

SECTION	IV.	Fire/Life Safety
Chapter	1.	Fire Protection
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# FIRE PROTECTION

## INTRODUCTION

### PURPOSE

It is the policy of Duke University to take all possible steps to minimize the potential for fires and to install and maintain equipment necessary to control fires if they occur.

### RESPONSIBILITIES

Facilities Management Department Construction Services, the Medical Center Engineering and Operations Department, and the Office of the University Architect shall ensure that all new installations of fire alarm systems, fire suppression systems, extinguishers and fire alarm equipment to include standpipes, sprinklers, hydrants and fixed extinguishing systems meet all federal, state and local regulations.

Departments shall:

- Ensure that employees are adequately trained in portable fire extinguisher use and general fire evacuation procedures.
- Report any extinguisher out of place, or one which appears to have been used, to the OESO-Fire Safety Division at 684-5609.

Employees shall know the location(s) of fire equipment in their specific workplace, be able to utilize such equipment as necessary and be familiar with all exits and evacuation instructions.

OESO shall:

- Inspect work places on a periodic basis.
- Ensure that adequate fire extinguishers of the correct type and size are available.
- Ensure that extinguishers are tested monthly.
- Monitor the installation and maintenance of fire equipment and suppression systems.
- Conduct fire drills and extinguisher training.
- Coordinate inspections by the Durham Fire Marshal and other fire inspection officials.

## **PROCEDURES**

### **FIRE EXTINGUISHERS**

Extinguishers shall be located, labeled, and maintained so that they may be easily identified and in good operating condition.

All fire extinguishers shall be checked monthly to provide reasonable assurance that they operate properly.

### **EVACUATION AND GENERAL FIRE PROCEDURES**

#### ***HOSPITAL/MEDICAL CENTER***

##### ***General***

If a general evacuation is ordered, all persons (patients, visitors, and employees) must evacuate the building. Such circumstances would be an extreme emergency and ordered by Hospital Administration. General evacuation in Duke North and South Hospitals, the Eye Center, and the Clinical and Research Laboratory Building will be announced by the BAS Dispatcher over the building automated announcement system. In other Medical Center Buildings an audible alarm will sound. Persons should be evacuated to the outside of the building by using stairs designed as EXITS.

##### ***Medical Gas Shutoff***

To assure that patient safety issues are adequately addressed prior to shutting off medical gases during an emergency situation (e.g., spread of a fire), the following procedure clarifies who is authorized to initiate a medical gas shut off. The procedure outlined below applies when there is a fire at or near the medical gas distribution valves in a patient's room. Note: Medical gases should NOT be shut off during fire drills.

- The primary responsibility for shutting off medical gas(es) in a true emergency/fire situation (when medical gases could contribute to the spread of a fire) is the Charge Nurse. On Intensive Care Units, the Charge Nurse must consult with the Respiratory Therapist, when available, to assure appropriate patient support after the medical gases are shut off.
- The Nurse Manager (during normal working hours) and the Administrative Nursing Supervisor (during 2<sup>nd</sup> and 3<sup>rd</sup> shifts, holidays, and weekends) will respond to all fire alarms on their assigned units as quickly as possible to support the Charge Nurse's decision and response.

- Respiratory Care personnel will respond to all fire alarms on inpatient units as quickly as possible to support the Nursing decision and response
- Occupational and Environmental Safety personnel will respond to all fire alarms on inpatient units as quickly as possible to support the Nursing decision and response.
- Directions on how to turn off medical gas valves will be posted on each valve.

*CAMPUS*

Total evacuation is required from all sections of the building. The signal for evacuation is the sounding of the audible devices of the building fire alarm system.

*GENERAL EVACUATION PROCEDURES*

**R -REMOVE ALL PERSONS IN IMMEDIATE DANGER TO SAFETY** to include patients, visitors, students and employees.

**A -ACTIVATE MANUAL PULL ALARM/DIAL 911.**

Give the following information:

The exact location of the fire (Building and Location-Area, Building Zone or Color or Zone Floor, Room Number) and the name of person calling and phone number.

**C -CLOSE ALL DOORS AND WINDOWS** to prevent the spread of fire and smoke.

**E -EXTINGUISH THE FIRE** with a portable fire extinguisher or **EVACUATE THE AREA. DO NOT USE THE ELEVATOR.**

**NOTE: Employees should review the Departmental Safety Procedures and Site Specific Fire Plan to familiarize themselves with all specific duties and responsibilities assigned to their job description.**

**FIRE DRILL PROCEDURES**

Fire drills are required by law. They are held, not only to comply with this law, but also to protect patients, visitors and employees in the buildings. The drills may be conducted at any time. All Duke buildings are subject to fire drills. See Supplement U for hospital specific procedures.

