or showering. ▪ Some smoke detectors are extremely sensitive and steam from showers, smoke from burning food, even sprays from aerosol cans (such as deodorant and hair-spray) can set them off. ▪ Be aware of where all smoke detectors are and ensure all reasonable measures are taken to avoid false alarm activation. <p>For building owners, managers and workers:</p> <p>Effective maintenance of AFA systems is critical in reducing false alarms. The primary cause of false alarms is poorly maintained systems.</p> <p>Ensuring a well-regulated workplace protocol is in place can also be extremely effective in reducing false alarms. There are a number of ways workers can set off false alarms:</p>

Item	Explanation
	<ul style="list-style-type: none"> ▪ Dust ▪ Cutting wires ▪ Spraying, and ▪ Steam cleaning.

Additional fire safety information, including different languages, is available at these links:

- <https://www.fire.nsw.gov.au/page.php?id=879>
- <https://www.fire.nsw.gov.au/page.php?id=9255>

VI. Maintenance matrix

By maintaining your Essential Fire Safety Measures at the performance required, you will have fulfilled your legal obligations under cl. 182 of the EP&A Regulation.

The maintenance matrix provides a detailed list of Essential Fire Safety Measures and performance measures (the latter taken from the Performance Based Design Brief) that require regular maintenance and inspection in your building. The 'Description and comments' column provides owners with a 'plain English' description of the fire safety measures in your building. The list of measures is from your building's Fire Safety Schedule, meaning that some items listed in Table 2 below may not be applicable in your building.

Table 2: Maintenance matrix

Fire safety measure	Maintenance frequency	Maintenance standard	Description and comments
Access panels, doors and hoppers to fire-resisting shafts	Annually	AS 1851	Resists fire spreading through fire-rated walls of shafts and risers within a building's mechanical hydraulic risers (e.g. lift shafts, electrical)
Automatic fail-safe devices	Annually	AS 1851	Doors that are fitted with a fail-safe device are required to automatically unlock or open upon the activation of a sprinkler system or smoke and heat detector system installed within the building
Automatic fire detection and alarm systems	Monthly Six-monthly Annually Five-yearly	AS 1851	Designed to detect smoke/heat and alert occupants of a fire, allowing them to evacuate as quickly as possible in an emergency. This system may also have an occupant warning that will activate in the event of fire.
Automatic fire suppression systems	Monthly Six-monthly	AS 1851	An automatic fire suppression system is more commonly

Fire safety measure	Maintenance frequency	Maintenance standard	Description and comments
	Annually Five-yearly 10-yearly 25-yearly		known as a sprinkler system. These systems are intended to control and suppress a fire. Sprinkler heads only operate individually, at the point of the fire.
Critical Fire Safety Measures	As determined by the PCA	As determined by the PCA and the PBDB	A Critical Fire Safety Measure means a measure identified in a Fire Safety Schedule as a critical fire safety measure, due to its nature, or its implementation in such an environment or in such circumstances that the measure requires periodic assessment and certification at intervals of less than 12 months.
Emergency lifts	Annually	EP&A Regulation clauses 175 and 176	Your building contains an emergency lift. The lift in normal operation is a passenger lift, but also needs to operate as an emergency lift. As there is no maintenance standard for lifts, building owners should engage a lift maintenance contractor to maintain their lift(s) in accordance the manufacturer's specifications. Annually, there is a requirement for the performance of the emergency lift to be endorsed by an APFS.
Emergency lighting	Six-monthly	AS 2293.2	Emergency lighting provides a minimum level of lighting for the safe evacuation of the building occupants. In the event of a failure to the electrical supply, they will continue to operate under battery power.
Emergency planning	Six-monthly Annually	AS 1851	The requirement 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. Includes formation, purpose, responsibility and training of emergency planning committees. Including development of emergency identification, emergency plans, emergency response procedures, and emergency related training.

Fire safety measure	Maintenance frequency	Maintenance standard	Description and comments
Emergency warning and intercommunication systems	Monthly Yearly Five-yearly	AS 1851	This system is designed to alert occupants with a fire alarm. Alarms are activated by the fire detection or sprinkler system. Systems provide early warning of an emergency as well a communication link to fire wardens and firefighters, once crews are on site.
Exit signs	Six-monthly	AS 2293.2	Exit signs provide a visual guide for the safe evacuation of the building occupants.
Egress and paths of travel	Annually (refer to 'General housekeeping' section)	EP&A Regulation Division 7, clauses 184, 185 and 186	The Regulation requires an APFS to be engaged to ensure there was no issue/s found that would "disclose any grounds for a prosecution under Part 9, Division 7 EP&A Regulation 2000." Part 9, Division 7 requires that any path of travel leading to a building's fire exit is kept clear of anything that may impede the free passage of persons, and must ensure any door in the fire exit is not impeded, obstructed or interfered with.
Fire alarm monitoring	Annually	AS 1851	The primary purpose of fire alarm monitoring is to transmit fire alarms from fire detection systems and fire sprinkler systems, which are required to be installed by Regulation, Code or Standard within certain classifications of buildings, to a monitoring service.
Fire control centres and rooms	Annually	EP&A Regulation clause 175 and 176.	The fire control centre (FCC) provides an area from which firefighting operations or other emergency procedures can be directed or controlled. The FCC contains controls, panels, telephones, furniture, equipment, and so on, associated with the <i>required</i> fire services in the building; and is to be used for firefighting activities and other measures concerning occupant safety or security.
Fire dampers	Annually	AS 1851	Resists fire spreading through fire-rated walls/floors i.e. between fire compartments.

Fire safety measure	Maintenance frequency	Maintenance standard	Description and comments
			Dampers must be installed within the penetration of fire-rated walls/floors.
Fire doors	Six-monthly and annually for hinged doors Three-monthly, six-monthly and annually for sliding fire doors (Hinged and pivoted fire-resistant doorsets serving as entry doors to private residential apartments may be extended to a yearly service schedule)	AS 1851	Resists fire spreading through fire-rated walls i.e. between fire compartments. Fire doors and frames must be tagged and self-closing with compliant hardware and gaps.
Fire hose reel systems	Six-monthly	AS 1851	Provide an accessible and controlled supply of water to combat a fire.
Fire hydrant systems	Monthly (pumps only) Six-monthly Annually Five-yearly	AS 1851	Fire hydrants are used by attending fire crews for fighting a fire.
Fire seals protecting openings in fire-resisting components of the buildings	Annually	AS 1851	A fire collar is designed to resist the spread of fire between fire compartments by sealing the pipe penetration using expanding intumescent material. A fire pillow is designed to expand and lock itself into place when affected by fire and completely surround the penetration(s) – resisting smoke, fire, and toxic gases from spreading to the next compartment or next level for the rated time period.
Fire shutters	Annually	AS 1851	A fire shutter is designed to delay/resist the spread of fire between fire compartments by automatically closing upon activation.
Fire windows	Annually	AS 1851	A fire window is designed to resist the spread of fire via openings in other compartments.

Fire safety measure	Maintenance frequency	Maintenance standard	Description and comments
Lightweight construction	Annually	AS 1851	<p>Lightweight construction means construction that incorporates or comprises:</p> <ul style="list-style-type: none"> - sheet or board material, plaster, render, sprayed application, or other material similarly susceptible to damage by impact, pressure or abrasion; or - concrete and concrete products containing pumice, perlite, vermiculite, or other soft material similarly susceptible to damage by impact, pressure or abrasion; or - masonry having a width of less than 70 mm.
Mechanical air handling systems also known as a mechanical ducted smoke control system.	<p>Monthly (applies to kitchen exhausts and outdoor air intakes only)</p> <p>Three-monthly</p> <p>Six-monthly</p> <p>Yearly (also includes five-yearly and 25-yearly items)</p>	AS 1851	<p>In the event of a fire, a mechanical air handling system is intended to provide smoke hazard management. The system is designed to help ensure the conditions in any <i>evacuation route</i> must be maintained for the period of time occupants take to evacuate the part of the building so that –</p> <p>(i) the temperature will not endanger human life; and</p> <p>(ii) the level of visibility will enable the <i>evacuation route</i> to be determined; and</p> <p>(iii) the atmospheric level of toxicity will not endanger human life.</p>
Performance measures	Annually	AS 1851 or as required by the Performance Solution	<p>‘The building is also affected by Performance Based Design Brief Report (PBDBR), prepared by HH, referenced report # LL, dated YYYY.’</p> <p>Should building alterations or additions to the building, changes to the EFSS or changes in the building’s use occur in the future, a reassessment of the EFSSs will be needed to verify consistency with the analysis contained within the PBDBR named above.</p>

Fire safety measure	Maintenance frequency	Maintenance standard	Description and comments
Perimeter vehicle access for emergency vehicles	Annually	EP&A Regulation clause 175 and 176	The BCA requires perimeter access around the building for the fire brigade's vehicles. The access road needs an unobstructed width of 6 m and must be within 18 m of the building. Owners should be aware of the access requirements and ensure that this area is not encroached in any way.
Portable fire extinguishers	Six-monthly Annually Five-yearly	AS 1851	A portable extinguisher is used for extinguishing or containing small fires. Several types of extinguishers are available – the correct type must be selected for a particular fire risk (training is recommended).
Safety curtains in proscenium openings	Annually	AS 1851	A safety curtain is installed to prevent the spread of fire between the stage and the auditorium of a theatre. The curtain is activated automatically via the smoke detection/sprinkler system, or manually via the activation point at the side of the stage.
Smoke alarms and heat alarms	Six-monthly Annually	AS 1851	Smoke and heat alarms are designed to detect smoke and/or heat and then provide an alarm alerting occupants of an emergency within their unit and/or within the building.
Smoke and heat vents	Six-monthly Annually	AS 1851	The vents are designed to remove the smoke/heat from a fire in the building and are activated by a detector or thermal link. The exhausting of heat/smoke combined with the smoke baffles will assist in the prevention of the horizontal spread of fire and assist evacuation and firefighting operations.
Smoke dampers	Annually	AS 1851	A smoke damper is interfaced with the mechanical services panel and is designed to activate on detection of a fire alarm to resist the spread of smoke throughout the building via the HVAC system ductwork.
Smoke detectors and heat detectors	Six-monthly Annually	AS 1851	Unlike smoke and heat alarms, smoke and heat detectors must

Fire safety measure	Maintenance frequency	Maintenance standard	Description and comments
			be connected to an automatic fire detection system
Smoke doors	Six-monthly	AS 1851	Smoke doors are installed within corridors and other places, and are designed to limit the smoke spread through the building.
Solid core doors	Annually	AS 1851	Solid core doors resist fire spreading through fire-rated walls e.g. between fire compartments. Solid core doors must also be self-closing.
Standby power systems	Quarterly Annually	EP&A Regulation clause 175 and 176	Standby power supplies are required to activate and supply power to EFSSMs in the event of a power failure. The manufacturer's specifications should be followed in regard to routine maintenance. Annually, there is a requirement for the performance of the standby power supplies to be endorsed by an Accredited Practitioner - Fire Safety.
Wall-wetting sprinkler and drencher systems	Monthly Six-monthly Annually Five-yearly 10-yearly 25-yearly	AS 1851	The sprinkler heads installed are designed to prevent the spread of fire to or from the building via any openings.
Warning and operational signs	Annually	EP&A Regulation clause 175 and 176	The <i>Environmental Planning & Assessment Regulation 2000</i> requires a notice relating to offences of a building's fire exit, which includes any fire-isolated stairway, passageway or ramp.

