FPA
AUSTRALIA
Fire Protection
Association Australia

REFORM OF BUILDING REGULATION

PRODUCTIVITY COMMISSION ISSUES PAPER, MARCH 2004

SUBMISSION BY:
FIRE PROTECTION ASSOCIATION AUSTRALIA
13 Ellingworth Parade, Box Hill Vic 3128
T +61 3 9890 1544 F +61 3 9890 1577
E fpaa@fpaa.com.au W www.fpaa.com.au
Contact: Mr Ross Hodge – Executive Director

TABLE OF CONTENTS

FOREWORD

The Fire Protection Association (FPA AUSTRALIA) is pleased to provide a submission to the research study by the Productivity Commission into Reform of Building Regulation and the Issues Paper dated March 2004.

FPA Australia, a not-for-profit member association is Australia's major technical and educational fire safety organisation. FPA Australia was formed on 1 January 1997 when the members of two former associations, Fire Protection Industry Association Australia (Est. 1926) and the Australian Fire Protection Association (Est. 1960) agreed to amalgamate and form one representative body.

Fire safety in Australia is clearly a large part of building regulations and represents some 60-70% of all prescriptive requirements in the technical provisions of the Building Code of Australia. It is therefore a key element to examine in terms of reform of regulation in the building and construction industry, and was the subject of major changes in 1996/7 with the introduction of performance based fire safety requirements into the BCA.

For fire safety, FPA AUSTRALIA is the peak industry body in Australia. FPA AUSTRALIA has a very broad range of members with people and organisations involved in,

- Building ownership and management
- Design and certification
- Fire safety engineering
- Manufacturers of fire protection equipment
- Suppliers and contractors (installation and maintenance)
- Fire brigade services
- Academic institutions
- Emergency management
- Training
- Hazardous materials

As a result of this broad membership, FPA AUSTRALIA is influential in policy and standards development for all aspects of fire safety in Australia, and able to draw together potentially disparate views into co-ordinated responses for this industry sector.

In addition, FPA AUSTRALIA is part of the International Confederation of Fire Protection Associations (CFPA) and able to harness information and resources worldwide to understand and inform Australia governments and other organisations on the state of the art and international best practice in relation to fire safety.

In reviewing the Issues Paper and based on the briefing received by Commissioner Hinton and the Productivity Commission staff, FPA AUSTRALIA is pleased to comment upon a number of key issues.

1. Clarity of BCA objectives

From the introduction of BCA 96, there has been a difficulty in clarifying the objectives for fire safety. From reading the BCA and by reference to the Guide to the BCA it has generally been inferred that the BCA objectives are limited to structural sufficiency and based on minimum least cost solutions commensurate with regulatory objectives of safety, health and amenity.

Within those broader objectives, it has been assumed, but it is not entirely clear, that the fire safety objectives are: -

- Life safety of building occupants
- Protection of other property
- Provision of facilities for fire fighting

More recently, further clarification seems to be emerging from ABCB that these are in fact the three fire safety objectives. However, the BCA needs to be very explicit about what are and what are not fire safety objectives in the BCA.

The benefits will come in the form of less interpretation difficulties by designers, certifiers and certification fire services authorities, a smoother design process, and greater local, regional and national consistency.

2. Property Protection as an Objective

Due to the lack of clarity on objectives in the BCA, it is unclear to many in the industry whether the subject property is protected if the BCA Performance Requirements or deemed-to-satisfy provisions are met in the design of any particular building. While there is reference to prevention of fire spread between buildings and in some areas between fire compartments, the Guide to the BCA suggests that it is “acceptable” if some buildings are burned to the ground. The implication is that protection of property, being the subject building fabric and contents, is a matter for the building owner and/or tenants and their insurers and not a matter for community regulation or the BCA. This view seems to be reinforced by the ABCB in recent statements related to the development of a new sprinkler standard.

