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Performance Based Regulations under Fire

The Building Surveyor and Fire Safety

**By Jonathan Miller and Kim Lovegrove of
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***The new Regulations challenge the
flexibility assumptions in the Building
Code of Australia.***

As the reader will already know the BCA is a document that is aimed at providing a uniform Australian code for the construction of buildings. This uniformity, however, provides for flexibility in the construction and design of housing so long as it meets performance requirements. This article seeks to reconcile the goals of

flexibility of the Building Code of Australia and recent changes to the Victorian Building Regulations.

These legislative moves appear to foreshadow a return to prescriptive building regulations where the matter of fire safety is involved. To this extent the changes may engender more safety and certainty but they will also undermine the inherent flexibility in the BCA which ironically may be a good thing.

Government Aims

The approach by Australian State Governments is to adopt a performance based Building Code, which is consistent throughout Australia. A performance based Building Code is a relatively new concept. BCA 1996, the predecessor of the current BCA was largely modeled along the lines of the NZ Building Code. It has also been exported from Australia to other countries around the world including Papua New Guinea.

The BCA Goals

The Australian Building Codes Board states that the aims of the BCA are:

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“...to enable the achievement and maintenance of acceptable standards of structural sufficiency, safety (including safety from fire), health and amenity for the benefit of the community now and in the future. These goals are applied so that the BCA extends no further than is necessary in the public interest, are cost effective, easily understood, and are not needlessly onerous in its application.”¹

Performance Requirements

The BCA contains technical provisions for the design and construction of buildings and other structures, covering such matters as structure, **fire resistance**, access and egress, services and equipment, and certain aspects of health and amenity. The Building Surveyor may use either a design that meets:

1. Deemed to satisfy requirements, or;
2. Performance requirements or;
3. A mixture of the two.

Benefits of Performance based regulations:

Barry Schaffer manager of the CSIRO Appraisals and manager of World Organization of Building Officials (WOBO) presented a paper to the WOBO 5th world congress in 2000.² In this paper he praised the role of performance regulations in their ability to work for sustainability. Designs are often copied from Europe and North

America, without having regard to Australian conditions. The effect of this is inefficiency of materials used and energy resources in the day-to-day use of the buildings whether they be industrial commercial or residential. He put forward the view that that the use of flexible performance based regulations is preferable to prescriptive requirements that would lead to the better use of technology and advances in the protection of the environment.

What does this Flexibility Mean?

This flexibility gives the Building surveyor the ability to fulfill the requirements of the Building Code, providing the most suitable building solution to his or her client. This however means that the Building Surveyor may be put under pressure to achieve building design that is driven by thrift rather than safety concerns.

Fire Safety and Performance

Fire safety is a matter that concerns the community as a whole. The responsibility is however borne by those who are charged with approving safety measures. It is in the interest of a community to ensure that those who determine fire safety are adequately trained and qualified. Matti Kokkala, VTT Building Technology, Finland,³ states that: “...performance based fire Codes do not work without a sufficient number of educated fire safety engineers: the designs done by amateurs cannot be considered reliable...”

¹ Building Code of Australia 2005

² CSIRO Website

³ In a paper from a paper from a Conference on Concepts of a Performance Based system for the USA Lovegrove on Building Control p.2-15 Lawpress Melbourne 1997

Alternative Fire Safety Solutions

In Victoria, the Building Surveyor may not approve an alternative solution for fire safety under the BCA unless specific additional qualifications are held. The Building Surveyor must hold either the Graduate Certificate in Performance Based Building and Fire Codes from Victoria University of Technology or a qualification that the Building Practitioners Board considers is equivalent. Otherwise the Building Surveyor must defer to an expert who is qualified or a report from the Chief Officer of the Metropolitan Fire Brigade.

The Role of the Building Surveyor

The role of the Building Surveyor is one of heavy responsibility when it comes to alternative designs under the Building Code. Section 24 of the Victorian *Building Act* provides that a relevant building surveyor must not issue a building permit unless, inter alia, he or she is satisfied that the building work complies with the Act. Under section 44 of the Act, the Relevant Building Surveyor must not issue an occupancy permit unless the building to which the permit applies is suitable for occupation. These provisions sheet home a high degree of autonomy and responsibility.

Judicial consideration of the role of the Building Surveyor has in a number of cases affirmed that this role is the paramount decision maker in the design process.

Examples of this are a Building Appeals Board determination in a case in December 2003. This case involved the **Victoria Gardens** shopping centre

car park where the Relevant Building Surveyor allowed an alternative design that did not provide for sprinklers. This was followed by a media release of the chair of the Board, Anne Keddie, saying:

“The Building Code of Australia is performance based and one way of meeting performance is by adopting the prescriptive deemed to satisfy provisions of the BCA. Another way to meet the provisions is by adopting an alternative solution, as occurred in this instance”.

