

**INQUIRY INTO FURTHER INQUIRY INTO THE
REGULATION OF BUILDING STANDARDS**

Organisation: Property Owners Association NSW

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Submission by The Property Owners' Association of NSW

Further inquiry into the regulation of building standards

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Terms of reference:

- (a) Assessing the efficacy and adequacy of the government's regulation of building standards and specifically,
 - (i) the cost, effectiveness and safety concerns arising from the use of flammable cladding,
 - (ii) private certification of and engineering reports for construction projects,
- and
- (b) any other related matter.

Preliminary Statement:

The Property Owners Association of NSW Inc (POA NSW) has been the peak body representing the interests of the private property owner providing residential accommodation since 1951.

POA NSW makes this submission to the NSW government in relation to the "Further enquiry into the regulation of building standards".

Our Members as the ultimate owners of the buildings produced have a very real reason for encouraging the uptake of better practises to reduce long term issues.

Background:

The development of buildings is complex with multiple inputs in terms of people and products, that has to be achieved in a timely, safe and cost effective manner.

Due to this complexity there are *multiple points of potential failure*, each with a real cost for the owner. That cost (as a rectification cost) is far higher than it would have been to do the work correctly and with the correct materials during the build.

Perspective of where we are now:

Regulation has improved enormously over the last 20 years.

Currently we have well regulated designers, engineers, material supplies, licensed (low rise) builders and inspectors, and on the whole they now work reasonably well.

New materials need to be assessed and are normally fit for purpose if used correctly.

The key points of failure now tend to be in the construction phase.

Why the construction phase is the key point of failure

The builder's "Site Manager" is the only person on site on a day to day basis. He has a pressurised job *that includes* oversight of all the trades, where on-site safety is the key oversight, because it is assumed that as a licensed tradie they know how to do their job.

The reality of building failures is often a failure in detailed work that a Site Manager cannot be aware of unless they are literally with the tradesman all day.

A punctured waterproof membrane is not necessarily visible and is soon covered by it's protective hard surface in a bathroom or on a balcony, or is buried behind a retaining wall.

On site management used to be easier because the actual installers were real "Tradesmen" who had an apprenticeship that enabled them to experience all aspects of their trade and which gave them a degree of pride and professionalism in their work.

Unfortunately now the majority of young apprentices can only find apprenticeships with the large builders, who use them as cheap labour, train them in one aspect of their profession and then have them working on that for their entire apprenticeship.

An example:

As a builder, I have employed a youthful (*but fully licensed*) carpenter who I found "Googleing" how to cut in a pitched roof because in his recently completed apprenticeship he had only ever done wall framing !

An additional factor is that the nature of building means that many specialists are only required for a short period of time on each building project and hence are sub-contractors.

The nature of sub-contracting is such that tradies are paid on a "piece work" basis, so the incentive is to complete the work as quickly as possible – which at times is done at the expense of rectifying minor mistakes or by cutting corners in the interests of speed !

There is currently no formal documentation of who did what, when, where and with which materials defects often take years to create a consequence that is visible to the untrained eye of the home owner.

The Mid-Term Future of Construction Management

Construction Personnel:

#1 Training needs to be better managed so that Apprentices are not just used as cheap labour. They should be able to prove that they have covered the majority of the aspects of their academic training in their on-site training.

Smaller building companies are more likely to offer a more rounded experience to an apprentice than a large building company, because they won't have thousand doors to hang in a block of flats.

#2 "Tradie's" need to become "Tradesmen". In doing so they need to be made more personally accountable for their actions on-site

Buildings:

The current digitisation that is occurring in projects such as the "Strata Hub" need to be extended so that every building has a digital passport showing the "who, what, when and where" of all buildings "from cradle to grave".

The creation of a building's digital passport – from DA through to demolition is becoming far easier with the combination of the "Internet of Things", Artificial Intelligence and the new 5G network. Enabling us to monitor (IoT) – automatically assess (AI) and communicate (5G) issues as they arise.

These processes are currently in their infancy, but in formulating the legislation you should be aware of their future impact. In the same way that 3D printing of homes is almost impossible in Australia due to the current regulation requirements. Allowance needs to be made now as these become major parts of the construction industry.

Flammable Cladding:

It appears that the flammable cladding situation in the UK, was created by companies trying to increase sales at the public's expense, whilst being aware of changes in the product that made it more flammable than stated.

In my opinion Directors should be held personally liable for any situations where they are aware of danger to the public and try to suppress that information. The fact that very few white collar criminals serve any extended time in jail after such failings, actually encourages senior managers to value short term gain over long term liability. None of the employees of the 3 main companies involved in the Grenfell inquest are currently in jail despite knowing (certainly in 1 company's admissions) that their fire tests were completed on a different composition of phenolic foam.

You cannot regulate against people who want to deliberately lie. All you can do is make an example of them so that the next generation of senior managers think more carefully about how they deal with unfavourable tests etc.

Other digital projects that could be impacted by regulations:

- Provision of a new building's Digital Twin at handover.
- Creation of a national web based BIM design catalogue that encourages/compels product manufacturers to load their product data so that architects and other building designers have greater transparency of material performance and trustworthy published current data.
- Use of Blockchain so that different design team members are using the same *constantly matching* data in real time. This will make projects more efficient with contracts, payment schedules and project timelines all in one place, creating more trust between the parties. In addition it means incremental payments can be released based upon triggers signed off by both parties in the contract removing the need for traditional payment stages and vastly improving builder cashflow.
- AI will provide better safety on construction sites, fewer errors, as well as more on-time completions.
- Use of 3D fabrication technology can reduce project delays and enhance the quality of buildings, which in turn improves building safety.

Conclusion:

The Government appears to be generally on the right track and has certainly improved outcomes on-site over the last few years through introduced regulation.

There is of course always a cost / benefit issue to be addressed by adding an additional layer of bureaucracy. In an asset such as a building the cost is only reasonable if the long term outcome for the ultimate owner is financially improved. Clearly it is better in the long term to have additional costs spent on the building itself rather than on the oversight of the build process, but there will always need to be some oversight.

Modern technology and AI analysis will prove to be a game changer in the longer term and should be encouraged by the Government and not stifled by regulations that are restrictive to innovation.

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