ICA Submission to Productivity Commission Issues Paper

Reform of Building Regulation

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Executive Summary

The BCA has a strong concentration on the protection and safety of life. For the economic good of the community, the BCA objectives should equally concentrate on the protection of property and other assets.

The cost benefit assessments made by the BCA are inappropriate, as they tend to concentrate solely on the initial cost of the building. The BCA ignores the potential costs to building owners over the life of the building.

The private certification process is not working as intended. There are questions about the independence of certifiers. ICA believes that a national licensing and training regime needs to be introduced.

Some building materials currently being approved to meet BCA requirements raise concerns about safety and are an environmental issue in the event of fire. ICA believes the current Fire Testing Specification for Internal Linings, C1.10a, should be revised.

ICA believes it is inappropriate to charge for copies of the BCA. It should be made available free of charge and in a format that is easily accessible via the Internet. This will enable interested parties to access the BCA and related documents enabling wider acceptance and application.

Having an agreed and accepted national approach will support efficiencies and ensure overall cost effectiveness is achieved. This is evident with the variations between states and jurisdictions relating to construction standards for particular weather events such as cyclones.

Introduction

The Insurance Council of Australia (ICA) is the representative body of the general insurance industry in Australia. ICA members account for over 90 per cent of total premium income written by private sector general insurers.

ICA members, both insurance and reinsurance companies, are a significant part of the financial services system. Recently published statistics from the Australian Prudential Regulation Authority (APRA) show that the private sector insurance industry generates direct premium revenue of $19.8 billion per annum and has assets of $66.6 billion. The industry employs about 25,000 people.

ICA members issue some 37.8 million insurance policies annually and deal with 3.5 million claims each year.

ICA welcomes the opportunity to comment on national building regulation reform under the headings and questions relevant to the insurance industry.

2. The Commission's approach

2.1 Effectiveness

Q. Is the mission statement of the ABCB the appropriate one for the intergovernmental body responsible for reform of building regulation?

A major objective of a national standard should be to define minimum acceptable standards for both passive and active fire protection measures. These standards should not only provide life safety, but should also protect fire brigade officers, property, business and the livelihood of individuals who may be affected as a result of major fires.

The ABCB has 10 objectives including:

- *To ensure building requirements are based on minimum, least cost solutions commensurate with regulatory objectives of health, safety and amenity.*

  ICA believes this objective is flawed at best, as the least cost solution is not necessarily the most beneficial one. This objective has resulted in substantially larger volumes of expanded plastic being used in construction and the reduction of the use of active and passive fire protection in buildings.

  A rough estimate of savings for a two-bedroom flat is about $500 or one thousandth of the retail value of a flat for the property developer. The owner, in the long run, will pay multiples of this value over the life of the building, normally 50 years. This is due to increased insurance costs as the building becomes less

desirable for property insurers due to its combustibility, inadequacy of active and passive protection and expected accelerated fire spread. In case of a fire, the combustion products will be more hazardous for the environment. Trying to cut initial costs leads to greater cost to the community later.

- *To examine and promote opportunities for deregulation wherever possible*

  This has resulted in private certification of buildings and, in some cases, buildings have been constructed below design standards. The local authority has then had to approach owners to rectify issues, for example when the developers and certifiers have moved on and the owners have to pay to rectify faults.

- *To undertake research to ensure that solutions are soundly based with particular emphasis on innovation and lowering costs*

  Although building costs are lowering, research is yet to be produced to support this.

- *To undertake effective consultation and liaison with industry to achieve transparency in the reform process*

  To date the insurance industry has no evidence of this consultation having taken place.

A community expectation not specifically covered by the ABCB objectives is the requirement to minimise environmental damage from large industrial fires and to ensure that the community is not placed in danger. For example, the widespread dissemination of toxic fumes from fires involving chemicals or expanded polystyrene (EPS) panels.

