THE DELAMINATING DISASTER

By Tom Grace

Introduction

The 28 February 2019 decision as to liability for the Lacrosse Tower fires of November 2014 will send shockwaves through the construction industry.[1] The fire was caused by a discarded cigarette butt that ultimately ignited Aluminium Composite Panelling ("ACP") on the façade of the 21 storey apartment block. The industry has been waiting with baited breath to find out who might be liable for the $12.7 million cost to compensate the building owners for repair of the fire damage and replacement of the cladding with an alternative product.

The ACP used in the Lacrosse Tower was constructed with two layers of 0.5mm thick aluminium sheeting between which was sandwiched a core layer of about 4mm in thickness of 100% polyethylene. The material is strong, light weight, easily bent to a shape and offers long term aesthetic appeal. In the last two decades its use in Australia has become widespread, including on the facades of hundreds of high-rise apartment blocks. Across the world there have been dozens of fires similar to the Lacrosse fire, some resulting in fatalities.

The evidence in the Lacrosse case showed that ACP, when subjected to significant heat by way of a fire, delaminates. The delamination exposes the interior polyethylene layer to flame and oxygen. Some have described the polyethylene layer as "frozen petrol". The polyethylene then liquifies resulting in an extremely rapid escalation of fire.

The Proceedings

The owners of Lacrosse sued the builder for $12.7 million, essentially for constructing an unsafe building, constructed with ACP cladding. The builder denied liability but said that, if it was at fault, the fire engineer, the architect and the building certifier ("the Professionals") should reimburse it for its liability. The builder said it had relied upon their professional expertise when it incorporated ACP cladding into the design and construction of Lacrosse.

The Building Code

As with all buildings in Australia, Lacrosse was required to comply with the BCA[2] applicable at the time of its construction.

Compliance with the BCA can be achieved by two paths; strict compliance, known as deemed to satisfy compliance, ("DTS") or alternatively, a performance-based compliance. Where a performance-based solution is adopted, an assessment is made as to whether, notwithstanding the literal non-compliance of the method or product, the performance of the building is safe if the method or product is adopted. In the Lacrosse project, the use of ACP was said to be a DTS solution. Hence, it was necessary that it complied, in every respect, with the literal requirements of the BCA. The BCA required the cladding of Lacrosse to be "non-combustible", subject to any exclusions.

In the proceedings, two exclusion clauses in the BCA were relied upon as a justification for the DTS use of ACP cladding on Lacrosse: Clause C1.12 and Clause 2.4.

The Clause C1.12 exclusion

Clause C1.12 of the BCA allowed for the use of combustible bonded laminated materials where—

(i) each laminate is non-combustible; and

(ii) each adhesive layer does not exceed 1 mm in thickness; and

(iii) the total thickness of the adhesive layers does not exceed 2 mm; and

(iv) the Spread-of-Flame Index and the Smoke Developed Index of the laminated material as a whole does not exceed 0 and 3 respectively.

It was suggested that ACP was allowable under this exclusion as the "laminate" in (i) of the definition was either a reference to the aluminium outer skins, or alternatively, a reference to the entire composite panel. In other words, it could not be referring to the central layer of polyethylene.

Woodward J said "laminate" in C1.12(f)(i):

"cannot, as a matter of construction, mean the same thing as "bonded laminated materials"— the part ("laminate") must be something less than the whole ("bonded laminated materials")."

Woodward J then said:

"the process of lamination that results in a "bonded laminated material" involves the binding or connecting together (relevantly, by an adhesive) of a succession (that is, two or more) of layers of one or more materials. Having identified the composite product in those terms, followed by the word "where" (in the sense of "in which"), I consider that the immediately following expression "each laminate" can only refer to each of the bonded layers that together comprise the "bonded laminated"

Woodward J added:

"In my view, it is untenable to suggest in effect that the provisions would limit individual layers to no more than 1mm and (in the case of adhesives) to a maximum thickness of 2 mm, and ignore entirely a highly combustible layer of polyethylene with a thickness … between 3mm and 5mm"

The result of this interpretation, while anticipated and perhaps predictable, is significant. The middle layer of ACP, the highly flammable "frozen petrol" polyethylene layer, had to be non-combustible for the use of ACP to be a DTS solution. Obviously, this was not the case. Therefore, ACP should never have been used as DTS external cladding in a situation such as Lacrosse.

The Clause C2.4 exclusion

The relevant part of clause C2.4 of Specification C1.1 of the BCA is as follows:

2.4 Attachments not to impair fire-resistance

(a) A combustible material may be used as a finish or lining to a wall or roof, or in a sign, sunscreen or blind, awning, or other attachment to a building element which has the required FRL if—

(i) the material…complies with the fire hazard properties prescribed in…Clause 2 of Specification C1.10…; and …

(iii) it does not otherwise constitute an undue risk of fire spread via the façade of the building.

Woodward J rejected the expert evidence suggesting the ACP could be considered a "finish" noting the reference in C1.10 to *"a paint, varnish, lacquer or similar finish…."*. It is a principle of interpretation, that the meaning of a word, derived from its use in context in a document, is to be given the same meaning, when used elsewhere in the document. Given this principle, it is not surprising Woodward J observed that:

"It is far from clear to me how a product with the structure, composition and dimensions of an ACP that is affixed using studwork and provides both weatherproofing and acoustic benefits, can be described as a "finish"."

