



# TAKING REFUGE FROM FULL COMPLIANCE

While allowing for some flexibility in the design of emergency voice communications, BS 5839 part 9 requires that any deviations from its provisions should be listed. But by not declaring these up-front, says **Andy Howe**, suppliers can potentially hide behind this provision until it is too late.

ALTHOUGH RELEVANT LEGISLATION AND standards have been in place for several years, I am always intrigued at the mixed and varied responses I receive and the difference in knowledge, or the lack of it, on the subject of Emergency Voice Communication (EVC). Hardly surprising when the messages being put out by various documents still seems to fall short of total clarity.

There is a need to be aware of the various regulations and guidelines that place a duty of responsibility onto the design teams for both new and extensively refurbished buildings. But also, in my view, there's a need to encourage open and honest dialogue between 'responsible persons', so that decisions on the need, or not, for compliant EVCs are carefully considered against the information available and the potential risks that a building's design may subject 'vulnerable people' to.

The issues seem to stem from conflicts between legislation which, by and large, is enforceable, and standards or guidelines that are not enforceable but where failure to follow the recommendations in them could be construed, in a case of litigation, as being negligent.

With finite budgets available, this can leave clients and specifiers in some doubt as to exactly what they should or should not be providing in the way of a suitable communication system allowing those in need of assistance at disabled refuge areas to alert rescue services to their plight. Additionally, if those in a position to do so do not take a lead in highlighting the need for such provision, and those further down the design chain don't fully understand their own responsibility, the end result could spell danger or even disaster in the event of a fire.

To make matters worse, BS 5839 Part 9 has a 'get-out' clause that allows manufacturers some design and functionality variation, as clearly not all of them will approach compliance in exactly the same way or use the same technology. This is absolutely fine and very sensible, but those considering which manufacturer they should specify should be very clear on one point: all manufacturers have a duty to make any variations that deviate from 100% compliance with the standard known to the specifier or design team *in advance* of any specification being firmed up, and certainly well before any orders are placed.

## Why?

First and foremost, BS 5839 Part 9 actually makes it a requirement to disclose such variations up front, so that areas of non-compliance can be considered. If they are then deemed acceptable, they can be signed off by those who have an interest in the project thereby making the variations 'acceptable' and thus the system, once again, compliant.

Second, it would be unethical for any manufacturer or supplier to knowingly allow a system to be specified, ordered, supplied and installed, only to divulge variations in recommended functionality at the time the system is commissioned. By then, it is simply too late for anyone to object to those areas that do not fully comply.

Allowing manufacturers some design and functionality licence is one thing, but it is crucial that the degree of any variation from the requirements in the standard is acceptable. A small variation that has little or no impact on the overall functionality of an EVC may well get the green light. One that is so wide of the obvious functionality requirements within the standard, however, could spell disaster and should not go undisclosed without the

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client, users and design team being made aware of it at a very early stage, so that they can consider the likely impact.

So how can clients and their design representatives be absolutely certain that the system they intend to specify will come up to the mark when it is most needed – in a life or death situation? Verifying any manufacturer's claims *before* you commit is the obvious answer. If a manufacturer claims compliance to BS 5839 Part 9 it is not unreasonable to ask, indeed insist, that it provides documentary evidence in support of such a claim. Manufacturers who are aware that one or more areas of their system design or functionality falls outside the recommendations should offer up-front, or be able to supply on request, a statement that will clearly list and highlight any variations from the standard that may be considered important enough to reject, or acceptable enough to sign off.

For those who boast 100% compliance, they should be able to provide a verification letter or certificate that states just that – full compliance and no variations from the recommendations. And remember, you are not asking manufacturers to put their neck on the block by stating that the system will remain compliant because to achieve ‘full’ compliance, the system must also be installed, commissioned and maintained in accordance with the standard. What they can confirm is if their system is installed correctly, commissioned in ‘like conditions’, and maintained within the standards laid down, the functionality and performance of their system will be fully compliant.

A manufacturer who suggests that such assurances cannot be given until the system is commissioned is simply not being fair to his clients since, by then, it is probably too late to make practical and cost effective alterations to the system or the installation.

Specifiers should also consider the usual ‘fit for purpose’ elements when considering which system to propose. The vital element of any EVC system is the ability to compete with significantly high levels of background noise such as fire alarm sounders during an emergency. A conventional intercom system would struggle, particularly if the call intercom station is mounted close to an alarm bell or sounder. The audibility and intelligibility of the voice element is absolutely crucial to the successful EVC-assisted evacuation

process.

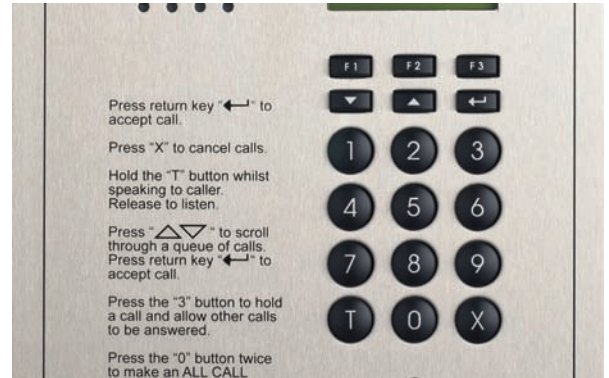
BS 5839 Part 9 suggests, as a recommendation, that if outstations are located in areas where background noise is likely to be above 40db(A), then acoustic hoods should be considered. If an average domestic dwelling can produce background noise of 50db(A), surely manufacturers should strive to supply equipment that can provide intelligible and coherent conversation in noise levels that are more realistic in an emergency situation. In other words, the chosen EVC should be designed to cope with 65db(A) and above without the need for acoustic hoods or any other augmentation.

Our advice is to ask the manufacturer to give you a demonstration in ‘like conditions’. Generating noise in a controlled environment is not difficult but can clearly demonstrate to any potential customer that the system can indeed cope and function with clear voice communication – even in the presence of significant background noise. After all, when it comes to commissioning the system that's what you will be required to do, so why not make it a pre-requisite check before you commit to the manufacturer?

Check also that the outstations are robust enough to tolerate the conditions that they may be subjected to in an emergency. Do they offer suitable IP protection against the ingress of water from nearby sprinklers? Will the plates withstand being hit by wheelchairs or evacuation chairs? Is the outstation user-friendly for disabled people and is the equipment easily operable by vulnerable persons? Can the manufacturer offer different plate finishes ensuring that the call unit is highly visible against the wall it is mounted on? Does the system being considered offer any additional features that could enhance the functionality of such an important life critical system?

And finally, don't be content to take a manufacturer's word as being good enough when other people's lives are at stake. ■

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Using a distinctive finish on a call unit will help people identify it readily in an emergency



A reception desk equipped to handle emergency communications with people in disabled refuges



Outstation equipment should be tough enough to cope in demanding conditions