VII. Accredited Practitioners - Fire Safety

The EP&A Regulation requires owners to engage an Accredited Practitioner - Fire Safety (APFS) to assess and endorse each measure on the building's AFSS. A list of practitioners is available at:

https://connect.fpaa.com.au/Shared_Content/FPAS_Register/FPAS_Register_Search.aspx

VIII. Owner's checklist

1	Ensured there is a copy of the current Annual Fire Safety Statement displayed prominently in the foyer or main entrance to your building e.g. on a communal noticeboard.	Yes/No
2	Checked to ensure evacuation plans are on display throughout the building with emergency exits clearly marked.	Yes/No
3	Engaged a fire protection company to inspect and test to your building's Essential Fire Safety Measures in accordance with the maintenance matrix.	Yes/No
4	Engaged an Accredited Practitioner(s) - Fire Safety (APFS) to undertake the annual performance assessment of all essential fire safety measures installed in your building.	Yes/No
5	Ensured that the paths of egress are being checked regularly to ensure they are not blocked or obstructed and the appropriate signage is in place.	Yes/No
6	Confirmed the AFPS(s) are accredited for every measure on your Fire Safety Schedule below.	Yes/No
	Request Fire and Rescue NSW undertake a cl.152 or cl.152A pre-occupancy inspection	Yes/No
7	Request Fire and Rescue NSW to undertake pre-incident planning for your building	Yes/No
8	Ensure Fire and Rescue NSW has been provided with access and lift keys to allow entry, where required	Yes/No

Section 2. Technical information

I. Introduction

This section contains all the technical information that was used in the design, installation and certification of all essential fire safety measures in your building. By clicking on the link under each heading you can access the relevant information specifically for your building.

The information contained in this section will be required by Accredited Practitioners to undertake annual performance assessments of your building's EFSMs.

II. Fire Safety Schedule

www.eportal/sample.gov.nsw.au

III. Performance Based Design Brief (formerly Fire Engineering Report, if applicable)

www.eportal/sample.gov.nsw.au

IV. Technical information matrix

Appendix D provides a table of fire safety measures and the documents required by the AFSP to enable signing of the Fire Safety Certificate.

V. Occupation certificate

www.eportal/sample.gov.nsw.au

VI. As-built drawings

www.eportal/sample.gov.nsw.au

Appendix A: Owner's legal obligations

Building manual – legislative responsibilities of building owners and owners corporations

The main responsibilities of building owners in terms of fire safety are set out in various Acts and Regulations, including the:

- *Environmental Planning and Assessment Regulation 2000*
- *Residential Apartment Buildings (Compliance and Enforcement Powers) Act 2020*
- *Strata Schemes Management Act 2015 and Strata Schemes Management Regulation 2016*
- *Work Health and Safety Act 2011 and Work Health and Safety Regulation 2017.*

Relevant requirements of each Act and Regulation are summarised below. In reading this document, it is important to note that:

- legislative requirements are paraphrased for ease of reading. The full legislation may be accessed at www.legislation.nsw.gov.au
- this document covers only key responsibilities of building owners that specifically relate to fire safety as set by the legislation listed above. More generalised requirements are not covered.
- various NSW Government agencies provide online resources (linked below) such as templates and guidelines to assist owners.

Environmental Planning and Assessment Regulation 2000

Part 9 of the Environmental Planning and Assessment Regulation sets requirements for building owners in relation to:

- final fire safety certificates
- annual fire safety statements and supplementary fire safety statements
- maintenance of essential fire safety measures, and
- registration of buildings with external cladding.

These requirements refer to the **fire safety measures** of a building – equipment, forms of construction or fire safety such as hydrants, fire sprinklers and alarms, or lightweight construction. Fire safety measures include both **essential** fire safety measures and **critical** fire safety measures as defined in cl.165 of the Regulation.

Essential fire safety measures are generally identified in the building's fire safety schedule (where a schedule was required) and included in the annual fire safety statement. Critical fire safety measures are a subset of essential measures that, due to their nature or manner of

installation, require more frequent inspection. They are included in the supplementary fire safety statement.

Final fire safety certificates

Clauses 170-174 set out requirements for fire safety certificates.

A final fire safety certificate is a document issued by or on behalf of the building owner upon completion of new building work. It must be provided before an occupation certificate can be issued for the work.

The certificate confirms that each applicable fire safety measure, as listed in the fire safety schedule, has been installed and checked by a properly qualified person. This helps verify that the fire safety measures can perform to the minimum standard.

A fire safety certificate must be issued using a standard template form available at www.planning.nsw.gov.au/Policy-and-Legislation/Buildings/Fire-safety-in-buildings/Fire-safety-certification

The owner must give a copy of the final fire safety certificate to the Fire Commissioner and display it prominently in the building. The Fire and Rescue NSW website has more on how to submit a fire safety certificate: www.fire.nsw.gov.au/page.php?id=9143

Fire safety statements

Clauses 175-181 set out requirements for fire safety statements.

A fire safety statement is a document issued by or on behalf of the building owner. It confirms that an accredited practitioner has inspected and verified the performance of each fire safety measure.

There are two types of fire safety statements:

- Clauses 175-177 set requirements for **annual fire safety statements**, which must be issued each year and must include all the essential fire safety measures.
- Clauses 178-180 set requirements for **supplementary fire safety statements**. These generally mirror the requirements for annual statements but relate to critical fire safety measures, which require more frequent inspection.

A fire safety statement must be issued using a standard template form (cl.181) available at www.planning.nsw.gov.au/Policy-and-Legislation/Buildings/Fire-safety-in-buildings/Fire-safety-certification

The owner must provide a copy of the annual fire safety statement to the council and (together with the fire safety schedule) to the Fire Commissioner, and must also display it prominently in the building (cl.177). The Fire and Rescue NSW website has more on how to submit a fire safety statement: www.fire.nsw.gov.au/page.php?id=9143

Accredited practitioners

The building owner is responsible for choosing an 'accredited practitioner' to carry out inspections of fire safety measures. Guidance to assist owners in their choice is available at www.planning.nsw.gov.au/Policy-and-Legislation/Buildings/Fire-safety-in-buildings/Fire-safety-certification

'Accredited practitioners' are appropriately skilled and experienced practitioners who are accredited under an industry-managed scheme that has been approved by the Government. More information is available at www.fairtrading.nsw.gov.au/trades-and-businesses/business-essentials/information-for-specific-industries/fire-safety-practitioners

At the time of writing, there are accredited practitioners (or appropriately registered certifiers) available for most, but not all, regulated functions related to fire safety. For functions not covered by an accreditation scheme, the owner must choose an appropriate person. The guidance material linked above can assist in this choice.

Maintenance of essential fire safety measures

The building owner is responsible for maintaining each fire safety measure to the minimum standard of performance in the fire safety schedule (cl.182). For fire safety measures that apply to buildings by means other than a fire safety schedule, the measures must be maintained to the standard to which each was originally designed and implemented.

Clauses 183-186 set various requirements for signage of fire exits, and for ensuring fire exits and paths of egress remain unobstructed.

Clause 186A requires the owner to ensure smoke alarms are installed in accordance with that clause.

Registration of buildings with external cladding

If a class 2 building is of two or more storeys, the owner must register the building on the NSW Cladding Register by entering all required details at www.claddingregistration.nsw.gov.au (cl.186S).

Note: cl. 186S also requires registration of other specified classes of building.

Residential Apartment Buildings (Compliance and Enforcement Powers) Act 2020

The Residential Apartment Buildings (Compliance and Enforcement Powers) Act allows the Government to issue orders to developers to address/rectify defective building work.

A building work rectification order requires the developer to carry out building work or refrain from carrying out building work, as specified in the order, to eliminate, minimise or remediate the serious defect or potential serious defect.

This Act imposes obligations on owners corporations as follows:

- The owners corporation will be given notice when a building work rectification order is made, and must give written notice to each lot owner within 14 days of receiving the notice (s.37).
- Similarly, an owners corporation will also be given notice of the *intention* to make a building work rectification order. If so, the owners corporation must give written notice to each lot owner within 14 days (s.45).

Strata Schemes Management Act 2015

Annual general meeting

- The owner must deliver to the owners corporation all building plans and other documents (as set out in s.16), including all fire safety certificates, for the purposes of the first annual general meeting (s.16).
- The agenda for the annual general meeting must include consideration of the annual fire safety statement (if one is required) and arrangements for obtaining the next statement (Sch.1 cl.6).

Other relevant provisions

- A lot owner may not carry out work that will detrimentally affect the safety of a lot or common property, including fire safety systems (s.109).
- The owner must provide access to the building/premises as specified by notice, for the purposes of a fire safety inspection. Access may be requested to the common property or lots, as specified in the notice (s.123).

Strata Schemes Management Regulation 2016

The most relevant provisions are as follows:

- The initial maintenance schedule for the common property must contain maintenance and inspection schedules for fire protection measures, if maintenance is reasonably required to avoid damage to that measure or a failure to function properly (cl.29).
- The developer/original owner must provide the building inspector with various specified documents, including those related to the building fire safety measures (cl.46A). These include, for example, any report prepared by an accredited practitioner (fire safety) in relation to a Building Code of Australia performance solution for fire safety.
- A lot owner/occupier must not do anything (or permit anyone to do anything) on the lot or common property that is likely to affect fire safety devices or reduce fire safety (Sch.3 cl.10).

Work Health and Safety Act 2011

The Work Health and Safety Act requires that certain incidents, which occur where a business or undertaking is conducted, are notified to SafeWork NSW.

Fire is classified as a notifiable incident (ss.35-39). The person conducting the business or undertaking must notify SafeWork NSW immediately after becoming aware that a fire arising out of the conduct of the business or undertaking has occurred (s.38).

This Act provides the required form and timing of the notification, and relevant recordkeeping obligations (s.38). It also requires the incident site to be preserved (s.39).

Work Health and Safety Regulation 2017

The Work Health and Safety Regulation sets detailed requirements for those conducting a business or undertaking. A number of these specifically relate to fire safety, as follows:

- Clauses 32-55 set out general risk and workplace management provisions, some of which relate to fire safety. For example, cl.43 requires that an emergency plan include notification of Fire and Rescue NSW (among other emergency services).
- A person conducting a business or undertaking must ensure that an ignition source is not introduced into a confined space, if there is a possibility of the ignition source causing a fire or explosion (cl.73).
- A person conducting a business or undertaking must keep the manifest of hazardous chemicals in a place determined in agreement with Fire and Rescue NSW (cl.347).
- A person conducting a business or undertaking at a workplace must, if there is a possibility of fire or explosion in a hazardous area being caused by an ignition source, ensure that the ignition source is not introduced into the area (cl.359).
- Clause 359 sets certain requirements for a person conducting a business or undertaking at a workplace in relation to fire protection and firefighting equipment.
- A copy of the emergency plan must be sent to Fire and Rescue NSW, and the person conducting the business or undertaking must revise the plan if Fire and Rescue NSW so recommends (cl.361).

The SafeWork NSW website has more detailed information for businesses, including the construction industry, at www.safework.nsw.gov.au

Appendix B: Fire Safety Strategy – example for a less complex building

Class 2 building under 25 metres

1. Systems for detecting a fire ('What systems are in my building to detect fires?')

There are smoke alarms in each Sole Occupancy Unit and these alarms are powered by the electrical system within your unit. In the event of a power failure, the alarm will continue to operate for up to seven days, powered by a battery within the detector. The smoke alarms are sensitive to even small amounts of smoke for the early detection of a fire and the notification of occupants.

When a smoke alarm operates, the occupants should investigate the source. Depending on the size of the fire, the abilities of the occupants and the availability of first aid firefighting equipment (fire blanket, portable fire extinguisher, etc), a fire may be able to be managed by the resident. If a fire cannot be readily controlled by the occupants, they should 'Get out, Stay out, and Call Triple Zero (000)'.

There is also a smoke detection system throughout the common areas.

2. Systems for alerting occupants and, if required, the fire brigade ('How will I know if there is a fire?')

The smoke detectors within this building's common areas are connected to a fire panel, which is fitted with a Building Occupant Warning System and which will also automatically send an alarm signal to the fire brigade. In the event of a smoke detector activation, an evacuation warning will occur simultaneously throughout the building.

3. Methods of evacuating the building in the event of a fire ('What do I do if I hear an evacuation message?')

The building is designed with a fire isolated stairway with access to the outside of the building. On hearing the evacuation message, occupants should ensure there is no smoke or fire in the fire isolated stairway, then if clear, make their way to a safe location outside of the building.