Internationally, other countries such as New Zealand, Sweden and Norway have taken this approach, which is very much a “deregulation” or minimum community regulation approach. On the other hand, protection of property as a community objective is part of performance based building codes and fire safety regulations being developed or implemented in USA, Canada, Hong Kong and Singapore, and this appears to be a growing trend globally.

An approach Australia may consider is property protection regulation based upon community importance, following the principles incorporated in the ICC Performance Based Building Code (USA) and used in the BCA and USA for seismic design regulation. It is known that this approach is being considered by ABCB in the development of the “Future BCA”. It is considered critical that this issue be addressed, canvassed widely with all sectors of industry to get a community view, articulated clearly in

forthcoming BCA amendments, and implemented consistently in all building code and state regulations.

The reason this is important is that many building owners, tenants, insurers and other industry players believe that if they comply with the Performance Requirements of the BCA that their building and to some degree their building contents, are protected when they may not be. Fires that lead to significant property loss may have significant potential legal and political ramifications due to the lack of BCA/ABCB clarity on this issues and a lack of community and industry understanding and training on this matter.

3. Performance Requirements and DTS Provisions

It is a historical fact that when BCA96 was developed, the former traditional building requirements for fire safety were provided in the new BCA as prescriptive or acceptable solutions without detailed checking whether they completely reflected the BCA fire safety objectives (to the extent they were defined or assured) or technically satisfied the BCA Performance Requirements. Knowing this situation, the ABCB used the legal device of the deeming principle to ensure the former prescriptive solutions were Deemed-to-Satisfy (DTS) the Performance Requirements.

In practice, many in the industry would think that a number of the solutions described by the Deemed-to-Satisfy text in the BCA would not meet the Performance Requirements. Equally, in other cases, the DTS would seem to include provisions that go beyond the implied BCA objectives and provide a high degree of property protection. This is illustrated by provisions in the BCA for 3 and 4-hour fire resistance which is well beyond the expected evacuation period for life safety. By contrast, fire safety provisions in building codes in New Zealand and Sweden, which have no property protection objective, typically have fire resistance levels of 1/2hr and 1hr more related to life safety objectives.

All of this is not to suggest that properly linking prescriptive provisions, to the Performance Requirements is easy. The experience in Canada of decomposing their traditional prescriptive solutions to ensure that their Performance Requirements are completely satisfied has shown that this takes a substantial research effort, and in their case, has delayed the introduction of their performance based fire safety code by 5-8 years. It is the reason why Governments such as Australia have used the “Deemed-to-Satisfy” mechanism.

The benefits of ABCB undertaking the checking of all prescriptive solutions to ensure their consistency with BCA objectives and Performance Requirements is that they need to ensure: -

- “unsafe” solutions are not included in the BCA, and
- other solutions are not overly conservative or too costly
- where DTS Solutions are used to benchmark alternative fire engineered solutions, they do reflect the actual Performance Requirements

4. Conflict between BCA and fire brigade legislation

The lack of clarity on BCA objectives, the uncertainty about property protection and the fact that DTS provisions are not consistent with BCA objectives and Performance Requirements (to the extent that this established) is reflected in the conflicts that have arisen around Australia in very many building projects.

Typically, the acts of State parliaments that legislate for the provision of fire brigades require them to protect life and property, and in some cases the environment. In most if not all cases, their fire brigade acts and legislation are in no way linked to building regulations and their objectives and requirements enshrined in the BCA. In addition, building designs are assessed and certified as complying with BCA Performance Requirements by Building Surveyors which may require all or part of the design to be reviewed and commented upon by the local Fire Brigade. Naturally, the Brigades usually refer to their Act and objectives under which they are required to operate in making comment or advising their opinion on particular fire safety designs, rather than just on the implied BCA objectives and BCA96.