One of the stated objectives (C01a) is to "safeguard people from illness or injury due to a fire in a building". Despite this there is no functional statement or performance requirement in Section C that addresses the need to safeguard people who may be exposed to toxic fumes who are not occupants of the building.

ICA notes that Performance Requirement CP4 includes a requirement that a material or assembly must resist the generation of toxic gasses appropriate to evacuation time, the number and mobility of occupants, the function or use of the building and active fire suppression systems.

This performance requirement makes no mention of the need or desirability to limit the release of toxic gases or fumes to the general atmosphere, or of the need to protect the neighbouring community from the impact of toxic fumes. ICA believes that this is a major shortcoming of the Code.

Q. What are the community expectations for health, safety and amenity in the design, construction and use of buildings? Has the ABCB been able to adequately determine what the community's expectations are, including preferred cost-quality trade-offs?

The main expectation of the community with regard to the design and construction of buildings are twofold:

1. The building will be safe to occupy, occupants will be able to safely escape from the building in the event of a fire, and the burning building will not create health hazards to the surrounding population, and

2. A BCA compliant building that meets all necessary safety requirements will not require design modification to get the project approved by council, or significant post-construction work to make the building insurable.

The community cannot, and should not be expected to, understand the technical issues behind the approval and certification of buildings. The community relies on the government and its statutory authorities to mandate and enforce appropriate building safety measures. "Appropriate" in the mind of the community does not mean absolute bare minimum standards that reduce the cost to the developer, rather the standards that will ensure health and safety in the event of a fire.

Property owners do not expect to pay for the extra cost of what is considered "unnecessary" building features, and frequently make choices between cost and quality when selecting how buildings are constructed. This is a choice the owner of the building makes, a trade-off between the lower initial construction cost and the higher cost of maintaining and renovating the building in the future.

Although the BCA tends to focus on these aspects, it is unlikely the community would accept reduced design requirements that lead to decreased safety for occupants, simply in return for reduced construction costs. Cost to quality trade-offs are perceived differently when the "quality" concerned is the quality of health and safety measures. The BCA should reflect these concerns.

Recent studies carried out by the Master Builders Association suggest that additional requirements by local councils in excess of the BCA are adding small, but significant, amounts to the cost of construction of every building. This indicates that local councils already consider that the BCA does not adequately provide for what is considered to be necessary health and safety measures. ICA believes it is a relatively common occurrence for the owner of a new building to have a design that is compliant with the BCA, only to find that further expense is required to meet local council requirements to obtain approval.

Some owners then try to get their property insured only to find that a BCA compliant, council approved building does not meet the requirements of an individual insurer, resulting in further expense.

The insurability of a building that meets all necessary government codes and regulations is a factor the BCA needs to take into account.

It is apparent that the minimum construction standards currently in the BCA do not meet community expectations as local councils apply higher standards before approving development projects. Recent developments with the BCA suggest that reduced construction costs will widen the gap between compliant and approved and insurable building designs.

ICA believes that the community expects government and officials to regulate building construction in a way that ensures effective, not lowest cost, solutions that do not compromise health and safety.

Q. *Is the definition of amenity in the BCA adequate? Should the term refer to the basic needs of a building or anything that impacts on the comfort, pleasure and aesthetic qualities of a building? Does it give sufficient attention to factors that impact on those not occupying the building? Alternatively, should the term be interpreted more narrowly to provide greater focus?*

The definition of amenity should include the safe and continued occupancy of all buildings in the surrounding area.

The BCA should require designers to address the impact of hazardous smoke plumes resulting from burning components of the building construction, including EPS panels, as well as from fire involving hazardous contents.

Q. *Why is national consistency considered to be the crucial means by which to meet community expectations for health, safety and amenity in a cost effective and efficient manner?*

ICA supports nationally consistent building codes, standards and regulatory systems and considers these essential to achieving efficiency and cost effectiveness.

