MSAD 75
Safety Guideline

Requirements for Fire Retardant Materials in Schools

September 20, 2011

Background:

Schools are Public Buildings. Public Buildings are built to specific Life Safety (NFPA) codes. These codes factor in the necessary design requirements to ensure in the unlikely event of a fire the occupants have awareness (detection/alarms), means (corridors, stairwells, etc.), training (plans/drills) and time (suppression) to safely evacuate the building. The District ensures the Fire Detection and Suppression systems are maintained and operated properly. We also ensure emergency exits, stairwells and corridors are visible and kept free of obstructions to ensure a timely and orderly evacuation. School Administration working in concert with local Fire Departments conduct the requisite number of drills and have postings and plans in place to ensure occupants are adequately trained to safely and efficiently evacuate the building in the event of an emergency.

When designing schools Architects and Engineers design the facility to meet many codes and standards to address the various design criteria. When designing the school for Life Safety considerations NFPA mandates that certain standards be employed to reduce the likelihood of a fire and, should a fire occur, mitigate the spread and speed of the fire within the school.

One of the criteria considered is "combustible loading" – Commonly referred to as Fire Resistance. For these reason materials such as curtains, drapes, wall hangings and upholstered furniture must meet certain design criteria for use in schools.

Requirements:

Draperies, curtains & similar loose hanging furnishings & decorations – [NFPA 101.10.3.1] Public building codes require that all drapes, curtains and built in wall appurtances installed by the District shall meet the appropriate Fire Resistance ratings for use in a Public Building. Materials commonly used in residential applications and purchased at local stores normally do not meet the ratings for use in schools and other public buildings. These materials should not be brought into the school without the appropriate fire retardant rating for use in a Public Building.

Artwork, teaching materials and decorations – [NFPA 101.15.7.4.3] Public building codes recognize that educational occupancies (schools) will have artwork, teaching materials and decorations on the walls of various locations within the school. To address this need the code incorporates these materials into the Life Safety design of the facility. The following is the allowable % of wall covering permitted within a school:

1. In non-sprinkled rooms wall coverings cannot occupy more than 20% of the wall space.
2. In sprinkled rooms the wall coverings cannot occupy more than 50% of the wall space.

Material should not be hung on ceilings as the ceilings are part of the fire resistant barrier.

Requirements for Fire Retardant Materials in Schools – cont.

Furniture – [NFPA 701/703] Furniture in a School must meet certain fire resistance standards and the materials of construction must be treated to resist ignition and flame spread. In addition to the treatment the materials of construction must meet certain UL/FM standards for ignition and smoke generation. Furniture commonly found in residential homes and local stores do not meet these standards.

Residential furniture can be treated and certified to a higher standard but documentation must be obtained and it can be cost prohibitive. For these reasons furniture should not be brought into schools or public buildings unless it's made to the standards for public buildings.

All furnishings purchased by the District for use within our facilities meet the necessary requirements.

A final thought…

One of our District member community Fire Chiefs concluded his inspection of our schools with the following:

"The reason we only permit treated draperies, furniture etc... is because the predictability of flame spread and the intensity of fire increases dramatically with all of the foams, plastics etc... that are used in furniture today. Again, this dramatically decreases the effectiveness of sprinkler systems, escape routes, and planning. A prime example of this is the Station night club fire in Rhode Island. The sound board used was not up to code and contributed significantly to the uncontrollable fire spread resulting in rapid fire spread and significant loss of life. Another example is the fire that occurred at the Our Lady of Angel's elementary school in Chicago in 1958 where 92 students and 3 teachers lost their lives. Many of the school codes in use today stem from that tragic incident. Please pass on to your staff that the likelihood of a major incident is low, but to remember that it only needs to happen once for a tragic outcome and we do not want to be that one time. Also pass on that I understand some of these regulations may make life teaching a bit tougher, but there is a reason and for every rule that is enforced…there was a tragedy somewhere that made the regulation needed to prevent further loss of life."