For example, the Country Fire Authority (CFA) has recently issued a draft policy on "Performance Based Designs within the Built Environment" that is based on a position paper on this subject prepared by the Australasian Fire Authorities Council (AFAC). This CFA document refers to the fact that CFA, under its Act (S20) is required to "protect life and property". The document then adds that the CFA is committed to "protection of life, property and the environment". It also stresses that designs being submitted to CFA for "assessment" must address "firefighter safety" and must address Victorian Government's triple bottom line of social, economic and environmental impacts in construction. There are however, no benchmarks on criteria for these requirements. This document attempts to set policy and levels of fire safety for buildings in Victoria which does not seem to be consistent with Victorian building regulations. Similar situations exist in other states.

There is, therefore, two forms of "assessment" based on two different sets of objectives. It is inevitable that there will be confusion for building owners, developers and design teams, and disagreement between certifying building surveyors and fire brigades who are trying to operate in good faith and required to operate under two different sets of legislation, which are conflicting.

If we look to other countries, which potentially have this conflict, we see that either the different pieces of legislation are aligned or complementary, or as in the case of the UK, there is a statutory bar on the fire brigade affecting the levels of building fire safety in design.

The benefits of a change in the regulatory and technical framework for fire safety in Australia, which embraces both the building certification process and fire brigade requirements, would be:

- A clearly unified approach for developers, owners, designers as well as certifiers and fire brigade authorities
- More consistent and cost effective design solutions across Australia

- Certainty for the fire brigade and building surveyors in applying their respective legislation

5. National Consistency of Outcomes

As a result of the issues outlined above, and other state variations in forms of policy and practice, there is a lack of consistency in building designs and cost outcome. This is particularly evident to major building owners and builders, as well as fire safety engineers and certifiers who operate nationally.

The result is frustration and confusion as to why differences occur when we have one national technical document in BCA96 adopted in all states. There are, as a result, unnecessary costs and loss of efficiencies in design and construction for major industry players, ultimately hurting our internationally competitive position on building and construction.

It is essential that we have one, agreed, consistent and national framework for both technical and administrative provisions to ensure cost effective buildings, which should result from regulatory reform.

6. Risk-Cost Models

Another difficulty for fire safety engineers, fire brigades and certifying building surveyors in the lack of a risk-cost model to access the level of fire safety in any particular building design and allow the Performance Requirements to be quantified. Currently, the Performance Requirements in the BCA are written in qualitative terms and subjective arguments arise as to whether these Performance Requirements are satisfied by any particular design. The BCA provides for the concept of “equivalence” to be used to assess fire “engineered solutions”, but again, without a standard measurement tool, establishing “equivalence” can be quite difficult.

ABCB has commissioned Victoria University of Technology to develop its risk cost model for Class 2 buildings, but this research program needs to be accelerated in order to improve DTS Solutions and provide fire safety engineers with a measurement tool for fire safety design and certification.

Similar developments are occurring internationally to satisfy the same demands in other countries. However, the VUT model is the most advanced in the world, and Australia has an opportunity to solve its own regulatory measurement issue, but also have a world class, leading edge technology that will benefit our export services in the area of fire engineering design.

7. Private Certification

Concurrent with the introduction of the performance based BCA96, a number of States introduced private certification, where a private building surveyor is permitted to compete with council building surveyors to approve building designs and issue certificates of occupancy. Other states have adopted this approach subsequently with different levels of control and requirements for qualifications and professional accreditations.

Like the council building surveyors, the private certifiers are acting on behalf of the community as the “public servant” when they approve designs and set or accept the level of fire safety proposed by the design

team. This can represent a challenge in some situations where the private certifiers are being paid by the project developer and expected to assist in development of the most cost effective solutions as part of the design process, and then approving the same design.

Some in the building and construction industry would agree this introduction of private certification has brought a range of benefits in terms of efficiency and timelines in the approval process and provided a broader, more technically competent resource in Australia in relation to certification.

Others would agree that it is difficult for the certifiers to exercise their independence from the design process and the owner/developers involved when undertaking their statutory role.

As a result, there have been changes in industry practice, differing levels of involvement of government departments with shifting policy positions, and a lack of consistency in approach between the states.