## **EXITS IN OCCUPIED BUILDINGS**

Doors, aisles, corridors or passageways leading directly to an exit must be kept clear of all obstructions at all times to include chairs, tables, merchandise, equipment or similar impediments.

No door, exit corridor, aisle, passageways leading to an exit or exit sign may be fully or partially covered, blocked, locked, or hidden by any decorations, objects (signs, banners, tables, chairs, etc.) or covering (sheets, banners, drapes, etc.).

Areas directly outside of an entrance or exit must be kept clear of all encumbrances for a minimum distance of 12 feet.

## **OPEN FIRES**

No open fire, cooking fire, campfire or bonfire will be allowed on University property unless the individuals responsible have obtained written consent of the OESO-Fire Safety Division and a permit from the Durham Fire Marshal.

Open Fire Permits will be issued on a case by case basis only depending on weather conditions, acceptable location and general compliance as outlined in this policy and local ordinances.

## **ELECTRICAL EQUIPMENT**

All electrical equipment utilized (lights, wires, plugs, connections, sockets, etc.) shall be UL approved and in good condition. The use of improvised wiring is prohibited.

All combustibles shall be kept at least 6 inches from any incandescent/fluorescent bulbs, electrical sockets, plugs, or other electrical appliance.

Portable space heaters are prohibited unless authorized by the Occupational and Environmental Safety Office, and either the Facilities Management Department (Campus) or Engineering & Operations (Hospital & Medical Center).

## **DECORATIONS**

Electrical:

Holiday lights shall not be left energized more than 3- hours daily to reduce overheating.

Electrical lights (110 volt) and fiber optic lights (110 volt) shall not be used on artificial Christmas trees, wreathes and greenery. Only UL or FM approved, battery operated, 9 volt lights may be used.

Each living group or office area should have an appointed representative to ensure that the electrical decorations are de-energized at the end of the daily period.

Holiday/Theme Party Decorations:

All decorations must be noncombustible, inherently flame resistant or treated with an approved fire retardant in accordance with manufacturer's specifications that will pass NFPA 701 test. Decorative materials shall not exceed 10% of the aggregate areas of walls and ceilings.

Straw, hay, corn fodder, dried flowers, bamboo and other similar combustibles are prohibited as decorations inside facilities without written authorization from the OESO-Fire Safety Division.

Exit doors and smoke doors may not be covered or blocked in any manner by decorations.

All combustible party decorations shall be removed from the area immediately following the event.

*Exception: During the Christmas Holidays decorations should be removed no later than December 30th. Residence Halls should have all decorations removed no later than the closing of the residence halls by Housing Management.*

Greenery, such as live Christmas trees and holly, are prohibited inside of Hospital and Medical Center buildings. In addition, live Christmas trees and holly are prohibited in Assembly areas, Schools, Day Care Centers, Stores, Hotels or Residence Halls unless the building is protected throughout by an automatic sprinkler system.

If a live Christmas tree is allowed in a facility, the following rules apply:

- Only one tree will be purchased for each department, group or living group and the tree located in a public area such as a commons area, reception area or lounge.
- All trees will be prepared by sawing off the trunk of the tree at an angle at least one-half inch or more above the original cut and spraying the tree with an approved fire retardant in accordance with manufacturer's specifications as required by NC State Building Code.
- The tree will be placed within a tree holder/stand capable of containing water to prevent drying. The stand will be checked daily to assure the water level is adequate. Remember: A tree will absorb large quantities of water while it is indoors.
- The tree will be placed in a location away from all heat sources.
- Smoking is not permitted near trees or other "live decorations".

Candles or other open flames are strictly forbidden for use inside University facilities except during religious ceremonies such as the observance of the Holiday of Chanukah. Those individuals wishing to utilize candles in observance of a religious holiday should contact OESO-Fire Safety Division to obtain information concerning fire prevention.

All personnel should know the location of building fire equipment to include fire extinguishers and manual fire alarm pull stations.

Keep all decorations (electrical and combustible) out of the reach of small children.

## **TRAINING**

All employees are required to attend a fire safety training session upon hire and annually thereafter. The training covers fire prevention, procedures to follow in a fire, evacuation, and extinguisher familiarization.

## **REFERENCES:**

Code of Federal Regulations, Title 29, Part 1910, Subpart L (OSHA), *Fire Protection*

North Carolina Building Code, Vol V, *Fire Prevention*

National Fire Protection Association (NFPA) Standards