ABCB

Fire authorities in the building approval process

Model guidance on BCR recommendation 8

2021

abcb.gov.au/BCR

Copyright

Enquiries about this publication can be sent to:

Australian Building Codes Board
GPO Box 2013
CANBERRA ACT 2601
Phone: 1300 134 631
Email: ncc@abcb.gov.au
Web: abcb.gov.au

Attribution

Use of all or part of this publication must include the following attribution:

© Commonwealth of Australia and States and Territories 2021, published by the Australian Building Codes Board.

Disclaimer

By accessing or using this publication, you agree to the following:

While care has been taken in the preparation of this publication, it may not be complete or up-to-date. You can ensure that you are using a complete and up-to-date version by checking the Australian Building Codes Board website (abcb.gov.au).

The Australian Building Codes Board, the Commonwealth of Australia and States and Territories of Australia do not accept any liability, including liability for negligence, for any loss (howsoever caused), damage, injury, expense or cost incurred by any person as a result of accessing, using or relying upon this publication, to the maximum extent permitted by law. No representation or warranty is made or given as to the currency, accuracy, reliability, merchantability, fitness for any purpose or completeness of this publication or any information which may appear on any linked websites, or in other linked information sources, and all such representations and warranties are excluded to the extent permitted by law.

This publication is not legal or professional advice. Persons rely upon this publication entirely at their own risk and must take responsibility for assessing the relevance and accuracy of the information in relation to their particular circumstances.

Version history

Original

Publish date: 10/12/2021

Print version: v1.0

This version

Publish date: 10/12/2021

Print version: N/A

Details of amendments: N/A

Preface

The Building Confidence Report (BCR), published in April 2018, made 24 recommendations to Building Ministers to address systemic issues in the Australian building industry. Building Ministers established the BCR Implementation Team within the Office of the Australian Building Codes Board (ABCB) to work with governments and industry to respond to the recommendations with a focus on national consistency where possible.

The BCR Implementation Team's work aims to establish national best-practice models in response to BCR recommendations. If implemented, the responses will strengthen compliance with the National Construction Code (NCC), better protecting the interests of people who own, work in, live in and use Australian buildings.

All responses to BCR recommendations have been developed in accordance with the Building Confidence National Framework with input from industry and governments. Figure 1 lists the outputs developed under the Framework, and where to find them.

State and territory governments have agreed to consider implementation of endorsed BCR responses. This process will take time depending on each government's regulatory reform agenda, and may be undertaken in stages.

The model guidance for *Involvement of fire authorities in building design* represents a nationally agreed response to BCR recommendation 8. This recommendation states "that, consistent with the International Fire Engineering Guidelines, each jurisdiction requires developers, architects, builders, engineers and building surveyors to engage with fire authorities as part of the design process".

This model guidance is intended to complement a reformed building design, approval and construction process when the BCR recommendations have been implemented.

The BCR identified that triggers for fire authority involvement differ across jurisdictions, resulting in "similar buildings in different jurisdictions having different requirements imposed by the fire authorities". It noted, at a minimum, fire authorities should provide comment on *Performance Solutions* impacting fire brigade intervention, however, fire

authorities may sometimes want to consider and object to broader aspects of a building's fire engineering design.

Figure 1 – Building Confidence Implementation Framework - Outputs

Each of the outputs listed in Figure 1 can be accessed on the ABCB website.

In response to this recommendation, the BCR Implementation Team developed model guidance covering minimum expectations of fire authority involvement in building design.

The BCR also states “the most effective means of establishing best practice for fire engineers and building surveyors would be to formulate a nationally consistent code of conduct for fire engineers and building surveyors based on the International Fire Engineering Guidelines (IFEG). A failure to comply with the code would establish a ground for disciplinary inquiry and regulatory oversight would be required to audit compliance.”

In August 2021, the ABCB published the Australian Fire Engineering Guidelines (AFEG) replacing the IFEG.

A Code of conduct for fire safety engineers has also been developed in response to BCR recommendation 8 and is referred to in this model guidance.

Defined terms used in this document are shown in italics. The definitions can be found in the Building Confidence Glossary.

Contents

Adoption of model guidance

As a model, this guidance does not have any force until adopted by a jurisdiction. States and territories may have regard to the content of the model. This may include amending or adopting the model for application in their jurisdiction.

The model guide needs to be read in conjunction with the relevant legislation in a jurisdiction. It is written in generic terms and is not intended to override legislative requirements.

Purpose

This model guidance aims to create a national model for the involvement of fire authorities in building design by identifying minimum requirements and the legislative provisions governments should consider implementing.

Fire authorities are already involved in building design but the extent to which they are involved, and the obligation for building practitioners to respond to their advice, differs across jurisdictions.

In early discussions, stakeholders noted fire authorities are resourced to varying degrees of capacity and expertise, which depending on their legislative responsibilities, impacts their ability to engage with building designers and the costs of obtaining approval. This model guidance is intended to set out ideal requirements for the involvement of fire authorities in building design and it is assumed fire authorities will be appropriately resourced, which in some cases could result in an overall reduction.

Research and consultation, including public consultation on a draft discussion paper, was key to developing this document. Existing legislation was also considered.

Background

Since the BCR was released in 2018, there have been several changes in the fire safety engineering profession. They mostly relate to legislative reforms but also include the recently published AFEG which replaces the IFEG, and changes to the NCC, which impact the process for developing *Performance Solutions*.

Implementation of BCR model guidance will contribute to an improved *building approvals* system. This will be achieved by introducing consistent requirements for matters including practitioner registration and *continuing professional development* (*CPD)*, and clearer requirements of *statutory building surveyors* through the Code of conduct for building surveyors. The responses to other BCR recommendations, outlined in Table 2 in the appendices of this document, should be considered in the context of this model guidance being proposed in response to BCR recommendation 8.

