

A Regulatory Transformation Case Study in Construction: Past Tense and Future Perfect

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Abstract

New South Wales's (NSW) recent construction regulatory transformation may be an instructive example of Australia's journey toward built environment quality. Until recently, it appeared to be declining. The government and industry published numerous studies focused on several areas, including economics, workforce and quality-of-life; however, these two groups seemed paralysed about the path forward. Therefore, root causes of poor building outcomes emerged. Subsequently, two highly visible apartment buildings were discovered to have many structural, operational and other defects in 2018-19. From this point, a strong focus on improving the industry has steadily occurred, starting in the apartment sector. However, the activity and personality of the Building Commissioner seem to have been the needed catalyst for transformation. This paper documents the journey, using disaster recovery concepts to clarify and draw lessons from these failures. This case study offers approaches and solutions to a state government's reaction that could inform other regulators nationwide.

Keywords

construction regulation, industry transformation, building defects, quality assurance, consumer confidence

1. Introduction

Many Western nations have experienced building disasters and have redoubled efforts toward regulation, inspection and compliance. The great Chicago fire in 1871, the San Francisco Earthquake in 1906, and London's Grenfell Tower fire in 2017 catalysed renewed focus on local governments, if not their national leaders. Two high-rise NSW apartment building controversies were less so, but still notable - New South Wales's Opal Tower in 2018 and Mascot Tower in 2019.

This case study examines the reactions to two apartment construction failures and subsequent regulations in the NSW. Due to the many factors of these residential units, including their generally standardised fit-for-purpose design, omnipresence in all population centres, and funding by sophisticated developers, their quality should indicate the general industry's progress. To explore building regulatory reformation, this paper analysed publicly available information *before and after* NSW's seminal event – the Opal and Mascot Towers' defect crisis. The receivership current estimate is that those rectifications will cost more than AUD 40 million each (9News Staff, 2023).

2. Literature Review

Post-disaster situations always have a gap between bureaucratic procedures and emergent norms. Schneider (1992) asserts that there are many factors in whether this gap closes, thus determining a successful or failed response. Government regulations and statutes enable the response. After a disaster, a widespread reaction among the population takes place. This is called "the milling process" (Turner and Killian 1972). Milling is most pronounced when new conditions are novel and dangerous while the governing institutions' reactions are weak and inaccurate. Once underway, the population forms new types of interactions, including collective behaviour and emergent norms (Quarantelli 1983). However, human behaviour is unpredictable, so "ground zero" interviews of those affected are critical to having the information needed to respond appropriately. If the emergent reaction conflicts with social norms, publicly vocal dissatisfaction may occur, escalating into social unrest and violence (Schneider 1992). In the aftermath of a crisis event, "keynoting" occurs rapidly. It is the selection of key terms, concepts and narratives while others are

discarded (Turner and Killian 1972). Depending on the strength of the personalities involved, leaders and followers, forceful keynoting places the government and other responders on the defensive.

Social media is a new variable in disaster reaction analysis, updating researchers' thinking and frameworks. Heimans and Timms (2018) labelled it "new power" which has a culture, structure and process that, in combination, is unique. Approximately ten participant types are in a social media movement: Institution, Super Participant, Media, Celebrity, NGO, Influencer, Policy Commentor, Platform Steward, Participant and Disinterested. Each is self-explanatory in general.

The built environment has changed considerably over the past few decades in NSW. From the mid-1980s, builders predominantly constructed low-rise apartment buildings on behalf of developers. Designs were regarded as straightforward using readily available standard materials, and the trades were well-skilled, having come through apprenticeship schemes. In addition, a 'Clerk of Works' acting on behalf of the supervising architect ensured quality and compliance were well maintained (MBA, 2019). However, former Treasury Secretary of the NSW Government, Michael Lambert, said the government did not act upon his central review of the home building industry in 2015 and that the government commissioned 18 reports urging sector reform over the past two decades (Cummins, 2019).

