

Beyond the competence of the average fire risk assessor?

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Niall Rowan, Technical Officer, Association for Specialist Fire Protection (ASFP), proposes that the subject of risk management in buildings is probably beyond the competence of the average fire risk assessor.

This is possibly a rather controversial statement to make, but as so many problems with fire risk assessments arise and are widely reported in the press, it is increasingly becoming accepted opinion. It is well known that under the Regulatory Reform (Fire Safety) Order, there are currently no qualification, knowledge or experience requirements for Fire Risk Assessors. Anybody can do it and as a result there are a number of substandard risk assessments in circulation. The more infamous ones have been well documented, but what about more complex structures such as fire engineered buildings, or those where there are a number of factors that make the undertaking of a fire risk assessment unsuitable for the faint-hearted? What special requirements do they have that make them 'beyond the competence of the average fire risk assessor?'

Fire engineered buildings are complex and pose a number of problems for the responsible person, the owner, the occupier and the developer/contractor, such as:

- Innovative complex design
- Limited mobility of occupants
- Extended escape distances
- High reliance on fire safety management procedures
- Requirements for 24-hour operation
- Inclusion of hazardous materials and processes
- Increased compartment sizes
- Removal of stairs resulting in an increase in the useable floor plate
- Flexibility in the use of space for the end user
- Reduced construction costs

To cope with these, buildings may rely upon a number of fire engineering techniques such as hot smoke extraction systems, smoke venting, smoke curtains, extensive automatic fire detection, fire suppression systems, compartmentation of high risk areas and well defined operational procedures.

Such an approach demands a very high standard of fire safety management covering the day-to-day operational arrangements for the building. It also requires a robust planned preventative maintenance regime in respect of fire safety systems. Whilst this is feasible, is it realistic in the day-to-day running of

medical buildings? What happens over time when, bit by bit, small changes are made to the building, that compromise or invalidate the fire safety measures, which are essential to such a building working correctly?

Fire safety strategy and the responsible person

The fire risk assessor evaluating a building will need to review any Fire Safety Strategy (FSS) in order to be able to undertake a 'suitable and sufficient' assessment. Whilst fundamentally accepting its validity, since it will have been signed off by the regulator, the assessor will need to review the FSS for deviations present in the building which will need addressing; either by requiring compliance or developing an alternative strategy. It should be noted that the FSS will often be justified by detailed models and calculations which are outside the scope of a fire risk assessment. They are also likely to be outside the competence of any fire risk assessor who is not a fire engineer.

In order to undertake the fire risk assessment, the assessor will also need extensive support from the 'Responsible Person' because he/she must hold all the information on all the fire safety systems that make the building safe. This will include all the passive fire protection (structural or built-in) measures, all the active fire protection (detection, alarm, suppression) measures and for such buildings, the Fire Safety Strategy including the assumptions made in producing it.

For buildings constructed since 2006, the requirement to maintain such information is enshrined in Regulation 38 (formerly Regulation 16b) of the Building Regulations. This requires that information be given to the Responsible Person so that any fire risk assessor can obtain the information from them and undertake their fire risk assessment. Unfortunately, 'Regulation 38 information' is rarely available, which makes it more difficult for the Responsible Person and the fire risk assessor to come up with a credible fire risk assessment.

Four complex areas

There are four areas that the fire risk assessor will need to concentrate on in conducting a fire risk assessment on a complex building, such as a hospital, based on the a review of the Fire Safety Strategy. These are:

(1): Review of the building geometry/layout: Has the building layout or geometry been changed from that specified in the Fire Safety Strategy? In particular, has the building been modified? Does the compartmentation and use of the building reflect what is stated in the strategy?

(2): Review of fire safety systems In the same way that all the passive fire protection measures need reviewing, so do the active fire protection measures. Consider the following fire safety systems and ask yourself if the average Responsible Person or fire risk assessor can answer the questions related to each.

- Fire alarm including automatic fire detection
- Smoke and heat extract ventilation systems (SHEVS)
- Smoke control pressurisation systems
- Fire Suppression systems e.g. sprinklers, water mist and gas suppression systems
- Evacuation lifts/fire-fighters lifts.

(3): Review of operational arrangements Operational arrangements covering the management and operation of the building will need to be reviewed as part of any fire risk assessment, specifically to ensure it is in alignment with the Fire Safety Strategy. In doing this the fire risk assessor will have to use his skills and experience to address the following areas:

Procedures for evacuating (or defending in place) of occupants who may have very limited mobility

- Means of escape
- Control of fire load
- Displays and temporary furnishings.

(4): Planned preventative maintenance (PPM)

Planned preventative maintenance and the testing of fire safety equipment essential to the Fire Safety Strategy is crucially important in a complex building because the operation of the systems is critical in affording the required level of safety to the occupants.

Conclusion

This article highlights the many special factors to be considered in undertaking a fire risk assessment in a complex, or fire engineered building. Many are the specialist questions under these areas: passive fire protection, active fire protection, operational requirements and planned preventative maintenance that need detailed answers. Undertaking such a risk assessment is not for the faint of heart and can probably be undertaken by a qualified fire safety engineer alone.

Simpler buildings also need qualified and experienced people (although to a lower level) to undertake fire risk assessments. Consequently the Association for Specialist Fire Protection (ASFP) is a member of the Fire Risk Assessor Competency Council which is developing a set of agreed competencies, experience and qualifications in support of the various third party schemes for certifying fire risk assessors.

The ASFP, in line with its policy promoting third party certification for the manufacture and installation of passive fire protection products, supports those schemes which require full third party certification, either for individual assessors under a personnel certification scheme, or for companies who employ assessors under a company scheme.

Any such schemes will need to be accredited by UKAS – the UK body responsible for accrediting certification bodies – to ensure credibility. It is only in this way will we see the status of the profession of fire risk assessor rise to the level that it deserves.

For more see: www.asfp.org.uk

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