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**FIRE EXTINGUISHER  
PROGRAM**

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**OFFICE OF PRIMARY RESPONSIBILITY**

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This instruction establishes policy and procedures and assigns responsibilities and requirements to ensure a comprehensive Fire Extinguisher program and policy exists for Duke University and the Duke Health System.

**1. Objective**

- 1.1. The objective of the Fire Extinguisher Program is to ensure that all fire extinguishers are selected, installed, inspected, maintained and readily available for emergency usage at all times

**2. Purpose**

- 2.1. Almost all fires start out small and can easily be extinguished if the proper type of fire extinguisher is in place and if used properly
- 2.2. Portable fire extinguishers are the first-line of defense against unfriendly fires however, their successful use depends on the following:
  - 2.2.1. The extinguisher must be the proper type for the fire
  - 2.2.2. The extinguisher must be properly located and in proper working order
  - 2.2.3. The fire must be discovered while still small enough for the extinguisher to be effective
  - 2.2.4. The fire must be discovered by a person ready, willing, and able to use the extinguisher

**3. Fire Extinguisher Types:**

- 3.1. The OESO-Fire Safety Division selects fire extinguishers based on the area to be protected and the type fuel expected to be found in the area.
- 3.2. The size of the fire extinguisher is determined by the relative hazard and varies according to the fuel load, or the amount of combustibles in the given area.
- 3.3. OESO-Fire Safety Division selects extinguishers based on five general hazard/fuel types:

- 3.3.1. **CLASS A**--Ordinary combustibles such as paper, wood, and fabrics
- 3.3.2. **CLASS B**—Flammable liquids
- 3.3.3. **CLASS C**—Charged electrical products
- 3.3.4. **CLASS D**—Combustible metals such as magnesium
- 3.3.5. **CLASS K**—Cooking greases and oils
- 3.4. An OESO-Fire Safety Specialist will be consulted prior to selecting or installing any fire extinguisher in a Duke University/Health System facility or vehicle

#### **4. Fire Extinguisher Placement**

- 4.1.1.1. Careful consideration must be given to fire extinguisher placement and shall be conspicuously located where they are readily accessible and immediately available in the event of fire
- 4.1.2. The OESO-Fire Safety Office will be consulted prior to installing any fire extinguisher in a Duke University/Health System facility or vehicle
- 4.1.3. To the maximum extent possible, all extinguishers will be mounted in proper fire extinguisher cabinets (Mandatory for all new construction)
  - 4.1.3.1. Extinguishers not mounted in cabinets shall be installed using any of the following means:
    - 4.1.3.1.1. Securely on a hanger intended for the extinguisher
    - 4.1.3.1.2. In the bracket supplied by the extinguisher manufacture
    - 4.1.3.1.3. In a listed bracket approved for such purpose
  - 4.1.3.2. When planning new construction the project manager will ensure that the architect has fully documented the proper location of all fire extinguisher cabinets in accordance with NFPA 10—*Portable Fire Extinguishers* and the Duke University Construction Guide
  - 4.1.3.3. Fire extinguishers shall be located along normal paths of travel, including exits from areas
  - 4.1.3.4. Fire extinguishers shall not be obstructed or obscured from view
    - 4.1.3.4.1. In areas such as large rooms or office suites where visual obstructions cannot be avoided, signs shall be installed at the proper height to indicate the extinguisher location
    - 4.1.3.4.2. Signs will be of the type that are visible from all directions
  - 4.1.3.5. Each fire extinguisher location will be marked with an appropriately placed bar code label

#### **5. Fire Extinguisher Inspections**

- 5.1. All fire extinguishers will be inspected in accordance with NFPA 10—*Portable Fire Extinguishers* and the applicable manufactures recommendations
- 5.2. As a general rule, the following inspection/maintenance frequencies will be followed:
  - 5.2.1. **Monthly**
    - 5.2.1.1. All monthly inspections of fire extinguishers will be conducted by either a OESO-Fire Safety technician or an approved fire extinguisher servicing contractor
    - 5.2.1.2. Monthly inspections will be performed at minimum of 30-day and maximum 40-day intervals

5.2.1.3. Monthly inspections will be documented using the OESO-Fire Safety approved automated system

NOTE: PDCs, DUAPS, and other Duke leased facilities will use either an approved automated system or other approved tags to document the inspection

5.2.1.4. Fire extinguisher not able to pass inspection or unable to be accessed will be documented and reported to the OESO-Fire Safety Fire Alarm and Suppression Section Supervisor

5.2.2. **Annually**

5.2.2.1. All annual maintenance will be conducted by either a OESO-Fire Safety Technician or an approved fire extinguisher servicing contractor

