

# BASIC FIRE SAFETY FOR COMMUNITY THEATER

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January 1999 - revised January 2008*

Fire and electrical safety for community theater is not much different than for your home, except it comes on a grander scale. Over the past century, tremendous advances have been made in fire protection, resulting in a steady decline in serious fires and fire-related deaths. New knowledge, technology and techniques have been developed. And behind it all, fire codes and life safety standards have been at work to ensure reasonable and acceptable levels of fire safety. The National Fire Protection Association's National Fire Codes® include over 270 codes and standards that affect virtually every building process, design and installation in use today.

## HOUSEKEEPING

Even the little things such as emptying wastebaskets regularly can make you safety conscious. Do you keep your exit ways, backstage and storage areas clear of rags, papers, and other combustible materials? If you store paint, varnish and other items, do you keep the containers tightly closed? Never store flammable liquids in glass containers, which can break easily. Aerosol cans such as hair spray are highly flammable, not because of the products themselves but because of the flammable propellant gas, and should be stored in a cool, well-ventilated place away from power tools or sources of heat, including direct sunlight. Nail polish, nail polish remover, contact adhesives, wood stains, and other fluids that give off strong vapors are also flammable as are mothballs and will burn easily if exposed to flame. If you are unsure if a product is flammable, *read the label*. Labels are required to state if the product is a fire hazard. You should store your paint cleaning rags in an approved container. Some paint thinners can cause spontaneous combustion.

Many communities hold a Hazardous Waste Disposal Day each year for citizens to dispose of old paints/hobby products; automotive (oil, antifreeze, etc.); cleaning products; and health care items (nail polish, etc.). Check with your local municipality for more information.

## SET/STAGE/PROPS

In decorating your set, don't sacrifice safety in the name of decorations. Make sure your furniture is placed away from heat sources. If you are using decorative "holiday lights" for accents or for Christmas shows such as *Inspecting Carol* or *Mr. Scrooge*, make sure they bear the "UL" label from Underwriter Laboratories and show no signs of damage. Keep bulbs away from curtains and other flammable materials and never use them on a metallic surface.

When using styrofoam for set pieces, keep in mind that it is highly flammable and the smoke gives off deadly fumes. Exposed foamed plastic used for stage scenery should be tested for a maximum heat release rate of 100kW. However, where the total area of such material is less than 10 percent of the individual floor or wall area (stage), such materials shall be permitted to be used subject to the approval of the local fire department. (NFPA 101:13.7.4.3)

Decorative material including, but not limited to, cotton, hay, paper, straw, moss, split bamboo, and wood chips shall be flame-retardant treated to the satisfaction of the local fire department. Materials that cannot be treated for flame retardancy shall not be used. (NFPA 101:13.7.4.3)

NFPA Standard 101:13.4.5.11.3 states "...all draperies and curtains, and similar furnishings shall be flame resistant..." N.Y. Fire-Shield, Inc. in Auburn, New York, offers a specialized service for facilities with areas of public assembly which includes "on-site" cleaning and flame retarding of stage area soft goods, theatrical props, and other decorative materials that need to meet fire codes. Chapter 20 of NFPA 80 deals entirely with Fabric Fire Safety Curtains.

## USE OF FLAMES/SPECIAL EFFECTS

NFPA 101:13.7.3 states "open flame devices shall be permitted ... on stages and platforms as a necessary part of a performance." If you are doing a production of *Fiddler on the Roof* and the Sabbath Prayer scene calls for using candles on stage, it is a good idea to use extreme caution. Keep them away from flammable materials and sit them where they can't be knocked over. Also make sure they do not get too close to an actor's head or clothing which may contain hairspray. You should also be very cautious when wearing flowing clothing.

There is an entire NFPA Standard (1126) on the Use of Pyrotechnics Before a Proximate Audience which was first published in 1992 when a need was recognized to provide guidance to public safety officials for the safe use of pyrotechnic special effects at both indoor and outdoor locations. It is best when using any of this type of special effects, to have it done by a professional pyrotechnic operator.

NFPA Standard 160, Use of Flame Effects Before an Audience, was developed in 1994 in response to a recognized need for a document to provide guidance to ...operators of flame effects. The purpose was to provide requirements for reasonable protection for viewing audiences and performers of flame effects.

In *Agnes of God* or when Oscar and the boys play poker in *Odd Couple*, you may note that smoking in a non-smoking building is also “...allowed on stage only where it is a necessary and rehearsed part of a performance and only where the smoker is a regular performing member of the cast” as allowed by the local fire department. (NFPA 101:13.7.8.3) However, you need to make sure the butts are out (a small amount of water in the ashtray will help insure this). Remember, a stage hand could be removing a smoldering butt in the dark and put it in the trash unaware of what could happen.

