Australia: Engineer speaks with WSWS about building safety

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Laddie Assey, a Sydney-based mechanical engineer with over 30 years' experience in the building industry, spoke with the World Socialist Web Site *last month about fire safety faults at the Q1 tower on Queensland's Gold Coast and last year's Euro Terraces apartment fire in Bankstown. Both building s were signed off by private certifiers as safe for occupancy.*

*Q1, an 80-level, 527-apartment block, is Australia's tallest building , and home to over 1,000 people. Assey, who owns an apartment in the building, discovered soon after Q1 opened in 2005 that its northern fire escape was not fire safe compliant . He has spent the past seven years attempting to get this serious flaw rectified (see: "*Fire safety problems in Australia's tallest apartment block*").*

Richard Phillips: Could you explain something about your professional background and what happened when you discovered the safety problems in Q1?

Laddie Assey: I'm originally from India and worked for about 14 years in the United Arab Emirates, starting in 1978. I was employed by one of the largest companies in the air conditioning business and have worked in most Middle Eastern countries. After migrating to Australia in 1994, I worked for Westfields and commissioned the Kuala Lumpur City Centre in Malaysia. I've also commissioned mechanical services for three Westfield projects in Australia and continue doing this sort of thing.

The Q1 situation was a real eye opener for me. To put it simply, I discovered that pressurisation in the north fire stairs did not comply. Anyone attempting to use those stairs in the event of a serious fire would be asphyxiated. [Stair pressurisation is a basic requirement that prevents smoke getting into fire escapes, thus allowing residents to safely evacuate buildings. It also allows the fire brigade safe access to fight the fire; 76 levels of building do not allow for fire-fighter external ladder access.]

After spotting this problem, I thought that it would be rapidly rectified. The fact that it took years to get the Queensland Building Services Authority to even recognise the problem is not very impressive. Australia is not supposed to be a third world country. I was absolutely shocked by this.

RP: You must have been under tremendous pressure during those years.

LA: Yes. I pushed to the limits trying to bring this out into the open and probably made a lot of enemies trying to make sure it was recognised as an issue.

RP: What's the current situation at Q1?

LA: Sunland [the developer] has said that it's fixing the problem, but I've not been given any indication what it intends to do. As far as I know, it's still unsafe as we speak. I've explained how to rectify the issue in various emails over the past five years and it's not too difficult to do. It's simply a problem of cost, which wouldn't be much more than $500,000 or $600,000. For a building with over 500 apartments, that's pretty insignificant.

I'm the one who made the complaint to the BSA but all I've been told is that a garbage shute will be repaired, which has very little to do with the problem itself. I don't even know whether the building is going to be certified by a registered practising engineer (RPEQ), which is a legislative requirement in Queensland.

RP: You've had a lot of international experience. Why do you think this happened and what's your assessment of the Australian building code?

LA: Australian standards, in my opinion, are probably among the best in the world, certainly when

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compared to British and American standards. I've used the Australian standard in Malaysia and it didn't let me down. The problem is that in Australia itself you don't actually have comply with all sections of the relevant Australian standard; only sections noted in the BCA [Building Code of Australia] requirements.

In the essential ventilation standards (AS1668 part 1, 1998), all sections are not mandatory. You have to comply with noted sections, for example stair pressurisation, but it doesn't say you have to comply with section 10, which is lift shaft pressurisation, even when relevant to that type of construction.

In fact, I lost a design some time ago in Queensland because the developer didn't want to meet the section 10 requirement of AS1668 because it was not a noted section in the BCA, even though it was relevant to the specific architecture of the building. The developer just went back to the private certifier, who said the issues weren't noted in the BCA and therefore were not needed. The designer and I couldn't do anything about it.

If all parts a relevant standard were mandatory, which engineers and everyone else had to follow, then it would take the stress out of the process and you'd get safer buildings.

RP: And your opinion of private certification?

LA: I don't like it because there are no checks and balances. Significant amounts of money are involved in all this, and under the rules once you've appointed a certifier you can't sack them. Private certifiers, of course, depend on getting continuous work and so the pressure is on them to toe the line. There are obvious business choices being made here. I can guarantee to you that this is what happens.

There should be clear and open access as to whether there are conflicts of interest. It should be completely transparent and under public scrutiny.

RP: What was your response to the Bankstown apartment fire last September?

LA: I wasn't surprised at all. The certifier said the atrium roof [which trapped smoke in the building] should not have been there and had been put there without permission. That may have been the case. Who would have stopped it? The council doesn't check all these things.

RP: It's been alleged that the Bankstown apartment fire began in an air conditioning unit on the balcony. Do you have any comment on that?

LA: An air conditioner is a significant electrical appliance and there is the potential for a fire. If these things are regularly serviced and maintained, then the chances of fire are reduced.

The main issue is not the fact of the fire but of isolating it and stopping it spreading, and more importantly getting people safely out. Building engineers have to do everything possible to manage the risks but if standards are not followed due to someone incorrectly certifying a building that's not compliant, then the risk is serious.

RP: Are your comments indicative of wider concerns by engineers in the industry?

LA: No, unfortunately, because people can't be whistleblowers all the time. You try and make sure that the area you're responsible for follows the right standards. If it's taken out of your hands by the developer, however, there's not much you can about it.

There's a lot to be said for value engineering, but there is a limit on how much you can cut costs without compromising the building's intent and its safety.

A construction company might say they can do a building, or a particular component of it, for $5 million. But if a developer shops around and finds a builder who can do it for $3 million as a lump sum, then the developer is not going to stress out too much, especially if the private or principal certifier says certain things are not required by the BCA. If there are people who know how to find loopholes in the BCA and make something comply, even if unsafe, then you don't have a leg to stand on.

What's needed is for all aspects of the industry to be made more transparent. All certificates of compliance, and everything else, including who is doing the certifying, must be made fully available to everyone.

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