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HOCHIKI

Improving Life Safety in HMOs

A round-table discussion

The Debate

In the UK, there is a growing discussion around best practice for fire and life safety within Houses of Multiple Occupation (HMOs). With tragic events shining a brighter spotlight on the importance of protecting these properties and their occupants in recent years, the industry is now working together to identify grey areas in legislation and issues which can lead to potentially dangerous situations.

Hochiki Europe, the leading manufacturer of life safety solutions, in conjunction with the Fire Industry Association (FIA), has recently hosted an expert roundtable outlining key areas of concern around life safety in HMOs. The panel, made up of representatives from the life safety manufacturing, specification and installation sectors, discussed the current legislation covering HMOs, and how better standards and guidance can be put into practice.

The Panel:

- Paul Adams, Marketing Manager, Hochiki Europe (Chair)
- Richard Wharram, Regional Sales Manager, Hochiki Europe
- Ian Watts, Emergency Lighting Manager, Hochiki Europe
- Will Lloyd, Technical Manager, Fire Industry Association
- David Thewlis, Director, Rosse Systems
- Neil Wright, Consulting Engineer

Is there confusion around the definition of an HMO?

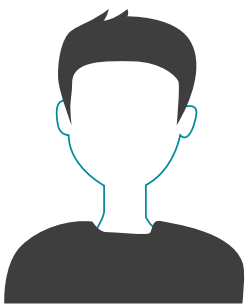
The panel talk, taking place at the FIA's training facility in Hampton, began with top level discussion around the most appropriate definition of an HMO. Paul Adams stated that, according to the Government's own definition: "An HMO contains at least three tenants, all in one three-story household, and there is shared toilet, bathroom and kitchen facilities. For a Large HMO, this is classed as having five tenants in it and is three stories high or above." Will Lloyd explained that new licensing laws have actually been introduced recently, which have removed the three-story limit for licensing, changing it to be five tenants or more.

According to Neil Wright, this still doesn't address the growing confusion within the industry around what an HMO is. He commented: "I think there's a lot of misunderstanding around the definition as to what standards apply to different types of buildings." He explained that for developers, builders, design teams and those responsible for specification, there can be lot of ill-defined areas regarding the end purpose of the building, whether commercial, residential or otherwise, which leads to confusion around requirements.

The discussion turned to whether self-contained flats in high-rise buildings were legally considered HMOs or should be. Lloyd argued that self-contained flats should not be regarded as HMOs as they fail the standard test under the Housing Act. Student accommodation was also identified as a grey area.

Dave Thewlis contended that there are too many areas of contention around the definition and that the industry should work together to simplify it. However, the group agreed that HMOs are so different in shape, size and structure that simplifying the definition is not a simple task.

"You can argue that student accommodation falls outside of the Housing Act's definition of an HMO as well, as these are the occupants' main residence only during term time." – Will Lloyd



"I would rather design the entire life safety system for the Shard than for a three-story HMO." – Will Lloyd

Developer confusion

Dave Thewlis also suggested that the specification of fire solutions in HMOs can often be left to the developer who may be misinformed or ill-equipped to make such decisions, and asked the group for their thoughts on how to best address this issue. Discussion centred around whether there should be benchmark documents set against HMOs and further guidance introduced to give more clarification to developers. The group referred to the most recent whitepaper on the Part 1 v Part 6 debate provided by Hochiki Europe as a good start when it comes to supportive literature for developers.

Lloyd advised that being able to recommend one fully engineered solution for every HMO, including all elements of life safety systems, would be ideal. However, the group agreed that one of the biggest hurdles is the fact that this is an area where people simply don't want to spend money.

The group debated whether authorities needed to be involved to reinforce safety processes in HMOs. Currently, the biggest regulation in play is Local Authority Licensing and the RRFSO (The Regulatory Reform (Fire Safety) Order 2005, which are both enforced by the Fire Brigade, especially in larger HMOs.