As there is currently one national technical document, the BCA, in place throughout all states, there is a lack of consistency in building designs and outcomes largely brought about by state variations of policy and practice. This ultimately leads to varying levels of uncertainty and causes much frustration.

The community has expectations that there is a consistent national approach to issues like health, safety and amenity in building codes and regulations. A national approach best meets these expectations. ICA believes that having an agreed and accepted national approach will support efficiencies and ensure overall cost effectiveness is achieved.

Q. *How can more progress be made in adopting uniform administrative legislation?*

The national standard, the BCA, should be broad in its application and clearly establish minimum acceptable standards that eliminate, or significantly reduce, the need for the many variations currently in place throughout Australia.

It is imperative that all stakeholder views are canvassed to ensure appropriate debate takes place and that the requirements of interested parties are recorded.

This should be suitably addressed through issues papers and subsequent discussion.

Existing legislation needs to be reviewed and the differences between the jurisdictions noted. Where there are variations, these need to be reviewed to determine whether they are valid and should be retained. A review of existing provisions will require a genuine commitment by stakeholders and legislators.

Q. *Is it feasible for all communities and individuals to use the national standard as their baseline, with the option of altering the standards where this better meets the community or individual preferred trade-offs between price and quality? How difficult/desirable is it for individuals or communities to enforce a higher standard than that in the code?*

Individuals and the community should be entitled to enforce a higher standard where appropriate and this is an area where insurance companies and their risk engineers have demonstrated the benefits of higher standards. Alterations to the standards should not be determined by price, rather the level of safety provided above any deemed to satisfy (DTS) provisions or performance measurement benchmarks.

This is particularly evident in larger industrial facilities where higher hazards exist. Insurers encourage application of higher standards for building construction and protection. For example, improved roof construction in cyclone areas, improved fire resistance for industrial manufacturing plants, better compartmentation and improved fire protection sprinklers in high hazard storage areas and higher floor levels in flood exposed locations.

The fact that some councils, local and state governments have elected to enforce higher fire safety standards in some occupancies, like accommodation buildings, is evidence that the current life safety code requirements fall short of community expectations.

Q. *Why are some differences in regulation intractable?*

Variations in some standards between states exist to suit local conditions and are not necessarily intractable or difficult. It is unrealistic to expect buildings in Victoria to meet cyclone construction standards, as is the case in some northern regions of Australia.

Q. *What quantitative and qualitative indicators would facilitate assessing performance against some or all of the ten objectives of the ABCB?*

A key measurement of some ABCB objectives could include the willingness of all participants in the process, which includes owners, occupiers, developers, certifiers, fire protection practitioners, fire brigade and insurers to accept performance requirements that adequately address both life safety as well as property protection.

In some cases performance-based designs do not meet the DTS provisions of the BCA. The design process of alternative solutions to meet performance requirements is often based on subjective judgment with little or no input from all relevant parties and usually with no peer review. There is an alarming trend of alternative solution designs based on assumptions and guesses that fire growth will be minimised and heat release and smoke generation will be delayed to maintain tenable conditions to allow safe egress. As a result of these assumptions, many of these proposed designs also claim that fire spread and property damage will similarly be reduced based principally on total reliance that the fire brigade response will mitigate property damage.

2.2 Productivity

Q. In what ways has reform of building regulation affected the various measures of productivity of the building industry? Which is the best measure of productivity or should more than one be used? What factors, other than regulation reform, have impacted on productivity? Is it possible to weight their relative importance?

The ABCB appears to be measuring productivity in terms of the initial construction cost and not the whole-of-life cost, which includes maintenance of the more sophisticated systems. The maintenance cost can be quite significant where visual inspection is not sufficient. These additional costs may include:

- More regular testing/inspection of critical fire safety measures like smoke management equipment, fire pumps, auto-closing doors and shutters,
- Fire dampers in exhaust ductwork that are difficult to access and the cost of more frequent inspections and maintenance may be quite significant, and
- Replacement of worn equipment at regular intervals over the life of a building. For example a building with a relatively short life of 100 years could require four or five changes of fan motors in its life.