Australian Fire Engineering Guidelines (AFEG)

In 2018, the ABCB reviewed the IFEG. The USA, Canada, and New Zealand, as co-developers of the IFEG, advised they were not able to assist with the Australian review and did not use the IFEG in a similar way to Australia. The ABCB reviewed and, at the direction of the ABCB Board, developed the AFEG, an Australian version of the IFEG.

The resulting AFEG encourages best practice, is tailored for Australia, and is compatible with the BCR's implementation. The AFEG does not place mandatory requirements on building practitioners; this is the role of state and territory legislation. The AFEG was published on the ABCB website in August 2021.

National Construction Code change

The NCC 2019 Amendment 1, Volume One, Clause A2.2 (4) states, where a Performance Requirement is proposed to be satisfied by a *Performance Solution*, a Performance-Based Design Brief must be prepared in consultation with relevant

stakeholders. For *Performance Solutions* impacting fire brigade intervention, this will include fire authorities. This is consistent with the objectives of the AFEG.

Implementation of the BCR

The BCR Implementation Team is delivering its responses to BCR recommendations to states and territories, through respective building ministers. If implemented, this work will improve the systemic issues that have contributed to the lack of confidence in the process associated with the engagement of fire authorities.

The BCR identified part of the issue in mandating the IFEG, apart from the fact it was not drafted in a format suitable for regulatory reference, was related to *fire safety engineers* not being *registered* practitioners in most states and territories. BCR recommendations 1 and 2 (National Registration Framework for building practitioners), if implemented, will require *fire safety engineers* to meet consistent national registration requirements including education, competencies and experience. Under BCR recommendation 3, they will be required to undertake compulsory *CPD on the NCC* and ethics. The implementation of all BCR recommendations will contribute to systematic improvements related to fire safety and the issue of building confidence more generally.

The BCR Implementation Team and BCR Experts Panel believe implementing all BCR recommendations will address most issues associated with the quality of the development and documentation of fire safety *Performance Solutions*. It will also support a more robust *building approvals* system that delivers outcomes consistent with legislation and the NCC.

Principles

Principles for involvement of fire authorities in building design	
1	Mandatory referral to the relevant fire authority, is triggered when a design includes Performance Solutions relating to Performance Requirements impacting fire brigade intervention
2	Fire authorities can ‘opt-out’ of assessing a referred Performance Solution
3	Fire authority advice, provided in response to a referred Performance Solution, directly relates to how the Performance Solution impacts fire brigade intervention
4	Fire authorities to inspect completed building work, relevant to a referred Performance Solution and associated building approval documentation, prior to the statutory building surveyor issuing the occupancy approval
5	Fire authorities are advisory authorities and have the right to appeal if advice is not implemented at the design and inspection stages
6	Fire authorities to ensure their teams of fire safety experts have appropriate education, competencies and experience; and include at least one registered fire safety engineer
7	Fire authorities work together through the National Council for Fire and Emergency Services (AFAC) to improve consistency of advice through information and data sharing
8	Fire authorities publish up-to-date guidance for industry on fire brigade intervention matters impacting building design and Performance Solutions
9	Governments resource fire authorities to provide the required level of service for their roles
10	State and territory governments collect, analyse and share data to inform the regulated role of fire authority involvement in the building design process
11	States and territories legislate the Code of conduct for fire safety engineers

Principle 1 - Mandatory referral

Mandatory referral to the relevant fire authority, is triggered when a design includes Performance Solutions relating to Performance Requirements that directly impact fire brigade intervention.

Objective

That fire authority involvement in the building design process is mandated where NCC *Performance Solutions* are prepared that have the potential to directly impact fire brigade intervention.

Context

There is significant support for nationally consistent referral triggers. State and territory differences in requirements to refer building designs to fire authorities, create confusion, which can lead to building regulatory non-compliance.

NCC *Performance Solutions*, associated with specific Performance Requirements, are proposed to be used as the basis for nationally consistent triggers for referral to fire authorities.

Fire authority referral triggers in state and territory legislation vary but have remained largely unchanged since prior to the introduction of the performance-based NCC in the mid-1990's. In the last five years at least there have been significant changes to the environment in which fire authorities are operating and more are contemplated through the outputs of the Building Confidence National Framework.

The BCR recommendation 8 discussion paper considered various triggers including a risk-based model. Several other BCR recommendations are expected to be implemented using the definition of building complexity[1] as a risk-based model. The

[1] The definition of building complexity, incorporating the criteria and four levels, is being considered for inclusion in the 2022 edition of the NCC. The proposed definition was made publicly available for comment, including in the NCC 2022 Public

definition of building complexity was tested through targeted and public consultation. Feedback indicated it was not broadly supported for use in response to BCR recommendation 8. Stakeholders expressed concerns there is inadequate data on the effectiveness of fire authority intervention to inform an alternative risk-based model.

Applying an existing jurisdictional model nationally was also considered; however, no one jurisdictional model appeared to be more favourable than others.

Overall, the NCC *Performance Solution*/Performance Requirement referral trigger is preferred as it directly relates to the criteria requiring the consideration of fire brigade intervention.

Each of the NCC's Performance Requirements set the parameters and matters to be considered in determining whether a building design meets the Performance Requirement. In some cases the matters to be considered include facilitating the activities of the fire brigade. It is therefore appropriate, a *Performance Solution* referencing an NCC Performance Requirement which requires consideration of fire brigade intervention, should trigger a referral to the fire authority as part of the building design process. This is due to fire authorities being best placed to determine the adequacy of a performance-based design where it impacts fire brigade intervention. A DTS design referral trigger is not considered necessary due to a DTS design already being deemed to meet the NCC Performance Requirements.

Feedback received through consultation highlighted the importance of including Performance Requirement EP1.4 Automatic fire suppression systems as a trigger even though it makes no reference to fire brigade intervention. This is due to the potential impact modification of suppression systems, such as fire sprinklers, can have on fire-fighting activities.