*Toomey v. Scolaro's Concrete Constructions Pty Ltd (in liq.) & Ors*⁴

This case dealt with the issue of negligence with regard to compliance with the Building Code of Australia. The role of the Relevant Building Surveyor was in question as to responsibility for designs and approval for occupation. The Judge stated that:

“The surveyor has full authority to ensure compliance with the code.”, and “...it is beyond doubt that a surveyor charged with statutory and contractual responsibility for examining plans for compliance, and being will paid to do so, is being called on to apply an expertise which condescends to examine the minutiae of plans, so as to detect error, and ambiguity which might reasonably produce error by those who will subsequently rely on those plans.”

New Building Regulations

New regulations for the Building Act came into force on 14 June 2005.

⁴ *(No 2) [2001] VSC 279 (17 August 2001)*

These regulations have a sunset clause, which takes them out of operation on 13 June 2006. The character of the Regulations is much the same as the previous regulations; however they contain a number of new requirements for fire safety. These include compulsory installation of Sprinkler systems, and hard-wired smoke detectors in certain types of residential and temporary residential buildings have been included. This appears to be a move towards prescriptive building regulations and a move away from the flexibility of the Building Code of Australia.

Sprinkler Systems

It would therefore appear to be a matter of policy that provision is made for the installation of Sprinklers and hard wired smoke alarms in certain buildings including Backpackers Hostels, Bed and Breakfasts, Aged Care facilities, Lodging Houses and other establishments providing shared accommodation. The change in building regulations in Victoria appear to foreshadow that community standards are moving away from performance when it comes to fire protection in public buildings.

Media Release

On Friday 10 June 2005 the Victorian Minister for Planning, Rob Hulls, was quoted in a media release titled New Smoke Alarm And Sprinkler System Regulations For Accommodation Buildings as saying "These new regulations will undoubtedly provide greater occupant and building safety in these facilities."⁵ These changes were

largely to give effect to fire safety in temporary residential buildings and aged care facilities. These changes appear, however, to go against the grain of a flexible performance based system.

Why the Changes?

It appears to be settled in Australia at present that the Building Surveyor under the Building Code is the paramount decision-maker. So why the changes to the Building Regulations if only qualified experts can make decisions to change 'deemed to satisfy' Fire Safety Provisions?

It would seem that Fire safety is of too great an import, such that it will less and less be subject to the disputed opinions of experts to make rulings on what complies with the Performance Requirements of the BCA. One of the below named writers, Kim Lovegrove, Managing Partner Lovegrove Solicitors, has identified that there is a weakness in the alternative solution system envisaged by the BCA. This is that where there is an opinion to be given, experts will disagree.⁶ Further there is the problem that these experts are, under the BCA, engaged by the property owner or developer.⁷ This may lead to what are less than arms length decisions for designs, which are geared toward profitability and cost cutting.

⁵ Building Commission Website Media Release 10 June 2005

⁶ The Australian 30 September 2004
⁷ ibid



Kim Lovegrove, Principal of Lovegrove Solicitors

Conclusion

The move towards a performance based Building Code in Australia is a move that is beneficial for the building industry in terms of profitability, flexibility of design and efficiency. This flexibility however cannot be limitless without concern for community needs and safety concerns. While these regulations are set to expire after a year or operation it is hard to envisage that such fire safety provisions will be repealed. This would appear to be a step away from the flexibility of the BCA.

The writers are not surprised that it has come to this in Victoria, one of the writers Kim Lovegrove was speaking to an engineer the other day who said that fire engineering is somewhat of a dark art, as it is a young engineering profession, merely decades old. He added that compare this to structural engineering that is many centuries old. Telling sentiments indeed. The youth of the profession and the dark art do not sit well with the gravitas attaching to the use of fire approval discretion;

rather the area sits more comfortably with prescriptive regimes or in the absence of this peer review or compelling expert testimony. Hence the Victorian move towards a more prescriptive scenario regime may well be a sign of things to come, a sign that the pendulum is swinging back towards a more clearly sign posted era. Whether the move washes onto intestate shores will have to be seen. Jonathan and I tend to think that it will.

By Jonathan Miller and Kim Lovegrove.

Kim Lovegrove is the lawyer who worked on the reforms to the Building Act 1993 and Part 4 Reforms of the Environment Planning and Assessment Act NSW 1979 and also a previous Deputy Executive Director Australian Building Codes Board. Kim Lovegrove is Managing Partner at Lovegrove Solicitors.

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