

Does Your Building Meet Code?

When building plans are being created, one of the first things to be considered is how the building will be used. This can become the most critical issue from a fire protection viewpoint, yet one that is often thought of as secondary, and sometimes not at all. The more details that are known early in the process about the use of a building, the building design, and construction itself, the less guesswork and better refined the fire protection design can become. Many buildings designed for 'Ordinary Hazard' are now having to be modified or completely re-done to satisfy today's products and storage methods.

An increased awareness, communication, and education among permitting authorities demands a closer look at the exact criteria to use to develop the appropriate fire protection. The explosive growth of specialized fire protection products can be a help or a hindrance to the fire protection industry and staying current with data sheets and individualized product listings is a must. Also, knowing what the latest code editions are and what has been adopted by various communities with the State Building Code (SBC), Minnesota State Fire Code (MSFC), NFPA, and local policies is imperative. Owners and architects are not always aware of changing dynamics in fire protection. Contractors do not have project research figured into bids. This creates a design gap. Specific design criteria may be established for the project working with the owner, architect or installing contractor by a P.E., F.P.E., NICET certified, AHJ or insurance provider.

It was mentioned earlier that some buildings were designed for 'Ordinary Hazard'. Storage can be anything but ordinary! NFPA 13 defines storage by occupancy hazard: Light, Ordinary Group 1 and 2 and Extra Group 1 and 2. Then there are Plastics Group A, B, and C and Commodity Class I through IV. Storage can be piled on the floor, in shelves, or on racks. In addition to the classifications of the commodity, the design criteria may vary by the height of storage, height of the building, storage arrangement, building construction, water supply, and the type of sprinkler head used. Plans need to be specific where a design criteria has been established, including exceptions and trade-offs, so authorities and contractors can be on the same page for plan review and field inspections and a clear document is presented for the building owner and/or occupant.

The staff here at Futrell Fire Consult & Design includes NICET IV certified technicians and Licensed Fire Protection Engineers, with many years experience in design, plan review, and teaching. Yet, because there are so many technical aspects, even with in-house discussions, a peer review is performed in our office on every project and document we develop.

Do you know the design criteria of your building?