Governments in Australia and abroad have reacted to building failings by enacting legislation to curb faulty work and materials. However, governments occasionally ignored advice from industry, academia, and their authorities. For example, the Royal Commissions within Australia have contributed to potential solutions but have been ignored by the government when recommended, as evidenced by Smolders (Smolders, 2016). Additionally, there has been a proliferation of sub-standard projects entering the marketplace with inherent latent defects, as evidenced in the case studies and corroborated by Easthope, Randolph and Judd's study (2012) of strata management in NSW. Adding to this, the High Court decision in the case of *Brookfield Multiplex Limited v The Owners – Strata 61288* deemed the builder not to be responsible for economic loss sustained by owners of apartments containing latent defects (Bombell 2014). This decision has been a 'get-out-of jail' card for many developers. The easy entry for these builder/developers has been the ease of securing a builder's licence in NSW. It can be said that it is easier to get a builder's licence than a trade licence in NSW when comparing training for each. Furthermore, in NSW, there is no requirement for any licence to construct a building over three stories (Smolders 2023)

Within the Australian context, with a population of some 25 million, not much larger than some overseas cities, the temptation for coordinated and harmonised regulatory reform was steadfastly on the political agenda in the early 1990s when the Australian Uniform Building Regulations Coordinating Council was introduced (ABCB, 2016). During this period, it was recognised at a State Premiers Conference that the eight State silos of government should come together in what was termed "Cooperative Federalism". Australia could not afford the inefficiencies of different regulations for each State. The drive for a unified regulatory system waned towards the end of the 1990s, and all States introduced private certification, albeit in various guises. In addition, several States have adopted independent building control regimes. For example, New South Wales has the Building Professionals Board (now part of the Office of Fair Trading). Over time, however, this body has come under scrutiny by their respective governments and may be disbanded soon (Lovegrove, 2016).

In Australia, and particularly in the larger States, the transition from municipal certification to private has not been smooth. Like any transitioning process, there are benefits and risks. To identify potential risks and manage them before they become problematic, the benefits potentially should outweigh the risks. With the forecasted rise of apartment construction, the NSW Government released a White Paper (NSW Government, 2013) heralding a new strategy for regulatory control. The White Paper addressed several issues, including building defects, non-compliance, and lack of a building manual. However, a key element was uncovered by Maltabarow relating to the lack of experience by certifiers (Maltabarow, 2013). Maltabarow, who was head of the Building Professionals Board at the time, made a justified statement when he said, "Getting builders to get things right in the first instance would seem to be a better approach than over-reliance on the checking process". This is generally accepted as a principle of quality management. Similarly, comments were made by the current Building Commissioner at an industry function by Morrissey Law at Newcastle on March 24 2021, stating that before his appointment, the Department of Fair Trading, responsible for regulatory control, would spend 80% of its resources on issues about defects, they currently spend 80% to ensure systems are in place before defects can occur. It has taken several years for the regulator to address the defects issues while some apartment developers were unchecked. To get an understanding of the conditions affecting the construction industry, a questionnaire was adopted to ascertain the causation of two major projects, each project had a tender value of \$AUD 25 million, and each had rectification costs of around \$AUD 25 million, resulting that each project had a completed cost of fifty million Australian dollars after substantial rework. The main causations

indicated were the lack of trade and professional skills, the use of non-conforming building products, and poor regulatory control (Smolders, 2016). The following paragraphs will further unpack these causes.

An established pathway for building professionals is the apprenticeship. However, Skilling in NSW has been problematic. Apprenticeships have declined over the past few decades due to mandatory costs imposed by government regulation that has led to a decline in apprentice training. The Master Builders Association (MBA) and the Housing Industry Association (HIA) have departments within their organisations to manage apprenticeships. MBA's viewpoint on apprentices is as follows, "Master Builders advocates that to give added incentive to employers to engage young people in apprenticeships and traineeships, the worker's compensation premium and the cost of any claim, should not be borne by the employer, regardless of the size of the employer, for the duration of the apprenticeship" (MBA 2019). Away from trade training, the student take-up for a degree course in construction management may be encouraging. Still, without the required trades who are appropriately qualified, it could lead to an unsatisfactory outcome, as recently demonstrated in the media. The MBA said, "Master Builders' survey of the industry reveals that the building and construction industry has an aging workforce". The main feeder to replenish licensed builder numbers is through the apprenticeship system, which, at the current rate, will only be able to replace half of the retiring tradespeople and those who leave our industry. Industry studies indicate substantial building and construction work in NSW over the next four to five years. The industry needs to embrace the training of young people through apprenticeships and traineeships so that we have the necessary skills to meet this demand (MBA 2019). Adding to these issues are the Professional bodies akin to the construction industry have lost their shine with dwindling numbers in memberships (Guthrie et al. 2016).

