

# Fire safety on some of the world's biggest projects

Achieving world class performance is about finding innovative ways to deliver services. London was one of the first brigades to introduce and develop fire engineers from amongst its own staff. John Judd, London Fire Brigade's Assistant Commissioner for Community Safety, looks at what this means, as well as the key projects underway and in the pipeline.



Today our Fire Engineering Group has expanded to six full time engineers with administrative support and is dealing with an ever increasing workload of approximately 60 to 80 major complex London developments at any one time. The jobs can be large or small, simple or complex and contain varying degrees of performance based design.

Very large and very tall structures are already planned for the capital and fire engineering is playing its part, pushing the boundaries and making use of new technologies, as they become available. To maintain competency levels we organise internal CPD events with speakers from the full spectrum of industry. This is bolstered by two way secondments with our consultant colleagues and the provision of consultants training days designed to increase awareness of fire brigade and fire safety issues. There are two chartered engineers in the group currently registered with the Engineering Council and the aim is to help other group members to achieve chartered status.

## External consultancy services

We also offer external consultancy services for a range of clients. This generates income to support our other activities and also widens our experience and appreciation of the commercial sector. We concentrate on work areas that fit with our regulatory profile, ie third party checking, peer review, mediation and

training services. We maintain effective links and partnerships with industry. A good example follows concerns about how our operational crews interact with engineered buildings should a fire occur. We therefore developed and introduced the Premises Information Box system in partnership with Gerda Security Products Ltd.

The system is now recommended for all engineering projects we are involved with and its benefits have been recognised by its introduction across a range of other non-fire engineered buildings and structures. We maintain intellectual property rights for the system and are currently developing a royalty agreement with Gerda in respect of them marketing the system.

## Commitment

London Fire Brigade has demonstrated its commitment to fire engineering. It has established and resourced a large team that provides a unique service that works effectively with its colleagues in both the public and private fire safety worlds. Given the volume and variety of work the team has developed a high level of experience and has used this to provide a service to other agencies. We feel that the team has set the standard for the way the fire and rescue service should deal with fire engineering in the UK and has been instrumental in ensuring a consistent approach across the London area.

The authority has been successful in attracting sponsorship from the developers of major developments such as Heathrow terminal 5 and the new Wembley Arena to fund additional posts to deal with the high fire safety and operational planning workloads associated with these major projects. The authority also intends to establish a small project team to deal with all the FRS implications of the Olympics 2012 in a coordinated fashion.

## Heathrow T5

Heathrow Terminal 5 is one of the largest construction projects in the world. The term Terminal 5 gives a misleading impression that it is just one more terminal, but it is actually on the scale of a complete airport in its own right. Terminals 2 and 3 could fit inside the core building of Terminal 5. The new control tower is 87m (compared to the 50m height of Nelson's column) and site includes a six platform underground station, a multi storey car park for 500 cars and a 600 bedroom hotel. There are enormous hangars to service the new Airbus 380 'super jumbo' planes and a high capacity fuel storage facility.

Heathrow's Terminal 5, together with major transport intersections, will accommodate 30 million passengers a year and we are working closely with BAA to ensure effective fire safety measures are built into the new terminal. Construction of the Terminal 5 began in 2002 and it is due to be fully operational in 2013.

The fire safety aspects of this project are immensely complex, highly unusual and commercially sensitive. In what we believe is the first sponsored team of its type in the UK, developed in partnership with BAA, London Fire Brigade staff are delivering a direct, proactive and consistent liaison, monitoring and advisory service to the various project teams.

## Effective emergency cover

Thames Gateway is one of the largest development opportunities, and we are working to ensure not only that the new developments have appropriate fire detection and suppression systems fitted, but that we are prepared to provide effective emergency cover reflecting the population growth and changing risks. Major transport developments such as the Channel Tunnel link and Crossrail pose their own challenges and again we are working with the developers to make sure that effective fire safety measures are built in.

The Government has streamlined fire safety arrangements with the introduction of a new framework that pulls together more than 100 different pieces of earlier legislation. These changes come into effect in April 2006, and will nearly double the number of premises subject to regulation. We are planning to deal with this expansion within current resources by adopting a risk based inspection strategy, where the frequency of our visits to check premises reflects the assessed fire risk in those buildings.