A major concern is that performance-based solutions are being used merely to reduce the cost of construction of relatively conventional buildings rather than to allow un-conventional buildings to be designed and constructed.

3. Institutional Arrangements

Q. What processes involved in developing and implementing building regulation are most likely to deliver outcomes that are effective and efficient, and meet community objectives at least cost?

There needs to be a clear understanding of community expectations, including the ongoing costs over the life of the building and not just initial design and construction costs.

Community expectations extend beyond least-cost objectives and include potential hidden costs like environmental impact associated with pollution. For example, some recent major fires in Australia have been caused by highly combustible, insulated sandwich panels liberating toxic smoke plumes. Other hidden costs may include the economic impact on businesses following a major fire, as well as the insurance implications, costs to re-build and impact on business revenue.

The BCA objective is currently life safety and spread of fire to neighbouring properties. Although total burnout of a building may be an acceptable outcome from a developer's perspective, the greater community has higher expectations that the building code will not only protect life, but also property and livelihood.

Performance designs that are based on multiple assumptions for property fire safety protection often have little or no flexibility for future changes in the use of a building. This is particularly the case with Class 7 buildings where commodity storage, configurations and fire load may change significantly when the occupancy is altered. As a result, the minimalist approach to life safety design could have significant costs imposed on a building owner or occupier to upgrade passive and active fire protection systems.

More participation of all relevant parties should be included in a consultative approach to building design. Too often, the concerns of fire brigades or insurers are rejected in favour of minimal-lowest cost design that provides the cheapest solution to satisfy safe egress. Life safety designs usually provide insurers with little or no confidence that fire losses could be mitigated. ICA believes that the view of providing building protection for life safety is too narrow.

3.1 The ABCB

Q. Is the ABCB structure and membership appropriate for achieving its objectives? Are there other institutional models that would improve the effectiveness of national reform?

ICA has no specific comments to make in relation to the ABCB's structure and membership. ICA would like to comment on ICA's involvement in building regulation reform and fire protection.

ICA has a long history of involvement with fire protection, including inspection and approval of systems for fire insurance purposes. In the 1980's, changes in the insurance market and moves towards private certification led ICA to make the decision to withdraw from these areas.

ICA recently decided to renew its focus on the area of building construction and fire protection. This has resulted from the concentration of the insurance market and concerns expressed by major insurers and reinsurers on emerging trends that insurers believe could lead to increased property losses, loss of life and environmental problems.

ICA is moving quickly to increase its technical representation on Standards Australia Committees and input into the BCA development processes. ICA would like to be represented on the Australian Building Codes Board.

3.2 Code-Making processes

Q. Do the processes by which standards are made, ensure that standards contained in the Code are well based?

ICA believes the current process employed by Standards Australia meets international code making requirements for a balanced representation on the various committees involving knowledgeable persons to ensure the technical content is accurate and well based.

Q. Would greater alignment with standards from other countries be desirable?

The current Australian standards are already generally aligned with international standards. Where ISO standards exist and meet Australia's needs, they are adopted rather than writing a new Australian Standard. International standards are often used as a guide or in terms of technical content.

Q. Are the level and type of consultations by the Board and its advisory committees appropriate and transparent (in order to fulfil the ABCB's objective 5)? Are there adequate mechanisms for interested parties not directly represented on the ABCB or its advisory committees to provide input into the development and reform of building regulations? Are there other consultation strategies that would facilitate greater transparency for stakeholders? Does the ABCB have the necessary representation to determine what meets community expectations for health, safety and amenity?

Much of the work conducted by the ABCB does not reach all interested parties. This means the process is not really transparent. There should be wider public comment, similar to the type of process used by Standards Australia.

