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YSP Podcast Transcript: 433. How to avoid the expense of removing combustible cladding

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Intro: Welcome to Your Strata Property, the podcast for property owners looking for reliable, accurate, and bite-sized information from an experienced and authoritative source.

Amanda Farmer: Amanda Farmer: Hello and welcome to the Your Strata Property Podcast. I'm your host, strata lawyer Amanda Farmer and the guest I have for you this week is Ben Hughes-Brown. Ben is a respected Fire Safety Engineer known for his work on occupant life safety studies, design and application of fire safety systems for occupant life protection, as well as establishing Australia's first multifunction private fire safety testing and research facility, Ignis Labs in the Canberra region.

With over 20 years of experience in fire safety, Ben has worked in private practice as a fire safety engineer with Fire and Rescue New South Wales as their Seniour Engineer, reviewing fire reports for construction approval as well as with the Australian Building Codes Board, assisting with the CodeMark and WaterMark certification schemes. Ben also provides technical guidance to manufacturers in relation to their product compliance for material fire testing as well as code compliance.

One of Ben's clients includes Flame Security International, a name that you will hear mentioned in this chat as Ben explains the importance of a cladding monitoring system for apartment buildings; who choose to retain their combustible cladding.

I'll take you over now to my chat with Ben Hughes-Brown. Ben Hughes-Brown, welcome to the show.

Benjamin Hughes-Brown: Thank you for having me, Ben.

Amanda Farmer: We have talked about combustible cladding here on the podcast previously, but it's been a little while. It's been a while since I personally have had my head in this area of strata that plagues many and interests a few. So let's start with a bit of a reminder, perhaps from you, if you don't mind. What are some of the risks associated with combustible cladding in our strata body corporate buildings?

Benjamin Hughes-Brown: Absolutely. So one of the primary risks is the cladding material itself and the actual hazards it presents as far as the flammability or the combustibility of the material. And there's multiple different types of cladding. And we've certainly experienced that cladding with 100% polyethylene or pure EPS expanded polystyrene has been used on buildings.

So this is one of our greatest threats on building safety as well as close proximity fires. When I talk about close proximity fires, areas of the building which might not necessarily be protected by a sprinkler system or any other system. So balconies, courtyards, ground level proximities to garbage areas or stored items. So these areas can also present where a hazard can impact on the cladding.

Amanda Farmer: And as I understand it in these buildings that have combustible cladding, there's a higher risk that if there's a fire in one apartment then the rest are going to catch fire or that's going to spread more easily. Is that right?

Benjamin Hughes-Brown: There is that risk. And this needs to be a calculated risk based on an evaluation of the building. As I spoke about, the 100% polyethylene presents a higher risk of continuous fire spread. And these are the buildings which need to have a really rapid review. A lot of that has been occurring. But it certainly creates a scenario that building code compliance did not account for and should not occur. So we need to make sure that we're rectifying that level of building risk.

Amanda Farmer: Yes. So over the last few years, from the time this risk has been identified, as I understand it, a number of buildings across the country have been removing or attempting to and raising money to, and trying to access government incentives and funding to remove their combustible cladding. And I've heard you say there are certain types of cladding that really needed to come off more quickly than others. Are there still a lot of buildings out there that have combustible cladding in place?

Benjamin Hughes-Brown: There certainly are, but a lot of the states and territories have done a huge amount of work across the board, getting financial support, getting investigation and getting reviews undertaken on a lot of the buildings. And they form into several categories.

The high risk, the ones where you could have rapid fire spread like we saw with Lacrosse or Neo. Certainly we hope that a Grenfell-style fire does not occur in Australia, but those buildings have already been identified throughout Australia and action has been taken on a lot of those buildings. And it's not a straightforward process, it's not easy, but a lot of advanced work has been undertaken. But there are, as I said, different types of cladding on there.

And the high-risk ones, the 100% polyethylene, are certainly the ones in which you need to really review to remove the cladding and make it safe on that front. Other cladding, such as having a 30% polymer content or less, they're considered to be like more of a fire-rated one or retardant process. And so they're not as susceptible to fire spread.

These ones can remain on the building, but it is really needing to have an engineering review to look at where are they located in proximity to openings, balconies, other kind of hazards. So there is capacity for you to retain cladding on a building, but it does require it to be thoroughly reviewed. And the type of cladding Investigated, and tested to ensure you're safe.

Amanda Farmer: And do you know, I know I'm supposed to be the lawyer here, not you, Ben, but do you know if there are legal requirements around if you're keeping your cladding, you have to do these things in order to meet fire safety codes or how does that work?