All parties, including the community in terms of delivered solutions and levels of fire safety for all buildings, would benefit from particular enquiry and research into this issue by the Productivity Commission.

8. Preparation of Standards

FPA Australia is heavily committed to the development of Australian Standards covering various aspects of fire protection practice, several of which are referenced in the Building Code of Australia. Specialist industry representatives spend considerable time and effort participating in this activity which covers such subjects as fire resistance of materials, fire alarms, fire hydrants, automatic fire sprinklers, maintenance of fire systems and equipment and so on.

Adoption of Industry Codes (E.g. National Plumbing Code)

Since Australian Standards are developed on a transparent consensus (and least cost) basis, FPA Australia believes that, given adequate consultation with the Australian Building Codes Board, it would be both unnecessary and counter-productive for the ABCB to develop similar standards solely for building code use. If standards such as the National Plumbing Code are to be incorporated in the Building Code of Australia, then FPA Australia believes that the fire protection content should be deleted prior to such incorporation. Such deletion would avoid confusion between BCA requirements and extant Australian Standards dealing with fire hydrants and the like.

If the ABCB were to in the future go down the path of referencing specific national codes then FPA Australia would see it as an imperative that a National Fire Protection Code be developed to underpin the BCA. Particularly as previously noted, fire safety in Australia is clearly a large part of building regulations and represents some 60-70% of all prescriptive requirements in the technical provisions of the BCA.

9. Maintenance of Essential Safety Measures

Recognising the importance of regular maintenance of "essential safety measures" in buildings, particularly when greater dependence is being placed on installed fire protection systems and equipment (automatic

pumpsets, automatic sprinkler systems, fire alarm systems and the like) through engineered solutions, FPA Australia strongly supports the adoption of uniform inspection, testing, preventative maintenance and survey regimes on a national basis. The Association believes that this is best accomplished by adoption of Australian Standard AS1851 (which is currently being extensively revised).

Ideally, AS1851 should be referenced in the Building Code of Australia. Alternatively, it should be adopted in State regulations. In this way, the important fire safety initiatives incorporated in the current BCA remain available throughout the building's life cycle. That is to say, the true intent of installing such essential protection services is realised in the continuum.

10. Licensing and Registration for Individuals and Companies

One of FPA Australia's objectives for the building industry is the introduction of a licensing and accreditation systems for all individuals and companies involved in Fire protection related activities. The licensing system covers individuals from sub engineer to sub trade levels implying nationally endorsed competency standards for the Vocational Educational and Training (VET) system recognised under the Australia Qualifications Framework (AQF).

The activities covered by a fire protection licensing scheme are for persons who undertake work in; certifying, designing, installing and maintaining fire protection systems, equipment and related products, such as:

A. Fire Protection Systems:
- Sprinklers and deluge
- Hydrants
- Pumps

B. Fire Equipment:
- Hose-reels
- Extinguishers
- Fire hose equipment

C. Fire Detection – Electrical:
- Detection and Alarms
- Evacuation Warnings & Intercom
- Fire & Smoke control

D. Special Hazards:
- Foam Systems
- Gaseous Agent Systems
- Dry Powder Systems

E. Passive:
- Fire Doors
- Penetrations
- Fire Dampers

An extensive suite of nationally endorsed competency standards has already been developed under the CET/AQF system to support the introduction of a nationally consistent licensing scheme for fire protection practitioners. FPA Australia has made a considerable contribution through

the Australian National Training Authority (ANTA)/Industry Training Advisory Board (ITAB) system in past years to ensure balanced input from industry into the development of competencies. This support would continue from the Association to finalise a full suite of competencies to match all licensing requirements.

As well as licensing individuals who perform the “on job work”, it is also an imperative that all work is contracted by businesses holding the appropriate categories of registration to assure the community there is compliance with relevant codes and regulations.

Having a system that ensures only appropriately credentialed individuals and businesses can undertake work in fire safety would better sustain a system of self regulation as opposed to the need for further regulation.