Q. What are the advantages and disadvantages of the majority-voting rule used by the Board and its Committees versus the consensus based approach used by the Standards Australia technical committees?

The majority-voting rule allows for easier passage of changes to the Code, which means that technical and procedural quality is not necessarily achieved. The Standards Australia method of consensus provides a greater level of confidence in the merits of the standard or the code, as any dissenting party needs to be convinced of the merit of the proposed standard. The technical, procedural quality and correctness must be there to meet the needs of all interested parties and not just any lobby group.

Q. Do the different approaches across the jurisdictions in implementing changes to the BCA inappropriately erode achieving national consistency? Is there a better approach?

An agreed and accepted national approach supports efficiencies and encourages overall cost-effectiveness.

4. Assessing the Code

4.1 Code objectives

Q. Is the BCA effectively achieving the various components of the ABCB's objectives, such as those listed above?

Q. Do some of the components of the ABCB's objectives conflict? To what extent do the various components contribute to the objective of promoting deregulation (objective 3)?

Q. Are 'minimum acceptable' standards and the pursuit of least cost solutions compatible with maximising net benefits to the community?

ICA believes that the BCA is not meeting its objectives in the areas of cost-effectiveness and the use of research.

Performance based solutions

It is of major concern that performance-based designs are being applied inappropriately to warehouses and industrial buildings where the nature of the operations or of the contents stored may change without any reference to the original design or to the approving authority.

A typical example is described in the May 2004 issue of the *Fire Australia Journal* of the Fire Protection Association of Australia. An article on page 48 of this journal describes how a large warehouse building was allowed to have significant non-compliance with the deemed to satisfy provisions based on the fact that it was to be used only for warehouse storage and with a number of specific conditions attached.

Within two years of occupancy the owner established a hazardous process within the building without considering the impact on the performance-based solution. After a fire on 2 December 2003, the fire brigade noted that in addition to this inappropriate occupancy, other specific conditions relating to the warehouse operation were not being met.

The use of performance-based solutions for warehouses and factories is not appropriate due to:

1. The ability, and wide spread practice, of warehouse operators to change the nature of contents at short notice without any reference to the approving authority or to the original certifier,

2. The practice of industrial tenants or building owners to change the nature of industrial operations without reference to appropriate approving authorities, and

3. The lack of inspection resources to ensure that conditions attached to these solutions are actually being adhered to.

ICA agrees that performance-based solutions have a very important role in the design of shopping centres and public buildings, but experience shows these designs are being used most inappropriately for warehouses and factories.

Identification of buildings designed with performance-based solutions

Another major concern with performance-based solutions is in identifying which buildings are subject to this type of solution. Insurers regularly inspect industrial premises, sometimes to provide cover to the owners and sometimes to provide cover to the tenants. In attempting to determine an appropriate premium rate, it is essential for insurers to have an understanding of the design criteria for the building construction. Risk engineers who perform these inspections are familiar with the DTS provisions of the BCA, and any noted departures from these provisions may result in a higher premium than may be justified if it was known that an appropriate performance-based solution had been used.

One suggestion made to ICA is that relevant information about performance-based solutions should be permanently displayed in the building entry lobby. This may prove of assistance to fire brigade and other emergency authorities.

4.2 Coverage of the Code

Fire Safety

Q. Is there a conflict of objectives between the BCA and fire authorities' regulation in the States and Territories? If so, how could this be resolved?

The ICA supports the position put forward by the Australian Fire Authorities Council (AFAC).

Other areas

Sustainability requirements

Q. As well as energy efficiency, what other aspects of building design, construction and use could potentially be subject to sustainability considerations? What is the most useful definition of sustainability? Is there community consensus over what is a desirable level of sustainability for buildings?

Sustainability should include obtaining the full use of resources used to build the building by ensuring it remains standing and usefully employed for its entire design life span. Buildings should not be designed to burn down simply because designers may be able to ensure most of the occupants are able to escape safely.

