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BIGPROJECT

FIRE SAFETY & BUILDING SECURITY REPORT

THE IMPORTANCE OF TRAINING

WHY THE INDUSTRY NEEDS TO EDUCATE END USERS

DISCRETE DEFENCE

HOW BUILDING DESIGN CAN INCORPORATE HOSTILE VEHICLE MITIGATION

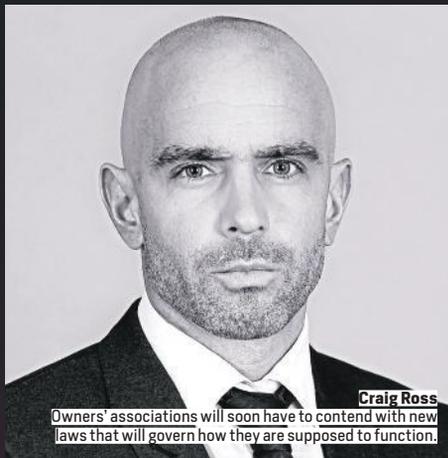
A BIG STEP FORWARD

INDUSTRY EXPERTS ASSESS THE IMPACT OF THE CHANGES TO DUBAI'S FIRE SAFETY LANDSCAPE



A BIG STEP FORWARD

Big Project ME gets feedback from leading experts about the changes in Dubai's fire safety landscape



Craig Ross
Owners' associations will soon have to contend with new laws that will govern how they are supposed to function.



Luay Salih
Design for fire safety during the construction phase is largely ignored.



Peter van Gorp
Will RERA have the authority to compel owners to retrofit buildings and replace facades that are a fire hazard?

Following a number of major incidents in recent years, the UAE Civil Defence authorities have begun enforcing stringent measures to improve the standards and regulations around fire safety in buildings, particularly in Dubai. These measures have been bought into by other authorities as well, with the likes of the Dubai Land Department launching a programme to replace non-fire-resistant building facades across the emirate through its regulatory arm, the Real Estate Regulatory Agency (RERA).

As a result of the changing mindsets across the board, contractors and consultants have begun examining how the changes to laws and regulations could impact the way companies operate and plan for fire safety.

In order to get a clearer idea of the challenges facing the sector, experts from across

Dubai's construction sector have outlined some of the key issues for **Big Project ME**, in conjunction with the Safety Design in Buildings Campaign, a GCC-wide initiative to debate safety standards and practices in the built environment.

Scheduled to be held on December 11, 2018 in Abu Dhabi, at Jumeirah at Etihad Towers, the conference will feature expert voices from the construction industry (including the ones in this article) debating and discussing crucial topics around the safe design of buildings in the region. The first events for SDiB in 2018 will be in Riyadh and Jeddah on April 16 and April 18, taking place a week before Intersec Saudi, a partner of SDiB.

How much of an impact will the DLD programme to replace facades

"In the new draft of the UAE Fire and Life Safety Code of Practice, the owner, programme manager and consultant are the only three duty holders identified in the proposed code"

have? What are some of the likely issues it could run into?

Peter van Gorp, director of Fire and Life Safety at AESG: The Civil Defence has taken a big step forwards with the UAE Fire Code, attempting to institute an overarching code. They are implementing the new code already and consulting professionals are aware of the code and have access to it. If you design something, you have to use the latest code now.

Mick Dalton, former chairman of the British Institute of Facilities Management and a Director of FM for Meraas: Civil Defence in Dubai have just launched a new fire code stating that facades are the developer's responsibility. There are now defined roles and responsibilities in the new code. It was revealed by a speaker

in Civil Defence that there may be a thousand buildings in Dubai with potentially the same material that contributed to the fire spreading in the Grenfell Tower fire in London.

RERA has also entered the fray by stating that owners' associations will be compelled to replace the

facade if a major refurbishment of facade is undertaken.

The owners' association of a building comprises a board of diverse residents, with no expertise in fire or engineering. They are in charge of what is called the reserve fund or sinking fund, which is intended to be used to pay for the replacement

of the asset over a lifespan.

The asset lifespan used by RERA is unlike CIBSE or BOMA, which state that each asset has a life expectancy and is not limited to a short period. This means that the owners' associations may have insufficient fund reserves to replace their facades. They may need to approach the

building owners and ask them to contribute the necessary funding. Craig Ross, head of Project and Building Consultancy at Cavendish Maxwell: We work closely with RERA, and there are new laws coming into play for owners' associations in terms of changes to processes, service charges and how the OA managers

“RERA has also entered the fray by stating that owners' associations will be compelled to replace the facade if a major refurbishment of facade is undertaken”



Defined roles
“Dubai’s new fire code has clearly defined roles and responsibilities for all stakeholders on a building project.”