Comment Draft Stage 1. A final decision on the definition's phrasing, and whether it is included in the NCC, will be made in mid-2022.

Fire authorities also considered the inclusion of Performance Requirement DP4 Exits, an essential referral trigger as exits facilitate the safe entry and refuge of fire fighters and the evacuation of building occupants. DP4 captures many features associated with exits including travel distance, width, height etc. It is proposed only those Performance Requirements impacting the number of exits to be provided in a building are captured by the referral triggers, see Table 1.

Performance Solutions relating to Performance Requirements EP1.4 and DP4 have been included as triggers for referral, in addition to those Performance Requirements, making direct reference to fire-fighting activities.

It is recommended, in addition to setting referral triggers that must be complied with, legislation should provide that an owner may voluntarily seek input or advice from a fire authority in relation to design.

The requirement for the *building approval applicant* (owner or agent of the owner) to make the referral to the building authority, rather than the *statutory building surveyor*, is consistent with BCR recommendation 10 Model code of conduct for building surveyors and BCR recommendations 9 & 11 Building surveyor integrity and enforcement. Both recommendations state the *statutory building surveyor* must not participate in the design of the building. Ideally the applicant would be the *fire safety engineer*, being the designer responsible for the building's fire safety strategy.

In relation to NCC A2.2(4) and the requirement to consult with relevant stakeholders in the development of *Performance Solutions*, it is considered compliance with Principle 1 will satisfy this obligation relevant to the Performance Requirements listed in Table 1. As stated above, the implementation of Principle 1 should not prevent voluntary consultation with fire authorities on other Performance Requirements where the fire authority is considered a stakeholder.

Legislative provisions

Legislation should provide for:

1. a building design to trigger referral to the relevant fire authority, for review, where it includes a *Performance Solution* to meet one or more of the Performance Requirements listed in **Table 1**.

Table 1 Triggers for fire authority referral

NCC Performance Requirements	
CP1	Structural stability during a fire
CP2	Spread of fire
CP9	Fire brigade access
DP4	Exits (only where relevant to the number of exits provided)
DP5	Fire-isolated exits
EP1.3	Fire hydrants
EP1.4	Automatic fire suppression systems
EP1.5	Fire-fighting services in buildings under construction
EP1.6	Fire control centres
EP2.1	Automatic warning for sleeping occupants (fire alarm monitoring only)
EP2.2	Safe evacuation routes
EP3.2	Emergency lifts
GP4.4	Fire safety systems in alpine areas

Further comments

Fire authorities commented interstate *fire safety engineers* may not always understand jurisdictional processes. This can result in delays to *building approvals* or non-compliance with regulatory process. Nationally consistent triggers, based on the NCC's Performance Requirements, will assist to minimise this complexity. Establishing a nationally consistent role for fire authorities will also help practitioners understand the expectations of the fire authority. Fire authorities advised national consistency in roles will help them better support each other.

While the BCR Implementation Team tested a single sentence summary of the fire authority role through public consultation, the fire authority role is nuanced and varies throughout the life of a building. Therefore, the below description of the fire authority's role provides context for this model guidance as a generalisation only.

During the development of a building design, the role of fire authorities is to provide advice on the suitability of building solutions that deviate from DTS and directly impact fire brigade intervention at a building. The role of fire authorities continues during building design and construction considering variations to *fire safety design*[2], and reviewing *fire safety systems* prior to occupation (see Principle 4). During occupation, fire authorities may take on an enforcement role, ensuring *fire safety systems* are maintained. In the event of an emergency fire authorities will attend the building and assist with the evacuation of occupants and undertake fire-fighting activities. During renovations, fire authorities may provide advice on the suitability of *Performance Solutions* and variations impacting the intervention activities of fire authorities at a building.

A further complexity in defining the role of fire authorities is that they aim to protect assets, in line with community expectations, but this is not an objective of the NCC. This means aligning the role of the fire authorities with legislation and the NCC is challenging.

Residual impacts of differing resourcing and procedures

The fire brigades also have different levels of resourcing, as well as differing operational procedures, equipment and standards. As a result, the level, detail and type of advice provided could differ even if the same triggers are in place, resulting in the same *Performance Solution* being acceptable in one state and unacceptable in another, an issue that exists currently.

[2] Under the BCR recommendations 13 – 16 (*design acceptance*) model guidance, variations to approved *fire safety designs* may be returned to fire authorities for advice.

As a result, this model guidance includes Principle 9, which states fire authorities should be resourced to fit their role, rather than fitting their role to the limits of resourcing. Principle 5 recommends fire authorities work together, through AFAC, to improve consistency of advice. This has the potential to also reduce demands on scarce fire authority resources and enable their redeployment to other demands.

Principle 2 - Opting-out

Fire authorities have the ability to 'opt-out' of assessing a referred Performance Solution.

Objective

Where a *Performance Solution* has triggered referral to a fire authority, the fire authority has the ability to opt-out of reviewing where it does not impact fire brigade intervention or the risk is considered to be low.

Context

The referral triggers proposed under Principle 1 may result in an increased workload for some fire authorities. Legislation in some jurisdictions does not allow fire authorities the ability to 'opt-out' where a design has triggered a referral to them. This has the potential to create unnecessary burden on resources and does not allow fire authorities to prioritise higher risk matters and those impacting fire brigade intervention, particularly where subject to statutory timeframes.

Due to the range of potential referrals associated with the Performance Requirements nominated under Principle 1, there is the potential for matters not impacting fire-fighting intervention to be referred. This is because a single Performance Requirement is often very broad and covers many design elements. Providing this level of flexibility, through an opt-out option, allows fire authorities to triage according to risk, operational requirements and resourcing. It is also considered necessary to ensure a proper functioning system that does not overly burden industry or fire authorities but provides for safe buildings.

