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SOLID BIOFUELS: RISKS AND CHALLENGES

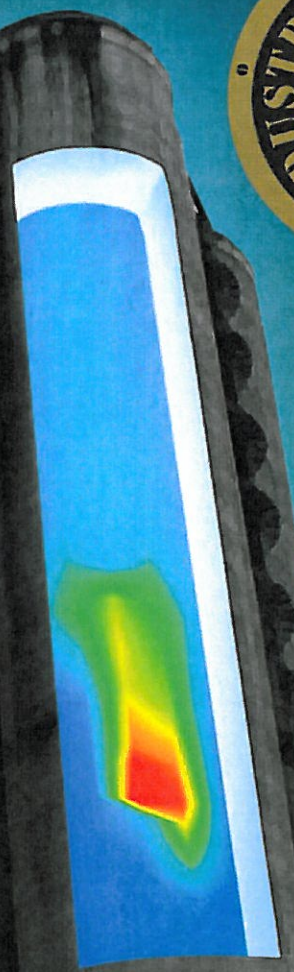
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The new code (NFPA 7 National Fire Alarm and Signalling) for the first time allows (and encourages) the combining of in-building fire emergency voice/alarm systems with mass notification systems (MNS).

In theory this is good news because it means lower costs for design, installation and maintenance by having one system rather than two. On the other hand, some safety experts may balk at the prospect of having to cope with yet another Code, not to mention facing the possibility of having to replace current fire and MNS installations with new systems that comply with the newer NFPA and UL requirements. However, one solution was launched at the NFPA in June that rather cleverly interfaces with an existing addressable fire alarm system to create a complete in-building MNS solution that performs both fire alarm and emergency communications functions.

The NFPA included mass notification guidelines in its 2007 National Fire Alarm Code following research by the DoD that revealed most fire alarm systems could not communicate non-fire emergencies (such as severe weather). This became the first instance in the history of the Code that a non-fire alarm system could take precedence over a fire alarm system.

In the latest version of the Code (2010), Emergency Communications Systems has a chapter all to itself (24) and is the first mass notification code for the private sector. Moreover, UL has established a standard for mass notification which will measure how these systems perform against the NFPA codes.

The code provides a set of requirements for indoor/outdoor, one/two way emergency communications systems. One way communication systems include in-building fire emergency voice/alarm communications systems; in-building MNS; wide-area MNS; and distributed recipient MNS (ie text messages, pagers etc). Two types of two-way communications are recognised; two-way telephones and two-way in-building radio communications.

In summary, an emergency communications system must be installed in occupancies where required by the authority having jurisdiction (AHJ), or other applicable laws, standards etc.

Mass notification components for the inside of buildings include; primary control units to monitor and control notification appliances; a dedicated microphone for live emergency communication messages (and one which can be distinguished from a fire microphone); interface to a fire addressable system; and audible and visual notification devices.

Ted Milburn, Vice President of Marketing for Cooper Notification, explains what this code has meant for next-generation systems. "There are two areas that are set in the Code that everyone has to comply with. First one is prioritisation of signalling, which basically means that there cannot be any ambiguity in the messaging that is being sent out – so people have to be able to tell if the message is a fire message or a mass notification. Manufacturers such as ourselves have to clearly indicate what situation is happening – which has meant a lot of work in making sure there is only one signal happening in a building at any one time. The other thing that is important is the ability to clearly understand what is being said, so the second part of the Code deals with testing to make sure a message is intelligible."

During the NFPA Conference in Las Vegas earlier this year Cooper Notification launched a new system that is not only UL 2572 compliant (and therefore NFPA 72 2010 compliant) but also one that integrates with a facility's addressable fire alarm system. The SAFEPATH MNS interfaces with an existing fire alarm system to perform both types of communications functions (ie fire and mass notification), managing all the audible and notification devices within a building or facility. In other words, during an emergency it will ensure the highest priority notification (whether live or pre-recorded) is sent to the appropriate appliances. "Some

Code alert!

A new chapter on mass notification systems in the latest fire alarm code of the National Fire Protection Association (USA) is causing some headaches for facility protection managers. Jose Sanchez de Muniain talks to Ted Milburn, Vice President of Marketing for Cooper Notification, about both what the latest code means for facility managers, and a potential solution that could avoid expensive replacements.

of the requirements specify that you have to turn on amber strobes for mass notification instead of clear strobes which are used for fire. Under similar circumstances, where a mass notification event has priority over fire, it is imperative to turn off any speakers that are reporting on the fire event."

Although notification in general is still a relatively new concept, it is fast gaining ground in both industrial complexes and higher education campuses. "In its most simplistic form SAFEPATH MNS covers one area – typically a building of three or four floors – via a connection to the fire alarm panel. However we do have another series of products for enterprise or larger environments, where specific live or pre-recorded messages can be relayed from a central location to a particular building or area of a building, or via giant voice to an outdoor area. In this case you would use a PC-based command and control interface."

As for feedback since the launch of SAFEPATH MNS in June this year, Ted is upbeat. "There are a lot of players in the market and they are approaching the concept in different ways. Facility managers are saying, 'Oh no, I have to start all over,' but we are saying no, just add this to what you already have, don't replace anything. People appreciate this concept and they are positive about being able to comply with the latest Code inexpensively."



Ted Milburn explains that while the SAFEPATH MNS has been designed for the US, there are plans to take it to Europe in the next 12 months, following some redesign work.

