

Exhibitors are responsible for compliance with all pertinent regulations and codes concerning fire, safety, and health which may be applicable in the exhibit hall during this event.

## **FIRE PREVENTION**

All material used for scenery or decorations (*including dust covers for displays*) in your exhibit must be fire resistant or treated with a flame retardant to meet the requirements of the standard flame test\* as required by municipal codes.

### **IF YOU HAVE A FIRE PROOFING CERTIFICATE, BRING IT TO THE SHOW**

No hazardous display or material of any nature will be permitted in any exhibit without written permission of the fire department. This includes open flames, hot coals, L.P.G. lighters and cylinders, flammable liquids, toxic liquids or gases, hazardous chemicals, etc., or any similar hazardous liquids, solids, or gases. If permission is given for use of hazardous materials, only a limited supply will be allowed in the device to be demonstrated. Such material cannot be stored in the building overnight. Excess fuel/cylinders must be properly stored outside. All transferring of fuel must be done with safety cans. All compressed gas cylinders in use must be securely anchored in the exhibit to prevent toppling and must be removed after show hours.

### **NO STORAGE IS ALLOWED BEHIND THE BOOTH BACK-DRAPES**

All cartons, crates, containers, packing materials, etc., stored for repacking purposes must be removed from the exhibit area.

All main and cross aisles, corridors, exit areas, exit stairways, etc., must be maintained at the required width when the exhibit is open at all time. All fire hose cabinets, pull stations, and emergency exits, *including those inside an exhibit space*, must be visible and accessible at all time. No obstructions (*chairs, tables, displays, etc.*) will be allowed to protrude into aisles.

\* Standard flame test is a procedure by which the municipal fire inspector removes a sample of the item, ignites it, and removes the ignition source. If the sample self-extinguishes and does not support a flame, it is labeled fire-resistant.

## **SAFETY REGULATIONS**

Safety precautions involving operating equipment and display materials must be taken, including:

Shielding from chips, sparks, strong lights, moving machinery, smoke, or any toxic substance must be complete. Safety markings, masking, flagging, or railings must be placed around or on any projection or other object where attendees could injure themselves.

Machinery, operational equipment, and other objects which might cause bodily harm must be adequately safeguarded. Management will have sole judgment and authority regarding the adequacy of safeguarding shields and barriers. No storing of materials is permitted behind any back walls or between two back walls.

The exposition operations manager will inspect the show floor daily. All unsafe displays, machinery demonstrations, or exhibit operations will be brought to the exhibitor's attention. Any violation not corrected within the time allotted following notification will be corrected or removed (*as deemed necessary*) by the operations manager at the exhibitor's expense.

## **PROTECTION OF VIEWERS, DEMONSTRATORS, AND SURROUNDINGS**

Installation and operation of welding, cutting and related equipment shall be done by or under the supervision of a competent operator with proper safety equipment to ensure the personal protection of viewers and demonstrators, as well as the protection of materials in and around the demonstration area, and the building itself from fire. Demonstration sites using compressed gases shall be located so as not to interfere with the egress of people during an emergency.

Viewers and nearby combustible materials (carpeting/exhibit materials) must be protected from sparks and molten metal resulting from welding and cutting operations by utilizing approved shielding. Flames from welding, cutting and heating operations shall not be directed in a manner which would expose any viewer to injury from the flame. There must be either 35 feet of clearance between the flame and combustibles or said combustibles must be protected by a non-combustible shield.

## **FLAMEPROOFING OF MATERIALS**

All exhibits must be constructed of materials that comply with the National Fire Protection Association Codes for fire retardant wood, textiles and plastics (NFPA 701 and 703) Acoustical and/or decorative materials including curtains, drapes, cotton, hay, paper, (cardboard or compressed paperboard of less than 1/8 inch thickness is considered paper), straw, moss, split bamboo, artificial flowers and plant materials ruscus, styrofoam, and wood chips shall be flame-retardant treated to the satisfaction of the authority having jurisdiction. Materials which cannot be treated for flame redundancy cannot be used.

New exhibit or display structures having wood of 1/2 in. thickness or less as a basic component, shall be coated on the exterior with two applications of approved fire-retardant paint of an intumescent type.

Exceptions to these requirements are materials previously impregnated with flameproofing chemicals at time of manufacture, and materials such as "masonite" or "marlite." Standard heavy-duty showcases and counters are also exempt when used in sales area booths.