Benjamin Hughes-Brown: Ultimately, you need to demonstrate that the cladding on the building is fit for purpose and that goes right across the board because that's your foundation. Now the fit for purpose is structured based on your jurisdiction. So whether it's a state-based criteria or a local council, there is a number of checks and balances that must occur on that front. I spoke about the 30% rule and a lot of states have implemented that if you want to keep the cladding, you can only have up to 30% polymer content.

And so that's your starting point in order for it not to be a banned product. Now there are variations within some of the states and territories on that and that's just a nice starting point. The critical, critical thing for cladding safety and for cladding to remain on the building is you need to demonstrate that the cladding won't spread fire.

And in order for it to not spread fire, you need the test evidence. And there's a lot of testing and processes that can be put in place as far as how have you installed it, is it with double-sided tape, is it mechanically fixed? So all of that needs to be reviewed.

What I've experienced throughout Australia is that each of the councils or local jurisdictions, whether it be the fire service, whether it be state-driven, that a review is needed and that evidence put together and from there you can actually demonstrate that the building is safe, it's safe to occupy and that fire spread won't occur. And that's based on a lot of evidence.

When those reports, that evaluation has occurred and it has been reviewed by a number of parties, whether it be a private certifier, local council, local fire service; then a degree of approvals can then be reinstated or written responses from the local council saying, “Okay, we are comfortable with that building to retain the cladding.”

If you can't tick those boxes, if you can't demonstrate if the product is fire safe, if you don't have evidence, then it's going to be very difficult to justify it staying on the building. And you should heed caution and say, well, I can't guarantee or I can't demonstrate that it is fit for purpose. So you need to be taking an avenue of either retesting or removal.

Amanda Farmer: Do you know where the insurers sit in all of this? Does a strata building insurer have a say? Do they care? Are they wanting to see all of this information when they're looking at renewal time and cladding is still there? Have you seen that working on the ground?

Benjamin Hughes-Brown: Yes, absolutely. Look, your insurer on the buildings, they are a stakeholder and they're a very important stakeholder. It is actually a requirement that you do maintain building insurance. And there's a number of considerations the insurers always put into place.

Now, I don't want to speak for the insurer, but from my experience, what we found is that you have a multilayered approach with this. First and foremost, the building occupants must be safe and you need to demonstrate that safety can be achieved.

Secondly, code compliance, and that's often fire spread. But then on top of that, the insurers are very much focused on the damage that can occur and the level of loss. For the insurers, you still need to keep the building safe for the occupants. You need to make sure that you're not going to spread excessively, but also the extent of damage needs to be not excessive.

And what we find is that if you compare and do an analysis to show that you will have a fire impact no worse than a compliant building, that goes a long way to make the insurers comfortable. And you can maintain your insurance on that front.

Now, this is an assessment level that goes above and beyond the building code. It's one thing to have compliance, but to demonstrate that you're not going to spread fire and cause an excessive amount of damage or loss to the building needs a further level of analysis.

And the Victorian government has certainly reviewed and provided a lot of guidance, and this is focused on a hazard assessment. And with that hazard, this is where I'm talking about close proximity fires. In some situations, the building code does not require you to have any level of protection on a building.

But we've seen with La Crosse, we've seen with Neo 2000, that the balconies which were unprotected by a sprinkler or a smoke detection system, were where the fire actually occurred and then it impacted on the building. Under a hazard analysis which considers the loss and influence of how to cover off insurance, this gets picked up and it's identified, Right.

We have an area that has no protection from an engineering side. We need to come up with a methodology using existing methods of smoke detection, thermal detection or sprinkler systems to actually protect those balconies. And then protect the occupants and protect the ability for intervention to occur to stop fire spread.

And this is the key factor for insurance is insurance is saying, “We want you to be safe, but we don't want to have an excessive amount of loss or damage to the building, which you provide an inconvenience for the rest of it, or create unnecessary repairs,” which means that people have to stay away and can't get back into their homes for an extended period of time.

Amanda Farmer: It's sounding like a little bit of effort needs to go into producing this engineered solution, proving to the council, and proving to insurers that even with the cladding in place, there is not significant risk or there's an acceptable level of risk.

I imagine this all costs money for the community. Is there ever a point where a building will say, “Oh, look, it's just cheaper for us to get rid of this stuff than have to go through this possibly every year or every few years,” or are those costs of removing cladding still really quite prohibitive?

Benjamin Hughes-Brown: Well, certainly the removal of the cladding is a huge impost on the building. I mean, a lot of the work does happen externally, but you're removing your weatherproofing layer or decorative layer, and so there can be a major impact on the homeowners, not to mention scaffolding. And the cost of the actual repair or rectification itself still is quite large.