Stakeholders reported unnecessary delays can have a significant impact on the financial viability of construction projects and should therefore be minimised where possible.

It is recommended AFAC, in consultation with its members, develop a risk rating system for assessing new *Performance Solution* referrals to fire authorities. This will

ensure a greater level of consistency across the jurisdictions including for those applications considered to be low risk and not requiring assessment.

Legislative provisions

Legislation should provide:

1. the ability for fire authorities to opt-out of assessing a referred *Performance Solution*.
2. that the opt-out provisions be exercised within a reasonable period of the application being lodged (suggest 10 business days).

Additional comments

Fire authorities will need to be proactive in establishing policies and procedures relating to opt-out provisions. This will assist in managing both resourcing, risk and the impacts on industry.

As mentioned above, timeframes and especially financial delays negatively impact the construction sector. National consistency in timeframes associated with the referral of fire brigade intervention matters will assist in achieving higher levels of regulatory compliance.

AFAC should take a lead role in developing national policy on this matter which will assist governments in reviewing their respective legislation. Recommendations concerning specific timeframes is outside the scope of this model guidance but should be considered by governments with the aim of achieving national consistency.

Principle 3 - Scope of advice

Fire authority advice provided in response to a referred Performance Solution directly relates to how the Performance Solution impacts fire brigade intervention.

Objective

The advice of fire authorities is focused on the scope of a referred *Performance Solution* and how it impacts fire brigade intervention.

Where a fire authority has concerns with other elements of the building design, not directly relating to the referral, these can be articulated as comments on non-fire brigade intervention matters in the fire authority's advice. Fire authority support of a building design should not be conditional on addressing matters not directly related to the referred *Performance Solution* and fire brigade intervention.

Context

A number of stakeholders raised concerns with fire authorities providing advice on fire safety matters that are not directly related to fire brigade intervention.

The role of fire authorities is complementary to the building design and approval process and should be initiated where a building design impacts the role of the fire brigade. The *statutory building surveyor* is ultimately accountable for legislative compliance, noting that in some jurisdictions the *building approvals* are issued by the *building approval authority*. Design practitioners, including the *fire safety engineer*, are responsible for ensuring the design complies with the NCC and any other relevant legislative provisions. This includes ensuring fire brigade intervention has been considered and addressed. Legislation should ensure roles are clearly defined to guide stakeholders in the process.

Stakeholders noted in many cases the fire authority may be the first independent reviewer of a building's *design*. This can occur because *fire safety engineers* may only have been engaged to develop *Performance Solutions* or review specific aspects of

fire safety or because no independent review of the holistic *fire safety design* has yet been completed.

Model guidance developed in response to BCR recommendation 17 builds in an additional safeguard by requiring *independent third-party review* of *fire safety design* when a building meets the 'high' or 'very high' complexity rating under the definition of building complexity. This review will take place at the completion of the design stage (i.e. it is undertaken on the final design including any variations to the design and either post or during consideration by the fire authority).

Some stakeholders advised fire authorities are providing advice that requires them to exceed the minimum standards of the NCC, or apply aspects of Australian Standards that have not been referenced in the NCC. As a general position, fire authorities should not suggest or require designs that exceed the minimum standards set by legislation, the NCC and referenced documents. Noting the above, there may be situations where local conditions, such as water pressure and flow rate reliability cause fire authorities to request additional measures to compensate for these conditions.

It is the role of the fire authority to provide advice on matters directly related to fire brigade intervention. It is the role of the *statutory building surveyor* to determine overall compliance of the building design with the NCC taking into consideration the advice provided by stakeholders, including fire authorities. Where the *statutory building surveyor* approves a building design that does not align with the fire authority's advice, the *statutory building surveyor* must report their decision to the fire authority in writing and wait 10 business days before issuing *building approval*. This will allow time for the fire authority to appeal the decision of the *statutory building surveyor* before the *building approval* is issued.

Legislative provisions

Legislation should provide for:

1. In relation to advice issued by a fire authority, that:
    a. when issued in response to a referred *Performance Solution* is limited to:

i. aspects of the *Performance Solution* that directly relate to fire brigade intervention; and

ii. ensuring the minimum standards set by legislation, the NCC and referenced documents are met.

b. comments on other matters excluding those listed in (a) above, may be provided to the applicant, but those comments do not form part of the advice directly relating to the referral.

2. The fire authority (or the *building approval applicant*) must provide the *statutory building surveyor* with advice given by a fire authority in response to a referred *Performance Solution*.
3. The *statutory building surveyor* must consider that advice when determining whether the documented building complies with the NCC.
4. The *statutory building surveyor* must advise the fire authority they intend to approve a building design that does not comply with the fire authority advice and provide supporting reasons for the decision.
5. The *statutory building surveyor* must wait 10 business days, after advising the fire authority, before issuing a *building approval* that is not consistent with the advice of the fire authority.

Principle 4 - Inspection of building work

Fire authorities to inspect completed building work, relevant to a referred Performance Solution and associated building approval documentation prior to the statutory building surveyor issuing the occupancy approval.

Objective

Fire authorities inspect completed *building work* relevant to a referred *Performance Solution*. This must be undertaken post or during commissioning and prior to the issuing of the *occupancy approval*. Fire authority advice should inform the decision of the *statutory building surveyor* whether or not to issue the occupation approval.

Context

It is important for the design referred to fire authorities and their advice be reflected as far as possible in the as-constructed *building work*, noting that the *building surveyor* is responsible for determining regulatory compliance. It is common for designs to vary throughout construction and those variations can impact the assumptions on which advice was provided by stakeholders, including that of fire authorities. The implementation of the response to BCR recommendations 13-16 on *design acceptance* will improve the process associated with variations including reconsideration of any advice or approval impacted by a variation in design. It will also ensure that any variation in design is referred back to the fire authority.