Furthermore, considering the seriousness of the issues raised by industry stakeholders, the MBA called for appointing a single building commissioner or a dedicated Minister in line with other States. The NSW construction industry alone contributes \$67 Billion to the NSW economy (MBA 2019) but faces a decline in apartment construction. Why has this decline occurred? This is essentially the result of one policy change. The NSW government has limited the sale of apartments to overseas investors (who provided a catalyst for apartment construction) to curb sharp price increases that effectively excluded local citizens from purchasing their first homes. This policy has significantly impacted what appears to be a glut of residential apartments becoming available for sale and several developments being put on hold. This significant impact on builders and developers is a potentially positive outcome for home buyers. The current NSW Government embarked on an economic recovery strategy when it took office in 2011. A key policy of the NSW government was to facilitate affordable housing that was neglected by the previous government (NSW Planning & Environment, 2019). Their strategy was to generate employment from apartment developments. The sales of these apartments would deliver substantial stamp duty income. However, the outcomes of this policy change have not been considered favourable by apartment owners, as represented by the Owners Corporation Network (OCN) (Smolders 2023).

The reaction to building failures reveals many things about public policy since it is usually under stressful circumstances. The success of this reaction is contingent on the government's understanding of the cause, nature and consequences of the gap between human behaviour and governmental activities (Schneider 1992).

3. Case Study

This paper will use archived material to show the changes made after 2018 that offer a heightened quality (anti-defect) focus. Most examples will be from the regulatory (government) sector and industry. This will show a consistent effort to increase the quality of apartment buildings in NSW.

The notable regulatory action was the introduction of two laws: the Design and Building Practitioner Act and the Residential Apartment Building Act. These were legislated in 2020 but took effect in 2021. The laws were introduced in response to the NSW Government's Shergold Weir Building Confidence Report published in February 2019.

Table 1. New South Wales's Governmental Actions with Their Timeline (Office of Building Commissioner NSW, 2023)

Date	Action	Comments
February 2019	NSW Government Response to the Shergold-Weir Building Confidence Report (which was delivered to the Building Ministers' Forum in mid-2017)	Published two months after the Opal Tower building defect controversy occurred but 20 months after the Shergold Weir Report.

June 2020	Residential Apartment Buildings (Compliance and Enforcement Powers) Act, Effective July 2021	It gives far-reaching but needed authority to the NSW Building Commissioner and authorised officers to take action against defective building work.
June 2020	The Design and Building Practitioner Act, effective July 2021	Whenever construction work on a class 2 building (new or existing) involves a building element or a performance solution, a design practitioner registered (mandatory) under the Design and Building Practitioner Act must prepare regulated designs.
March 2021	Project Remediate	Project Remediate is an opt-in program that provides no-interest loans, free expert program management, and the assurance that when remediation work is completed, the work will be accepted by insurers.
June 2021	Industry Report on Digitalisation of Design and Construction of Class 2 Buildings in New South Wales	Investigation of the Construction Industry's "Digital Readiness" of the class 2 (multi-unit) building sector of NSW with specific emphasis on the production of design and as-built drawings.
October 2021	Research on serious building defects in NSW strata communities	The purpose of the report is to produce precise data on the problem of severe building defects in class 2 residential apartment buildings in NSW.
May 2022	Report: The State of Consumer Confidence – benchmarking consumer confidence toward purchasing class 2 residential properties in NSW	Perception survey of quality, affordability, and other factors.
October 2022	Building Bill 2022 (in Public Consultation Period)	Replaces the Home Building Act and regulates all building work in NSW - residential and commercial - including licensing of practitioners and consumer protection
October 2022	Building Compliance and Enforcement Bill 2022 (in Public Consultation Period)	Supersedes the Residential Apartment Buildings Act and enlarges regulatory compliance and enforcement powers for the building and construction industry in NSW
October 2022	Building and Construction Legislation Amendment Bill 2022 and the Building and Construction Legislation Amendment Regulation 2022 (in Public Consultation Period)	Amends various existing Acts governing the building and construction industry in NSW.