5.2.2.2. Annual maintenance will be performed at minimum 12-month maximum 13-month intervals

5.2.2.3. Annual maintenance will be performed in accordance with the manufactures instructions

5.2.2.4. Annual maintenance will be documented using the OESO-Fire Safety approved automated system. In addition a new tamper seal with the appropriate color coding will be used to visually document the completed annual maintenance (See attachment 1 for the tamper seal color coding system)

5.2.2.5. PDCs, DUAPs, and other Duke leased properties must contract an approved fire extinguisher servicing contractor to complete annual maintenance requirements

5.2.2.6. Fire extinguisher not able to pass the annual maintenance requirements or unable to be accessed will be documented and reported to the OESO-Fire Safety Fire Alarm and Suppression Section Supervisor

5.2.3. **Six-Year Maintenance**

5.2.3.1. Stored-pressure type fire extinguishers (dry chemical, halon, etc) that require a 12-year hydrostatic test shall be emptied and subjected to the applicable maintenance procedures as detailed in the manufacture's service manual

5.2.3.2. Six-year maintenance MUST be performed by an approved fire extinguisher servicing contractor

5.2.3.3. Six-Year maintenance will be documented using the OESO-Fire Safety approved automated system. In addition a new tamper seal with the appropriate color coding will be used to visually document the completed annual maintenance (See attachment 1 for the tamper seal color coding system)

5.2.4. **Hydrostatic Testing and Maintenance**

5.2.4.1. All pressurized vessels used as fire extinguishers and specifies components of fire extinguishers shall be hydrostatically tested in accordance with NFPA 10 and the appropriate manufacture's servicing manual

5.2.4.2. Hydrostatic testing shall be performed only by an approved fire extinguisher servicing contractor trained in pressure testing and who have the appropriate testing equipment and facilities

5.2.4.3. Hydrostatic testing will be documented using the OESO-Fire Safety approved automated system. In addition a new tamper seal with the appropriate color coding will be used to visually document the completed annual maintenance (See attachment 1 for the tamper seal color coding system)

## **6. Obsolete, Damaged, and Unserviceable Fire Extinguishers**

- 6.1. All fire extinguishers must be maintained in a fully charged and operable condition
- 6.2. Extinguisher that are deemed obsolete, damaged (beyond repair), or unserviceable shall be permanently removed from service and replaced with a new extinguisher
- 6.3. Automated records will be documented to show the extinguisher has been permanently removed from service
- 6.4. The pressure within the extinguisher will be released in a safe and approved manner and the extinguisher head will be removed
- 6.5. The extinguisher will be disposed of in a safe manner that prevents it from being returned to service (cutting the cylinder, drilling holes in the cylinder, etc.)

## **7. Fire Extinguisher Removal, Relocating, and Replacement**

- 7.1. Except for use in an actual emergency, fire extinguishers will not be removed or relocated from their designated location without approval from the OESO-Fire Safety Division
- 7.2. Fire extinguishers will only be relocated if it is determined by an OESO-Fire Safety Specialist that the fire extinguisher placement is no longer appropriate
  - 7.2.1. Costs for relocating fire extinguishers due to occupancy changes, new equipment additions, or other customer driven requirements will be charged to the customer
  - 7.2.2. Costs for relocating fire extinguishers due to code requirements or other OESO-Fire Safety initiative will be covered by the OESO-Fire Safety Division
- 7.3. Replacement of fire extinguishers due to occupancy changes, changes in missions, etc will be charged to the owning department/division
- 7.4. Assigned fire extinguishers will not be replaced with any other equipment without the approval of the OESO-Fire Safety Division

## **8. Fire Extinguisher Usage**

- 8.1. Fire extinguishers will only be utilized for their intended purpose—“EXTINGUISHING FIRES”
- 8.2. It is prohibited to use installed fire extinguishers for any other purpose—violators will be subject to prosecution
- 8.3. Only use a fire extinguisher to extinguish a fire if :
  - 8.3.1. The fire is small and contained (e.g. trash can, linen cart, computer, etc.)
  - 8.3.2. You feel comfortable and confident that you are capable of using the fire extinguisher
  - 8.3.3. Fighting the fire does not put you in a position that you can not get out of the room or area where the fire is located
- 8.4. If you remove the pin from a fire extinguisher, even if you do not discharge any agent, contact the OESO-Fire Safety Office—684-5609 (during normal duty hours) or Duke Police after normal duty hours**

## **9. Fire Extinguisher Training**

- 9.1. Required annual fire extinguisher training will be accomplished by the OESO-Fire Safety Division and can be scheduled by contacting the OESO-Fire Safety Training Coordinator at 668-3236
- 9.2. The OESO-Fire Safety Division conducts hands-on fire extinguisher training monthly for anyone who requires the training or wishes to receive training. Contact the OESO-Fire Safety Division (668-3236) to find out the date and location of the next class
- 9.3. Special training needs can be coordinated with the OESO-Fire Safety Division. Details for the training can be worked out by calling 668-3236