



## Employee Safety and Health Program

### Policy 8: Fire Safety and Defibrillator Requirements

Effective Date: July 1, 2007

#### References:

North Carolina State Employees Workplace Requirements Program for Safety and Health, Section 3, Page 3.1.4-3.1.9

North Carolina Occupational Safety and Health Standards for General Industry, 29 CFR Part 1910:

- 1910.106: Flammable and Combustible Liquids
- 1910.38: Emergency action plans
- 1910.157: Fire Extinguishers

National Fire Protection Association

Code 101: Code for Safety to Life from Fire in Buildings and Structures, Chapter 31

Code 10: Standard for Portable Fire Extinguishers

North Carolina State Building Code, Volume V

#### Purpose:

To establish a requirement and method of developing emergency plans for fire and similar emergencies, and to assure employee training in emergency evacuation and use of fire protection equipment; to establish requirements for fire protection prevention equipment and defibrillators, and provide for periodic testing, maintenance, and inspection; and to establish requirements for the storage of flammable and combustible liquids within Department buildings.

#### Policy:

- I. In the event of a non-medical emergency within a Department building, employees shall immediately evacuate to a safe location.
- II. Each building shall have portable fire extinguishers of the proper type and in the proper quantity for the hazards within the building, and all employees of the Department shall be trained annually in the usage of fire extinguishers in the event they need to quell a fire

blocking a means of egress in order to evacuate the building.

III. The Building Emergency Coordinator for each building, in conjunction with the Employee Safety and Health Steering Committee and the Unit Safety and Health Committees with offices in the building, shall develop and publish an emergency evacuation and defibrillator usage plan.. All employees within the building shall be trained at least annually in the requirements of the plans, and shall participate in periodic fire exit drills.

Where there are fewer than four employees (teleworkers included), the Building Emergency Coordinator shall develop an Evacuation Plan. Defibrillator usage plan only applies to those buildings that have defibrillators.

IV. Each building shall have fire protection and prevention equipment - such as emergency lights and fixed extinguishing equipment- where required by regulations, which shall be periodically inspected to ensure proper working condition in the event of a fire emergency.

V. In any building where flammable or combustible liquids are used or stored, only properly trained employees shall handle and store such liquids in the proper containers and storage locations.

### **Procedures:**

I. Emergency Evacuation Plans

A. Building Emergency Coordinator and Building Monitors

1. Building Emergency Coordinator

a. The Employee Safety and Health Steering Committee, in conjunction with the Unit Safety and Health Committees that have offices in the building, shall appoint a Building Emergency Coordinator and Alternate for each Departmental building to oversee building evacuations, upon agreement by the employees and approval of these employees' supervisors.

b. The Building Emergency Coordinator and Alternate shall be selected from persons whose job duties require their regular attendance within the office.

c. The Building Emergency Coordinator is authorized to:

i. Initiate evacuations and drills

ii. Initiate alternate alarm procedures in the event of alarm failure.

iii. Coordinate with emergency personnel.

iv. Meet with the Employee Safety and Health Steering Committee and

the Unit Safety and Health Committees that have offices in the building to discuss and maintain the Emergency Evacuation Plan.

- v. Perform the duties described within the Emergency Evacuation Plan.
- vi. Where defibrillators are located, assist with usage.

## 2. Building Monitors

- a. Where the department has an office with at least four employees (teleworkers included), at least two monitors shall be appointed by the Building Emergency Coordinator for each floor of a building, upon agreement by the employee and approval by the employee's supervisor.
- b. The Monitors shall be selected from persons whose job duties require their regular attendance within the office.
- c. The monitors shall:
  - i. Assure that all persons have evacuated their floor in the event of an alarm.
  - ii. Assist persons in evacuating, as needed.
  - iii. Perform procedures necessary to account for all persons on their floor once evacuation is complete.
  - iv. Perform the duties described within the Emergency Evacuation Plan.