The group agreed that with the changes to the definition of HMOs, the new legislation will capture more properties to include those with five or more tenants in them. If this were the case then local authorities would have more grounds to enforce HMO requirements.

Richard Wharram questioned whether local authorities themselves had enough awareness of what fire precautions should be in HMOs, whether they be passive or otherwise.

Lloyd responded, stating that "it varies so much per local authority, we often get enquiries asking for advice, and there is often confusion over whether a property is a licensed HMO or not. We will often advise them to speak to their local authorities. It varies especially in London boroughs." Ian Watts added: "This variation in awareness may be driven by Local Authorities having different insurance criteria."

"I think insurance is a very strong driver for change and it's been inherent in the upgrade of fire safety systems throughout my career in the industry." – Ian Watts

Key challenges for duty holders

The second area of debate was around key challenges for those looking after HMOs. Wharram put forward the argument that one of the biggest issues for duty-holders is false alarms. Questions were raised by the panel as to whether building owners should install BS 5839 Part 1 (Code of practice for design, installation, commissioning and maintenance of systems in **non-domestic** premises) devices in the whole HMO building, or just in communal areas, with BS 5839 Part-6 (Code of practice for the design, installation, commissioning and maintenance of fire detection and fire alarm systems in **domestic** premises) devices in the actual living accommodation.

While there are multiple factors contributing to this shift away from using Part-1 devices, false alarm reduction is, perhaps, the most prominent.

The issue with burnt toast

One of the most used examples to argue against Part-1 connected devices in HMOs is the hypothetical situation in which a tenant burns toast, inadvertently triggering a full building evacuation. Wharram discussed solutions to this, such as having a button within a tenant's property which can indicate the alarm is false if pressed in a certain amount of time

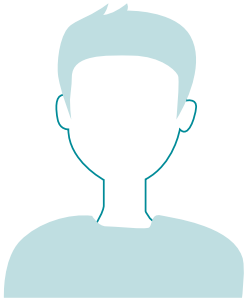
One school of thought recognises that having self-contained Part-6 domestic detection devices and connected audio/visual devices in individual flats or rooms can help avoid total building evacuation in the event of a non-life-threatening incident such as burnt toast. This said, in certain scenarios, there are potential safety implications when selecting these devices over Part-1 alternatives.

The group discussed the benefits and disadvantages of both systems. When it comes to Part-6 systems, for example, tenants can sabotage their own devices by disconnecting them or removing the batteries. As these are rarely tested by maintenance staff, the group raised concerns that there may be many detectors across the country which have been non-functional for months.

Cost comparable

Dave Thewlis argued that the costs of installing Part 1 over Part 6 systems in HMOs are perceived to be different, but in reality, he found that the price was often comparable and sometimes even cheaper to install a full L1 system.

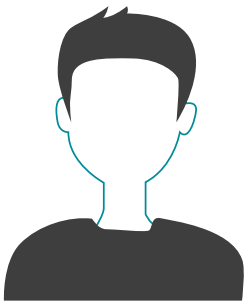
Thanks to cutting-edge technology, Part 1 systems can be extended into the tenant area and the benefits eliminate the need for part 6. He said that his company will often promote this and the fact they can do it cheaper with a verification cause and effect system. [More information required]



"It's about trying to find the right system for the building and how to best protect occupants of that building by managing them out of the building" – Dave Thewlis

Thewlis expressed concern for the priorities of decision-makers responsible for life safety in HMOs. He said: "From my experience, the safety of HMO tenants is rarely taken into consideration by landlords. Whichever the cheapest option is, whether it's Part 1, Part 6, or a mixture, that's what is installed into a property. Whether it works or not is not as considered as much as it should be." Ian Watts then expressed concerns over value engineering: "I think any Value Engineering on Life Safety products should be struck off."

Lloyd agreed that cost is generally the issue at the front of a landlord's mind, but false alarms are probably the second most pressing concern. Other problems, such as tenants damaging units or removing batteries from devices were discussed. The solution presented by panellists was to incorporate smarter, more innovative or mixed systems, or even units which couldn't have power sources removed.