Although the *statutory building surveyor* is responsible for all mandatory building inspections (see recommendation 18 model guidance) it is acknowledged that they may not always have the expertise to review and consider construction matters impacting fire brigade intervention. Therefore, it is important fire authorities inspect the constructed *building work* to ensure it is consistent with the approved documentation and where applicable advice is provided by fire authorities. An inspection conducted by the fire authority will often extend to ensuring the *fire safety systems* are operating as designed. Therefore the inspection by the fire authority should be undertaken at the time of, or post commissioning of *fire safety systems*. An inspection by the fire authority

must not be used to re-prosecute previous advice and must be based on the approved documentation issued by the *statutory building surveyor*.

It is expected the fire authority undertaking the inspection, prior to building occupation, will provide a report to the *statutory building surveyor* to assist them in making a decision regarding the building's suitability for occupation. There person undertaking the inspection on behalf of the fire authority should have the necessary skills and training.

It is acknowledged fire authorities may also undertake functions, including building inspections, associated with other legislation. Those functions are not considered in this model guidance and must not impact the decision making role of the *statutory building surveyor* under building legislation.

Over time, and with full implementation of the BCR, it is expected the inspection role could be the sole responsibility of the *statutory building surveyor*, again helping free up fire authority resources.

Legislative provisions

Legislation should provide for:

1. The fire authority not to be required to undertake an inspection of *building work* related to a referral where the fire authority has opted-out of assessing the design.
2. The fire authority to have the ability to opt-out of undertaking an inspection related to a referral and that it not prevent the *statutory building surveyor* from issuing an *occupancy approval*.
3. The fire authority to:
    a. inspect completed *building work*, relevant to a referred *Performance Solution* to ensure it corresponds with the approved design prior to building occupation
    b. provide an inspection report to assist the *statutory building surveyor* to make a decision regarding the building's suitability for occupation

c. ensure the scope of inspection and advice is consistent with the scope of the referred *Performance Solution*

d. ensure only competent persons are responsible for undertaking inspections.

Further comments

It is recommended that AFAC develop guidance on the skills and training necessary for those undertaking pre occupancy building inspections on behalf of the fire authority.

Principle 5 - Right of appeal

Fire authorities are advisory authorities and have the right to appeal if advice is not implemented at the design and inspection stages.

Objective

Fire authorities are advisory authorities and have the right to appeal when fire safety advice, provided as part of the *building approval process* and pre-occupancy inspection, is not implemented by the *statutory building surveyor*. This is particularly important where the impact of not implementing the advice poses a significant threat to occupant or fire fighter life safety.

Context

In some jurisdictions fire authorities operate in an advisory capacity, meaning implementation of their advice is not mandatory. In other jurisdictions fire authorities are consent authorities, meaning their advice is mandatory and must be implemented prior to an approval being issued. Stakeholders were consulted on whether one arrangement provided greater benefit to the *building approvals* system and should be the nationally consistent standard.

Stakeholder feedback did not show a strong preference for either model, as in practice fire authority advice is almost always implemented by the *statutory building surveyor* regardless of whether or not it is mandatory to do so. Further, if the advice is not implemented, there are processes in place in most jurisdictions for the fire authority to appeal the decision. It is recommended this process be available in all jurisdictions.

It is important fire authorities have the right to appeal when advice is not implemented. The fire authority should consider, before determining to appeal a decision of a *statutory building surveyor*, whether the impact of not implementing the advice is substantially different from the impact of implementing the advice, and whether this impact is a substantial threat to occupant or fire fighter safety.

Legislative provisions

Legislation should provide for:

1. Fire authorities to be advisory authorities for the purposes of *Performance Solutions* referred to them under Principle 1 and for building inspections prior to occupancy under Principle 4.
2. The fire authority to have a right to appeal to an independent body if its advice in relation to a referred *Performance Solution* or inspection process is not implemented by a *statutory building surveyor.*

Further comments

It is important there remains a single authority responsible for the overall statutory decisions regarding the construction and occupation of a building under the *building approval process*. This person is the *statutory building surveyor* or in some jurisdictions the *building approval authority*.

The *statutory building surveyor* must have regard for the advice provided by others involved in the *building approval process* including fire authorities. The advice provided by fire authorities must inform the decision of the *statutory building surveyor*.

Principle 6 - Education and experience

Fire authorities ensure their teams of fire safety experts have appropriate education, competencies and experience, and include at least one registered fire safety engineer.

Objective

That within teams of fire safety experts responsible for assessing referred *Performance Solutions* there is an appropriate level of education, training and experience to ensure competency and professionalism in discharging duties. Fire authorities teams of fire safety experts should have at least one person who is a *registered fire safety engineer*[3] undertaking or assisting with *assessments* of referred *Performance Solutions*.

Context

It is not the role of fire authorities to act as an independent *fire safety design* peer reviewer. Their role relates to reviewing designs impacting fire brigade intervention, which in some cases will require a knowledge of fire safety engineering design principles. Some *fire safety engineers* believe fire authorities, responsible for assessing referred *Performance Solutions*, do not always have adequate fire safety engineering knowledge.

Fire authorities have advised that their fire safety practitioners usually work in teams, with members having a variety of building and fire-fighting-related professional backgrounds. Fire-fighting, fire safety engineering and building surveying are common, but team members may also have backgrounds in hydraulic or other types of engineering. The structure of teams usually requires the person supervising work to have specific fire safety engineering knowledge and experience. This is similar to building surveying firms where not all members of a team may be *registered building*

[3] This is known as a *Fire Safety Designer* under the National Registration Framework developed in response to BCR recommendations 1 and 2.

surveyors but the work is overseen by a *registered building surv*eyor. It is acknowledged some fire authorities will require more than one *registered fire safety engineer* to meaningfully participate in the oversight of referred fire safety matters.