## B. Written Plans

- 1. Each Building Emergency Coordinator, in conjunction with the Employee Safety and Health Steering Committee and the Unit Safety and Health Committees that have offices in the building, shall develop a written emergency evacuation plan for the building under their jurisdiction.
- 2. Elements
  - a. The plan shall address the following elements:
    - i. Emergency Evacuation to the Building Exterior (Fire Exit)
    - ii. Non-Emergency Evacuation to the Building Exterior
    - iii. Evacuation to a Safe Area in the Building Interior (Severe Weather)

- b. For each element, the plan shall describe the following:
  - i. The primary and secondary routes of egress from each portion of the building to the assembly area
  - ii. The location of the assembly area.
  - iii. The duties of the Building Emergency Coordinator and the Monitors.
  - iv. The means available to assist the evacuation of handicapped individuals.
  - v. The means to be used to notify building occupants to evacuate.
  - vi. The means to be used to account for all occupants in the assembly area.
  - vii. The means to be used to report fires and similar emergencies to the proper authorities.
  - viii. The responsibilities of other staff, as necessary.
  - ix. The means whereby occupants will be notified that the building may be safely re-entered.
  - x. The names of the Building Emergency Coordinator and the Monitors.
  - xi. The means of coordination with responding emergency services.
- c. If the building relies on an automatic detection/alarm system, the plan shall include a means to initiate evacuation in the event that the alarm system is not operational.

### 3. Distribution

- a. The emergency evacuation plan for each building shall be maintained and posted on the Employee Safety and Health Program website.
- b. A floor plan with the primary and secondary evacuation routes shall be posted on each floor of the building, and at each location where the means of egress is not readily apparent.

### 4. Review

- a. At the next committee meeting following each evacuation, whether by drill or necessity, the Building Emergency Coordinator shall meet with the

Employee Safety and Health Steering Committee and the Unit Safety and Health Committees that have offices in the building to discuss strengths, weaknesses, and needs of the emergency evacuation plan.

- b. The Building Emergency Coordinator, in conjunction with the Unit Safety and Health Committee that have offices in the building, shall make any changes in the plan deemed necessary.
- c. Changes to any building's emergency evacuation plan shall be updated on the Employee Safety and Health Program website

#### C. Training

- 1. Upon initial employment, and at least annually thereafter, supervisors shall provide for the training of employees on the requirements of the Emergency Evacuation Plan
- 2. Supervisors shall notify employees of any changes to the Emergency Evacuation Plans, and such any such changes shall be posted on the Employee Safety and Health website.
- 3. The Employee Safety and Health Steering Committee, in conjunction with the Unit Safety and Health Committees that have offices in the building, shall provide for training of the Building Emergency Coordinator and Alternate in their duties under the plan upon their appointment to the post.
- 4. The Building Emergency Coordinator shall train Monitors on the requirements of the plan and their duties therein.

#### D. Evacuation

- 1. Unless previously instructed to disregard alarms, employees shall immediately evacuate upon the sounding of an alarm.
- 2. Employees shall immediately go to the assembly area and remain there until accounted for by their monitor.
- 3. Employees shall not move closer to the building than the assembly area until notified that the building is safe to re-enter, unless specifically instructed by the Building Emergency Coordinator or Monitor.

#### E. Drills

- 1. Fire Exit Drills
  - a. Where the department has an office with at least four employees

(teleworkers included), unannounced fire exit drills using the primary alarm system shall be held at least twice each year. Offices with fewer than four employees (teleworkers included), shall walk through their evacuation route at least yearly.

- b. Unannounced fire exit drills using the secondary alarm system shall be held at least once each year.
- c. Drills shall be initiated by the Building Emergency Coordinator, who shall coordinate in advance with emergency response personnel.
- d. Drills shall be conducted in a manner which periodically requires employees to exit by secondary exit routes.
- e. Malfunctions of the alarm system resulting in the initiation of the alarm and the evacuation of the building may be counted as a required fire exit drill.