4. What parts of the building have a fire rating and why?

Each Sole Occupancy Unit is fire isolated from each adjacent unit, as well as from the fire isolated escape path. This is to ensure a fire does not spread from the compartment of origin for a prescribed period of time, one of the fundamentals of fire safety in shared accommodation buildings.

5. Occupant behaviour

It is assumed that all occupants of this building will be ambulatory and can make their way without assistance to the outside of the building.

6. Fire suppression systems

The basic level of fire suppression in your building is provided by a variety of portable fire extinguishers, which can be used by occupants to suppress small fires in the very early stages of development.

This building is fitted with a sprinkler system. The nearest sprinkler head to the fire will activate at a predetermined temperature and commence suppressing any fire. The activation of the sprinkler system will also notify the fire brigade.

Your building is also fitted with a fire hydrant system for the exclusive use by firefighters.

Appendix C: Fire Safety Strategy – example for a more complex building

Overview

This appendix seeks to summarise the fire safety strategy, whether wholly designed to the prescriptive Deemed-to-Satisfy (DtS) provisions of the NCC, or designed with Performance Solutions. It covers the assumptions and requirements made in the development of the fire safety strategy for your building by providing a brief description of the following:

1. Fire Safety Strategy – Key Functional Requirements

- 1.1. Client design requirements (If there is no performance report or the performance report does not cover this)
- 1.2. Building structure and functionality
- 1.3. Fire safety objectives – NCC and other client objectives
- 1.4. Occupant characteristics
- 1.5. Fire hazards

2. Key Fire Safety Strategy – Key Design Measures

- 2.1. Fire prevention strategy (refer General Housekeeping – Section VI)
- 2.2. Fire safety management plan for occupants (e.g. simultaneous or staged evacuation, use of lifts and stairs)
- 2.3. Structural systems and compartmentation strategy
- 2.4. External wall design
- 2.5. Fire safety systems (active and passive)
- 2.6. Fire safety systems maintenance (refer Section VII)
- 2.7. Fire brigade intervention strategy
- 2.8. Fire safety systems integration – cause-consequence matrix and commissioning
- 2.9. Other key issues (e.g. relationship between fire safety and security), and
- 2.10. Future changes to building design and fire safety measures.

Further details of the fire safety strategy and its assumptions, limitations and fire safety measures may be found in the fire safety Performance Based Design Brief (PBDB), formerly the Fire Engineering Report (FER), where one has been developed, in Part 2 of this Manual. For some simpler buildings in full compliance with the DtS Provisions, no more details may be necessary other than those set out above.

Example – Fire Safety Strategy

Introduction

This is an example of the key headings and an indication of the level of detail required for the first plain English section of a typical fire safety manual or fire safety part of a broader building manual.

This example is indicative only, not based on any particular building, not necessarily complete or compliant with the NCC, and should never be used for building design.

The first section of the manual is written in a form suitable for non-technical building owners, manager and occupants (residents and tenants). It sets out the fire safety strategy or basis of the fire safety design. It includes the key assumptions that underpin the strategy.

Such fire safety strategies should be developed for all buildings designed to the NCC, whether designed totally in accordance with the DtS provisions, or designed using the NCC option of developing Performance Solutions as an alternative means of compliance with the NCC Performance Requirements.

The outline of the fire safety strategy in part V of Section 1 of the manual should be consistent with second section of the fire safety manual, which provides more technical details for consultants and contractors. The strategy will typically be included in the full Performance Based Design Brief (PBDB), with justifications for compliance with the NCC Performance Requirements to support one or more Performance Solutions.

This example illustrates how a Section 1, Part V - Overview of a fire safety strategy might look like in the manual.

Building Description

Building: The Sample Apartments

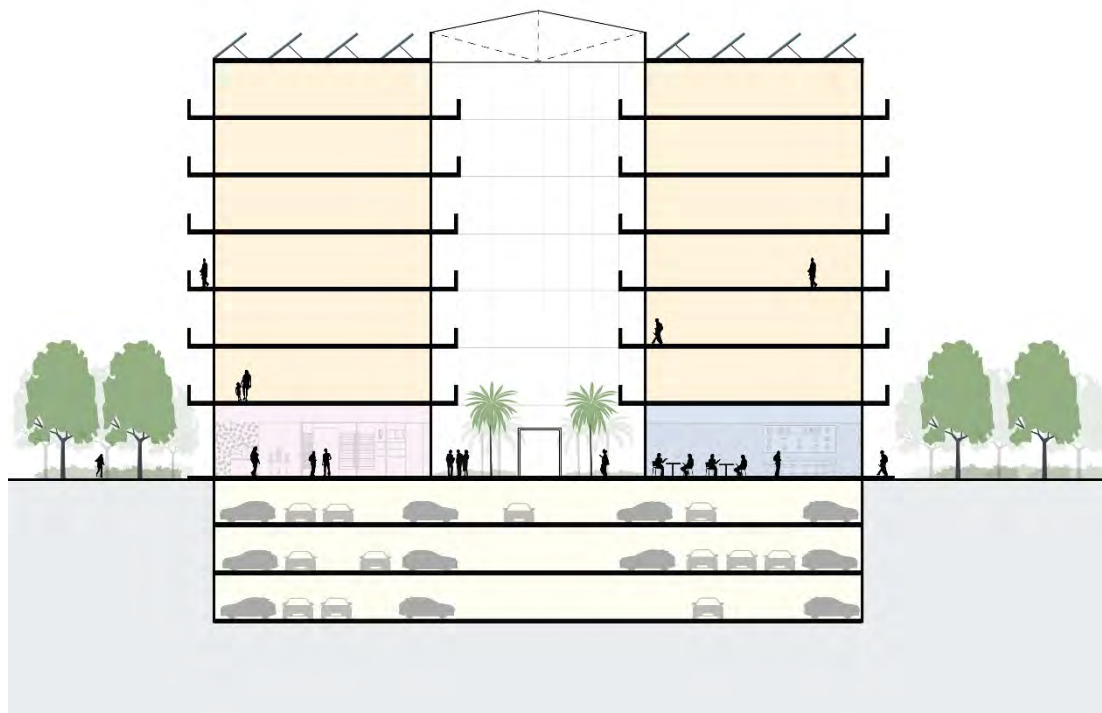
Address: 100 Melbourne Road

Sydney NSW 2000

Classification: Class 3, 6, and 7a

Construction: Type A

This building, '**The Sample Apartments**' is built with a concrete frame and lightweight internal wall construction between apartments and the common corridors. There is a single staircase and lift at each side of the building.



The Sample Apartments building has the following key features:

- Six storeys of apartments (Levels 1-6)
- Building entry, retail area and café on ground floor
- Three levels of resident/tenant carpark below grade, and
- A central atrium, from ground level to level 6.

The example of the fire safety strategy for this building is set out below:

1. Fire Safety Strategy – Key Functional Requirements

The top-down process for developing the fire safety strategy and holistic fire safety design of the building responded to the client brief and included the following assumptions and design decisions.

1.1 Client design requirements

The client/project brief and architectural vision included the following:

- o Use an innovative performance-based design approach for fire safety to achieve the most cost-effective design and through-life performance of the building
- o Design to the comply with the Performance Requirements of the National Construction Code (NCC) for fire safety

- o Achieve an aesthetically pleasing appearance using modern materials with totally non-combustible external walls, and
- o Develop a fire safety design based on sustainability principles that is harmonised with all other design objectives.

1.2 Building structure and functionality

The building was designed to facilitate the following:

- o Easy access between underground carpark, entry level and apartment levels using lifts and stairs for use in emergencies
- o Extensive use of large windows without spandrels to give clear views from all apartments, including into an attractive atrium
- o Openable windows for natural ventilation
- o Low vibration, non-combustible structural frame – no issue of LVL or CLT timber, and
- o At least one carparking space per apartment.

1.3 Fire safety objectives

This building was designed to meet the following fire safety objectives:

- o The NCC fire safety Performance Requirements that address life safety, protection of 'other' property and facilities for fire brigade intervention
- o The objectives of 'other' property was interpreted to mean minimising the risk of fire and smoke spread between apartments, between other parts of the building and apartments, and between this building and others on adjacent allotments
- o A special property protection objective of this building was minimising the risk of fire and smoke spread within individual apartments, and
- o The aim was to meet sustainability objectives and meet specific property insurance requirements.

1.4 Occupant characteristics

The key assumptions in relation to occupants were as follows:

- o A normal range of ages for occupants, from children to the elderly
- o In apartments and the carpark, some 20% of occupants are expected to have some form of disability, making them more vulnerable to the effects of fire and, in some cases, requiring assistance with evacuation, and
- o The retail area and the cafe are expected to be used by the normal range of ages and capabilities, not limited to just the occupants of the building.

1.5 Fire hazards

An analysis of all potential combustible materials and sources of ignition was undertaken as part of the design process, which identified the following major fire hazards:

- o Petrol/diesel, LPG/natural gas, hydrogen and electric vehicles in the carpark, including a car stacker in one section
- o Electric vehicle charging stations, and lithium-ion battery banks for building energy storage
- o Higher fire loads in the retail area, and fire risks associated with cooking in the café (but no fat fryers)
- o Normal fire loads in apartments, but electric-only cooking stoves and no BBQs on the balconies
- o A large array of solar panels on the roof of the building

2. Fire Safety Strategy – Key Design Measures

“A fire safety strategy defines the fire safety objectives and performance requirements for a building and sets out the measures and methods by which these objectives and performance requirements will be met to provide the necessary fire and life safety of the building”.

All fire safety measures for this building have been fitted into four key layers of protection, providing a robust safety case and have the required levels of redundancy. These four layers of the fire safety design are:

- A. Fire prevention
- B. Detection and occupant response
- C. Fire control – limiting smoke and fire spread and ensuring structural protection, and
- D. Fire brigade intervention.

Based on this approach, the fire safety strategy for this building was developed by addressing key issues including:

2.1 Fire Prevention Strategy

It has been assumed that there will be a building management and fire prevention strategy with instructions for all occupants to minimise the risk of fire that will include:

- o No storage of combustible materials in the carpark, apart from the vehicles themselves
- o No deep fat fryers in the café
- o Only non-combustible furniture in the base of the atrium
- o No BBQs stored or operated on apartment balconies and all balcony furniture to be non-combustible, and
- o Regular inspections by the body corporate to ensure all fire prevention measures are maintained and there is control of waste and combustible materials.

2.2 Fire safety management plan for occupants

- o Simultaneous evacuation of all occupants to the two designated assembly areas, one on each side of the building, is expected on general building fire alarm

- o Occupants of individual apartments should evacuate – “Get out, Stay out and Call Triple Zero (000)” – in the event of an automatic fire alarm activation and/or a fire emergency in their individual apartment
- o Specially protected lifts and stairs with lobbies for evacuation, included for the disabled and more vulnerable
- o Occupant fire safety evacuation and management plan for all building occupants has been assumed in the design to be developed and maintained by building managers, and
- o All occupants are expected to be involved in the regular evacuation drills.

2.3 Structural systems and compartmentation strategy

- o Concrete frame structure of two hours fire resistance level (FRL)
- o Separating walls and floors of timber stud with plasterboard and other materials to give one hour fire resistance between apartments
- o Two hour FRL concrete floor between the ground floor (retail/café area) and apartments above, and between the carpark and ground floor
- o All cable/pipe/duct penetrations to be maintained at the required fire resistance level, with appropriate fire stopping systems/materials and regularly inspected for compliance, and
- o All apartment doors to the corridors to be one hour fire rated with smoke seals and door closers to minimise the risk of fire and smoke spreading from apartments, or into apartments, to protect occupants and their property.

2.4 External wall design

- o The external walls of the building, apart from windows, has been designed using completely non-combustible, recycled materials in line with the client’s requirements and those of the insurer (no combustible external wall elements or combustible insulation).