The general public, which includes building owners, does not expect to see the majority of building stock in Australia vulnerable to complete destruction by fire. With the cost of sprinkler protection being no more than the cost of laying carpet, the investment in a little extra infrastructure in the building, will ensure its contribution to the public in amenity and productivity for its design life.

An example is the recent meat packer fire in Brooklyn, Melbourne western suburbs. The building was just over one year old and over $70 million of Australia's resources went up in smoke with hundreds of jobs lost. This has led to an uncertain future for those families, let alone the economic consequences to the business in lost markets.

As a large amount of material is used in building each year, the BCA could consider requirements to minimise the use of non-recyclable materials made from non-renewable resources. Where recyclable materials made from non-renewable resources are used, the BCA could define construction techniques that facilitate the removal of these materials for recycling.

Maintenance

Q. Does the existence of performance-based regulation tend to transfer the costs from the construction to the maintenance of buildings? Does it increase the need for maintenance provisions to be included in the Code?

A large proportion of performance-based solutions involved reducing the fire resistance of building elements, in exchange for additional active fire detection or suppression systems. It is therefore critical that the installed active systems may be relied upon to perform correctly in case of a fire, and proper and regular maintenance is an essential part of the solution.

ICA believes it is essential that maintenance requirements be incorporated into the BCA.

5. Delivering outcomes

5.1 Implementing the Code

Accessibility of the Code

Q. Is it appropriate to charge for access to the Code? How does this impact on the transparency and accessibility of the Code? Are any changes warranted in the way in which charges are calculated?

What activities or strategies could improve accessibility to the Code?

ICA feels that it is not appropriate to charge for the BCA. It should be made available free of charge and in a format that is easily accessible via the Internet in a similar manner to government legislation. This will enable interested parties to access the BCA and related documents enabling a wider acceptance and application.

Appendix 1 is a diagram, prepared by an ICA member company that demonstrates the need for access to the Code.

Q. How effective are these compliance checks? Do they impose necessary or unnecessary costs and delays? Have delays improved or worsened recently? What improvements could be made?

ICA member companies are aware of various buildings where compliance checking has not been effective for a number of reasons. Some of these include:

- Certifiers may sign from plans, not from actual site conditions,
- Certifiers may not be independent of the building company, and
- Compliance checks for alternate engineered solutions may be directed towards checking the process rather than the underlying design theory.

ICA members are aware of situations where defects in installed property protection systems are found during risk quality inspections of insured properties. Where defects are widespread or serious in nature this may increase insurance premiums until rectified, or limit the scope of insurance offered. These become unaccounted community costs at initial construction. Some building owners and operators find these rectification costs difficult to recover.

5.2 Reforming the risk and liability landscape

Q. What are the main differences across State and Territories with respect to the allocation of risk and BCA compliance responsibility for building practitioners (designers, certifiers, builders, etc)? How significant are they? What are the insurance requirements?

When legislation was first introduced to regulate the outsourcing of the building practitioners work to private entities, there appeared to be a number of differences, which although minor, did create some initial confusion. Since the amendments to the buildings acts there is greater conformity.

The main differences relate to whether professional indemnity insurance is compulsory for building practitioners to obtain their licence. In Victoria and Queensland, where the majority of this type of insurance is concentrated, it is a requirement to obtain professional indemnity insurance to be licensed. This requirement does not appear to have been adopted in NSW.

The requirements relating to insurance for building practitioners, certifiers and designers are generally:

- Minimum limit of indemnity is $1,000,000,
- Indemnity for costs and expenses in addition to limit of indemnity. It is believed Victoria has amended its provisions to be inclusive of the limit,
- Standard professional indemnity wording, including coverage for breach of professional duty in licensed profession,
- Excess relative to insureds fees and activities,
- One automatic reinstatement, and
- Indemnity for former principals, partners or directors

Q. What has been the impact of changes to liability arrangements and what remains to be addressed? What has been the role of ABCB (Australian Building Codes Board) in the reform?