"By relying on innovative technology, you can engineer out false alarms." – Will Lloyd

Wharram also told the panel about the latest life safety technology from Hochiki Europe, such as multi-sensors. With multi-sensors and the newer systems and software, he advised that these can differentiate between heat and smoke throughout a block of flats. In the case of smoke, the latest multi-sensors will initially sound within the apartment and give a message to a larger system, regarding an 'event'. If the smoke meets the fire threshold for a full five minutes, then this will trigger a full fire alarm, and subsequent processes, including an evacuation and investigation. If the smoke clears, the panel will reset itself.

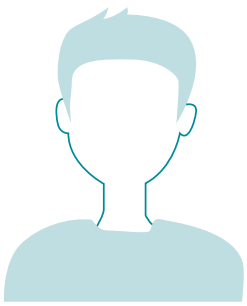
Wharram also brought up the topic of wayfinding and how more innovative multi-sensor systems can detect fire events along certain escape routes, allowing for an efficient and safe evacuation of the entire building.

New technology requires new skills

These more advanced systems require a deeper level of technical knowledge and the panel explored challenges around a general lack of industry awareness, training gaps and the fact that more modern emergency technology needs to be installed by more competent electricians.

Lloyd commented: "There are a lot of electricians who will work on HMOs and don't know the full standard of interaction between Part 1 and Part 6 and when you should use each system." He warned duty holders may forget the interaction between the two systems and their different requirements, especially in terms of battery supply. The stand-by battery life in Part 6, Lloyd said, is 72 hours. A traditional Part 1 system is 24 hours.

Enhanced regulations and promoting minimum qualifications for life safety professionals were suggested as methods of improving quality in this area. Lloyd informed the group that the FIA has recently released its own qualifications for Fire Detection and Alarm System. Through these new qualifications the organisation will be able to "upskill the industry", preventing the incorrect installation of equipment and reducing false alarms.



"Unwanted fire activations are not usually due to equipment failure but a poor design and at times a poor installation by the installer who could be an apprentice with no knowledge of BS 5839 PT1 2017 and we find detector spacing, location not to the standard and at times which makes issuing a commissioning and BAFE certificate on a supply and commission basis difficult" – Dave Thewlis

The importance of third-party certification was also debated and the fact that there are certain product approvals that building owners should look out for when considering life safety systems, such as EN approvals and the BS Kitemark.

Ian Watts stated that, in his mind, one of the most important things is to log false alarm incidents and record the training of the Responsible People. At the same time, he also said it was vital to train occupants to ensure they are fully competent in using their own fire system.

Thewlis stressed that Housing Schemes and councils have responsibility to protect their occupants in the best way possible, which he said was moving towards Part-1 systems using the latest in device technology. He said: "If an occupant with a Part 6 stand-alone system is overcome with smoke during a fire, nobody in the rest of the building will know about that incident until it is too late and may not survive the incident themselves." He also told the group about his concern over issues around people sabotaging their own unmonitored Part 6 alarms, in cases of low-battery warning signs.

Lloyd stated that the BS 5839-6 is currently under review. "We will be recommending in the new revision that in tenanted properties, there is a minimum standard, where they have D1 devices where the batteries can't be removed."

Shining a spotlight on emergency lighting

Adams moved the conversation to the topic of Emergency Lighting in HMOs and pointed out that there was only one code of practice, (BS 5266) currently available for duty-holders to refer to.

Watts told the group that there needs to be a greater level of understanding that the end-user has a duty of care and responsibility to perform a written risk assessment in line with this standard. He stated that the most important factor for duty holders to consider is to provide compliance to BS 5266. In a court of law, he said "compliance to the standard, is deemed to be compliance to the law."

Watts also stated that UK duty holders should aim to exceed to those standards, especially in terms of minimum lux levels, referencing higher requirements across Europe. **(Information required from Ian)**

Watts also pointed out that under Home Office regulations, duty holders are required to use Competent Persons when installing and maintaining emergency lighting, moving the conversation back to training and upskilling.