## **TESTING MATERIALS**

A "match flame test" consists of the application of a flame laid on top of material from a common paper match held in a horizontal position, one-half inch underneath the material to be tested, and at a constant location for a minimum of fifteen seconds. This test procedure shall be made on three different samples of the material obtained at random and the flame shall be applied at the point or location which, in the judgment of the inspector, appears to be most susceptible to ignition.

## **FUMES AND SMOKE**

Fumes and/or smoke resulting from demonstrations deemed to be excessive by show management must be collected by an appropriate filtering device.

The following is excerpted from ANSI Z49.1, Safety in Welding and cutting.

## **INSTALLATION AND OPERATION OF OXYGEN-FUEL GAS SYSTEMS FOR WELDING AND CUTTING**

**MANUFACTURER'S RECOMMENDATIONS** - Welders and oxygen cutters shall follow the procedure outlined by the manufacturer of the apparatus in use insofar as they deal with the sequence of operations in lighting, adjusting, and extinguishing torch flames, and connecting the apparatus to the source of gas supply.

## **ADDITIONAL FIRE PREVENTION**

All fire hose cabinets, standpipes, fire alarm pull stations, and exits shall be kept clear and unobstructed at all time.

Exhibitors must provide a portable ten-pound fire extinguisher at demonstration sites utilizing any fuel gas or gas that can hold combustion. Such equipment should be of a dry powder type, or a carbon dioxide fire extinguisher of adequate capacity.

Displays shall not encroach on exit doorways or exit passageways. No portion of a display shall project into any aisle.

Shredded paper and excelsior packing shall be removed from the building unless it can be returned to a tightly closed packing container. Boxes, crates and cartons from which merchandise has been removed shall be neatly piled in storage areas designated by Show Management and the Fire Department.

## **GAS CYLINDER REQUIREMENTS**

Cylinders containing compressed gases shall not be charged in excess of one-half their maximum permissible content. Only DOT-approved cylinders may be used, and they must carry a quinquennial test date.

Within the exhibit booth, ALL CYLINDERS, even empty ones, must be secured or chained to a stable fixture (not pipe and drape) and be held in an upright position and located to avoid being knocked over. **THIS INCLUDES CYLINDERS THAT ARE DISPLAYED AS PRODUCT.** Exhibitors may choose to place these cylinders in racks or secure them to base plates that are much wider than the cylinders. Only approved shut-off valves, regulators, and burning equipment shall be permitted. To preclude unauthorized operation of equipment or accidental use, valves shall be closed when equipment is unattended or removed for storage. Hoses shall be located and protected so that they will not be damaged.

## **MOTOR VEHICLES ON DISPLAY**

Vehicles on display (per 2003 NFPA 101, 13.7.4.4):

- Fuel tank openings shall be locked or sealed in an approved manner to prevent escape of vapors; fuel tanks shall not contain in excess of one-quarter their capacity or contain in excess of 19L (five gal.) of fuel, whichever is less. (NFPA 101, 13.7.4.4.1)
- At least one battery cable shall be removed from the batteries used to start the vehicle engine, and the disconnected battery cable shall then be taped. (NFPA 101, 13.7.4.4.2)
- Batteries must be disconnected. Auxiliary batteries not connected to engine External chargers or batteries are recommended for demonstration purposes.
- No battery charging is permitted inside the building.
- Fueling or de-fueling of vehicles is prohibited
- Vehicles shall not be moved during exhibit hours.

## **PROHIBITED ITEMS AND PRACTICES**

No storage of cartons, boxes or exhibit merchandise of any nature is permitted behind individual displays.

No vehicles shall be parked in fire lanes outside of building. There shall be no obstruction blocking exit doors from the outside of the building. No curtains, drapes or decorations shall be hung in such a manner as to cover any exit signs.

**SCOPE** - The following requirements apply to oxygen-fuel gas systems in welding and cutting operations at public exhibitions, demonstrations, displays and trade shows (referred to hereinafter as the "site").

**SUPERVISION** - Installation and operation of welding, cutting, and related equipment shall be done by, or under the supervision of, a competent operator with proper safety equipment.

**SITE DESIGN** - The site shall be constructed, equipped, and operated in such a manner that the demonstration will be carried out to minimize the possibility of injury to viewers.

**SITE LOCATION** - Sites involving the use or storage of compressed gases shall be located so as not to interfere with the egress of people during an emergency.

**EXTINGUISHERS** - Each site shall be provided with a portable 10-pound fire extinguisher.

**SHIELDING** - The public, combustible materials, and compressed gas cylinders at the site shall be protected from flames, sparks and molten metal.