11. Matters of Compliance and Quality of Practitioners

In regards to concerns with across the board compliance and quality of fire safety practitioners FPA Australia considers this matter to be closely linked to previous section commenting on licensing and registration. Matters relating to compliance and quality of practitioners would best be dealt with through a licensing system managed by an industry Board that also had responsibilities to implement facilities for auditing.

12. Role of Insurance and Insurers in the Building and Construction Industry

Role of Insurance/Insurers in the Building and Construction Industry
The insurance industry has involvement in nearly all facets of the construction industry as follows -

Property Underwriters:

This is where we are insuring houses, businesses, warehouses, casinos, concert halls and similar 'property' against fire, burglary, natural hazards etc. The insurers would like to see that the construction features of new buildings do not encourage fire start or fire spread, that the buildings are suitable for the occupancies, that they have adequate active and passive fire protection installed so a fire causes minimal damage the building, its contents and ensure business continuity after occupant safety is addressed. They are interested in the 'property' after the occupants evacuate.

With the current approach to construction, effectively anyone can build a building out of combustible materials and get away without any protection, if they can prove that it can be safely evacuated. This is not something the Insurance Industry is happy with, particularly for larger residential, commercial and industrial properties. There continue to be substantial losses year in year out over the years, which end up causing insurance premiums to rise to cover these losses.

If you go back centuries, it is noted that the building codes initially originated form the property insurers who wanted reasonable construction and protection so that properties would be "acceptable" to its insurers. These days some insurers have in house engineering capabilities to get involved in new projects or extensions from the very start and advise the owners, consultants and contractors what would be required over and

above the requirements of the BCA to end up with a finished project that would attract the minimum insurance premium – highly protected risk where the property is well protected and business continuity is assured.

Casualty Insurers:

This is another spectrum of insurers looking into non-property areas. Their interests include liabilities arising from events. If we look into this, the interest include:

- *Professional Indemnity / Errors & Omissions*: Offers protection relating to wrongful advice or actions relating to the professional standards undertaken by anyone connected to the building industry sector - such as engineers, architects, building / trades people, local government, suppliers, manufacturers. Any one who gives advice in relationship to their expertise has the option of taking out such a cover to protect his/her vested interests (like fire safety or fire protection engineers misadvising the fire size, occupancy etc). So if the BCA is open to interpretation and a particular interpretation results in a loss, the property/liability insurer can be heavily out of pocket and be forced to try recovering it from the designer/engineer through their professional indemnity cover.

Construction Liability: Covers the insured for his/her negligent actions, which ultimately cause injury or damage to a third party at the actual building site. Note - the definition of an "occurrence" should be defined as causing injury or damage from work carried out during the period of the construction, this can be a long-tail (spanning over a very long period) issue relating to completed operations.

For example, a window (e.g. numerous sheets of glass falling from the 150th floor of MRA House !) could well pop out of a building 20 years after in was originally constructed - the property owners General Liability policy may respond, but the legal fraternity could also find the actions of negligence relating back to the builder / architect / engineer / supplier / trades person / manufacturer / government etc who misunderstood/misapplied an unclear code. Someone would need to satisfy the legal fraternity that the ultimate cause can be traced back to the construction period - e.g. incorrect fitment, wrongly designed, manufacturing fault or what ever - so long as the originating cause is traced back to the "construction period".

General Liability: Offers protection for the insured's products (and general liability) where their negligence causes injury or damage to a third part - in so far as the BCA is concerned - the above examples apply. Most general products/public liability policies {think about your compulsory third party liability (CTP) policy for your car} also give an Errors & Omissions cover where there is no fee given for the insured's professional advice – e.g., a builder recommend a size or type of product/construction/protection etc. The person concerned is not a legally "qualified professional" - and in this case is just giving his own opinion, gets it wrong which results in a loss and this cover kicks in.