"Competency takes so many different forms and it's ongoing. It needs to be monitored and recorded" – Ian Watts

Finding your way out

The panel discussed wayfinding and the importance of avoiding compromised escape routes. Watts told the group about the value of having dynamic safety systems in HMOs which use a combination of emergency lighting, detection equipment and mapping technology to guide occupants safely out of buildings.

He said: "For 10 years, the rest of Europe has had dynamic safety systems which can be programmed and interfaced into building management systems, but I fully believe that the best way to integrate a signal is from an integrated fire alarm panel whereby the sensing of smoke in an escape route can provide wayfinding, via a red cross on Emergency Lighting signs. There are products available to installers which operate using cause and effect programming, allowing people to exit buildings via routes which don't have smoke."

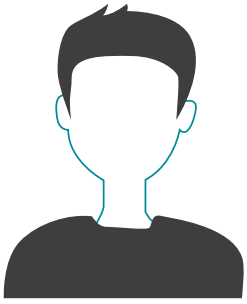
Wharram agreed that the best approach for life safety in HMOs would ideally be putting an entire, integrated life safety package together. Wharram and Watts discussed certification in terms of emergency lighting. Watts advised that emergency lighting products have their own standards that need to be adhered to but there is also confusion around best practice.

Watts said: "If a product is designed to meet the requirements of EN 60598-2-22, this is not the same as it being 'Certified to'. It horrifies me that it is not illegal to fit non-certified emergency lighting. Some people think that as long as it has a CE mark, that's enough."

Watts stressed that he hoped emergency lighting law was enforced in the future, and that end-users protect themselves against legal action by using more dynamic systems. He advised that FIREscape+, from Hochiki Europe, is one such dynamic emergency lighting system, ideal for HMOs. The panel discussed automatic testing, with Watts championing its value.

"Automatic testing is the only way to prove that you test your lighting and it forms part of an emergency lighting logbook, which is as important as the bible for these systems. Auditable documents are everything – Ian Watts

As the roundtable drew to a close, the panel each summarised what they believed the industry should be doing to encourage greater life safety processes within HMOs. The general consensus of the group was that collaboration and education were key.



"We have technology to prevent false alarms, evacuate safely and earlier, but if we don't tell people how it works, and train them it's useless" – Will Lloyd

Wright said: "There can definitely be more support from my perspective that's openly seen as a fully fire-engineered solution. We also must ensure that we engage with the right competent people to carry out the design and installation work."

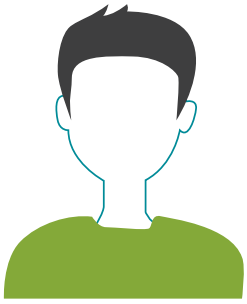
Driving greater levels of knowledge

Thewlis added: "As an installer, we need to work closer with consultants and provide them with fully engineered solutions, that is our remit to support HMOs."

Wright agreed, saying: "Education is key. I've learned things that I didn't know before this session. Working with contractors, and seeing a project from start to finish, working with designers.

Adams responded: "It's important for manufacturers to provide the right tools and educate the wider industry using their products. This can come in the form of guidance, whitepapers, or CPD schemes."

Wharram agreed and stressed that Hochiki Europe had a lot of positive feedback from its schemes. He said: “It’s about constant education, and bringing people up to the standard where they can do their job correctly. I also think we should look at third party accreditation from design to handover. In my eyes, I would like to see this become mandatory.”



> “Also, education for people who are trained on these systems. It’s not about time served doing a job, it’s about having the right knowledge” – Richard Wharram

Will concluded: The FIA has a wide range of information. We cover a broad arena, and there is a lot of information available on our website for end-users and professionals. We also offer qualifications so we can upskill technicians. The more help and guidance we can offer, the more likely they are to take it.”

For more information about Hochiki Europe, and its whitepaper visit:

www.hochikieurope.com/whitepaper

For more information about the FIA, visit

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