

# Passport to Fire Safety

By Dr Bob Docherty, MD of Flamerisk Safety Solutions Ltd. and Chairman of the Institute of Fire Safety Managers



Last year I was reading an article and then listening to an old fire engineering friend and colleague of mine. Paul Bryant. Paul and I have been involved in many debates, both practical and conceptual, over many years on all kinds of issues regarding fire safety. These have ranged from fire risk assessments (FRA) in complex buildings, fire engineering design and fire strategies and strategic thinking.

Paul has written many papers and delivered a number of presentations to organisations including the Institute of Fire Safety Managers, and last year he shared with me a paper he had written about his concept of Holistic Fire Engineer (HFE). I was fascinated by the concept and it resonated with an idea I had been toying with for a few years. On the back of this came the Grenfell Tower fire and Dame Judith Hackitt's review of Building Regulations and fire safety. This got me thinking again!

There have been many attempts to try and improve both the competence and knowledge in fire safety for those who are in the industry and also the processes that are involved in both new build and refurbished/altered buildings. If I cast my mind back far enough, I remember the Bickerdike Allen and Partners Report (1990) which looked specifically at both the interaction of the agencies that are involved in the design and development of new building projects and the delays in the process, a look at the technical and practical skills of those involved in the industry and training requirements needed to ensure advice and information

given was successfully interpreted and acted upon. Today, I would suspect we would call this review a 'Gap Analysis' – and it did find some very big gaps!

One of the outcomes of this report was the production of the National Core Curriculum in Fire Studies. This was supposed to be the 'holy Grail' of fire safety, a curriculum that could be inserted into many higher education courses including degrees across the whole of the building sector, from architects to surveyors, building control to fire engineers, and yet for most of those sectors, it didn't happen. Nearly everyone ignored it apart from a few like-minded people, mainly from the Institute of Fire Engineers and the Institute of Fire Safety who used it dutifully and diligently to carve the academic pathway to the recognised fire engineering and fire safety degrees that are available now.

Since then there has been the introduction of totally new pieces of fire safety legislation, covering all the UK. These pieces of legislation were designed quite specifically to reduce regulatory control, reduce the burden on industry, cut 'red tape' etc. as well as provide specific definitions of who would be responsible for the fire safety protective and preventative measures in any premises. These pieces of legislation turned the corner from a prescriptive to a more risk based (assessment) approach and added together with the philosophy of functional requirements of the current Building Regulations, make up the modern-day approach.

The main delivery of fire safety is therefore down to the production and reference to guidance documents from Approved Document B of the Building Regulations in England and Wales, Technical Handbooks in Scotland, various references to British and harmonised Standards, through to the suite of guidance documents produced by the various Governments. There is plenty of reference material 'out there', and plenty used, but at times it isn't being used in any rational or specific way, and when used, the chances that what has been used is recorded in a standard and sequential way that is understandable (even to those who are in the industry) is minimal.

So, from this background and introduction, I ask the question, 'how hard is it for fire engineers, fire consultants, fire risk assessors et al to follow the fire safety history of a building from its concept to reality?'. The question might be rhetorical I know, but in practical terms I would say it is pretty hard because there is no formal 'basket of fire safety information and goodies' always available, and if there is, then more often than not, it's incomplete and/or not kept up to date. And yet, it surely must be a fundamental principle of all things fire safety that the design and build and any subsequent changes and alterations to a building must be recorded and referenced!

I could go all anecdotal here, but this is not the point of this paper, we all have our tales and 'nightmare scenarios' but I want to use this opportunity to propose what I think is a pathway that the industry needs to take to move on in a more rational and formalised way. I also want to tie it into Paul Bryant's concept of HFE.

From the 'get go' a building in its design stage should follow the RIBA plan of work but in the initial stages a fire engineer or fire consultant must be contracted/appointed to work with the architect and design team to give the specialist input needed. That fire engineer/consultant will be the writer of the fire strategy for the building and this should be in the form of a written report. During this process there must be full consultation with both Building Control or Approved Inspector (BC/AI) and the local fire and rescue service (F&RS). Once the fire strategy is agreed, the fire engineer/consultant, design team, the BC/AI and F&RS must formally 'sign off' the project with full agreement of everyone. This way no one party can say they were not consulted or didn't agree further down the line.

Once this initial process is complete, then there should be a formal submission through the HFE route. The idea here is that plans etc. would go through independent fire consultants who would act as third-party validators to the project. Paul's HFE is well documented so I don't intend to go into detail here, I mention it to show how it can be an integral part of the whole process I am proposing.

The process suggested above would also work for material alterations proposed to an existing building and throughout the lifetime of that building.

Some time ago procedural guidance was produced (although mainly ignored!) which detailed the consultation process and also suggested that a preliminary fire risk assessment (PFRA) should be produced which would inform both BC/AI and the F&RS of how the fire strategy is designed and how it might develop. It could also form an important handover document to the responsible person when the building is completed.

The preliminary fire risk assessment, along with the finished fire strategy will then be used to formulate the emergency plan (EP) for the building i.e. that is how the building will be used to evacuate and this in turn will dictate the evacuation strategy (ES) to be used for the building. Both the EP and ES will be written documents.

Now we turn to Regulation 38 of the Building Regulations. I think we are all familiar with what it says and what its intention is, but in practice it's a nightmare! I have seen information handed over just about 'on the back of a cigarette packet' through to a full 5 volume set of technical specifications! It cannot be beyond someone to design a template that can accommodate the basic information that is required by the responsible person. Remember this is fire safety information that is handed over to a novice in fire safety matters so needs to be simple, clear and understandable to a layperson.

The final 'layer' in all this is the fire risk assessment (FRA), a formal document that sets out the current fire safety preventative and protective measures in a building that is occupied/in use.

The building is built and is now occupied, and we have an accumulated pile of documents:

- As built plans
- Fire strategy
- PFRA
- EP
- ES
- Regulation 38 information
- FRA

This is the point where I set my proposal. I have thought about the history of ourselves as individuals. We do have a lot of information points in our lives but one which carries, I would suggest, the most data on ourselves is our passport. We need to update it and renew it on occasions and it records our travel activities, so what about a passport to fire safety for a building? Ok, it doesn't move but we need to have an identity for it, record information and activities of importance about it and update it from time to time, especially information to do with fire safety.

I would propose that every premises that is built, including dwelling-houses, should have a Passport to fire safety. The passport would be a regulatory provision, every building would need one and it would contain all the information that is listed above. The information in the passport to fire safety would be updated, added to (new or updated FRA), record changes of use, changes in fire strategy, re-design etc.

The passport to fire safety would stay with the building throughout its life. If this could be done, then the whole fire safety history of the building would be a matter of record. There would be no more searching for clues or trying to second guess or 'back engineer' why the fire strategy of a building looks like it does or why it was built in such a way! It would become a set of records and information that could be referred to by future architects, fire and rescue personnel, fire risk assessors, fire engineers and anyone else who might get involved in the evolution of the building over its life history.