

Timber frame buildings – a burning issue



In the Spring 2010 CBA Update I wrote a piece – Timber frame industry in “total denial” over fire risk analysing the recent history of major fires in timber frame residential buildings, particularly those during construction.

One year on we and our colleagues in the MMA and BPCF are continuing to highlight these problems in a responsible and factual manner. During the last 18 months developments include:-

- July 2009 CLG Fire and Rescue Service circular reports that:-

“In recent years there has been an increase in significant fires involving large timber framed buildings especially during the construction phase, which has highlighted the potential for rapid fire growth and fire spread”.

“At incidents involving timber framed buildings, particularly during the construction phase, fire spread is likely to be extremely rapid and the unprotected structure liable to early collapse. High levels of radiated heat are also likely, constituting a hazard to fire fighting personnel with the possibility of offsite fire spread to adjacent structures. Evidence relating to a number of fires in large timber

framed buildings under construction indicates that once the fire is established, fire fighting tactics are likely to be in the defensive”.

- 23rd August 2010 – 4 storey timber framed block of 60 flats under construction totally destroyed in Yoker area of Glasgow.
- 11th September 2010 – BBC News reports that more than 100 fire fighters and 12 specialist support vehicles tackled a major fire in a block of 60 timber framed flats in Basingstoke.

Hampshire FRS chief officer John Bonney, President of the Chief Fire Officers Association, attended the scene and issued a warning about the danger of timber framed buildings.

“When these buildings catch fire the actual structure burns. It often leads to total collapse and that puts the safety of our fire fighters at risk”.

He added that fire spread was a major concern at the incident and that the Chief Fire Officers Association “was right to be increasingly concerned about the number and severity of fires in timber framed buildings under construction”.

- December 2009 – Association of British Insurers report, Tacking Fire: A case for action proposes *inter alia* “The UK governments, construction industry and insurance industry need to set up task forces to urgently consider what can be done to better understand the fire performance of Modern Methods of Construction (MMC) building types and how to reduce the risks associated with them. The task force should also consider how these building types can be more easily identified by the Fire and Rescue Service, the insurance industry and others.
- 17th December 2010 – Greater London Authority publishes its report in to fire risks in tall and timber-framed buildings, key findings and recommendations from the report are:-
 - There is a need to improve fire safety during the construction phase of timber-framed buildings. We call for a mandatory requirement to inform the Fire Brigade of new timber-framed sites so they are better prepared to tackle fires if they occur. Partial occupation of timber-framed sites should be forbidden.
 - The fire risk assessment process must be improved by ensuring the

people conducting them are properly qualified for the task. We call on the CLG to draw up mandatory minimum standards of competence for training and accrediting all assessors.

- Residents of tall buildings need better information about evacuation procedures and the way DIY modifications, like installing extra plug sockets, can compromise fire safety measures.
- The CLG should ensure all social landlords publish a full register of fire risk assessments online; provide existing and new residents with better information about what to do in the event of fire; and ensure that inspecting for unauthorised or damaging works are part of routine estate inspections by housing staff.
- Anecdotally it is reported that some HSE officials are insisting on two means of fireproof escape from buildings over 3 storeys high and that construction to take place at least 25 metres from adjacent occupied buildings.
- The CLG Fire Statistics Monitor April 2009 to March 2010 makes a special analysis of fires in buildings of timber frame construction. One conclusion arrived at is that, “The distribution of the area of damage for buildings under construction of i) timber frame and ii) no special construction gives the impression of differing patterns between buildings” There were 9 fires in timber frame buildings under construction where fire and heat damage was over 100m² in extent and the same number of fires for dwellings of no special construction. Considering that only 20% of dwellings under construction were timber framed and very few other buildings are then arguably fire damage of 100m² in extent was at least five times more likely and probably more than ten times more likely than for other buildings under construction.