

School Stage and Auditorium Safety: Setting Standards

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The Winter 2006-2007 issue of NYSIR News stressed the importance of proper maintenance, training, and inspections of stage rigging to minimize risk. This article, the second in a two-part series addressing school stage and auditorium safety, focuses on safety standards, protecting the audience, and stage curtains.

Setting Standards

The auditorium stage and seating areas should be maintained adhering to all State Education Department (SED) fire safety regulations at all times. Often, when a school performance is scheduled in the auditorium, set crews will expand the stage floor, hang materials that are not flame retardant, or place light poles and sound system equipment in the aisles or in front of exit doors. While this all may be done in an effort to enhance the performance, any of these decisions can have devastating results for the auditorium occupants should an emergency occur. Ensure that standards are established that prohibit these hazards.

Protecting the Public

Prior to every performance, test emergency lights, ensure that the fire alarm system is operational, and check the exit ways for obstructions. Make sure that sound system cables or power cords are not stretched across the aisles, causing a tripping hazard. At the beginning of the performance, take a minute to announce to the audience where the exits are and how to leave the auditorium in the event of an emergency. What about in the front of the building? Has anyone parked a vehicle in a designated fire lane? If so, announce that the car must be moved before the performance starts.

Stage Curtains

Stage curtains are a potential and significant fire hazard. Fires or the potential for fire can occur when there is



an excessive amount of dust which, combined with hot lights, poses a serious hazard. This is why proper cleaning and care of your curtains is an important element of overall stage safety. Additionally, curtains treated with flame retardant chemicals should be kept away from liquids as exposure to liquids can remove the flame retardant protection.

Curtains on a school stage must be inspected for their flammability rating. Generally, they are either inherently fire retardant, made of inherently fire treated fibers that do not require additional fire retardant to be applied annually; or they need treatment with a fire retardant substance that significantly delays and can prevent the onset of fire. Retardant applied at your school stage should be UL-listed (approved by the Underwriters Laboratory™). Look for a tag on the curtains or check the custodians' files to see if more information is available on specific curtains. Check the National Fire Protection Association's website, www.nfpa.org, for specific lists of requirements under Section 701 for all stage curtains.

Curtain Labels

To understand what kind of curtains you may be dealing with, look for labels that indicate one of the following abbreviations:

- **“FR” – Fire/Flame Retardant.** Fabric that is certified as “FR” has been topically treated in an immersion process with a chemical fire retardant after the fabric has been woven. All cottons and other natural fibers certified as flame retardant are “FR” topically treated. Some synthetic fabrics are also topically treated. Because the treatment is topical, it will wear out in time, and repeated cleanings will cause the flame retardancy to dissolve sooner. Most flame-proofing chemicals are water-soluble and will also dissipate through dry cleaning. Draperies made from FR fabrics should be re-tested periodically for flame retardancy, as re-treatment may be required.
- **“IFR” – Inherently Fire/Flame Retardant.** These fabrics are woven from fibers that are noncombustible for the life of the fabric.
- **“PFR” – Permanently Fire/Flame Retardant.** Fabric that has been certified as “PFR” or “IFR” are constructed of noncombustible fabric and do not require treatment with fire retardant chemicals after cleaning.
- **“NFR” – Not Fire Retardant.** Fabrics with this designation should be avoided unless they can be treated with a flame retardant chemical.

- **“CBFR” – Can Be Made Fire Retardant.**

These fabrics can be treated for fire retardancy. Such treatment would include topical treatment in an immersion process to make the fabric “FR”.

- **“CNFR” – Cannot Be Made Fire Retardant.**

If “CNFR” is indicated for a fabric, that fabric can not be treated for fire retardancy and, as such, should not be used in public venues. These usually are certain synthetic and/or metallic fabrics.

NYSIR Can Help

While the incidence of potential safety hazards grow with an increase in the number of people occupying auditorium space, risks can be minimized, and in some cases eliminated, with careful planning and adherence to strict standard safety practices. NYSIR representatives are available, at your request, to inspect auditoriums to identify potential problems and offer suggestions.

Additional information can be found on the website of the Arts, Crafts & Theater Safety at www.artscraftstheatersafety.org. Information on stage curtains and other theater supplies is available at www.sewwhatinc.com/faq.php.

Other Auditorium Safety Hazards

- Improper storage of chemicals, paints, and other combustible materials
- Blocked or locked exits
- Unlit exit signs
- Missing fire extinguishers
- Missing occupancy signs
- Overcrowding conditions that exceed legal occupancy load
- Items improperly hung from rigging or lights
- Use of candles or pyrotechnics
- Extension cords
- Poor housekeeping in stage/storage areas
- Unsupervised students improperly using ladders or power tools
- Guests blocking aisles to take photos or videos
- Folding chairs placed in aisles or in front of exit doors