Industry Insight

are expected to function.

The safety aspects of operational buildings are of huge interest to us – not just for fire, but all safety elements, like security and accessibility. We often see alarm systems with multiple faults, and a tendency to ignore alarms due to the frequency of false alarms.

I have also seen instances where buildings have had their completion certificates signed off, yet when checking the fire suppression systems, we find that these have not been connected properly or there are other issues affecting the operation of the fire and life safety systems. It is the responsibility of the consultant to make sure these systems are operating properly before the subcontractors' work is paid for, and the new code will assist in making this happen.

Has there been a visible improvement in standards and monitoring in recent years?

Peter van Gorp: Since I arrived here 13 years ago, the influx of international consultants

has improved standards. More experts in the market has resulted in improvements, such as the new Fire Code. It is not that the Civil Defence has just started compiling the new code from scratch. It is based on input from a lot of people.

The responsibilities of all stakeholders are now defined clearly, which I think is a major step. It may not be something that everybody approves of, but there is now much needed clarity.

What is often overlooked is the maintainability and commissioning viability. For instance, the code states that a main alarm valve needs to be tested at regular intervals. That means you need to open the main valve, usually a two-inch connection, to see if everything works properly. A lot of water flow will be produced during the main drain test causing flooding if the main drain valve is not connected properly with the drainage system. As a result, the main drain test is often not done due to the impracticality and complexity.

What is being done about fire safety design during the construction phase?

Luay Salih, Vice Chairman, IIRSM and Regional HSE Manager for Dar Al Handasah: Design for fire safety during the construction phase is largely ignored. In the new draft of the UAE Fire and Life Safety Code of Practice, the owner, programme manager and consultant are the only three duty holders identified in the proposed code. There is no specific mention of the contractor, other than the fact that he is responsible for implementing what the consultant instructs him to do.

This in effect means that the consultant is required to:

1. Identify the risk factors and prepare risk management and emergency preparedness studies for the construction site from the design stage.
2. Prepare all written fire safety strategies, training programmes, safety checklists and fire systems to be implemented during construction,

modification, alteration and demolition operations.

3. Prepare a fire plan and ensure the contractor's implementation of the same.
4. Ensure that the general contractor is implementing and carrying out provisions of the fire protection plan.

Peter van Gorp: The contractor has a responsibility to ensure correct installation. It needs to demonstrate to the consultant that the façade has been installed properly. In many cases the contractor employs a façade inspector.

This means that, instead of working under the auspices of the consultant of record, which is supposed to be unbiased, the contractor is now beholden to the façade contractor.

In the oil and gas industry, for instance the company carrying out the design cannot conduct the necessary safety assessments, as they need to be done by an independent party. The same should go for the witnessing of the commissioning, which should not be carried out by the contractor. ■

SAFETY DESIGN IN BUILDINGS 2018:

Safety Design in Buildings (SDiB) was initiated in collaboration with Intersec in 2012, as a platform to debate safety standards and practices in the built environment. 35 conferences have taken place to date across the GCC, with leading fire safety consultants, architects, engineers and testing experts coming together with government authorities to give updates and discuss best practice.

Speakers:

- Major Eng Salem Hashem Alhebshi, Head of Resources and Support Services – UAE General Directorate Civil Defence Headquarter (CDHQ)
- Brigadier Hilal A. Almazrouei, Head of Resources and Support Services General Directorate, UAE General Directorate Civil Defence Headquarters (CDHQ)
- Bassem Gamil Faragalla Khalil, Senior Fire Safety Engineer, Abu Dhabi Civil Defence

- Andy Dean, Head of Facades, WSP
- Shamim Rashid-Sumar, VP-Development – Middle East, Jensen Hughes
- Aziz Zerban, Regional HSEQ Manager (MENA Region), CH2M HILL
- Mike Cairney, Managing Director, PMK Consult
- Benjamin Legg, Vice President – HSE, Middle East, Aecom
- Charles Dunk, Associate Director – Immersive Technologies, AECOM
- Peter van Gorp, Head of Fire

- Safety, AESG
- Ian Roy, Head of Property Risk Consulting (MENA), Marsh
- Luay Salih, Vice Chairman, IIRSM
- Scott Lambert, Head of Construction & Infrastructure, Al Tamimi
- Prof Abdul-Rahim Sabouni, CEO, Span M Consulting and President & CEO, Emirates College of Technology
- John Noone, co-founder – Fire Engineering, Joule Group