As can be seen from the above examples, the insurance industry is involved in the building industry on virtually all levels, however when it comes to the BCA, it is the property insurance sector that is most affected and there are instances where a fully BCA compliant (deemed to satisfy or

performance based design) building is uninsurable, placing an inordinate burden on the building owner/occupier, as well as bad press for the insurance company(ies), which in our view is a totally unacceptable outcome and certainly does not meet the general publics expectations of the building code.

Catastrophe Underwriters:

These are interested in the overall 'shell' of the building as a wide spread event (earthquake, flood, cyclone) may result in huge losses. But they take it for granted that the property insurers already address these issues before they come into play.

13. Sustainability Agendas and the Impact On Fire Safety, Particularly In Relationship to the Future use of Water

Energy Efficiency (5 Star) regulations currently applies to new Class 1 houses and Class 2 apartments buildings in accordance with the Building Code of Australia and will be effective from July 1, 2004.

The Fire Protection Association Australia understands that water is one of the most important natural resources we can have. It is acknowledged that reducing water pressure and limiting outlet flow rates at outlets can result in significant water savings, however the impact on Fire Protection Services must be considered.

Reference document AS/NZS3500.1 proposes a maximum water pressure of 500Kpa at all outlets within a building. The Plumbing Industry Commission suggest the easiest and most cost effective way to limit pressure is to install pressure reduction valves at the meter. In addition Water Supply Authorities are introducing a pressure management program that would reduce the mains pressure in water supply systems.

Fire protection systems in buildings require high pressures to meet the performance requirements for fire fighting. Any decrease in Towns main water supply pressure at the meter or in the network will impact on installed and proposed systems. Systems are designed to achieve a minimum pressure at the hydraulically most disadvantaged point, based on a minimum acceptable source of supply and agreed pressure. Effective and reliable system operation cannot be assured if pressures are reduced beyond there design limits. Water pressure limitations on future buildings may also require additional pressure zones that may be problematic, impractical and costly.

Water cycle and wastewater benchmark values are 260 litres per person per day for residential and 80 litres per day for commercial. Fire protection systems are generally static and do not use water unless required to operate in the event of fire or when tested as part of routine maintenance.

Any change in regulation to conserve water must carefully consider the ability to supply water to existing engineered installations and quantify the impact on new build and maintenance routines.

14. DDA Access Requirements and the Likely Future Introduction of EGRESS Requirements for the Disabled

Any regulation reform regarding emergency egress for occupants with a disability for compliance with the Disability Discrimination Act (DDA) is required however will need careful consideration. A person does not gain any special rights or benefits by coming within the definition of disability under the DDA - only the right not to be discriminated against.

Provisions of access for people with disabilities to and from a building under normal operating conditions are generally well defined in Australian Standards and the Building Code of Australia (BCA) however some of those provisions, particularly lifts, are prohibited by building codes and standards to be used during a building fire. As such this conflicts with the DDA in that the equipment typically used to permit access to the building cannot be used to evacuate occupants with disabilities.

If the lifts cannot be used, fire isolated stairwells are the only other method by which occupants can be evacuated. As stairs cannot be successfully negotiated by occupants with particular disabilities (wheelchair bound, require crutches, phobias, etc.), the provision of fire-isolated stairs by themselves would not satisfy the objectives of the DDA.

Thus when considering emergency evacuation of occupants with disabilities, building codes and standards need to be reviewed to provide a solution of safe evacuation of all occupants.

To address evacuation of occupants who are unable to utilise fire isolated stairs there are two strategies that should be considered in any Building regulatory reform:

I. Protect in Place.

II. Provide facilities for occupants to evacuate without using stairs.

In addition to these “base” strategies a well-defined, well-practiced building emergency management system would be required to co-ordinate a safe evacuation for all occupants.

Protect in Place

The protect in place strategy considers the provision of a “safe refuge” on each floor for occupants who are unable to use the stairs to wait until rescued by the Fire Brigade. The safe refuge is a place where the occupants can remain without being subjected to heat and smoke from the fire.

