

David Sugden, Chairman of the Passive Fire Protection Federation, on active and passive fire protection and the Atherstone fire.

Lessons from the Atherstone Fire

The tragic fire in the vegetable packing plant in Atherstone caused the greatest loss of fire fighters' lives for 30 years and so will be the subject of a major investigation. We must not pre-judge that investigation by speculating on exactly what went wrong but nevertheless some immediate questions are raised for Facilities Managers and building occupiers.

But we had sprinklers!

Much has been made of the lack of sprinklers at the Atherstone warehouse but it is simplistic to assume that they would have prevented the tragedy. Sprinklers and other 'active' fire fighting measures such as fire extinguishers come into play when a fire starts and can extinguish it quickly given the right circumstances. They form an important part of fire defence, but they need a solid platform to work from. They work best when the fire is contained in a compartment (eg a room with closed doors) and they can cool it. Once the fire breaks out of the compartment of origin fire brigade action is required.

Also, there is always the possibility that mechanical devices can malfunction, through lack of maintenance or human interference. In a recent case in Oregon, USA, a failure to maintain a water pump led to the failure of the sprinkler system; \$3 million damage was done to the building and two employees were injured trying to operate portable fire extinguishers. It is a mistake to rely solely on automatic active devices. Active measures need passive fire protection in order to function. That is why passive fire protection is so important. But what exactly is it? Passive fire protection is built in to a structure, whether it is an office, a warehouse or a factory. Its purpose is to confine a fire to its point of origin while allowing sufficient time for those inside to escape and for the firefighters to get in, do their job and get out again.

What is passive fire protection and what can it do for me?

The basic structure of a building needs to remain stable in the event of a fire for stipulated periods of time. A building may have specialist materials included in and on the structure to ensure this is the case. Fire resistant doors, glazing, partitions, ductwork, surface coatings and so on may be used in the original construction. Some walls and all

floors in a multi storey structure will be “fire separating elements” and so all services, doors or windows in such elements will have to use fire rated materials to seal the holes through which services, people or light pass in order to prevent the spread of smoke and flames for given periods of time. These elements need to be maintained so that they are kept up to their original condition or better and some of these holes, or penetrations as they are properly called, will be out of sight behind ceilings, within service ducts or under the floors. Locating them usually means consulting the drawings of the building.

Fire fighters who attend when an incident occurs have no time to check all this before they deal with a fire; they must assume that the place is structurally sound. If necessary they will enter the premises on that assumption in the knowledge (or should that be hope?) that they have a certain amount of time to do their job before the place falls down round their ears. Previously most buildings had a Fire Certificate issued by the local Fire Service. Following the Regulatory Reform Order which came into force in October 2006 the responsibility for fire safety within any building now lies with the occupier. Existing buildings must have a risk assessment prepared by a nominated “responsible person” but the guidance as to what should be included in this assessment has been somewhat vague. New buildings must have the risk assessment in place from day one: there is no period of grace.

Some experts claim that all that is required to produce a risk assessment is ticking boxes in a downloaded form and that anyone can do it. The Passive Fire Protection Federation, which is dedicated to growing awareness and giving advice on fire protection, believes that this simplistic approach is inadequate and dangerous as the average person is unlikely to know or understand just the true situation. It’s more likely that they will assume that the structure is fire safe and in accordance with the requirements of the Building Regulations.

Can you as the facility manager be certain that your building is as the regulations require? Because by signing off the risk assessment that’s what you are saying.

Expert opinion

The website www.pfpf.org carries advice on what to check and best practice in all passive fire protection measures. But if it’s your responsibility to carry out the risk

assessment and you don't feel competent to check the matters mentioned above you may look to one of the many specialists offering this service. Take great care to ensure that they are suitably trained in fire protection matters and understand fire resistant construction methods enough to know if they are correct for the circumstances and in good condition. Failure to ensure competence in either a staff member or an outside contractor is a breach of your duty of care under common law and you simply cannot "pass the buck". You may be personally liable and your company may be criminally liable.

The Atherstone fire has thrown up many questions and we should all give fire safety matters serious thought if we are to avoid further accidents and subsequent liability.

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