

# Feature Fire Risk Management, May 09

## Risk assessment: what next?

*Peter Barker, Head of Chiltern International Fire's Consultancy Section, offers practical advice on following up the risk assessment.*

Under the Regulatory Reform (Fire Safety) Order 2005 (RRO), which came into effect in England and Wales in October 2006, all premises must have a risk assessment, which must encompass all aspects of fire safety within a building:

- Fire safety management (staff training, fire drills, maintenance, records of near misses etc.)
- Active systems (sprinklers, alarms, fire fighting equipment etc)
- Passive systems (provision of fire resistance through compartmentation etc)

The fire risk assessment (FRA) will report back any significant findings and it will be the duty of the responsible person – whether they have carried out the FRA or nominated a competent person to do so on their behalf - to ensure that the findings are acted on and implemented.

The significant findings will highlight what areas need to be addressed, as well as the perceived risk level and therefore the urgency with which any risk needs to be reduced or removed.

Inevitably, the risk assessment will not detail exactly how to mitigate any particular perceived risk or problem with respect to sub-standard active and passive fire protection measures. In fairness, this would be a particularly arduous task for any professional working within the fire protection industry, because of the varied complexity of the systems. The question therefore is how best to respond to the findings of the FRA.

Let's take passive fire protection as an example, although the philosophy and problems can be applied to all fire safety management systems.

One of the most common issues identified by risk assessment process is whether the fire doors are capable of providing the required fire resistance. In the majority of cases, where the fire resistance of a door cannot be clearly established, this will be highlighted within a risk assessment by stating nothing more than 'ensure doors are rated for X minutes in accordance with BS476: Part 22: 1987'. Although this is not particularly helpful, it does make the responsible person aware that

- A particular door should be fire-rated;
- The door has been deemed potentially inadequate for X minutes' fire resistance
- The door must provide X minutes' fire resistance to maintain the compartment line.

As a result of this assessment, therefore, there are two possible outcomes. Either the door(s) in question will be upgraded to meet the required fire resistance, or they will be replaced with new ones.

Small and Medium Enterprises (SMEs) especially will opt for upgrading because it is seen to be cheaper, quicker and easier than replacing the doors. In fact, upgrading

of doors should be preferable in terms of waste and is likely to be a requirement if the doors are of historic importance.

There are numerous products on the market that claim to be suitable for upgrading doors to 30/60 minutes' fire resistance but not all will be suitable for all the different types of doorsets to be found in buildings. It is therefore not only necessary to establish whether the door is suitable for upgrading, but also whether a particular product is suitable for the door in question.

Even after an appropriate upgrading method has been selected, this does not automatically mean that the door will perform for the required period of fire resistance, because no one component of a fire door can be considered in isolation. For example, it is futile to upgrade a raised and fielded panel within a door, if the door edge intumescent seal specification is insufficient.

Upgrading of the doorset must include all aspects of the design including the following:

- Leaf construction
- Frame
- Hardware
- Intumescent seals
- Glazing
- Door gaps
- Installation

An error in any one of these components can significantly reduce the performance of the doorset.

Essentially the responsible person is left with two choices (which are in fact very similar to the choices that have to be made before carrying out the risk assessment in the first place).

Option 1: The responsible person makes the decision that he/she is competent to carry out a survey on the fire doors and to implement the appropriate upgrading measures.

Option 2: The responsible person makes the decision that he/she is not competent to carry out a survey on the fire doors and enlists the services of a professional body.

The inherent risk involved with upgrading, without fully understanding the doors, the various products available and the associated supporting test evidence needed, is that it is very easy to spend a lot of money and achieve little.

In more than one instance, we have spoken to the owner of a building who has spent a considerable amount of money on upgrading doors, only to discover that they are unlikely to perform for more than 10 minutes because of an oversight in a fundamental component such as glazing.

It is also necessary to understand how a doorset's fire resistance performance can be drastically altered over time, say through the fitting of incompatible ironmongery. For example, Chiltern International Fire was contacted by a global organisation to undertake a site survey on existing fire doors at one of its premises. The facilities manager was genuinely shocked to learn that nearly all of the 120 doorsets surveyed were no longer suitable as fire resisting doorsets.

The doors were originally installed in the mid-90s as high quality, proven, fire-rated doorsets, but at some stage security hardware had been installed. Significant proportions of the leaf and frame had been removed and the hardware had interrupted large sections of the perimeter intumescent seals. Until the doors were surveyed, everyone in the building was blissfully unaware that the 60-minute compartment line separating each office/store room/lobby etc had been reduced to as little as 10-15 minutes. Not only do compartment lines allow for suitable escape strategies, as well as protecting life and property, but they also restrict fire to its source until the Fire Services arrive to control it.

### **Conclusion**

A risk assessment is mandatory under the Regulatory Reform Order and the assessment must be suitable and sufficient for each individual premises.

The risk assessment needs to be carried out by a competent person and the responsible person must ensure that everything is done as far as reasonably practicable to implement the findings of the risk assessment.

Exactly what 'suitable and sufficient' and 'as far as reasonably practicable' entail will undoubtedly be established by case law.

In the case of specialist fire protection equipment, it is unlikely that any one person responsible for the fire safety of a premise will have the knowledge necessary to implement the findings of a risk assessment to a level equivalent to that of a professional working within this specialist field.

Employing a third party for individual areas of fire safety does not extend solely to covering oneself in a court of law, but could potentially save a considerable amount of money, time and effort. Ultimately this will ensure that the life safety products that have been identified as sub-standard by the risk assessment have been upgraded and will perform as originally intended.

There is little point undertaking a risk assessment if the findings are not implemented fully and correctly. In the eyes of the law, ignorance is no excuse.

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