The builder's liability

Judge Woodward found the builder, although in breach of its contract with the owners, had not been negligent when it relied on the Professionals as to using ACP and was entitled to reimbursement from them. Under s59 of *Wrongs Act 1959* (Vic), the Professionals would have been able to defend this claim on the basis that the use of ACP was widespread among their peers, provided the widespread practice was not unreasonable. Significantly, the Judge found that it was one of the rare cases where a widespread practice was irrational and therefore unreasonable.

Conclusion

Judge Woodward found that the use of ACP cladding on Lacrosse was not a DTS solution under the BCA. On that basis, the builder was in breach of its obligations to the individual owners of Lacrosse and was primarily liable for 100% of the compensation required. However, His Honour said the builder was entitled to rely on the Professionals and therefore should be reimbursed by them. Ultimately, liability for the fire was distributed to each of them in the following proportions:

- Fire Engineer – 39%
- Building Certifier – 33%
- Architect – 25%

The remaining 3% was attributed to the cigarette smoker in Apartment 805.

Where to from here

The decision has enormous ramifications for the property and construction industry in Australia. In effect, the central layer of any form of ACP used as DTS external cladding on a type A building must be non-combustible.

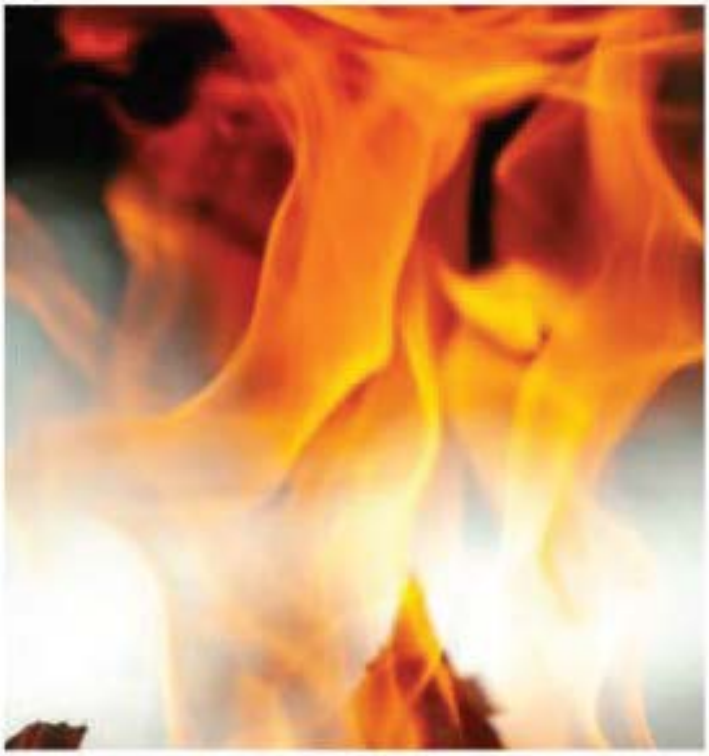
In relation to existing type A buildings clad with ACP, the case raises serious issues as to the safety of their occupiers, their market value, owners' obligations to disclose the existence of ACP cladding when renting and selling, and the liability of bodies corporate and owners, to tenants. Contractors and advisers who have completed buildings of this type within the last 10 years should notify their insurers and seek information as to exposure.

Contractors and their advisers should seek advice as to the terms of their contracts to better understand their exposure to liability.

References

[1] Owners Corporation No.1 of PS613436T v LU Simon Builders Pty Ltd (Building and Property) [2019] VCAT 286

[2] Now known as the National Construction Code or NCC



ABOUT THE AUTHOR

Tom Grace

Tom is a former engineer who ran his own construction company for over 20 years, completing many projects in the residential, commercial and industrial sectors, before entering the legal profession.

Tom has a wide range of experience in handling commercial disputes with a focus on construction and engineering. His wealth of practical business experience coupled with his knowledge of engineering and construction give him a significant advantage in dealing with disputes.

He is a capable advocate and has often acted as counsel for clients, both in formal court hearings and in negotiations. He is a strong supporter of alternative forms of dispute resolution and his ability to quickly cut to the essential issues of a dispute and to make an assessment of the likely outcome has resulted in the early and cost effective resolution of many disputes. He is a trained mediator and his engineering and construction background assist him in bringing parties in conflict to sensible and commercial resolutions of disputes in these areas.

Tom is a regular contributor to the Australian Construction Law Journal and has been teaching contract management to contractors and Government departments since 2000. Tom's book on Construction Law was rewritten in 2013 and forms the basis for courses in the management of construction contracts that Fenwick Elliott Grace has presented in various States across Australia.

Fenwick Elliott Grace is an Australian law firm based in Adelaide and Darwin, specialising in construction, energy and engineering projects. To learn more click here.

FENWICK ELLIOTT GRACE

CONSTRUCTION AND ENGINEERING LAWYERS