Although this is a national fire standard, the “no smoking” law in Ohio has seemed to curtail the use of cigarettes in theater performances. At this writing, there are many appeals to change this, so it would be best to watch for updates on this aspect of theater performance.

*Note: The National Fire Protection Association Standards are meant to provide minimum requirements for safety to life from fire and similar emergencies. However, your local fire department has jurisdiction over the theaters in your area.*

## ELECTRICAL

Replace any cords that have cracked or frayed insulation or broken connectors. Duct tape and even electrical tape are not “quick fixes.” Never run extension cords under carpets or over doorways or anywhere they can be stepped on or chafed and do not pinch cords under or behind furniture or set pieces. Don’t overload extension cords and follow the ratings on the cord. Don’t pull on the cord to unplug. Grab the end and pull directly from the socket.

Choose the correct wattage for all bulbs in light fixtures and lamps. Remember, Halogen bulbs get VERY HOT! Also, unplug any appliance that repeatedly blows a fuse, trips a circuit breaker or has given a shock. Have it repaired or replaced. Check to see if outlets and switches are unusually warm or hot to the touch, a frequent indicator of unsafe wiring.

## FIRE EXTINGUISHERS

Everyone from your theater should be trained to use a fire extinguisher. During the run of a production, each cast/crew member should be shown where the extinguishers are located and told what type of fire they are designed to extinguish. NFPA Standard 10 (Portable Fire Extinguishers) asks that fire extinguishers be conspicuously located and that they shall not be more than 75 feet travel distance from the hazard. A portable fire extinguisher can put out a small fire or contain it until the Fire Department arrives. They are not designed to fight a large or spreading fire. If you need to use an extinguisher, just think of the word P.A.S.S. Pull the safety pin at the top of the extinguisher, Aim the nozzle or hose at the base of the flames and stay 6-8 feet away from the flames, Squeeze or press the handle, and Sweep from side to side at the base of the fire until it goes out.

While one person is using an extinguisher, another person should be calling 9-1-1 and making sure that everyone else has left the fire area. The extinguisher you have must fit the fire. Extinguishers are labeled according to the type of fires they can be used to fight. Class A fires are ordinary combustible materials such as wood, cloth, paper, rubber and many plastics. Class B fires are in flammable liquids, oils, greases, tars, oil base paints, and flammable gases. Class C fires involve energized electrical equipment. It is important that the extinguishing agent be nonconductive. Some fires involve more than one class, so it is important when purchasing a fire extinguisher for your theater to get one that meets your needs.



## AISLEWAYS AND SEATING

No one ever wants to imagine a fire starting in their theater. If you have a SRO audience, please remember to keep those aisle ways open and exits unblocked and clearly marked. Always obey maximum occupancy limits. This includes the lobby waiting area where people are admitted to the building prior to being permitted into the theater seating area. (NFPA 5000:12.6.2.6 and 5000:16.1.6.1) The number of seats shall also be in accordance with NFPA 5000:16.2.3.2.

Your local fire departments are always ready and willing to help you be fire safe. All you have to do is ask!

Now— ON WITH THE SHOW!

## **List for Safety**

Exits/aisle ways
Storage items – paint, varnish, etc
Flammable items – aerosol cans, nail polish, hair spray
Electrical wiring
Appliances – heaters, etc
Extension cords
Fire extinguishers
Props/set
Special effects

## **REFERENCES**

**Codes and Standards, Fire safety for All of Us**, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169.

**Fire Extinguishers, Choosing Them and Using Them**, 2002, Syndistar, Inc., 5801 River Road, New Orleans, LA 70123

**Fire Safety on the Job**, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169.

**A Guide to Portable Fire Extinguishers**, Ohio Department of Commerce, Division of State Fire Marshal, 8895 E. Main Street, Reynoldsburg, OH 43068

**Hazardous Materials in the Home**, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169.

**Home Fire Safety Check List**, Ohio Department of Commerce, Division of State Fire Marshal, 8895 E. Main Street, Reynoldsburg, OH 43068

**National Fire Protection Association Standard 10**, 2007 edition

**National Fire Protection Association Standard 80**, 2007 edition

**National Fire Protection Association Standard 101**, 2006 edition

**National Fire Protection Association Standard 160**, 2006 edition

**National Fire Protection Association Standard 1126**, 2006 edition

**National Fire Protection Association Standard 5000**, 2006 edition