And so it really comes down to a balanced approach. It's really up to the building owners to make that decision, but they need to have an informed decision. And if you can demonstrate, and if you do have a good safe product on your building, then it is that reassurance that everything is okay.

If you don't have that evidence, then the insurers and your state government controls councils will still have that question. We don't know that you are actually compliant. We don't know that your building won't spread fire. So therefore your insurance may go up at set times. And so the only way to appease that and to stabilise your insurance and to stabilise the level of safety is to have that assessment.

Now, my experience so far is undertaking that engineering review, having your certifiers, your fire service, your council review the building and give you that confidence can be a small cost in comparison. In particular, if you can prove that the building is safe, then you get that extra confidence, you get that knowledge, that ability to say, “I know my building is safe, I don't need to have my insurance increased because we are compliant on that front.”

And so you can save Your homeowners a lot of money on the front. And really, when it comes down to it, unless the building is of a really high level of cladding safety, like where you need to actually intervene on there. If you have around the 30% mark or less, then you should really be undertaking a review because it could actually work in your favour.

And I'm talking about savings to homeowners in the tens of thousands. So we've got examples where we've had two building towers, practically identical. One side had decided to actually just remove all the cladding, and this was a relatively safe cladding, but they didn't do all the work, they couldn't find the full evidence.

The other tower said, “Right, we're going to actually complete this testing and we're going to take cladding off and go through the whole process.” Now, tower A, who decided to remove and replace the cladding, they're now in the order of $11 million in replacement costs.

Amanda Farmer: Oh, my God.

Benjamin Hughes-Brown: All the homeowners are looking at around 50 to 60 thousand dollars of direct costs to contribute over a period of time. Now, I'm sure a lot of people don't have that in their back pocket to do, and that's when we're looking at a lot of the costings.

Now, the other tower, who did the investigation work, reviewed everything. They were able to demonstrate through the correct testing that the cladding did not have to come off. They worked with council, they worked with the fire service, they worked with the insurer.

They had to make some fixes to the building and to improve that level of safety, they deciding to install a cladding monitoring system on the balconies and to monitor any fire that may be on the balconies or come out of the building to protect it. As a result, I think the final cost to a lot of the homeowners was around $2,000 in the end.

And that's a lot easier to manage on that front. But it was a thorough process. They had really advanced testing. They were able to demonstrate that the cladding complied with today's standards, which is quite a high accolade on that front. But they were willing to actually explore that option.

And in the end, those homeowners or unit owners are far better off. They absolutely know that the building is safe, it won't spread fire. They have a known position on there and they had a huge level of cost savings with it. And we've got to balance it out. Absolutely. We've got to be safe, but also we've got to be practical as well.

Amanda Farmer: You've mentioned there, Ben, that that second tower invested in a cladding monitoring system. Tell me what that is, how does that work?

Benjamin Hughes-Brown: So the system that was installed on that building is from Flame Security International. It's a cladding monitoring system. And so it's an external detection system. It operates often infrared-based, kind of visual depiction of the balcony

or the external area. And it just monitors the facade for a fire event. It uses advanced computer controls to understand the movement of flames. And what's the difference between someone having a candle or a barbecue versus an active fire.

So it is trained and understands how to identify a flame that will impact on the building. And then it sets up an alarm system from there. And it is wired back to the building's fire panel. So when it has a detected an alarm, it can actually alert the occupants to the fire event. Automatic controls can call the fire service out and intervention can occur from there.

There's an advanced function with the cloud monitoring system, or CMS for short, where you can also have video monitoring as well. So if you have an activation then it can be monitored and a control centre can actually look at the video and identify, yes, this is actually a real fire incident. They can enhance the phone call to the fire service, and inform them of a real-time event of what's happening and to assist on that front.

Also ateliers with the building management inform them of what they can see, where the fire is, what unit and areas of that nature. And this is where close proximity fires and a slight gap in the building code where you might have small balconies or areas that wouldn't ordinarily have protection or the building might not have sprinklers. So you've got a limited installation of detection mechanisms inside the building which don't cover off external areas.

It really enhances that to assist in not only keeping the occupants safe by giving that warning system earlier on, it also enables a good response from the fire service and appeases the insurers to say that you are actually able to address that hazard, get some monitoring and get some intervention occurring. So this is a real advance for reinstating or keeping the cladding on the building and keeping occupants safe.

Amanda Farmer: So this is addressing, you said a gap there. Is that because where we have a fire that may start on a balcony, whether it's a cigarette or, you know, a lit match that's been thrown into a rubbish bin. It is often the case that that's hard to detect. There are no smoke detectors out there, there's no alarms, no sprinklers out there.