2.5 Fire safety systems (active and passive)

- o Interconnected AS 3786 smoke alarms have been installed in apartments, with AS 1670.1 smoke detection system throughout the retail, café, carpark and common areas of the building
- o AS 3786 sounders interlinked to the AS 1670.1 system to sound in the event of a general building fire alarm
- o Sprinkler systems to AS 2118.1 with fast response sprinkler heads have been installed throughout the building to minimise fire damage to apartments and the risk of fire spread between different areas of the building, and to meet insurer’s requirements
- o A highly reliable Grade 2 water supply is provided and tested regularly to support building sprinklers, fire hydrants and hose reels
- o Split-system air-conditioning/ventilation systems to each apartments will all shut down to minimise smoke spread in the event of a general fire alarm
- o The retail area, the café and the carpark levels have their own separate and dedicated smoke exhaust systems to prevent smoke spread to apartments

- o The atrium has a dedicated natural smoke exhaust system, for which all external doors to the atrium need to be automatically driven open in the event of a general building fire alarm. Do not block external doors, and
- o Lobbies and stairs have stair pressurisation to prevent smoke entry.

2.6 Fire safety systems maintenance

- o All such systems and other fire safety measures need to be regularly maintained in accordance with AS 1851 and other related standards or guidance.
- o Contracts have been put in place with qualified and registered providers of such maintenance, and
- o All apartment owners should regularly test their own smoke alarms.

2.7 Fire brigade intervention strategy

- o The strategy for fire brigade intervention for rescue and firefighting for this building has been developed in consultation with the Fire and Rescue NSW (FRNSW)
- o FRNSW has a designated parking area for two fire brigade vehicles outside the front of the building and adjacent to the external fire hydrant and booster, which must be kept clear at all times
- o Controls for detection and alarm, sprinklers, hydrants and hose reels for fire brigade use have been provided, and
- o In the event of a fire requiring evacuation, the attending fire crew will take control and help those requiring assistance to reach one of the two assembly areas.

2.8 Fire safety systems integration – cause-consequence matrix and commissioning

- o The project design team has developed a cause-consequence matrix that shows what sequence of subsequent system operations should occur on activation of a fire or smoke alarm, a smoke detector, the sprinkler system or other system
- o This matrix was used for systems commissioning during final project inspections, but forms the basis of testing during regular maintenance activities to ensure all required interactions between fire safety measures continue to work through the life of the building for occupant and property protection, and
- o Particular attention should be given to the interaction between detection, fire alarm, and sprinkler systems, smoke exhaust vents and door openings for inlet air as well as fire brigade controls to ensure the effective operation of the atrium smoke management system.

2.9 Other key issues

Some other key issues addressed in the design and that are required to be addressed by the building managers throughout the life of the building to protect occupants and property include:

- o The balance between fire safety and sustainability objectives
- o The balance between fire safety and security measures – security doors will open automatically on building fire alarm so no occupants will be trapped
- o The balance between and construction/refurbishment costs and through-life costs to owners and tenants has been carefully designed to minimise long-term costs to owners and tenants.

2.10 Future changes to building design and fire safety measures

- o Should the building be altered and the fire safety measures be changed as a result of refurbishment or for other reasons, professional fire practitioner advice should be sought to ensure the original fire safety strategy and design is maintained.

Appendix D: Technical information matrix

Fire safety measures	Documents required by the Accredited Practitioner - System Certifier to enable signing of the Fire Safety Certificate (Note: All documents will be accessed by hyperlinks to the DPIE e-portal)
Access panels, doors and hoppers to fire-resisting shafts	<ul style="list-style-type: none"> <input type="checkbox"/> Technical and approval data for each panel, door and hopper <input type="checkbox"/> Location and unique identification number for each panel <input type="checkbox"/> Certificate of Compliance
Automatic fail-safe devices	<ul style="list-style-type: none"> <input type="checkbox"/> Technical specifications on the fail-safe device <input type="checkbox"/> Commissioning sheets <input type="checkbox"/> Interface matrix <input type="checkbox"/> Certificate of Compliance
Automatic fire detection and alarm systems	<ul style="list-style-type: none"> <input type="checkbox"/> As-built drawings <input type="checkbox"/> Fire panel program <input type="checkbox"/> Interface test <input type="checkbox"/> Installer's statement <input type="checkbox"/> Commissioning documentation <input type="checkbox"/> Approval documentation for all installed componentry <input type="checkbox"/> Certificate of Compliance <input type="checkbox"/> Zone diagram <p>Note: The automatic fire detection system drives all other interfaced systems. The accredited practitioner issuing the Certificate of Compliance for the fire detection system is responsible for producing the full cause and effect matrix for the building.</p>
Automatic fire suppression systems	<ul style="list-style-type: none"> <input type="checkbox"/> As-built drawings <input type="checkbox"/> Block plan <input type="checkbox"/> Hydraulic calculations (data file) <input type="checkbox"/> Town main flow (if applicable) <input type="checkbox"/> Sprinkler flow test results (combined, where applicable) <input type="checkbox"/> Bench test results for pumpsets (if applicable) <input type="checkbox"/> Interface test <input type="checkbox"/> Installer's statement <input type="checkbox"/> Commissioning documentation <input type="checkbox"/> Approval documentation for all installed componentry <input type="checkbox"/> Certificate of Compliance
Cause and effect (master) matrix	<ul style="list-style-type: none"> <input type="checkbox"/> Full cause and effect matrix for all interfaced systems. <p>Note: Ensure this document has been created and logged in the DPIE e-portal</p>
Emergency lifts	<ul style="list-style-type: none"> <input type="checkbox"/> Commissioning documentation <input type="checkbox"/> Interface matrix (if interfaced with any EFSM) <input type="checkbox"/> Location of fire service key <input type="checkbox"/> Certificate of Compliance
Emergency lighting	<ul style="list-style-type: none"> <input type="checkbox"/> Technical and approval data for the installed equipment <input type="checkbox"/> Location and unique identification number for each light

Fire safety measures	Documents required by the Accredited Practitioner - System Certifier to enable signing of the Fire Safety Certificate (Note: All documents will be accessed by hyperlinks to the DPIE e-portal)
	<input type="checkbox"/> Certificate of Compliance
Emergency warning and intercommunication systems	<input type="checkbox"/> As-built drawings <input type="checkbox"/> Fire panel program <input type="checkbox"/> Interface test <input type="checkbox"/> Installer's statement <input type="checkbox"/> Commissioning documentation <input type="checkbox"/> Approval documentation for all installed componentry <input type="checkbox"/> Certificate of Compliance
Exit signs	<input type="checkbox"/> Technical and approval data for the installed equipment <input type="checkbox"/> Location and unique identification number for each light <input type="checkbox"/> Certificate of Compliance
Fire control centres and rooms	<input type="checkbox"/> Certificate of compliance
Fire dampers	<input type="checkbox"/> Technical and approval data for each damper <input type="checkbox"/> Location and unique identification number for each damper <input type="checkbox"/> Certificate of Compliance
Fire doors	<input type="checkbox"/> Technical and approval data for each door <input type="checkbox"/> Location and unique identification number for each door <input type="checkbox"/> Certificate of Compliance
Fire hose reel systems	<input type="checkbox"/> As-built drawings <input type="checkbox"/> Block plan <input type="checkbox"/> Hydraulic calculations <input type="checkbox"/> Town main flow data <input type="checkbox"/> Flow test results <input type="checkbox"/> Bench test results for pumpsets (if applicable) <input type="checkbox"/> Installer's statement <input type="checkbox"/> Commissioning documentation <input type="checkbox"/> Approval documentation for all installed componentry <input type="checkbox"/> Certificate of Compliance
Fire hydrant systems	<input type="checkbox"/> As-built drawings <input type="checkbox"/> Block plan <input type="checkbox"/> Hydraulic calculations <input type="checkbox"/> Town main flow <input type="checkbox"/> Flow test results <input type="checkbox"/> Bench test results for pumpsets (if applicable) <input type="checkbox"/> Interface test <input type="checkbox"/> Installer's statement <input type="checkbox"/> Commissioning documentation <input type="checkbox"/> Approval documentation for all installed componentry <input type="checkbox"/> Certificate of Compliance <input type="checkbox"/> Fire brigade booster test
Fire seals protecting openings in fire-resisting components of the buildings	<input type="checkbox"/> Penetrations schedule <input type="checkbox"/> Specification sheet for sealing materials <input type="checkbox"/> Collar types <input type="checkbox"/> Certificate of Compliance

Fire safety measures	Documents required by the Accredited Practitioner - System Certifier to enable signing of the Fire Safety Certificate (Note: All documents will be accessed by hyperlinks to the DPIE e-portal)
Fire shutters	<input type="checkbox"/> Technical and approval data for each panel <input type="checkbox"/> Location and unique identification number for each panel <input type="checkbox"/> Certificate of Compliance
Fire windows	<input type="checkbox"/> Technical and approval data for each panel <input type="checkbox"/> Location and unique identification number for each panel
Lightweight construction	<input type="checkbox"/> Type of material used to achieve the required FRL <input type="checkbox"/> Approval documentation for the lightweight construction <input type="checkbox"/> Location of each item of lightweight construction <input type="checkbox"/> Certificate of Compliance
Mechanical air-handling systems	<input type="checkbox"/> Commissioning documentation <input type="checkbox"/> Interface matrix <input type="checkbox"/> Approval documentation <input type="checkbox"/> Zone smoke control schematic <input type="checkbox"/> Certificate of Compliance
Perimeter vehicle access for emergency vehicles	<input type="checkbox"/> Certificate of Compliance
Portable fire extinguishers	<input type="checkbox"/> Technical and approval data for all extinguishers <input type="checkbox"/> Location of all extinguishers <input type="checkbox"/> Certificate of Compliance
Safety curtains in proscenium openings	<input type="checkbox"/> Technical and approval data for each curtain <input type="checkbox"/> Commissioning documentation <input type="checkbox"/> Interface matrix <input type="checkbox"/> Certificate of Compliance
Smoke alarms and heat alarms	<input type="checkbox"/> Technical and approval data for all alarms <input type="checkbox"/> Commissioning documentation <input type="checkbox"/> Interface matrix <input type="checkbox"/> Certificate of Compliance
Smoke and heat vents	<input type="checkbox"/> Technical and approval data for each panel <input type="checkbox"/> Location and unique identification number for each panel <input type="checkbox"/> Certificate of Compliance
Smoke dampers	<input type="checkbox"/> Technical and approval data for each damper <input type="checkbox"/> Location and unique identification number for each smoke damper <input type="checkbox"/> Certificate of Compliance
Smoke detectors and heat detectors	<input type="checkbox"/> Certificate of Compliance <input type="checkbox"/> See also 'Automatic fire detection and alarm systems'
Smoke doors	<input type="checkbox"/> Technical and approval data for each door <input type="checkbox"/> Location and unique identification number for each door
Solid core doors	<input type="checkbox"/> Technical and approval data for each door <input type="checkbox"/> Location and unique identification number for each panel <input type="checkbox"/> Certificate of Compliance

Fire safety measures	Documents required by the Accredited Practitioner - System Certifier to enable signing of the Fire Safety Certificate (Note: All documents will be accessed by hyperlinks to the DPIE e-portal)
Standby power systems	<input type="checkbox"/> Commissioning documentation <input type="checkbox"/> Technical data relating to alternate power supplies, control architecture and manufacturer's details <input type="checkbox"/> Interface test results <input type="checkbox"/> Certificate of Compliance
Wall-wetting sprinkler and drencher systems	<input type="checkbox"/> As-built drawings <input type="checkbox"/> Block plan <input type="checkbox"/> Hydraulic calculations <input type="checkbox"/> Town main flow <input type="checkbox"/> Flow test results <input type="checkbox"/> Bench test results for pumpsets (if applicable) <input type="checkbox"/> Interface test <input type="checkbox"/> Installer's statement <input type="checkbox"/> Commissioning documentation <input type="checkbox"/> Approval documentation for all installed componentry <input type="checkbox"/> Certificate of Compliance
Warning and operational signs	<input type="checkbox"/> Installer's statement <input type="checkbox"/> Certificate of Compliance

7.3 Guidance document for compilers of Fire Safety Component of Building Manual

This guidance document has been prepared to assist those compiling the Fire Safety Component of the Building Manual (FSCBM). The NSW FSCBM is a comprehensive document covering all fire safety elements within the building. The compiler has a key role in ensuring that this document is relevant and accurate. Owners will rely on this information to enable them to effectively utilise and maintain their building over the entire life cycle of that building.