Rather than providing dedicated spaces, safe refuges can utilise existing spaces such as lift lobbies, toilets and stair landings

As human behaviour generally dictates that occupants will generally follow each other in a times of emergency, the safe refuge should be located in an area that is convenient to the common assembly point on the floor, i.e. near the entrance to the fire isolated stair. This enables the occupants with disabilities to move with other occupants to this point and once there the Warden is able to remain and assist them as required.

Alternate Evacuation Facilities Without Using Stairs

Our regulators should consider the use of lifts for disabled egress.

To ensure that any occupants utilising the lifts are safe a number of potential hazards need to be addressed. The primary hazards with utilising lifts are:

- Smoke ingress into the lift shaft (& lift car)
- Water ingress into the lift shaft & controls (from fire suppression systems)

The use of careful design and modern technology in fire safety systems enables these hazards to be addressed.

The concept of safe refuge is also required to be considered in lift evacuation to enable occupants to wait for the lift without being affected by the fire.

It is recommended that both strategies be considered simultaneously in conjunction with specific emergency procedures and policies. i.e. the lifts would be the primary means of escape for occupants with a disability with a safe refuge provided to enable occupants to wait for the lifts.

15. Administrative Framework

The conflict between the BCA and fire brigade legislation has been covered in this submission in paragraph 4, as is a suggested pathway for resolution citing the UK where there is a statutory bar on the fire brigade affecting the levels of building fire safety in design. The benefits of a change in the regulatory and technical framework for fire safety in Australia, which embraces both the building certification process and fire brigade requirements we believe is considerable.

FPA Australia therefore recommends Increased harmonisation between Federal and State regulatory building requirements and the regulatory systems to overcome this extremely wide variation in application of the BCA provisions from state to state. In some states the fire services remain closely while in others, the fire services are consulted only where there is a change away from the DTS provisions in the installation of some fire suppression equipment.

To overcome these anomalies, FPA Australia recommends the development of a national administrative framework for application on a state jurisdictional basis. Where the BCA is largely limited to the construction phase, the administrative framework could regulate the involvement of the fire services throughout the construction and the building-in-use cycle including changes in occupancy classification and fire safety maintenance.

To support such a significant structural change, it is critically important for a national repository of fire-related data to be developed by a federal agency and made available to all key stakeholders. This national database would also support the development of evidence-based changes and performance solutions within the BCA. Australia is one of the few developed countries where this type of data is not readily available. We understand the fire services do collect some data and this also needs review to ensure appropriate data is collected.

16. Participation & Representation

FPA Australia has identified as a key issue to be addressed in the operational procedures of the ABCB, the need to review and establish guidelines for participation and representation. Objective 5 of the IGA states: *Consult and liaise with industry to achieve transparency in the reform process*. However there is a general view that ABCB's consultative processes can be more exclusive than inclusive, with representation appearing unbalanced from being regulatory centric dominated and lacking opportunity for industry contribution. The future must have more defined provisions for embracing those industries responsible for delivering the BCA into the actual community.

A transparent arrangement such as a cooperative agreement needs to be established with the sectors of industry that have a clear stake in the BCA. While there are legislative requirements for review processes such as regulatory impact statements, the die can already be cast when it comes to commenting on new or amended legislation by the time industry has the opportunity for input.

A formal arrangement such as cooperative agreement with key stakeholders would deliver a more efficient and effective take up of new and amended regulation by providing those responsible with implementation a level of ownership from the outset. An agreement would provide protocols on industry representation, consultation, skills and experience of committee representatives and terms of reference for the role of individual committees. It could also be assisted by having a range of national codes for defined areas of industry within the BCA, e.g. national fire code.

Workflow would also benefit from an arrangement formalising participation from "recognised" sectors with a stake in the BCA by providing them with guidelines and responsibilities for representation on relevant committees. This would also ensure representation of expertise from those responsible with "on site" carriage of the BCA.