**FIRE DEPARTMENT** - The Fire Department shall be notified in advance of such use of the site.

**CYLINDERS CAPACITY** - Cylinders shall not be charged in excess of one-half their maximum permissible content. Cylinders of non-liquefied gases and acetylene shall be charged to not more than one-half their maximum permissible charged gage pressure (psi or kpa). Cylinders of liquefied gases shall be charged to not more than one-half the maximum permissible capacity in pounds/kilogram.

**STORAGE** - Cylinders not connected for use and stored at the site shall be limited to approximately one day's consumption of each gas used unless stored in approved storage area, preferably outdoors but not near a building exit.

**CYLINDER VALVES** - Cylinder valves shall be closed when equipment is unattended.

**VALVE CAPS** - Where caps are provided for valve protection, such caps shall be in place except when the cylinders are in service or connected ready for service.

**CYLINDER PROTECTION** - Cylinders shall be located or secured so that they cannot be knocked over.

**PROCESS HOSES** - Hoses shall be located and protected so that they will not be physically damaged.

**EMPTY CYLINDERS** - Valves of empty cylinders shall be closed and the cylinder marked "empty" or "MT."

**CONTENT IDENTIFICATION** - Compressed gas cylinders shall be legibly marked, for the purpose of identifying the gas content, with either the chemical or the trade name of the gas. Such marking shall be by means of stenciling, stamping, or labeling, and shall not be readily removable. Whenever practicable, the marking shall be located on the shoulder of the cylinder.

## **INSTALLATION OF ARC WELDING EQUIPMENT**

**CODE REQUIREMENTS** - Installation including incoming power lines shall be in accordance with the requirements of the National Electrical Code, ANSI Standard C1-1971.

**WORKER INSTRUCTION** - Workmen assigned to operate or maintain arc welding equipment shall be acquainted with those parts of the ANSI Z49.1 Standard applicable to their work assignments.

## **INSTALLATION AND OPERATION OF RESISTANCE WELDING EQUIPMENT**

**INSTALLATION** - All equipment shall be installed by qualified personnel in conformance with the National Electrical Code, ANSI Standard C-1, or its equivalent in protection based on advances in technology.

**CONDITIONS FOR CUTTING OR WELDING** - Welding and cutting shall not be performed unless the atmosphere is nonflammable and unless combustibles can be separated from or protected from fire hazards.

**EXTINGUISHERS AND SPRINKLERS** - Suitable fire extinguishing equipment shall be maintained ready for use while welding and cutting are being performed.

## **PROTECTION OF PERSONNEL**

Welders shall place welding cable and other equipment so that it is clear of passageways, ladders, and stairways.

## **EYE PROTECTION**

**ARC WELDING AND ARC CUTTING** - Helmets or hand shields shall be used by personnel viewing the arc during arc welding and cutting operations, excluding submerged arc welding. Safety spectacles or goggles shall also be worn during arc welding or cutting operations to provide protection from injurious rays from adjacent work, and from flying objects. The spectacles or goggles may have either clear or colored glass, depending upon the amount of exposure to adjacent welding or cutting operations. Shade No. 2 is recommended for safety spectacles or goggles used for gas metal-arc and shielded metal-arc welding.

**GAS WELDING AND OXYGEN CUTTING** - Goggles or other suitable eye protection shall be used during all gas welding or oxygen-cutting operations. Spectacles with suitable filter lenses and without side shields are permitted for use during gas welding operations on light work, for torch brazing, or for inspection.

**RESISTANCE WELDING AND BRAZING** - All operators of resistance welding or resistance brazing equipment and their helpers shall use face shields, spectacles, or goggles, depending on the particular job, to protect their faces or eyes, as required.

**PROTECTION FROM ARC WELDING RAYS** - Workers or other persons adjacent to the welding areas shall be protected from radiant energy by noncombustible or flame-resistant screens or shields or shall be required to wear suitable eye protection. Booths and screens shall permit circulation of air at floor level.

## **HEALTH PROTECTION AND VENTILATION**

**SCREENED AREAS** - When welding must be performed in a space entirely screened on all sides, the screens shall be so arranged that no serious restriction of ventilation exists.

**CONCENTRATION OF TOXIC SUBSTANCES** - Local exhaust or general ventilating systems shall be provided and arranged to keep the amounts of toxic fumes, gases, or dusts below the acceptable concentrations of toxic dust and gases.