



Dublin set to get new high rise buildings

As Dublin is poised to get its first serious high rise buildings, evidence is growing that the most significant factor in tall buildings withstanding substantial fires is the presence of key concrete structural elements. This conclusion is substantiated by analysis of recent fires in New York's Twin-Towers, Madrid's Windsor Tower and Parque Central Fire in Caracas, Venezuela.

The collapse of New York's Twin Towers following the attacks of September 11th 2001 and the total burnout of Windsor Tower Madrid on the evening of Saturday February 12th 2005, promises to yield crucial insight into the behaviour of concrete and steel structural elements in serious fires. Detailed technical analysis of the Madrid fire is of particular significance since the concrete structural elements in the 32 storey tower managed to remain standing despite the collapse of the steel structure above the 20th floor.

The recent spate of tall building fires comes at a time when European and Irish Engineers are moving away from a prescriptive approach to fire, towards fire engineering. Whereas, fire engineering has some advantages over prescriptive, code based, single element testing, it is essentially an emerging science and as such there is a requirement for observation and analysis of whole structure performance in real fires. Recent tall building fires provide just such an opportunity and with it the opportunity for Irish designers to incorporate the most up-to-date thinking and fire containment measures into proposed tall buildings in the capital city.