Whether industry input is provided through a cooperative agreement or another arrangement there must be a formal process that will encourage and provide for positive contributions by stakeholders into future building regulatory reform.

17. Recommendations

In making the following recommendations from each of the key issues addressed in this submission, FPA Australia is confident that not only will they enhance the implementation of future BCA's and operational considerations of the ABCB, they also provide sound economic logic.

FPA Australia has prepared this submission based on the need to take the opportunity to raise issues, suggest change and ensure the ABCB and the BCA remain relevant in the future. The Association believes that it is critical to keep an overarching body such as the ABCB in place to ensure there will be more consistency in all facets of the building and construction industry, but through a more national cooperative approach.

Each recommendation should be read in conjunction with the corresponding section within the submission.

1. **Clarity of BCA Objectives**
   The objectives of the BCA need to be further clarified in regards to fire safety.

2. **Property protection as an Objective**
   The ABCB needs to further clarify whether property is protected in the objectives of BCA.

3. **Performance Requirements of DTS Provisions**
   The ABCB should undertake a check of all prescriptive solutions to ensure their consistency with BCA objectives and Performance Requirements.

4. **Conflict Between BCA and Fire Brigade Legislation**
   Change the regulatory and technical framework for fire safety in Australia to embrace both the building certification process and Fire Brigade requirements.

5. **National Consistency of Outcomes**
   It is essential that we have one, agreed, consistent and national framework for both technical and administrative provisions to ensure cost effective buildings, which should result from regulatory reform.

6. **Risk-Cost Models**
   Accelerate VUT research program to finalise development of risk-cost model to improve DTS Solutions and provide fire safety engineers with a measurement tool for fire safety design and certification.

7. **Private Certification**
   An enquiry and research into Private Certification would benefit all parties including the community in terms of delivered solutions and levels of fire safety for all buildings.

8. **Preparation of Standards**
   FPA Australia recommends participative process of developing Australian Standards, as model for participation and input from specialist industry representatives.

   Adoption of Industry Codes
   FPA Australia recommends the adoption of Australian Standards rather than developing separate ABCB codes. If the ABCB were to incorporate Standards such as the National Plumbing Codes into the BCA all references to fire equipment should be deleted and a National Fire Protection Code be developed.

9. **Maintenance of Essential Safety Measures**
   To ensure important fire safety initiatives incorporated in the current BCA remain available throughout the building's life cycle, FPA Australia recommends the Australian maintenance standard AS1851 should be referenced in the Building Code of Australia, or alternatively, it should be adopted in State regulations.

10. **Licensing and Registration for Individuals and Companies**
    FPA Australia endorses the introduction of a licensing system based on national endorsed competency standards for fire safety practitioners

from sub engineer to sub trade levels and the registration of companies that contract in fire safety applications.

11. Matters of Compliance and Quality of Practitioners

Introduce an Industry Board that will manage licensing and registration system should as well as having responsibilities to implement auditing procedures.

12. Role of Insurers and Insurance in the Building and Construction Industry

The role of the Insurers and Insurance requirements must to be considered in building regulation.

13. Sustainability Agendas and the Impact on Fire Safety, Particularly in Relation to the Future use of Water

Any proposed change in regulation to conserve water must carefully consider the ability to supply water to existing engineered installations and quantify the impact on new build and maintenance routines.

14. DDA Access Requirements and the Likely Future Introduction of EGRESS Requirements for the Disabled

When considering emergency evacuation of occupants with disabilities, building codes and standards need to be reviewed to provide a solution of safe evacuation, of all occupants.

15. Administrative Framework

To increase harmonisation between Federal and State building requirements, FPA Australia recommends the development of a national administrative framework for application on a state jurisdictional basis.

16. Participation & Representation

A cooperative agreement or similar arrangement needs to be established between the ABCB and sectors of industry with a clear stake in the BCA to ensure relevant industry participation and provide appropriate expertise/representation.