To improve trust, confidence and safe building outcomes, it is important for fire authorities involved in the assessment of *Performance Solutions* referred under Principle 1, to have at least one *registered fire safety engineer*. The requirement for registration will ensure ongoing knowledge maintenance through *CPD activities* and adherence to the 'Code of conduct for fire safety engineers'. Having *fire safety engineers* within fire authorities will act as a bridge to improving communication and collaboration between the two groups.

Legislative provisions

Nil. This Principle should be facilitated by individual fire authorities and AFAC.

Further comments

It is recommended fire authorities encourage their staff to act in accordance with the 'Code of conduct for fire safety engineers' and undertake *CPD* regardless of their registration status.

Further ways to encourage understanding of the fire authority role among *fire safety engineers* is to have frameworks in place to support short-term placement of fire safety engineering students, or frameworks that enable placements for newly graduated and *registered fire safety engineers*.

Principle 7 - Consistency of advice

Fire authorities work together through the National Council for Fire and Emergency Services (AFAC) to improve consistency of advice through information and data sharing.

Objective

Fire authorities provide consistent advice in response to similar referred *Performance Solutions* and similar circumstances across states and territories. The collection, analysis and sharing of information and data will facilitate consistency in advice and interpretation.

Context

Stakeholders have expressed concerns advice from fire authorities is inconsistent across states and territories even for the same building classification and *Performance Solution*. They've also expressed views that advice can be inconsistent within the same fire authority. This can be dependent on the personal views of individual fire safety personnel and advice has been known to change mid-way through a project, particularly if the individual responsible for providing the advice changes. This causes additional stress, time delays and costs to design teams, potentially impacting their willingness to engage with fire authorities.

AFAC already develops nationally consistent guidance for fire authorities and aids collaboration across jurisdictions. It is ideally placed to assist fire authorities to provide more consistent advice and have a consistent 'voice' so *fire safety engineers* and *building surveyors* can have similar expectations and understandings of the needs of fire authorities, and achieve efficiencies in the development of fire safety *Performance Solutions*.

It is acknowledged assessment advice may vary with geographic location, as the operational assessment must consider the equipment and resources available in that specific building location. This is an integral and necessary aspect of the building fire safety advisory process.

Fire authorities are strongly encouraged to collect, analyse and share data relating to their role in assessing *Performance Solutions*. Feedback from state and territory governments suggests the sharing of AFAC data more broadly will improve building regulation and policy development. Governments have suggested AFAC further investigate this as an option to support jurisdictional collaboration.

Legislative provisions

Nil.

Principle 8 - Guidance for industry

Fire authorities publish up-to-date guidance for industry on fire brigade intervention matters impacting building designs and Performance Solutions

Objective

Fire authorities make available, on their websites, up-to-date guidance about fire safety matters impacting fire brigade intervention, including the equipment and access they typically require at a building. The objective is to assist industry in preparing building designs and *Performance Solutions* that meet the needs of fire authorities.

Context

Information should be produced and made publicly available to provide industry and governments with an understanding of the needs of fire authorities relating to common fire brigade intervention matters. This will assist with ensuring *Performance Solutions* and building designs have a better chance of meeting the needs of fire authorities from the start of the design.

Some fire authorities already provide information on their websites but they should ensure it is easy for building practitioners to find, is up-to-date and there is a clear point of contact for enquiries about the information. This will help avoid delays in design approval and rectifications once buildings are constructed. The development of this information should be informed by data and information shared between fire authorities to ensure consistency where possible.

It is expected users of information published by fire authorities will do so for the purpose of which it is intended. For example, users should not apply information outside of its intended scope as reported by some fire authorities.

Stakeholders have advised some of the information available from fire authorities is out-of-date or too generic to be useful to *building designers*. As per Principle 9, if fire authorities are appropriately resourced, providing usable information to industry

should be a priority and will assist in providing better quality documentation that meets the needs of the fire authority.

Legislative provisions

Nil.

Further comments

It is suggested instead that AFAC conduct surveys of stakeholders to determine what guidelines should cover as a minimum, whether any existing guidelines should be updated and how they can be made usable by building designers in particular. It is suggested the format, numbering and content of guidelines be standardised across jurisdictions so practitioners working across multiple jurisdictions can quickly and easily identify the relevant guideline to their design work. Surveys of stakeholders could be conducted regularly to ensure fire authorities receive regular feedback about whether guidance is assisting compliance.

Fire authorities should also consider making it as easy as possible for industry to submit queries or provide feedback on the guidance to ensure mistakes or misunderstandings are captured and addressed quickly.

When making major updates to guidance, fire authorities should consider industry roundtables as part of their consultation processes[4].

If sharing highly-specific information too broadly is of concern to the fire authorities, they should make this information available to building practitioners through secure areas of their websites.

[4] A case study on stakeholder engagement at the Civil Aviation Safety Authority is available in the BCR recommendation 7 model guidance, available at www.abcb.gov.au.

Fire authorities could also consider online videos and/or training for building practitioners, with topics informed by data about common misunderstandings and/or non-compliances.

Principle 9 - Resourcing

Governments resource fire authorities to provide the required level of service for their roles

Objective

Governments resource fire authorities to provide the level of service required to fulfil their role described in this model guidance.

Context

All building practitioners consulted about BCR recommendation 8 have noted the value fire authorities bring to consideration of fire safety issues during the building design process. *Fire safety engineers* have noted they do not have the experience of fire-fighters and therefore rely on the advice provided by fire authorities when developing *Performance Solutions* that impact fire brigade intervention activities.

It has also been noted that some fire authorities are constrained by their current levels of resourcing and high numbers of building designs that are referred for consideration. As mentioned earlier in this model guidance, the proposed triggers in Table 1 may present an increased workload for some fire authorities and for others enable the reallocation of resources.