And then that's how this fire is spreading across the facade of the building via the combustible cladding, spreading quite quickly. So this system you've said, will identify a flame that will impact on the building. So it's going to be able to tell when something is a light on the balcony that shouldn't be, that's not a cigarette, that's in somebody's hand, that's not a barbecue or a candle. It knows the difference.

Benjamin Hughes-Brown: Yes, absolutely. So the technology that is put in place can, can actually detect a moving and growing fire on there. And the building code and the criteria for safety is risk based. And we see a large, in certainly residential buildings, your kitchen area still remains the largest source of fire with it.

And a lot of the fire events that do occur are inside building. And the building code has for a very long time required the external facade to be non-combustible or a very low hazard. And in order to have low hazard or low-combustible materials, you've got to jump through a lot of hoops to demonstrate that you are a low hazard on there.

And so the building code assumes that, well, we only have a very low risk of the balconies or external areas to be a fire source. And if the facade is non-combustible or a very low hazard, we won't see a facade fire.

That's what the assumption and the expectation of the building code is with these highly combustible cladding materials that gets thrown out, you know, we then have a risk that is outside the level of the building code. So therefore that gap is a substantial gap and needs to be filled.

And it's a gap that shouldn't have to be filled. But our existing stock and the number of buildings that we have, you know, causes that event. Moving forward, the building code has been rectified, it's covered off a lot of the greater risks on there. Put more evidence-based approach of testing of combustible materials and explains exactly the criteria for external facades so that we don't

have an external fire event.

Amanda Farmer: So is this cladding monitoring system something that councils, insurers will be looking to see if buildings have, if they're keeping combustible cladding in place?

Is it something that you would as an expert in this field be recommending to buildings that want to keep this in place, get a monitoring system on there as well as your other engineered solutions?

Benjamin Hughes-Brown: Yes, absolutely. This is definitely, when looking at it from a fire engineering perspective as well as a code compliance perspective, it ticks the boxes and it's a balancing act. If you want to keep the cladding on your building and you can demonstrate that it is a low hazard, it's not going to spread fire, then you need to make sure that you've got that as a reinforcement on there. So going a little bit above and beyond can actually go a long way.

And covering off these hazard areas if a clutch proximity fires certainly helps, that the building code is a minimum effective criteria. It sets the benchmark. When we do fire engineering analysis on buildings, we can certainly identify that you may need to actually enhance it further and do extra safety requirements for your building.

And the assessment process can demonstrate that. And a lot of fire engineers have actually identified that there are some hazards that you just can't fix. So you have to intervene, you have to do something. And that can be an enhanced system as the CMS, extending sprinklers, putting safety protocols in place for the use of the balconies, and working with homeowners to say, “Okay, well let's have some controls on how to keep fire safe.” And a lot of the fire services do give these recommendations. They give advice on how to be fire-safe in high-rise apartment buildings.

So there's a lot of advice that already comes out with it. And it's a matter of the fire engineers to work with the building owners and the stakeholders such as the certifiers, your insurers and the fire service and council to provide a balanced approach with it and being practical. If you want to keep it, as I said, it's a balancing act you may need to enhance and this is a perfect way in which you can actually enhance your building safety.

Amanda Farmer: Nice. Now you mentioned there, Ben, just to be clear, Flame Security International has come up with this cladding monitoring system. I will get asked by listeners how, whether, where they can get access to this. I'm going to guess by the name that that's available across the country and internationally.

Benjamin Hughes-Brown: Yes, absolutely. So we operate on a national building code. So the level of compliance, level of analysis is available to all apartment building owners across Australia and strata across Australia.

So the evaluation process from your local fire engineer or through Flame Security International is available and they can certainly jump onto the website flamesecurityinternational.com. And certainly reach out and contact with the team to make inquiries to have their building evaluated and certainly to see what options are there.

Because there's a lot of people who have what's been identified as a, you know, a reasonably safe cladding. So your 30% kind of area and they might miss out on the government grants or the financial support to remove it, but they could have that opportunity to keep it.

And so you don't have to be interfering and causing damage to your building or disruption if we can actually demonstrate it through an engineering approach on there. And I think that can actually work really well so long as we do the check and balances and we implement proper safety protocols and having an enhanced level of safety just takes it that extra level of security for everybody as well.

Amanda Farmer: Excellent. Nice summary to leave us with there Ben. Thank you. And I will make sure that those contact details

are in our show notes for anyone who wants to reach out and find out more. Thanks so much for joining us today.

Benjamin Hughes-Brown: Thank you, Amanda. My pleasure.

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