When compiling the document the compiler should undertake the following:

Section 1

Part I

- Ensure the introduction is appropriate for the class(es) of building to which the BM refers.

Part II

- Ensure all of the building details are correct.

Part III

- This section of the BM template should not require any changes.

Part IV

- Ensure that only the legal responsibilities for the relevant building class(es) are referenced in this section.

Part V

- Review the Fire Safety Schedule to ensure that the measures installed in the building are transferred to the maintenance matrix.
- Ensure any critical fire safety measures are identified and inserted into the maintenance matrix.
- Ensure any non-statutory measures without a maintenance regime covered by AS 1851 have a suitable maintenance regime identified and then transferred to the maintenance matrix.
- The FSCBM must nominate for each measure on the FSS a maintenance regime which specifies the inspections, tests and frequencies that are necessary for compliance with EP&A Regulation clause 176. This may be AS1851, AS2293 or some other document such as manufacturer's recommendations.
- If the building is subject to a performance solution impacting fire safety measures, read the performance report and where required, ensure performance measures

are transferred to the maintenance matrix so that a suitable maintenance regime is instituted.

Part VI

- Ensure that the good housekeeping recommendations referenced in the FSCBM template are relevant for the building class(es).
- Ensure the hyperlinks are relevant and connect correctly.

Part VII

- The role of the BM compiler is to develop a Fire Safety Plan for the building using the measures referenced in the Fire Safety Schedule/Performance report. The key points to be covered in the Fire Safety Plan are outlined in the template.

Part VIII

- Ensure the hyperlinks are relevant and connect correctly.

Part IX

- Ensure the owners checklist is relevant to building class(es).

Section 2

Part I

- Ensure that the introduction transfers across from the template.

Part II

- The Fire Safety Schedule should have been loaded onto the eportal. Ensure the hyperlink connects to the correct FSS.

Part III

- The Fire Engineering Report (FER) (if applicable) should have been loaded onto the eportal. Ensure the hyperlink connects to the correct FER.

Part IV

- The technical information matrix should now contain all of underpinning documentation that the fire system certifier has used to certify each measures is compliant.
- The practitioner compiling the guide should ensure that a full interface test has been carried out and that the full cause and effect matrix is correct. This may involve the practitioner attending site and in some cases creating the full cause and effect matrix.

Part V

- The Occupation Certificate will not yet be loaded on the eportal. Once you have uploaded the completed fire safety chapter the PCA will be able to issue the OC.

Part VI

- The declared design including as built drawings showing fire and smoke walls should now be loaded on the eportal. Ensure that the hyperlink connects to the correct drawings.

Practitioner requirements for compiling the fire safety chapter FSCBM

1. Graduate certificate or equivalent in building surveying. + 5 years industry experience + industry short course
2. Graduate certificate or equivalent in fire safety engineering + 5 years industry experience,
3. Diploma of Fire technology + 5 years industry experience,
4. Diploma of Fire System Design (annual certifier stream) + 5 years' experience,
5. Accredited Practitioner Fire Safety Fire safety (if created), or
6. Advisor (unrestricted) (if created) + 5 years industry experience holding the qualifications identified in 1 to 5 above.

Practitioner options for updating the fire safety chapter of the FSCBM

1. Any of the practitioners identified above, or
2. Any accredited or registered design practitioner (limited to the system in which they have accreditation).

It is noted that there is currently a requirement for a developer of class 2 building to produce an Initial Maintenance Schedule (IMS). Production of the Building Manual using the standard template would fulfil the developer's obligations under Strata Schemes Management Regulation 2016 Section 115 in relation to the Fire Safety of the IMS.

7.4 Schedules of Fire Safety Functions and Practitioners

SCHEDULE 1 - BEFORE DETAILED DESIGN OF FIRE SAFETY SYSTEMS

Item No.	Function			Who responsible	Output document	Comment
	Title	Description	Applicable legislation			
1.1	Initial review of performance requirements	Determine which building elements will be performance based, which will be DTS and which relevant fire safety systems are proposed to be subject to a 164B exemption.	Cl.6(3)(c) of Schedule 1 of the EP&A Reg.	Building applicant, with advice from BCA consultant, Architect, Fire Safety Engineer, Fire systems designer	Fire safety strategy reflected in application	
1.1.1	<i>If one or more relevant fire safety systems has a 164B exemption:</i>					
1.1.2	Preparation and endorsement of 164B objection	Assess merits of a 164B objection pursuant to clause 164B of EP&A Reg and if appropriate provide documentation supporting a 164B exemption.	Cl. 164B of the EP&A Reg.	Accredited practitioner (fire safety)	Recommendation and supporting documentation to building applicant ready for submission to registered certifier (bld surveyor).	
1.1.3	Submission of 164B objection to registered certifier (bld surveyor)	Submit 164B objection	Cl.164B of the EP&A Reg.	Building applicant	Application for 164B exemption.	
1.2	<i>If one or more elements are performance based:</i>					

1.2.1	Fire Safety Engineering	Performance based assessment of non-DTS building elements for some larger buildings/fire compartments as per EP&A reference clauses.	Cl.130(5)(a) and 144A(3)(a) of the EP&A Reg Cl.64(1) of the B&DC Reg.	Accredited Practitioner (fire safety) who is also a fire safety engineer (EP&A Reg.) Registered Certifier who holds a certifier-fire safety class of registration (BADC Reg. Cl 65)	Performance-based design brief Performance Solution Report	
1.2.2		Prepare or vary a regulated design in relation to an area of fire safety engineering. Design compliance declaration for a regulated design in relation to an area of fire safety engineering.	S.9 of D&BP Act and cl.15 of Schedule 1 of the D&BP Reg.	Design practitioner – fire safety engineering Professional engineer – fire safety	Regulated design in the form of a Performance Solution. Design compliance declaration of Performance Solution Report.	
1.2.3		Performance based assessment of non-DTS building elements for some smaller buildings/fire compartments as per reference clauses.	Cl.130(5)(b) and 144A(3)(b) of the EP&A Reg. Cl.64(1) of the B&DC Reg.	Accredited Practitioner (fire safety) (EP&A Reg.). Registered Certifier who holds a certifier-fire safety class of registration (BADC Reg. Cl 65).	Performance-based design brief Performance Solution Report	

1.2.4	Consultation and referrals to Fire & Rescue NSW	a) Optional request to Fire & Rescue NSW for a fire engineering brief consultation. Submission of performance-based documents to Fire Commissioner if required under EP&A clause 144.	S.42 of the FB Act Cl.144(2) of the EP&A Reg.	Fire Safety Engineer Registered Certifier (bld surveyor)	a) Fire Engineering Brief questionnaire b) Copy of application, Copy of plans & specifications, Details of performance requirements, Details of assessment method.	
1.2.5	Fire Engineering Brief consultation and Report	a) Consultation between owner representatives and Fire & Rescue NSW regarding proposed performance-based design. b) Report by FRNSW	n/a	a) Owner representatives b) FRNSW	a) Communication between FRNSW and owner representatives b) Written report	
1.2.6	Fire Safety Report	Fire & Rescue NSW to notify registered certifier (bld surveyor) of intention to provide initial Fire Safety Report.	Cl.144(3) of the EP&A Reg.	Fire & Rescue NSW	Correspondence	

1.2.7		NSW Fire & Rescue to issue initial Fire Safety Report.	Cl.144(4) of the EP&A Reg.	Fire & Rescue NSW	Initial Fire Safety Report	
1.2.8		Comments from NSW Fire & Rescue to be considered.	Cl.144(6) of the EP&A Reg.	Registered Certifier (bld surveyor)		
1.2.9	Referrals to FRNSW due to conditions of registration of certifier	Some certifiers may be required under their registration to refer certain matters to FRNSW for comment. FRNSW to provide comment	S.13 of the B&DC Act.	Registered Certifier (bld surveyor) FRNSW	Written request Written report	
1.2.10	Fire Safety Schedule	Finalise Fire Safety Schedule incorporating all DTS and performance-based solutions.	Cl.168 of the EP&A Reg.	Registered Certifier (bld surveyor)	Fire Safety Schedule	The Fire Safety Schedule is based on input from BCA Consultant, Architect, Fire Safety Engineer, Fire Systems Designer and NSWFR.
1.3	<i>If all elements are DTS:</i>					

1.3.1	Fire Safety Schedule	Finalise Fire Safety Schedule	Cl.168 of the EP&A Reg.	Registered Certifier (bld surveyor)	Fire Safety Schedule	The Fire Safety Schedule is based on input from BCA Consultant, Architect and Fire Systems Designer.
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SCHEDULE 2 – DESIGN OF ESSENTIAL FIRE SAFETY MEASURES

Item No.	Function			Who responsible	Output document	Comment
	Title	Description	Applicable legislation			
2.1	<i>Regulated Designs under draft D&BP Regulation</i>					
2.1.1	Regulated Design of Fire Safety Engineering of class 2 building.	Prepare or vary a regulated design in relation to an area of fire safety engineering and to make design compliance declaration.	S.9 of D&BP Act and cl.15 of Schedule 1 of the D&BP Reg.	Design practitioner – fire safety engineering	<input type="checkbox"/> Fire Engineering Report <input type="checkbox"/> Design compliance declaration	
2.1.2		Prepare or vary a regulated design in relation to the following fire systems and to	S.9 of the DBP Act.	Categories of registered designers as per below.		

		make a design compliance declaration for the system:				
2.1.3	Regulated Design of fire system element and Design declaration (class 2 only)	Fire detection and alarm system	Cl.16 of schedule 1 of the D&BP Reg.	Design practitioner – fire systems (detection and alarm systems)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
2.1.4		Fire sprinkler system	Cl.18 of schedule 1 of the D&BP Reg.	Design practitioner – fire systems (fire sprinkler)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
2.1.5		Fire hydrant and hose reel system	Cl.17 of schedule 1 of the D&BP Reg.	Design practitioner – fire systems (fire hydrant and fire hose reel)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
2.1.6		Mechanical smoke control system	Cl.19 and 21 of schedule 1 of the D&BP Reg.	Design practitioner – fire systems (mechanical smoke control)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
2.1.7		Principal Design Declaration (class 2 only)	To provide a principle design compliance declaration for the matters detailed in the reference clause.	S.12 of the D&BP Act	Registered principal design practitioner	Principal Compliance Declaration in the form specified on NSW Planning Portal.
2.2	<i>Plans & Specifications of relevant fire safety systems under EP&A Regulation.</i>					

2.2.1	Plans & specifications of relevant fire safety systems	Endorsing of plans and specifications of relevant fire safety systems as follows:	Cl. 136AA(c)(ii) and cl. 146B(2)(c)(ii) of the EP&A Reg. Cl.64(1) of the B&DC Reg.	Categories of accredited practitioners and certifiers as per below:		Note: in all cases plans and specifications will be endorsed by an accredited practitioner (fire safety) (with the relevant accreditation) as complying to the relevant provisions of the BCA unless the system has a 164B exemption.
2.2.2		Fire detection and alarm system		Accredited practitioner (fire safety) Registered certifier 'engineer – electrical'	Endorsed plans and specifications.	
2.2.3		Fire sprinkler system		Accredited practitioner (fire safety) Registered certifier 'certifier – hydraulic (building)'	Endorsed plans and specifications.	
2.2.4		Fire hydrant system		Accredited practitioner (fire safety) Registered certifier 'certifier –	Endorsed plans and specifications.	

