Ignorance is not always bliss

Does it matter that the lay person does not understand the importance of passive fire protection? Wilf Butcher, CEO, Association for Specialist Fire Protection, examines the significance of this question

Back in September 2008, the London *Evening Standard* ran a feature on a two year battle by residents of a luxury block of apartments in Rotherhithe, London, over a number of workmanship issues. The ensuing investigation, relating to water damage and toxic mould growth, uncovered the 'shocking discovery' that:

- There was little or no fire compartmentation between floors or apartments and inadequate fire resistance to the structural steel frame
- Of equal seriousness, shafts rising from the basement car park through all six floors were able to vent smoke unchecked on all floors and in places no fire dampers were incorporated in the basement air ducting system.

Put simply and without wishing to over dramatise the matter, the lives of all the residents of this apartment complex were being put at risk.

The article concluded that many homes have build problems, but perhaps this is something special.

ASFP contracting member, Sharpfibre Ltd. who is undertaking the remedial programme on this complex, would argue that this is far from a special case and if anything this project is merely the tip of the iceberg. In fact, they are currently undertaking the same essential remedial work at another block of apartments in Chiswick, London.

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Far from being an isolated incident Sharpfibre, along with other ASFP contracting members regularly identify buildings with poorly installed compartmentation and fire protection measures, as misapplied by non third-party certificated companies.

Over the last 10 years there has been an upsurge of apartment block construction all over the United Kingdom and until the near collapse of the housing market last year, such apartments were being snapped up, 'off plan' faster that they could be built.

In this drive to meet demand, who has been responsible for ensuring the fire protection needs of a building are met? Or, when put

Understanding timber and wood-based panels in fire

TRADA Technology, in consultation with sister company Chiltern International Fire, has published a revised Wood Information Sheet, *Wood-based panel products and timber in fire*, aimed at designers, specifiers and manufacturers.

During all phases of a fire, a product's performance will depend not only on the material it is made from, but also on details such as fixings, joints and thickness. The Wood Information Sheet considers the first three phases of fire, ie ignition, fire growth and the fully developed fire.

The fourth phase, fire decay, is not addressed, as it is not covered in UK Building Regulations.

The behaviour of a product in the first and second phases of fire development is termed its 'reaction to fire', a measure of how easy it is to ignite that product and how the product contributes to the fire development and spread. This is important during the early stages of a fire when evacuation is crucial.

Once the fully developed fire phase is reached, it is assumed that all combustible materials present are burning. What then becomes important is the 'fire resistance' of a product. Fire resistance, as defined in BS 4422:2005, is 'the ability of an item to fulfil, for a stated period of time, the required fire stability and/or integrity and/or thermal insulation, and/or other expected duty specified in a standard fire resistance test'.

Wood-based panel products and timber in fire links the requirements of Building Regulations in the UK with the relevant British and European test standards.

TRADA members may download a PDF free of charge and all registered visitors to the website at www.trada.co.uk can access the text in HTML format. There is no charge to register. To purchase a copy, email info@trada.co.uk. Cost to non-members is £12 plus postage & packing.

For further information on fire resistance or reaction to fire, visit www.chilternfire.co.uk or email cif@chilternfire.co.uk.

another way, when things go badly wrong, as in this case, who is to blame when they are not met?

As with most things in life the answer is never that simple. Nonetheless, this issue must be addressed if we are to avoid the inevitable fatal consequences. To do this we must ask some very difficult questions, for example:

- Is the whole inspection process fit for purpose? Clearly in the case outlined above this would seem not to be the case.
- What is the level of specifier awareness/ responsibility in relation to what is happening on a day to day basis with his/ her original specification?
- To what degree is the contractor's drive for cost savings greater than his willingness to understand the dangers of his cost cutting actions (particularly in the current financial climate)?
- Dare I say it, is the fire industry itself getting its educational message across as well as it may?
- How effective is the legislative process, or is it assumed by government that, as is the case in the UK, the advent of the Regulatory Reform (Fire Safety) Order and guidance given in Approved Document B is sufficient. (In fact, the RRO does not cover apartment blocks)?
- Is the growing freedom given to fire engineered solutions (particularly with an eye on new carbon friendly modular construction) as safe as the theory would lead us to believe?
- Does the fire services have all the powers that they need?
- Are the benefits of third-party certification of specialist installers fully recognised and respected (In the UK it is not a mandatory requirement)?
- How aware is the insurance industry of the non-compliance and the insured risk?

Many of these issues are complex and I regret to state, some are seen from the perspective of a 'head in the sand' but the fact remains that they need to be addressed.

Twenty five years ago, if you had asked the man in the street where on his list of priorities he would place safety features when selecting a new car, chances are it would not have been very high. Now it's right there at the top of his list of demands.

In many respects buying an apartment today is not so different to buying a car all those years ago (except the cost is hundreds of times greater!). The last thing on the mind of the buyer when viewing his dream apartment is the level and quality of the passive fire protection, built in to protect him from his neighbours.

In most instances he will not even know it is there. This is one occasion, however, where 'out of sight' should never be termed as 'out of mind'. Fire safety within the structure of this type of construction must be pushed up the agenda because this is not a theoretical debate. In the last few months alone there have been a number of significant fires in apartment complexes within the UK. Sixteen homes, for example, were destroyed in June last year following a 12-hour blaze in a block of flats in Hounslow, London.

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So, in answer to my own question, 'Does it matter that the lay person does not understand the importance of passive (built-in) fire protection?' Yes, it matters a great deal!