The research report, delivered in October 2021 *on serious building defects in NSW strata communities*, showed the extent of the existing problem. The most commonly occurring significant defect related to waterproofing, affecting 23% of surveyed buildings, followed by fire safety (14%) and 47% of buildings with severe defects were able to achieve resolution. Chillingly, only 15% possessing serious issues were reported to Fair Trading. Additionally, Severe product and installation deficiencies often led to notable financial and emotional stress for homeowners, tenants and strata managers

This holistic transformation initiative, titled, Construct NSW, focuses on six industry reform areas (named "Six Pillars"): regulation, ratings, education, contracts, digital tools, and data and research. See Table 1. This far-reaching approach has significantly transformed the government's and industry's focus to restore the potential apartment purchaser's confidence in residential apartment buildings. These appear to be "keynotes" (Turner and Killian 1972). For example, see actions in Table 2. However, more reforms are desired and planned.

Table 2. The Six Pillars of NSW Construct NSW Initiative

Six Pillars	Intent	Comments
Regulation	Empower the NSW Government to regulate many critical inputs and outputs in Class 2 Buildings (Apartments)	Without government-enforced Quality Assurance and Quality Control, apartment purchasers will sometimes seek other options (rent, lease-to-buy or purchase existing)
Ratings	Gather and disperse critical information about the major players (persons and companies) in any new apartment construction project in NSW	ICIRT assesses building professionals and projects. It is a digital tool backed by the NSW Government, providing consumers, financiers and insurers with independently sourced data to make more informed decisions
Education	Increase knowledge of all participants	Three general thrusts: 1) Construction Industry Doctorate Program 2) Online short courses to upskill workforce 3) Research reports, guides, case studies, templates and other information to keep industry practitioners and construction service buyers up to date with current knowledge, including decision-making processes
Contracts	To identify financial, contractual and governance risks within class 2 building projects in NSW	The OBC commissioned a report by Corrs Chambers Westgarth, which made four recommendations in contract formation, review and administration for more consistent delivery of performing-as-expected projects
Digital Tools	Use of Technology to leverage information gathering, data analysis and quality measurement.	NSW's Building Assurance Solution (BAS) collates product and design compliance certifications for each apartment building to create a body of evidence producing an evidenced-based quality rating for individual buildings for comparison.
Data and Research	Use carefully collected and analysed data and targeted perception surveys supported by objectively reported case studies.	Emphasis on measuring confidence in the industry by consumers, investors and developers. However, many areas will be surveyed, and objective data sets will be collected to plan evidence-based improvement efforts – see below.

The McCrindle Report (2022), *The State of Consumer Confidence* - showed the current perceptions of potential apartment purchases regarding quality, affordability, and other factors. See Figure 1. In its analysis, a calculation was performed for increased consumer confidence (a "sustained boost"). At improvement intervals of 3 – 8% - a range of annual values for a) Sales – AUD 450 million to 1.2 billion, b) Units sold – 690 to 1840, c) Employment gained – 550 to 1250 and d) Tax duty increase – AUD 10.9 to 28.9 million. However, to reach these levels, the industry and government had to understand where confidence resided and the significant issues in the minds of the buying public. From there, efforts could efficiently target concerns. However, benchmarks help, but they, as shown below, are a set of numbers established at one time. The second survey in the future will have relativity to the first. This demonstrates a trend and introduces a new set of investigative questions – "the why".