				hydraulic (building)'		
2.2.5		Fire hose reel system		Accredited practitioner (fire safety) Registered certifier 'certifier – hydraulic (building)'	Endorsed plans and specifications.	
2.2.6		Other hydraulic based fire suppression system		Accredited practitioner (fire safety) Registered certifier 'certifier – hydraulic (building)'	Endorsed plans and specifications.	
2.2.7		Mechanically ducted smoke control system		Accredited practitioner (fire safety) Registered certifier 'engineer – mechanical'	Endorsed plans and specifications.	
2.2.8	Compliance certificate in relation to relevant fire safety system (alt. 1)	The issue of a compliance certificate which confirms that the relevant fire safety system complies with	Cl. 136AA(2)(c)(i) and 146B(2)(c)(i) of the EP&A Reg	Registered certifier 'engineer – electrical', 'certifier - hydraulic (building)', and	Compliance certificate in accordance with Section 6.4(e) of the EP&A Act.	

		the relevant provisions of the BCA.		'engineer – mechanical'.		
2.2.9	Endorsement of plans & specifications of relevant fire safety system (alt. 2)	Endorsement of plans and specifications of relevant fire safety systems by accredited practitioner (fire safety) as complying with the relevant provisions of the BCA (unless 164B exemption applies)		Accredited practitioner (fire safety)	Written endorsement in a form acceptable to the registered certifier (bld surveyor)	
2.2.10	Endorsement by certifier of relevant fire safety systems.	Endorsement by certifier/principal certifier with statement that the certifier is satisfied that the plans & specifications endorsed by the accredited practitioner (fire safety) correctly identifies both the performance requirements and the DTS provisions of the BCA.	Cl.136AA(2)(d) and (e) and cl. 146B(2)(d) and (e) of the EP&A Reg.	Registered certifier (bld surveyor)	Written endorsement	
2.2.11	acceptance of 164B objection	Note incorporated in the CDC or CC documents stating that a 164B exemption applies to one or more relevant fire safety systems.	Cl.134(1)(f2) and 147(1)(h) of the EP&A Reg.	Registered certifier (bld surveyor)	Noted in CDC or CC documents.	

2.3	Plans and specifications of other essential fire safety measures				
	<p><i>General note: plans and specifications of all other essential fire safety measures referenced in the Fire Safety Schedule should be provided prior to work commencing on the measure. This will be a requirement of the D&BP Reg for class 2 buildings, but is not a requirement of EP&A reg.</i></p> <p><i>This analysis therefore is based on the requirements of the D&BP Reg.</i></p>				
	Active Systems (excluding relevant fire safety systems captured above)		D&BP Reg		
2.3.1	Regulated design of building element and design declaration (class 2 only)	Automatic fail-safe devices	Part 2 of Schedule 1 of D&BP Reg.	Design practitioner – architectural Design practitioner – building design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration
2.3.2		Emergency lifts	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – architectural Design practitioner – building design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration
2.3.3		Emergency lighting	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – electrical engineering Design practitioner –	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration

				electrical design (restricted)		
2.3.4	Regulated design of building element and design declaration (class 2 only) – continued.	Exit signs	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – electrical engineering Design practitioner – electrical design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
2.3.5		Fire shutters	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – architectural Design practitioner – building design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
2.3.6		Portable fire extinguishers	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – architectural Design practitioner – building design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
2.3.7		Safety curtains in proscenium openings	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – architectural Design practitioner – building design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	

2.3.8		Smoke and heat vents	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – architectural Design practitioner – building design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
2.3.9		Standby power systems	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – electrical engineering Design practitioner – electrical design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
Passive systems						
2.3.10		Access panels, doors and hoppers to fire resisting shafts	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – architectural Design practitioner – building design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
2.3.11		Fire Control centres and rooms	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – architectural Design practitioner – building design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	

2.3.12	Regulated design of building element and design declaration (class 2 only) – continued.	Fire dampers	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – architectural Design practitioner – building design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
2.3.13		Fire doors	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – architectural Design practitioner – building design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
2.3.14		Fire seals protecting openings in fire-resisting components of the building.	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – architectural Design practitioner – building design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
2.3.15		Fire windows	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – architectural Design practitioner – building design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
2.3.16		Lightweight construction	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – architectural	<input type="checkbox"/> Regulated design	

	Regulated design of building element and design declaration (class 2 only) – continued.			Design practitioner – building design (restricted)	<input type="checkbox"/> Design compliance declaration	
2.3.17		Perimeter vehicle access for emergency vehicles Smoke dampers	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – architectural Design practitioner – building design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
2.3.18		Smoke doors	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – architectural Design practitioner – building design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
2.3.19		Solid core doors	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – architectural Design practitioner – building design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	
2.3.20		Warning and operational signs	Part 2 of Schedule 1 of the D&BP Reg.	Design practitioner – architectural Design practitioner – building design (restricted)	<input type="checkbox"/> Regulated design <input type="checkbox"/> Design compliance declaration	

2.3.21	Principal Design Declaration (class 2 only)	To provide a principle design compliance declaration for the matters detailed in the reference clause.	S.12(2) of the D&BP Act.	Registered principle design practitioner	Principle Design Declaration in the form specified on NSW Planning Portal.	Note: the Principle Design Declaration is for all Regulated designs, not just the fire systems designs. This is the same declaration mentioned in 2.1.7 above.
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Roles and Functions of Fire Safety Practitioners

SCHEDULE 3 – INSTALLATION, COMMISSIONING & CERTIFICATION OF ESSENTIAL FIRE SAFETY MEASURES

Item No.	Function			Who responsible	Output document	Comment
	Title	Description	Applicable legislation			
3.1	<i>Supply, installation and commissioning of essential fire safety measures in accordance with plans and specifications.</i>				There is no legislated output document	Certifiers generally request installers statement or certificate of compliance signed by a representative of the installation company. This normally only applies to the relevant fire safety systems.
3.1.1	Installation and commissioning of fire safety measures	Access panels, doors & hoppers to fire-resisting shafts				
3.1.2		Automatic fail-safe devices	S.12 of the HB Act	Licensed electrician or unlicensed fire alarm technician.		Being 'specialist work' within the meaning of the HB Act if 240V control required or not specialist work if 24V.
3.1.3		Automatic fire detection & alarm system				Extra low voltage therefore is not "specialist work" under HB Act.
3.1.4		Automatic fire suppression systems (sprinklers)	S.12 of the HB Act	Licensed water plumber – fire		Being 'specialist work' within the meaning of the HB Act

	Installation and commissioning of fire safety measures (cont.)			protection systems Licensed water plumber – fire sprinkler systems (beyond sprinkler valve assembly)		
3.1.5		Emergency Lifts				
3.1.6		Emergency Lighting	S.12 of the HB Act	Licensed electrician		Being 'specialist work' within the meaning of the HB Act
3.1.7		Emergency Warning & Intercommunication system				Extra low voltage therefore is not "specialist work" under HB Act.
3.1.8		Exit signs	S.12 of the HB Act	Licensed electrician		Being 'specialist work' within the meaning of the HB Act
3.1.9		Fire Control Centres and rooms				
3.1.10		Fire Dampers	S.12 of the HB Act?			Being 'specialist work' within the meaning of the HB Act
3.1.11		Fire doors				
3.1.12		Fire Hose Reel systems	S.12 of the HB Act	Licensed water plumber – fire protection systems		Being 'specialist work' within the meaning of the HB Act
3.1.13		Fire Hydrant systems	S.12 of the HB Act	Licensed water plumber – fire		Being 'specialist work' within the meaning of the HB Act

				protection systems		
3.1.14		Fire seals protecting openings in fire-resisting components of building				
3.1.15		Fire shutters				
3.1.16		Fire Windows				
3.1.17		Lightweight construction				
3.1.18		Mechanical air handling systems	S.12 of the HB Act?	Licensed air-conditioning		If the mechanical system is also air-conditioning
3.1.19		Perimeter vehicle access for emergency vehicles				
3.1.20		Portable fire extinguishers				
3.1.21		Safety curtains in proscenium openings				
3.1.22		Smoke alarms and heat alarms	S.12 of the HB Act	Licensed electrician or unlicensed fire alarm installer		Being 'specialist work' within the meaning of the HB Act if 240V or not specialist work if 24V.
3.1.23		Smoke and heat vents				
3.1.24		Smoke dampers				
3.1.25		Smoke detectors and heat detectors				Extra low voltage therefore not "specialist work" under the HB Act.

3.1.26		Smoke doors				
3.1.27		Solid core doors				
3.1.28		Standby power systems	S.12 of the HB Act	Licensed electrician		Being 'specialist work' within the meaning of the HB Act
3.1.29		Wall-wetting sprinkler and drencher systems	S.12 of the HB Act	Licensed water plumber – fire protection systems Licensed water plumber – fire sprinkler systems (beyond sprinkler valve assembly)		Being 'specialist work' within the meaning of the HB Act
3.1.30		Warning and operational signs				
3.2	<i>Interface commissioning of Essential fire safety measures</i>					
3.2.1	Interface commissioning	To test the performance of the interface between essential fire safety measures to ensure that they perform in accordance with the nominated “cause and effects” matrix.	n/a			There is currently no legislated requirement for this to occur, other than the understanding of practitioners that these tests are essential. On tier 2 and 3 projects these tests are often overlooked due to the demarcation between specialist trades.
3.3	<i>Certification of Essential fire safety measures after installation</i>					

3.3.1	Preparation and submission of Fire Safety Certificate (all classes)	Inspection and verification of the performance of each fire safety measure	Cl.171(3)(a) of the EP&A Reg.	Person appointed by building owner.	Fire Safety Certificate	Certifiers generally request installers statement or certificates of compliance signed by a representative of the installation company to support the declarations made in the FSC.
3.3.2		Test of the operation of each new item of equipment that is included in the current fire safety schedule for the building.	Cl.171(3)(b) of the EP&A Reg.	Person appointed by building owner.	Fire Safety Certificate	Certifiers generally request installers statement or certificates of compliance signed by a representative of the installation company to support the declarations made in the FSC.
3.3.3	Notice to registered principal design practitioner (class 2 or buildings with a class 2 part).	A registered building practitioner must provide written notice to a registered principal design practitioner (if applicable) of their intention to make the declaration of building compliance at least 14 days prior to the proposed date.	Cl.24 of the D&BP Reg.	Registered building practitioner	Written notice to principal design practitioner	Note: the notice will apply to all works on the project not just the works associated with the essential fire safety measures.
3.3.4	Preparation and submission of building compliance declaration (class 2 or buildings with a class 2 part).	A registered building practitioner must provide a declaration of building compliance within the time frames set out in the regulation.	S.17 of the D&BP Act.	Registered building practitioner	Building compliance declaration.	Note: the building compliance declaration will apply to all works on the project not just the works associated with the essential fire safety measures.