Initially the liability arrangements were extremely onerous on insurers. The requirements were the inclusion of all building professions, a ten-year run-off provision, limitation of excesses and inability to alter the wording to address emerging exposures.

From 2002 the professional liability market sought to address these requirements. This culminated in a meeting between representatives from the insurance industry and the relevant government departments in Queensland, New South Wales, Victoria, South Australia and the Australian Capital Territory.

The result was changes to the legislation in all States and Territories to remove the requirement for a ten-year run-off provision, limitation on excesses and allowing insurers to amend the wording to address emerging exposures, for example asbestosis.

The professional liability insurance industry meets regularly with the relevant government departments to discuss any changes to legislation affecting the professions. Overall, insurers are able to work within the current legislative requirements. As far as ICA is aware, the ABCB has not been in involved in this area.

Q. Are there other mechanisms available to implement an efficient allocation of risk and liability across the building industry?

The insurance industry is prepared to provide coverage for the professions mentioned above. It must be understood that if this market segment cannot be profitably underwritten and at the same time ensuring premium and coverage is affordable and reasonable to the insured, insurers may not participate.

Certification of buildings

Q. What have been the benefits and costs of private certification? What is the risk of conflicts of interest (such as when the builder or developer pays the certifier) or improper conduct of certifiers under current arrangements? What alternative arrangements might reduce this risk?

The major concern with private certification as it currently operates is the potential conflict of interest for the certifier. The certifier is appointed and paid by the builder/owner and may be placed in a difficult position in terms of independence.

The independence of private certifiers is an issue that needs to be addressed.

Currently, there is limited training for private certification for professional building services and no licensing for other professionals.

ICA believes a training and certification system should be set up across Australia, similar to that for passive fire protection, sprinkler installation, building inspection and surveying. A peer review development process and a continuing professional development scheme should also be considered. These initiatives are required as insurance companies see fire safety engineering systems and design briefs, which at best may be described as optimistic in their expectations.

5.3 Awareness and research

Q. Are current education and training strategies adequately equipping building practitioners to operate efficiently and effectively in the performance-based environment? Is training on changes to the Code effective? Is there adequate input from industry, academics and regulators on the competencies to be attained? Is the level and quality of training adequate to maintain expertise in the industry? Do these strategies compare well with international best practice?

Current education and training strategies are inadequate. For example, there is no acceptable training and certification system for practitioners and certifiers in respect of passive fire protection in buildings, smoke doors and fire rated walls, or service penetrations in buildings.

ICA recommends a co-ordinated approach to introduce acceptable levels of training, licensing and certification, followed by a commitment to continued professional development in all trades related to the building industry.

Other ICA comments

Environmental Issues and Plastics

Building code objectives should include a statement on minimizing the harmful environmental impact that may be caused by fire or natural hazard. The building code does not appear to address any environmental issues. A severe fire in an expanded plastic foam building can result in property damage to its immediate environment, plus a longer-term effect because of the combustion by-products (pollution) created by burning plastics. The BCA should address the social impact of major fire may have to the immediate locale, by way of lost employment opportunities (direct and indirect) and lost markets (local and national).