Figure 1. Selected Results from The State of Consumer Confidence Report (McCrindle Research 2022)

4. Discussion

For many years, the NSW Government did not actively advance construction quality assurance and quality control, thus protecting the public from building defect scandals. Schneider (1992) suggests that the population unfairly blames the government for inadequate reaction immediately after a disaster or a systemic failure at the goading of the mass media. However, given may be an exception, given that the government had a documented history of indifference. So, the population seemed to have taken a libertarian viewpoint of the government's inadequacy in regulated interpersonal transactions in the construction sector.

A well-known strong personality clearly with the population's plight – appears to have been a new variable in this discussion to Schneider and others' assertions. David Chandler was appointed Building Commissioner (BC) – NSW in August 2019 but has been critical of the government's approach to the development and construction industries for years. Before his appointment, he authored many opinions on social media, such as LinkedIn posts and the Fifth Estate articles. This appeared to build credibility within the industry and the public. Subsequently, once named BC, heightened milling appeared to decrease and keynoting increased. Once the building failures in NSW were discovered, the milling process intensified and ebbed. This seemed to be due to the government's immediate reaction but also because of the vital response of the Building Commissioner individually. Keynoting centered around building confidence in the built environment through professional accountability. As a result, the bureaucratic norm was quickly replaced with the emergent standard and maintained.

Chandler's social media activity is notable by the numbers – these are estimated numbers:

- He published 15 multipage articles in the Fifth Estate before January 1 and 8 afterwards, stopping on June 6, 2019.
- He authored 212 posts – many with photographs documenting problems - on LinkedIn (and continues). Approximately 80% are dated after January 1, 2019
- Other social media members' comments on these and his other publications number in the thousands

Chandler appears active in multiple participant types, as Heimans and Timms (2018) described. However, this paper asserts that his behaviour and number of followers qualified in four: (note: The OBC's LinkedIn account shows 48,000 followers, which for Australia is enormous given its 1/15th the size of the US.)

- *Super Participant* – his activity on the subject was pronounced, numerous and articulate on policy and individual construction projects.
- *Celebrity* - his body of work included as Construction Director for Australia's New Parliament House
- *Influencer* – each of his posts drew more than a dozen comments from others
- *Policy Commentator* – he has spoken authoritatively on several general topics that affect the development and construction

The implementation of building regulatory reforms continues in NSW. It appears to have been generated by events in Australia but possibly from others added to the concern, such as the Grenfell Tower disaster. We cannot pinpoint the exact motivation for action after years of advice-seeking but inaction. We suspect this organic regulatory reaction will occur after most building failures; however, it is not confident 100% of the time. However, since a home is the top personal investment, a house owner creates the potential for high emotion and action against the government, including voting against the party in power, vocal protests and destroying others' property.

This may point to an opportunity for reform-minded leaders inside and outside the construction industry. Moreover, as documented failures are publicised, so does the probability that a responsible governing body will react, and address needed problem areas. However, there is always a danger of overregulating an industry to raise costs to unaffordable levels. This is a standard free market concern and a question of balance.

5. Conclusions

Quality is a journey for an individual, an organisation and, in this case, the government of NSW. It is historically evident that watershed moments in construction occur in all societies, but enlightened communities react well to improve inputs, processes and outputs. Sometimes, a group or person is well-qualified and prepared to insert themselves into a crisis.

Part of the triumphant progress made in NSW appears to be due to the initiatives outlined, which are part of the OBC's broader goal to increase public confidence in the multi-storey apartment sector by improving regulatory compliance and increasing professional responsibility. However, this trajectory continues to be a challenge. Bureaucracies tend to be slow-moving and adverse to "collecting enemies"; therefore, reform is not a default but one that is many times forcefully achieved. This force seems disruptive, and people's outrage is the catalyst.

Future research should explore the continuing need to update construction regulations and enforcement, especially the role of political will in implementing such improvements. No doubt, social media is part of the transformation journey. However, any improvement campaign should focus on the government's ensuring minimal quality standards and professional behaviour in concert with the industry. Since the built environment functionality and durability are critical components of quality of life for all, there should be little hesitation.

