

Questioning High Rise Fire Safety...

As fire safety professionals, the public often asks us about fire safety in high-rise buildings. Typically, questions come from people who work or live in high-rise buildings that are concerned for their safety, especially from fire. When asked these questions, a number of common points have emerged and we feel it is important to provide this information to assist the public in making informed decisions. These are points for discussion to consider when thinking about fire safety in high-rise buildings:

- Modern high rise buildings that are designed to current building and fire codes obtain a high level of safety through inclusion of features such as fire sprinkler systems, smoke control fans, enclosed stairways, fire resistive (rated) construction, water supply standpipes for firefighters, plus voice evacuation (alert) and detection systems. There have been few incidents with a large loss of life or property from fires starting inside the building due to normally expected conditions.
- Older high-rise buildings frequently do not incorporate all of the recognized fire protection features that would be required for newly constructed buildings, since most jurisdictions do not require existing buildings to meet the building and fire codes for new buildings. There have been a number of significant fires in high-rise buildings over the last 30 years in such existing buildings that resulted in the death of civilians or firefighters and significant property loss or business interruption. Many times, the extent of damage was due to lack of protection systems described above.
- The World Trade Center attacks of 2001 have raised a new sense of concern for high-rise safety, since the engineering community had not experienced this level of failure before. A national debate is beginning on this subject, including additional research and study on the subject. Most feel it is too early to begin changing our building and fire codes until more is known about the failures. One of the most difficult issues to deal with is the design for such engineering loads – should the codes require design and protection for a fire initiated by thousands of gallons of jet fuel versus the more typical office or apartment fire? Current codes appear to deal with these office or apartment fires that are expected, before expending resources on less frequent, although possibly more devastating incidents.