SCHEDULE 4 – FIRE SAFETY MAINTENANCE & MAINTENANCE OF EGRESS PATHWAYS

Item No.	Function			Who responsible	Output document	Comment
	Title	Description	Applicable legislation			
4.1	<i>Maintenance of essential fire safety measures</i>					
4.1.1	Building Owner obligations	Obligation for a building owner to maintain each essential fire safety measure applicable by virtue of a fire safety schedule to a standard no less than that specified in the schedule	Cl.182(1)(a) of EP&A Reg.	Building Owner	None	
4.1.2		Obligation for a building owner to maintain each essential fire safety measure applicable otherwise than by virtue of a fire safety schedule to a standard no less than that to which the measure was originally designed and implemented.	Cl.182(1)(b) of EP&A Reg.	Building Owner	None	
4.1.3	Council obligations	As soon as practicable after receiving a	Cl.182(2) of EP&A Reg.	Council	Correspondence from Council attaching a	

		request from a building owner the council must provide the owner with a schedule of the essential fire safety measures for the building premises.			Fire Safety Schedule for the building.	
4.2	<i>Impedance of egress pathways or interference in the operation of exit systems</i>					
4.2	Personal obligations	A person must not place anything that may impede the free passage of persons in or to a buildings fire exit or interfere or cause obstruction or impediment to any fire door forming part of an exit or door in a path or travel to an exit.	Cl. 184 & 185 of EP&A Reg.	A person	none	
	Building Owner obligations	The owner of a building must ensure that paths or travel to an exit and any stairway, passageway or ramp serving as or forming part of a buildings fire exit must be kept clear of anything that may impede the free passage of persons.	Cl. 186 (a) of EP&A Reg.	Building Owner	none	
		The owner of a building must ensure that the operation of	Cl. 186 (b) of EP&A Reg.	Building Owner	none	

		any door that serves as or forms part of a buildings fire exit or is situated in a path of travel leading to a buildings fire exit is not interfered with or obstructed or impeded.				
		The owner of a building must ensure that any notice required by clause 183 (“offences relating to fire exits”) is displayed as required.	Cl. 186 (c) of EP&A Reg.	Building Owner	none	

SCHEDULE 5 – ANNUAL ASSESSMENT

Item No.	Function			Who responsible	Output document	Comment
	Title	Description	Applicable legislation			
5.1	Annual or Supplementary Fire Safety Statement					
5.1.1	Arrange AFSS assessment	The owner of a building must arrange for the assessment and inspection of the essential fire safety measures in the building to be carried out within 3 months of the date on which the AFSS is to be issued and to choose the person who will carry out the assessment or inspection.	Cl. 176 (1) & (2) of EP&A Reg.	Building Owner	Correspondence	
5.1.2	AFSS assessment of essential fire safety measures.	Assessment of the performance of each essential fire safety measure installed within the building.	Cl. 175 (a) & 176 of EP&A Reg.	Accredited practitioner (fire safety) – assessor class.	Signature against relevant measure on AFSS.	
5.1.3	AFSS assessment of “paths of travel & exit systems”	Inspection of paths of travel and exit systems to confirm that they are in a condition that does not disclose any grounds for	Cl. 175 (b) of EP&A Reg.	Accredited practitioner (fire safety) – assessor class	Signature against relevant section of AFSS.	

		prosecution under Div. 7 of the EP&A Reg.				
5.1.4	AFSS to be given to Council	Each year, the owner of a building must cause the council to be given an annual fire safety statement for the building.	Cl. 177 (1) of EP&A Reg.	Building Owner	AFSS on standard form.	
5.1.5	AFSS and Fire Safety Schedule to be given to Fire Commissioner	Each year, the owner of a building must cause the Fire Commissioner to be given an annual fire safety statement for the building together with a copy of the fire safety schedule.	Cl. 177 (3) (a) of EP&A Reg.	Building Owner	AFSS on standard form and fire safety schedule.	
5.1.6	AFSS and Fire Safety Schedule to be displayed in building	As soon as practicable the owner of a building must cause a copy of the AFSS and fire safety schedule to be prominently displayed in the building	Cl. 177 (3) (b) of EP&A Reg.	Building Owner	AFSS on standard form and fire safety schedule.	

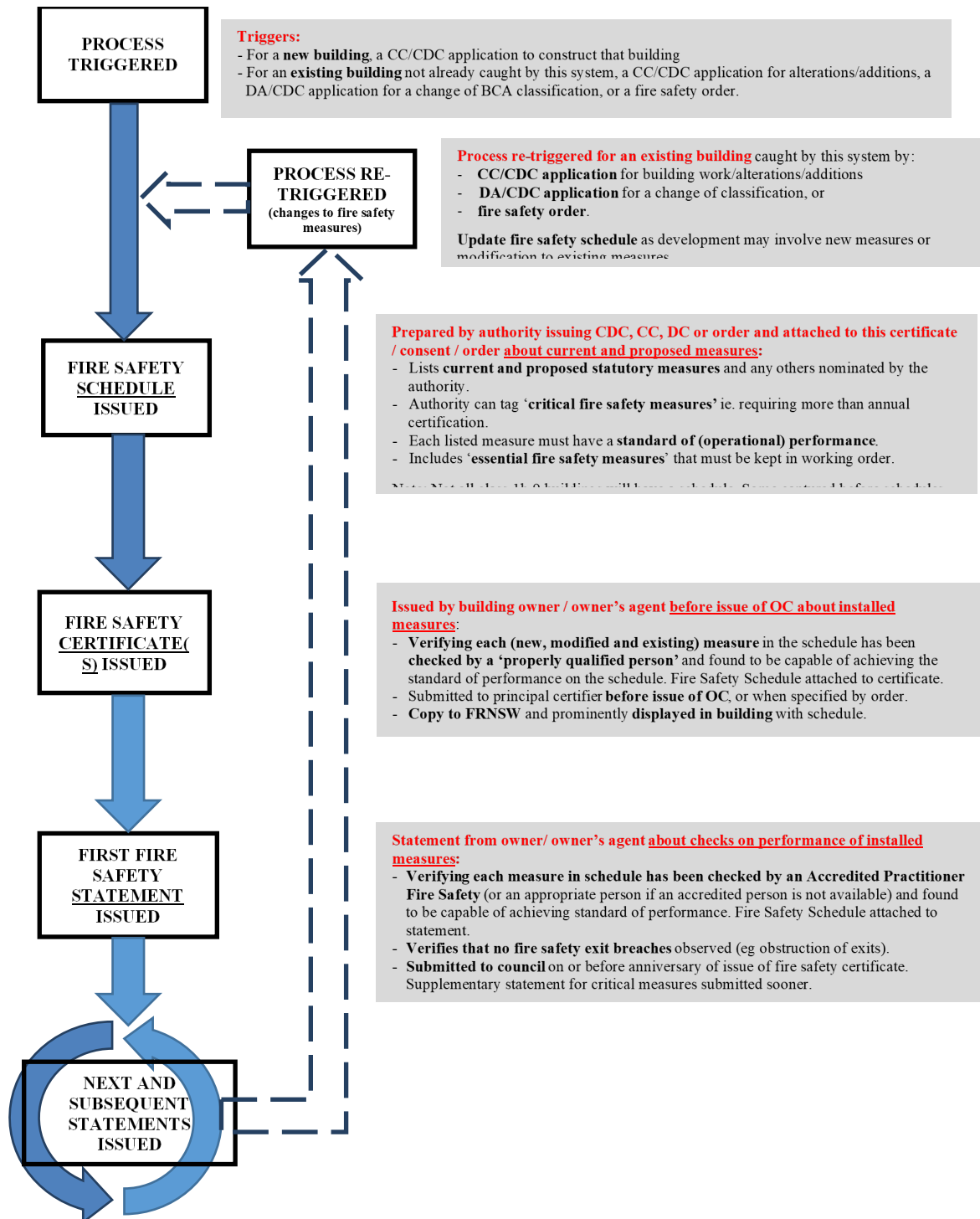
SCHEDULE 6 – MISCELLANEOUS

Item No.	Function			Who responsible	Output document	Comment
	Title	Description	Applicable legislation			
6.1	<i>Objection to BCA standards</i>					
6.1.1	Objection to the provisions of the BCA	An applicant in relation to development may lodge an objection with the consent authority or certifier that compliance with the BCA is unreasonable or unnecessary in the circumstances	cl.187 of the EP&A Reg	An applicant for development	Objection application	
6.1.2	Consideration of objection	A consent authority or certifier can exempt the development (conditionally or unconditionally) from BCA requirements or direct requirements to apply to building work, if the objection is well founded.	cl.187 of the EP&A Regs	Consent authority or council	Objection determination	<p>If the objection relates to a Category 3 fire safety provision a similar objection must be made to the Fire Commissioner.</p> <p>A consent authority or certifier cannot take action under this clause except with the concurrence of the Planning Secretary.</p>
6.2	<i>Exemption from fire safety standards</i>					

6.2.1	Objection to a Category 3 fire safety provision	An applicant in relation to development may lodge an objection with the Fire Commissioner that compliance with a category 3 fire safety provision is unreasonable or unnecessary in the circumstances	cl.188 of the EP&A Regs	An applicant for development	Objection application	
6.2.1	Consideration of objection	The Fire Commissioner can exempt the development (conditionally or unconditionally) from a category 3 fire safety provision requirement, if the objection is well founded.	cl.188 of the EP&A Regs	Fire Commissioner	Objection determination	
6.3	Smoke alarms					
6.3.1	Owners must install smoke alarms	An owner of a - Class 1a, 1b, 3, 9a health care building, or dwelling in a class 2 or 4 part of a building, must ensure they are equipped with smoke alarms.	Division 7A of the EP&A Regs.	Owner		A smoke alarm installed under these requirements is taken to be an essential
6.3.2	Personal obligations	A person must not without reasonable excuse, remove or interfere with the operation of a smoke alarm that has been	Cl.186C of the EP&A Regs.	A person		

		installed in a building which a person sleeps.				
6.4	Combustible cladding					
6.4.1	Identification of combustible cladding	The owner of a building that has external combustible cladding must provide the Planning Secretary with details about the building and cladding.	Cl.186S of the EP&A Reg	Building owner	Details lodged on planning portal	

7.5 Process for Fire Safety Schedules, Fire Safety Certificates and the Annual Fire Safety Statement



7.6 Templates for the Fire Safety Schedule, Fire Safety Certificate and Annual Fire Safety Statement

E1 Fire Safety Schedule

Part 9 of the Environmental Planning and Assessment Regulation 2000



Please note:

Information to assist in the completion of this template is provided on pages 3 and 4.

Section 1: Application Details

Provide details of the relevant application/s related to this Fire Safety Schedule

Development Application (DA) Number*	
Construction Certificate Number*	
Complying Development Certificate Number*	
Fire Safety Order Reference Number*	
Date of Issue of this Fire Safety Schedule	

Section 2: Reason for issue of Fire Safety Schedule (please tick)

New Building Work:	<input type="checkbox"/>
Alterations or Additions to an Existing Building:	<input type="checkbox"/>
Fire Safety Order:	<input checked="" type="checkbox"/>
Other (please provide details):	<input type="checkbox"/>

Section 3: Description of the building

This fire safety schedule relates to the following building:

Address			
Lot No.	Section No.	DP/SP	Building Name (if applicable)

Building Classification:	
Base Building NCC/BCA Year	
Type of Construction:	
Use/s of Building:	
Rise in Storeys:	
Storeys Contained:	1/5
Effective Height (Metres)	

Fire Safety Schedule

Part 9 of the Environmental Planning and Assessment Regulation 2000



Section 4: Fire Safety Schedule

Issued under Clause 168 of the Environmental Planning and Assessment Regulation 2000

The following list of essential fire safety measures shall be implemented in the whole of the building premises and each of the fire safety measures must satisfy the Standard of Performance as listed in the schedule, which for the purposes of Clause 168 of the Environmental Planning and Assessment Regulation 2000, is deemed to be the current Fire Safety Schedule for the building.

Item No.	Essential Fire Safety Measures (EFSM)	Standard of Performance (BCA Year/Clause, Australian Standard/Year or other)	Status of EFSM Existing (E) Modified (M) New (N)
Fire Resistance (Floors – Walls – Doors – Shafts)			
General			
Paths of Travel			
Lifts			
Electrical Services			
Hydraulic Services			
Mechanical Services			
Other			

Fire Engineering Reports (FER)				
Item No.	Author/Reference/Date of Issue	Non DtS Provision/s addressed	Performance Requirements	Status of FER Existing (E) Modified (M)

Other matters including adopted fire safety strategies and clause 168 exemptions				
Item No.	Author/Reference/Date of Issue *if applicable	Non DtS Provision/s addressed	Requirements	Status Existing (E) Modified (M) New (N)

Note: Information within this schedule was obtained from the Fire Safety Schedule detailed on the Annual Fire Safety Statement/Fire Safety Certificate by dated

Section 5: Contact Details of Person Issuing this Schedule

Title	Given Name/s	Family Name
Phone No:	Email: 170	

Please note:

The following information has been provided to help persons completing this fire safety schedule (FSS) template and does not comprise part of the form. The following pages do not have to be displayed in the building and need not be submitted to the local Council and the Commissioner of Fire and Rescue NSW nor attached to any fire safety certificate or annual fire safety statement.