References

- 9News Staff, 2023. Mascot Towers: Owners of Sydney apartments with structural issues push for NSW government buyback scheme [WWW Document]. URL <https://www.9news.com.au/national/mascot-towers-apartment-block-still-empty-four-years-after-structural-integrity-evacuation/99feb31e-8898-4706-a315-b7904cfab65a> (accessed 2.9.23).
- ABCB, (2016) BCA History | Australian Building Codes Board [WWW Document]. URL <https://www.abcb.gov.au/NCC/History/BCA-History> (accessed 2.28.23).
- Bombell, A. (2014). Builders' liability to Owners Corporations: the recent High Court decision.
- Chandler, D. (2023) LinkedIn profile. Accessed March 22, 2023. URL https://www.linkedin.com/search/results/all/?fetchDeterministicClustersOnly=false&heroEntityKey=urn%3Ali%3Afsd_profile%3AACoAABiPWpkBITfE0pq4XeoRjXaDbWuWxnAZ2Dg&keywords=david%20c_handler%20oam&origin=RICH_QUERY_SUGGESTION&position=1&searchId=9dd2b5f3-54cf-41fc-9204-a39d0e69b3e7&sid=D64
- Cummins, J.S., Megan Gorrey, Carolyn, (2019) Pressure grows on the NSW government to act on reform of the building industry [WWW Document]. Syd. Morning Her. URL <https://www.smh.com.au/national/nsw/pressure-grows-on-nsw-government-to-act-on-reform-of-building-industry-20190808-p52fat.html>(accessed 2.13.23).
- Easthope, H., Randolf, B., Judd, S., (2012) Governing the Compact City [WWW Document]. URL http://www.be.unsw.edu.au/sites/default/files/upload/research/centres/cf/newsarchive/2011/Governing_the_Compact_City_FINAL_REPORT.pdf
- Guthrie, J., Evans, E., Burritt, R., (2016) Relevance of Professional Associations In 2026. RMIT University.
- Heimans, J. and Timms, H. (2018) New Power: how power works in our hyperconnected world and how to make it work for you. Double Day, New York.
- Lovegrove, K., (2016) Building Controls Across Australia's Many Regions [WWW Document]. Sourceable. URL <https://sourceable.net/building-controls-across-australias-many-regions/> (accessed 2.5.23)
- Maltabarow, G., (2013) Building Certification and Regulation- Serving a new planning system for NSW. [WWW Document]. URL http://planspolicies.planning.nsw.gov.au/index.pl?action=view_job&job_id=6356 (accessed 26/2/2023).
- Master Builders Association (MBA) (2019) *New South Wales Policy Priorities*. New Castle, NSW.
- McCrindle Research (2022) *The State of Consumer Confidence – benchmarking consumer confidence toward purchasing class 2 residential properties in NSW*. Office of the Building Commissioner, NSW Government.
- NSW Govt., 2019. ENVIRONMENTAL PLANNING AND ASSESSMENT REGULATION 2000 - REG 162A Critical stage inspections are required by section 109E (3) (d) [WWW Document]. URL http://www.austlii.edu.au/au/legis/nsw/consol_reg/epaar2000480/s162a.html (accessed (2.16.23).

- Quarantelli, E.L. (1983) *Emergent Citizen Groups in Emergency Preparedness and Recovery Activities*. Columbus, Ohio. Ohio Recovery Center.
- Schneider, S.K. (1992) Governmental Response to Disasters: The Conflict between Bureaucratic Procedures and Emergent Norms. *Public Administration Review*, Vol. 52, No. 2 (Mar.-Apr. 1992), pp. 135-145
- Smolders, J., (2016) Consequences of unforeseen rework on Australian construction projects - a case study approach | NOVA. The University of Newcastle's Digital Repository, Consequences of unforeseen rework on Australian construction projects - a case study approach.
- Smolders, J. (2023) "Identifying the Quality Gap Between Apartments as Built and Regulatory Requirements: An Australian Case Study focusing on NSW" [Unpublished Doctoral Thesis] Delft University.
- Turner, R. & Killian, L. (1972) *Collective Behaviour*, 2nd Edition. Englewood Cliffs, N.J. Prentice Hall.