Principle 2 and the use of opt-out provisions will assist in managing this issue. The problem with not using this approach is that in some jurisdictions, it's not uncommon for advice to be returned by fire authorities to *statutory building surveyors* after the statutory timeframe has passed. In some jurisdictions, this enables the *statutory building surveyor* to issue a *building approval* without taking the advice into account, which could result in poor safety outcomes, or, more likely, place the *statutory building surveyor* in a position of unclear liability and vulnerability.

Appropriate resourcing, specific to the fire authority role in the *building approval process* will reduce time delays to industry, which increase costs that are then passed onto the eventual building owner. Further, it could reduce non-compliance where

building practitioners try to avoid referring buildings to the fire authorities because they anticipate a time delay to their project, and therefore increased costs.

Matching resourcing to the role and actions described in this model guidance will support fire authorities to discharge these duties effectively and efficiently, which will encourage positive engagement with fire authorities, referrals as per legislation and voluntary referrals, which may positively impact fire safety outcomes. It will also enable data to be collected and analysed to support greater efficiencies in future (refer Principle 10).

Fees

While this model guidance does not discuss fees charged by fire authorities, there is concern that some buildings, which should be referred to fire authorities, may not be referred to avoid what some building practitioners perceive to be 'unreasonable' fees charged for advice on referral. Such behaviour is addressed through the Code of conduct for fire safety engineers and the Code of conduct for building surveyors. It is important for public safety that designs impacting fire brigade intervention are referred to the fire authority for advice and this should be encouraged through having similar fees and charges in each jurisdiction that are based on cost-recovery only.

Fees should be transparently listed on the fire authority website, including how they are calculated, so they can be budgeted for appropriately by *building approval applicants*. It has been suggested by some stakeholders that the fees should be charged based on the cost of *building work* or another similar transparent metric.

Legislative provisions

Nil.

Principle 10 - Data

State and territory governments collect, analyse and share data to inform the regulated role of fire authority involvement in the building design process

Objective

That data relating to the referral of *Performance Solutions* to fire authorities is collected and shared by governments so it can be analysed to determine the effectiveness of the process including the specific triggers for referral.

Context

A risk-based model was initially considered instead of a trigger-based model, however stakeholders highlighted there was not adequate data to inform a risk-based model and the definition of building complexity was not supported by fire authorities. While there are eight different sets of criteria for referring buildings to fire authorities, there is no data that indicates any one is better than the others. This lack of data means the nationally consistent triggers in Principle 1 have partly been determined based on stakeholder views, particularly the view that certain Performance Requirements impact fire brigade intervention at buildings more than others.

Consistent with BCR recommendations 5 (regulator collaboration) and 12 (data collection and sharing) governments should work with fire authorities to collect data at a jurisdictional level that can inform the adequacy and success of the policy regulating fire authority involvement in the *building approval process*.

Collecting and analysing data will enable robust and transparent decision making in determining which building designs be referred to fire authorities. If collected consistently across states and territories, and shared amongst jurisdictions, the pool of data will also be large enough over time to inform national policy settings. Data will enable more targeted auditing and compliance activities by regulators, a key cornerstone of an efficient and effective building approvals system.

Data could be used to inform proposals to change or modify the NCC's Performance Requirements to enable the development of *Performance Solutions* that better address fire brigade intervention.

The data could also be used by fire authorities to assist with resourcing and key performance indicators.

Legislative provisions

Nil.

It is suggested instead governments collaborate to determine the data that should be collected and how to share this data effectively. This is in line with BCR recommendation 5, which encourages improved coordination and collaboration between building regulators with an enforcement role within each state. The response to BCR recommendation 5 is on the ABCB's website. It is also consistent with BCR recommendation 12, which encourages jurisdictions to collect and share data.

Further comments

Jurisdictions should consider whether existing legislation, such as privacy legislation, will prevent the collection and use of specific data.

Principle 11 - Code of conduct for fire safety engineers

States and territories legislate the Code of conduct for fire safety engineers.

Objective

The Code of conduct for fire safety engineers is legislated so it is a legal requirement to follow the Code's principles as a *registered fire safety engineer*.

Context

Requiring *registered fire safety engineers* to adhere to a code that governs ethical and moral conduct is in line with requirements of other professions with similar responsibilities to the public. It will mean *fire safety engineers* will need to act in accordance with the content of the Code of conduct for *fire safety engineers*, which covers complying with the law and acting in the public interest, acting honestly and with integrity, and being accountable. It is expected building regulators and the relevant industry associations will take disciplinary action against those who breach the code of conduct.

Legislative provisions

Legislation should provide for:

1. In relation to the Code:
    a. individuals *registered* as *fire safety engineers* (*fire safety designers* under the National Registration Framework) act in accordance with the Code of conduct for *fire safety engineers*; and
    b. there be consequences for failing to act in accordance with the Code of conduct for *fire safety engineers*, including de-registration or conditions of registration.

Further comments

Jurisdictions should consider the penalties appropriate for failing to comply with the Code of conduct for *fire safety engineers*.

APPENDICES

Appendix A - Select BCR Recommendations

Table 2 BCR recommendations with systematic impacts on the involvement of fire authorities in building design

This table provides an overview of the BCR recommendations that will positively impact the design and construction of buildings and the role of the fire authorities.

