



IST Safety considerations for ESP productions

Over the years the process for receiving an event fire inspection has become very predictable. This is largely due to our good relationship with both the town and the county and our willingness to demonstrate a commitment to the safety of our patrons. The following is an outline of requirements and safety advice that should be followed by our production teams.

First, I want to make sure that you all realize that there isn't a fire inspection designed that can absolve us from taking direct responsibility for the safety of our patrons. It is our responsibility to demonstrate safety based judgment. This means that when we are making decisions regarding design and construction we need to err on the side of safety rather than cost and expediency. Secondly, it is important that we examine the materials used in constructing our sets, props and dressing to determine their appropriateness regarding safety. Lastly, as the operators of a public space we are required to ensure its safe operation.

Fire safety inspections don't typically involve burn-testing materials. In my experience most inspectors focus on whether or not we understand and consistently apply best practice safety considerations for the space or event. The flammability of the materials we use is a concern but they are more apt to ask us what we have done to minimize risk rather than perform the test themselves.

Some basic rules of thumb...

When considering safety the choice of materials should be based on two factors – 1) the ease by which the material can be rendered fire retardant and 2) when burned will the material emit dangerous fumes or heavy smoke?

In reviewing the appropriateness of construction materials ask the following...

Can the raw material or the finished/constructed set component or dressing be easily painted or treated with fire retardant.

Is the raw construction material rated for home construction?

Is the raw material rated for use in children's night clothing, or toys?

Is the raw material rated for use in the construction of home furnishing? (Drapery/sheer material, upholstered, mattress, or pillow filling/batting, carpet, flooring)

If the above are considered in your material selection you will have gone a long way towards providing a safe environment for our audience.

Some situational cases that might be helpful...

Everyone has seen the “Do not remove under penalty of Law” postings on upholstered furniture. These notifications indicate that the furniture meets minimum flammability standards for home use. When choosing to use furniture in a production, make sure that this notification remains intact and that the furniture, if modified, uses compatible materials that would not render the furniture more dangerous.

The use of packing or project foam should be avoided as the basic material is inherently dangerous when burned – they give off poisonous fumes. There are a lot of viable alternatives to Styrofoam now available that can provide a safe and lightweight construction material.

Arts and Crafts and fabric stores are not required to sell only materials that meet safety requirements for home use. The safety regulations only apply to finished products of specific types. An example is in children’s pajamas. Children’s pajamas sold in the US must meet flammability standards. However, nothing prevents you from buying material to sew pajamas that don’t meet these requirements. Of course, you can purchase materials that meet the requirements but you do have to ascertain this through the examination of labels or asking advice of the vendor.

Use Latex based paint versus oil based paints and varnishes to finish raw building materials. The water based paint will retard fire where oil based paints do not.

When acquiring theatrical fabrics please remember to purchase pre-treated materials and obtain a certificate from the vendor that indicates the fire retardancy rating. We maintain these certificates during the run of a production in the IST.

Sprinkler system considerations in the IST

There are two sprinkler systems that support the main stage area of the IST. There are ceiling based sprinklers and there are sprinkler heads on the back wall to protect platform construction that exceeds six feet in height.

Any platform that exceeds six feet in height that is not protected by the sprinkler heads on the back wall – e.g. it extends further than 8 feet from the back wall or is not immediately adjacent to the back wall must be constructed in such a way as to permit water from the over head sprinklers to pass through the platform surface.

The sprinkler heads on the ceiling must not be interfered with nor can the effectiveness of their spread be diminished. The sprinklers on the back wall may be blocked (Curtains, Cyc, drops, etc) if they are not going to be used to protect underneath platforms for your production.

Here's where common sense and practicality comes into play...

You will be presented with situations where choosing a safe material over a non-safe material leads you to cost or availability issues. If you feel that you have to make the decision to choose non-safe material please make sure that you can minimize their use or go back to the drawing board and reconsider. In all cases when presented with this dilemma please contact Elden Street's technical director to review your options before proceeding.

Theatre Egress, Exit signage and emergency lighting

Your set design must ensure adequate egress to both exits. This involves providing a passage with a minimum width of 42 inches that is clear of any set component, dressing or even prop. For our purposes we typically accommodate a four foot passage area measured from the front edge of the front row seats (when down) to the edge of any set component. A 4 foot arc is to be accommodated around both the stage right banister/railing and around the stage left exit door.

No exit area may be blocked at any time. This means that the storage of set components, properties, costumes, etc cannot be maintained in the lobby (between the exit door and the theatre area entrance) or along the corridor leading to the stage right exit. There are no exceptions. In addition, the exit doors cannot be locked or otherwise blocked to prevent the easy exit of those not familiar with the theatre. In addition the back hallway – outside the stage right exit – cannot be used to store anything (chairs, props, costumes, etc.)

The exit signage must remain lit and visible from the audience at all times during a performance. The emergency lighting fixtures must be tested regularly during the run of a show. If a problem is detected please contact the ESP technical director. Lighting for the stairs must also remain on during the run of the show. It is the responsibility of the house manager to ensure that details of our fire exit plan are posted and reviewed with the audience prior to the commencement of each show.

The use of pyrotechnics, carrying lighted materials in the Industrial Strength Theatre.

As many of you already know the IST is not designated as a theater. Instead it is zoned as a place of public assembly. In our jurisdiction this prevents us from carrying, maintaining or using any lighted materials at any time in the IST (candles, cigarettes, lit matches, lighters, etc.) It also prevents us from using theatrical pyrotechnics.

Space under the audience

This topic has been a source of discussion between the fire safety office of Fairfax County and the Town of Herndon. The current practice is to limit storage under the audience to non-combustible materials. This is limited to concrete and metal building materials, lighting equipment, music stands, and the sub-woofers. Nothing else should be stored here, even temporarily, during the run of a show. Further it is the responsibility of the production team to ensure that paper materials distributed during the productions is cleaned from under the seat between shows.

Occupancy and load limits

The IST is permitted to seat a maximum of 114 patrons. To exceed this limit would be a violation of the parameters that govern the operating permit. Occupancy along with egress violations are the basis for most surprise event inspections.

Conclusions

While many of these may seem too restrictive they are what we have been successfully operating by for the last few years. We have demonstrated the ability to find creative alternatives when presented with safety considerations. I don't see any reason why we won't continue in that same spirit. If you do feel like you are facing an unrealistic limitation or you merely want to discuss some of the points outlined here please contact the ESP Technical Director.