General

- Please print in CAPITAL LETTERS and complete all relevant sections in full.
- A reference to 'the Regulation' is a reference to the *Environmental Planning and Assessment Regulation 2000*. The completed fire safety schedule form must be attached to the relevant application type.
- An older fire safety schedule will be superseded by the issue of a new fire safety schedule.
- Further information about building fire safety is available on the 'Fire safety' page of the Department's website at www.planning.nsw.gov.au.
- * if applicable

Section 1: Application Details

- Provide details of the relevant application type, Development Application number, Construction Certificate number, Complying Development Certificate number, Occupation Certificate number or Fire Safety Order Reference Number (as applicable).
- The date of issue must be included in this fire safety schedule.

Section 2: Reason for the issue of this Fire Safety Schedule

- Provide the reason for the issue of this schedule details of the relevant application type, Construction Certificate, Complying Development Certificate, or Fire Safety Order Reference Number (as applicable) or if other.
- Other reasons include the issue of a development consent for a material change of use of a building where no building works are proposed and the amendment of a fire safety schedule for an existing building to correct a misdescription or error to the schedule in accordance with the provisions of clause ZZ of the *Environmental Planning and Assessment Regulation 2000*.

Section 3: Description of the building

- A fire safety schedule must relate to a single building and not a group of buildings.
- In addition to the address and other property identifiers, a brief description of the building or part is to be provided.
- If the application type relates to multiple buildings, then a separate fire safety schedule must be issued for each building subject to the application.

Section 4: Essential Fire safety measures currently implemented OR proposed or required to be implemented in the building premises)

- The following list of essential fire safety measures shall be implemented in the whole of the building premises and each of the fire safety measures must satisfy the Standard of Performance as listed in the schedule, which for the purposes of Clause 168 of the *Environmental Planning and Assessment Regulation 2000*, is deemed to be the current Fire Safety Schedule for the building.
- The purpose of this section is to identify all the fire safety measures that currently exist in the building (if any) OR existing fire safety measures proposed to be Modified or New measures to be included in the building. Please list if the Fire Safety Measure is existing, modified or new to the building or part.
- Fire safety measures include both statutory fire safety measures and other fire safety measures. They include items such as portable fire extinguishers, fire hydrants, fire sprinklers, fire detection and alarm systems and lightweight construction etc.
- The standard of performance of an essential fire safety measure describes the technical basis upon which the measure is to be designed and installed. The Fire Safety Schedule must therefore clearly define which areas of the building are subjected to different standards of performance.
- Where referencing the National Construction Code (Building Code of Australia) (BCA) clauses as a minimum standard of performance the volume, year of issue and any amendment number must be referenced.

- Where referencing an Australian Standard (or international standard) as a minimum standard of performance the year of issue and any amendment number must be referenced.
- The schedule must deal with the whole of the building, not merely the part of the building to which the development consent, complying development certificate, construction certificate or fire safety order relates
- As required by clause 145 of Environmental Planning and Assessment Regulation 2000 the proposed building (not being a temporary building) must comply with the relevant requirements of the *Building Code of Australia* (as in force at the time the application for the construction /complying development certificate was made), As such the fire safety measures must be consistent with the version of the BCA in force at the time of any application issue. As such the fire safety schedule must reference the BCA (year and any amendment number) in force at the time of the application issue.
An essential fire safety measure can be designed and installed (in whole or in part) to the technical requirements of a performance-based solution. The solution is validated in a Fire Engineered Report which will nominate the technical requirements of the fire safety measures.
- These technical requirements may be an Australian Standard, International Standard or some other form of technical specification.
- The Fire Safety Schedule must identify all fire safety measures that are impacted by any Fire Engineering Report and reference the FER in the Standard of Performance for each of those Measures along with any Standards referenced by the FER.
- If an application relates only to a part of a building and the required fire safety measures and their associated minimum standard of performance varies from other parts of the building. The fire safety schedule must clearly identify the differing fire safety measures and/ or minimum standards of performance in a building or part.

Section 4: Name and contact details of the person issuing the schedule

- The purpose of this section of the form is to detail the name and contact details of the person who is issuing the schedule.

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7.7 Process to amend Fire Safety Schedules

The table below describes the broad scenarios where, without a new or amended FSS, the measures in the FSS will not match those in the building. Sometimes this may be because some alterations in the building result in an amended FSS. The amended FSS must be holistic and under the EP&A Regulation it supersedes all previous FSSs.

Trigger for new / amended FSS	Is there a way to create / amend the FSS?	Should there be a new legislative pathway to change the FSS?
New building work requiring approval / change of use with consent	Yes Schedule covering existing and new measures issued with CC / CDC leading to certification of as-built measures (fire safety certificate) and maintenance process (annual fire safety statement)	No
New building work – development control order	Yes Schedule issued with fire safety order	No
Unauthorised building work (eg. fire safety measures installed without development consent / construction certificate)	Yes Can be corrected through development control order / fire safety order e.g. council can require third party testing of the fire safety measure and update to the FSS; council can require the measure to be removed and replaced etc.	No – we don't want to encourage unauthorised works by creating an easy process to legalise these works
Errors / omissions on schedule (minor and major) (No new building work; no changes to plans / specifications)	No Can be corrected through development control order / fire safety order with amended FSS, however this process is onerous for small corrections.	Yes – allow corrections either before (by the relevant accredited certifier) or after issue of the fire safety certificate (by the council).
Lost fire safety schedule (No FSS in council records)	Can be corrected through development control order / fire safety order e.g. council can require third party testing of the fire safety measure and update to the FSS.	Yes – allow the building owner to request council to provide a FSS (similar to the existing cl. 182(2) which allows owners to request a FSS for buildings that existed before the regulatory system came about). The council could create the FSS or they could rely on an expert assessment from an accredited certifier or accredited fire safety practitioner.

Trigger for new / amended FSS	Is there a way to create / amend the FSS?	Should there be a new legislative pathway to change the FSS?
		Note that the council would still have the fire safety order option available to them if they chose.

Minor corrections

A regulation change could allow councils to issue a new schedule without a construction certificate (CC) / complying development certificate (CDC) or development control order / fire safety order (FSO) because of an administrative type error or omission (after the issue of the OC). This change could also allow the certifying authority to correct the schedule if the error occurs before the issue of an occupation certificate.

Minor administrative errors and corrections that the legislation could consider allowing to be corrected include:

- Incorrect building details (address, classification, use, description),
- Include omitted fire safety measures (which do exist in the building) – only where the fire safety measure exists and the required contemporaneous documentation proves the measures were approved via CC / CDC / FSO,
- Remove references to fire safety measures that do not exist in the building and were not required under the original CC / CDC / FSO, and
- Remove a performance solution that no longer applies (e.g. in commercial buildings where a tenant vacates a tenancy that had a performance solution that applied to that tenancy, it is normal for the FER to remain in the FSS even though the reason for it no longer applies such as a gas suppression system for a computer room that no longer exists).

Item No.	Issues with Fire Safety Schedules	Comment	Minor correction?
1	Missing BCA date or Australian Standard dates.	Common with older buildings where the FSS was put together in the 90s but the problem continues to happen to some extent today. When the schedule was developed everyone involved knew which standards applied (because they were the current standards) so in many cases there is no issue with the work that was done, but over time the date history has been lost and service contractors and AFSS assessors do not have the necessary benchmarks	Yes, in certain circumstances? – provided the date can be established to the satisfaction of the council e.g. by the owner demonstrating the age of the building / building work that involved the installation of the fire safety measure.

Item No.	Issues with Fire Safety Schedules	Comment	Minor correction?
		<p>from which to make their assessments.</p> <p>Can lead to practitioners choosing whichever standard suits them – as long as it complies with “a” version of the standard.</p>	<p>Establishing the date may be easier where the new work is easily identified (eg. new wing to shopping centre) but difficult where alterations were to parts of existing buildings and systems.</p>
2	<p>The fire safety measure(s) has more than one standard of performance without providing the applicable location in the building where each version of the BCA / standard should apply.</p>	<p>This is almost certainly the consequence of new work in an existing building being carried out to the standard of performance of the “current” BCA and its reference standards without any thought on how that might be addressed in an updated FSS, where the standard of performance of the measure in the building was to an earlier Standard.</p>	<p>As above</p>
3	<p>The standard of performance nominated for a measure is incorrect.</p>	<p>There are a lot of older buildings in particular that fall into this category. Many FSSs were created retrospectively in the 1990s when the legislation was seen as a chore that needed to be done rather than the preparation of a critical piece of compliance reference data that would travel with the building from then on.</p> <p>Commercial buildings have then had upgrades and tenancy work done over many years. The certifier may incorrectly nominate the latest standard for a new measure and accidentally apply this to the whole building.</p>	<p>As above</p>
4	<p>When a FSS is modified due to new work (CDC or CC) some specific FSS references for another part of the building may drop off the schedule due to the timing of concurrent works.</p>	<p>This is an issue on larger commercial buildings (class 5 and 6 in particular).</p>	<p>As above</p>
5	<p>The standard of performance of a measure which is impacted by a performance solution</p>	<p>Tier 1 certifiers seem to have this under control although there are many different opinions on how the impact of an FER should be referenced. Incomplete or inaccurate</p>	<p>As above for matters that are incorrect referencing or omissions.</p>

Item No.	Issues with Fire Safety Schedules	Comment	Minor correction?
	(FER) does not reference the FER.	referencing of the standards of performance required under an FER is a significant issue.	

7.8 Proposed enhancements to the role of FRNSW

Referral of performance solutions

Instead of relying on development applicants to contact FRNSW at the performance based design brief (PBDB) stage, it is suggested that consideration be given to instead requiring FRNSW to be consulted throughout the design stage as a stakeholder for all performance solutions relating to fire safety for class 1b to 9 buildings where a CC will be required. This would include both the PBDB and the Fire Engineering Report stages. FRNSW involvement as a stakeholder at any stage in relation to a particular project, would be at its discretion. The working group also suggested that it would be appropriate for FRNSW to be permitted to charge a regulated fee for this new service as it would require additional resourcing.

If this new process were adopted, on receipt of each notification FRNSW could apply a risk-based approach to determine which projects it will assess, with FRNSW establishing a standard form for its assessment and comments. It would also provide FRNSW with much more information at the design stage which could help them to be more proactive on projects that exhibit high fire safety risks.

The working group noted that adopting this type of process appeared consistent with A2.2(4) of the National Construction Code that recently was established and requires key stakeholders to be consulted on performance solutions at the design stage.

The working group considered that the triggers for referral of performance solutions to FRNSW at the CC stage are overly complex. For example, they include references to the types of fire safety systems, floor and fire compartment areas, the number of floors, the type of cladding and building use. Adopting the suggested new process for performance solutions would remove the need for these additional thresholds therefore significantly streamlining the requirement to refer a performance solution to FRNSW.

Final Fire Safety Reports and Fire Safety System Reports

The working group identified two potential changes in regard to requests for final fire safety reports (FFSRs) and fire safety systems reports (FSSRs).

It would be beneficial to state the time period for responding to a request in working days. This would avoid developers seeking to minimise the time available to prepare the report by timing the issue of requests for public holidays and Fridays.

The process itself could also be enhanced to require in cases where the recommendations of FRNSW in the FFSR and FSSR are not adopted, a report must be issued to FRNSW setting out the reasons for not adopting their recommendations.

Fire Safety Schedules

The working group observed that FRNSW does not use their current regulatory power requiring the issue of a new Fire Safety Schedule when they issue a Fire Safety Order. This is because no structural works are undertaken as a result of their orders (such orders being

issued by councils, not FRNSW). It was noted that removal of this provision from the EP&A Regulation could also enhance clarity of roles between councils and FRNSW regarding enforcement.