Recommendation (paraphrased)	Status	If implemented, the impacts of the recommendation
1. Jurisdictions should require the registration of certain building practitioners including fire safety practitioners.	Recommendations 1 and 2 are addressed through the National Registration Framework for building practitioners (NRF).	The NRF provides guidance to states and territories on registration categories for building practitioners. It sets out the education and experience required for each level of registration, and the functions each level of registration should be allowed to perform. If implemented, it will ensure that even if automatic mutual recognition work progresses, that there is a national minimum standard for registered practitioners that should ensure better quality of work based on suitable education requirements and function-based registration.
2. Jurisdictions should prescribe consistent requirements for the registration of building practitioners, such as: training on the NCC; competency and experience requirements; compulsory insurance; and evidence of practitioner integrity.		
3. Jurisdictions should require practitioners to undertake compulsory continuing Professional Development on the NCC.	The ABCB is developing Continuing Professional Development (CPD) training modules on the NCC. Separately, model guidance on the requirements of CPD on the NCC	CPD is key to practitioners maintaining their skills after they have completed formal education and entered the industry. Undertaking CPD on the NCC will likely increase practitioner understanding of the NCC's requirements which will assist increased compliance. While the ABCB may be the only producer of CPD specifically on the NCC at the moment, this is expected to change and, given the importance of fire

Recommendation (paraphrased)	Status	If implemented, the impacts of the recommendation
	and ethics (e.g. how much CPD on the NCC is necessary and how often) has been developed. This includes guidance on how schemes for CPD on the NCC should be structured.	safety engineering, it is likely industry will produce CPD on the NCC for fire safety engineers specifically.
6. Regulators should have the powers to take strong compliance and enforcement action, if necessary	A list of the minimum building regulator powers needed to effectively regulate the building industry has been developed.	There are gaps in jurisdictional powers needed to effectively regulate the building industry, however, if these are addressed, it is expected that regulators should have the capacity to properly inspect building design and building work to ensure it is compliant with state and territory legislation, the NCC and referenced Standards. These powers will support effective auditing.
7. Jurisdictions should audit Class 2 – 9 buildings and publish their audit strategy and audit outcomes.	Model guidance has been developed for implementation by the states and territories on auditing and compliance publication.	Auditing is a key quality control process and signals to industry the standards that will be accepted by the regulator. Increased transparency of auditing activities is essential to provide industry the confidence that regulators are checking that work is compliant and will take action in response to non-compliance, if necessary. It is likely, if implemented, this recommendation will help to uplift the industry through better information for practitioners about auditing, its importance and the consequences of NCC non-compliance. It is also expected that the data collected through increased and more structured auditing programmes will help regulators work with industry to target interventions for common types of non-compliance. This could include increased education and training or case studies.
12. Jurisdictions should collect and share building data across jurisdictions.	A Memorandum of Understanding to govern data sharing between the states and territories has been developed.	Jurisdictions recognise the importance of collecting data centrally within each state and territory, as it provides them better capability to analyse and identify building trends and to target auditing and compliance activities and interventions such as education and training. If jurisdictions are able to better share information with each other, it's

Recommendation (paraphrased)	Status	If implemented, the impacts of the recommendation
		likely systemic non-compliance and issues associated with practitioners working across borders will be picked up and addressed more quickly.
13. Jurisdictions should require building approval documentation to be prepared by appropriately registered practitioners, demonstrating the proposed building complies with the NCC.	Model guidance on design acceptance has been developed for implementation by the states and territories.	The guidance will cover the documentation that must be prepared and who takes responsibility for preparing it. More stringent requirements should mean that the documentation is of a higher quality because it is comprehensive and has been prepared by someone with appropriate knowledge and skill, making potential problems more evident.
14. Jurisdictions should set out the information to be included in Performance Solutions.		
15. Jurisdictions should provide transparent and robust processes for the approval of Performance Solutions for constructed building work.	As above.	It is not uncommon for Performance Solutions to be reverse-engineered once it is discovered that completed building work does not comply with the NCC's DTS provisions. The BCR recognises that there must be a pathway for practitioners to rectify building work that is not DTS compliant. Having a clear path should ensure that, in these situations, the outcome is a building that still meets the Performance Requirements of the NCC and therefore the minimum safety expectations for occupation and use.
17. Jurisdictions should require independent third party review for components of designs and/or types of buildings.	Model guidance on independent third party review has been developed for implementation by the states and territories.	Most jurisdictions do not require independent third party review of building designs. Building surveyors who do not have the necessary competency to review the design in detail may accept self-certification from the practitioner who has developed the design. Currently, even when third party review occurs, the reviewer may not be independent, which limits their ability to act impartially and to address identified issues. If implemented, this recommendation will add robustness to design processes, making it more likely that design weaknesses will be identified and rectified prior to the building's construction. In jurisdictions

Recommendation (paraphrased)	Status	If implemented, the impacts of the recommendation
		where fire authorities have a role reviewing fire engineering designs, it will likely mean the documentation they receive is more robust and of better quality as it has already been independently reviewed and issues addressed. This should aid fire authorities to review designs more efficiently and they should be more confident that the design meets the Performance Requirements of the NCC.
18. Jurisdictions should require on-site inspections of building work at identified notification stages.	Model guidance on mandatory inspections has been developed for implementation by the states and territories.	If implemented, there will be more risk-based inspections of buildings as they are constructed. The inspection points will also be more consistent across jurisdictions, meaning practitioners should have a clear understanding of when they will occur and what to expect. Increased inspections will mean more opportunities to check structural and safety aspects of buildings, meaning it is less likely that these issues will be identified during pre-occupation inspections, when it is more difficult to rectify identified issues.
19. Jurisdictions should require fire safety practitioners to design, install and certify the fire safety systems necessary in Class 2 – 9 buildings.	Model guidance on fire safety systems has been developed for implementation by the states and territories.	If implemented, this will mean multiple inspections during the installation process so that the building surveyor can have confidence in the certification provided once installation is complete. The independence of the tester from the installer provides a level of assurance that any issues with the design and installation will be picked up and can be rectified.
20. Jurisdictions should require building manuals to be provided to building owners.	Model guidance on building manual information has been developed for implementation by the states and territories.	If building manual information is implemented, transparency and accountability of building practitioners is likely to increase as practitioners will be required to provide documentation and information to building owners and prospective purchasers. Making this information available should give potential purchasers the ability to determine more accurately their willingness to invest in property and at what price, leading to an incentive for developers and builders to ensure that the manuals are accurate and contain the required information.