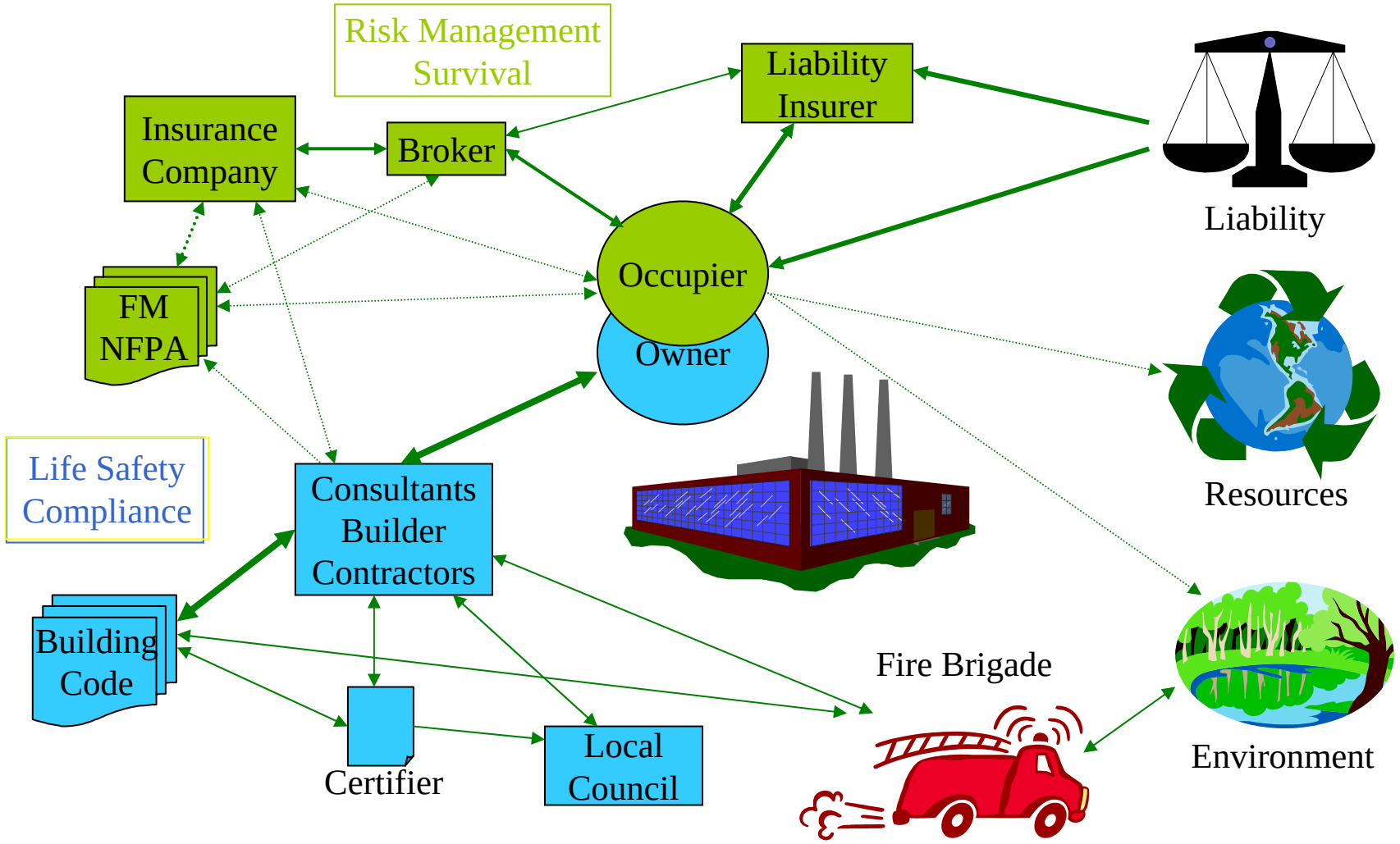
Fire Testing Specification for Internal Linings – C1.10a

This specification was originally developed by the CSIRO, primarily from literature research and some limited fire testing. When ABCB came to apply the CSIRO recommendations, ICA believes there was not enough consultation, or wide enough dissemination of information, to ensure technical correctness.

On the basis of recent test results, EPS panels are able to be used legally for walls in escape passageways. ICA is able to provide detailed technical comments on C1.10a to the Productivity Commission if required.

ICA recommends that specification C1.10a be revised.

Risk Assessment and Regulations
The Global View - Big Picture



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Appendix 1