## 2. In-Building Evacuation Drill

One in-building evacuation drill shall be held at least once each year. This drill may be held in coordination with the National Tornado Week drill. Employees may be previously notified of this drill.

## F. Fire Department Pre-Planning

A copy of the Emergency Evacuation Plan shall be shared with the local emergency response officials by the Building Emergency Coordinator.

## II. Portable Fire Extinguishers

### A. Provision of Extinguishers

#### 1. Types of Extinguishers

- a. Unless otherwise designated by the Safety and Health Coordinator or the Employee Safety and Health Steering Committee, ABC type portable fire extinguishers shall be used in all portions of buildings occupied by the Department.

#### 2. Size

The minimum size of portable fire extinguishers in buildings shall be ten (10) pounds.

#### 3. Distribution

- a. Portable Fire Extinguishers shall be placed within each building to ensure that:
    - i. The travel distance from any portion of the building to an extinguisher shall be no greater than seventy-five (75) feet, measured along the path of travel.
    - ii. There is one extinguisher for each 6000 square feet of occupied floor space.
  - b. Portable Fire Extinguishers shall be installed in locations where flammable or combustible liquids are stored or used so that the travel distance from any portion of the area and the extinguisher is no greater than fifty (50) feet, measured along the path of travel.
4. Mounting of Extinguishers
- a. Extinguishers shall be either wall mounted or recessed, no higher than five (5) feet measured from the floor to the highest point of the extinguisher, and no lower than four inches from the floor to the base of the extinguisher.
  - b. Extinguishers shall be mounted as near to exits from the building or portion as practical, to prevent employees from moving away from an exit in an attempt to retrieve an extinguisher.

B. Inspection and Maintenance

- 1. Monthly Visual Checks
  - a. All fire extinguishers shall be visually checked once each month by the Building Emergency Coordinator, or the floor monitor.
  - b. The following items on the extinguisher shall be checked:
    - i. The gauge, to assure that it is in the proper range and no leakage or expansion of the propellant has occurred.
    - ii. The locking pin and plastic tamper indicator to assure it is in place and has not been removed.
    - iii. The annual inspection tag, where applicable, to assure it has not been removed.
    - iv. The hose to assure that there are no cracks and no foreign objects have been inserted into the nozzle or opening.

- v. The cylinder to assure that no visual damage, rust, or corrosion has occurred.
  - vi. The weight and balance of the cylinder (by hefting) to assure that the extinguishing agent has not compacted at the bottom.
  - vii. The Annual, Breakdown, and Hydrostatic test dates are current.
- c. The following items concerning the mounting of the extinguisher shall be checked:
- i. The extinguisher is in its proper location.
  - ii. The operating instructions are facing outward.
  - iii. There are no items blocking free access to the extinguisher.
- d. The inspector shall certify the inspection by assuring that the annual inspection tag on the extinguisher has been signed and dated.
- e. Any extinguisher found out of compliance with the above shall be immediately tagged out of service. The Building Emergency Coordinator should be notified to contact the Facility Management Division to have the fire extinguisher repaired or replaced.

## 2. Other Inspections

- a. Each extinguisher shall be subjected to periodic inspections and tests by the Facility Management Division.
- b. Inspections and tests shall be performed as follows:
  - i. Maintenance inspection - annually.
  - ii. Breakdown test - every six (6) years.
  - iii. Hydrostatic test
    - (A). Stored pressure dry chemical extinguishers - every twelve (12) years.
    - (B). All others - every five (5) years.
    - (C). After any direct exposure to a fire.
    - (D). After pitting from corrosion or structural damage to the shell is

observed.

- c. Tests shall meet the requirements outlined in the most current edition of NFPA 10.
- d. The Facility Management Division shall certify that the tests were successfully completed by recording maintenance dates which are available for review.

### C. Training

Upon initial employment, and at least annually thereafter, supervisors shall provide for the training of employees on the types of fires, the types of fire extinguishers, the proper method of using extinguishers, and the purposes for fire extinguisher usage.

### D. Use of Extinguishers

Extinguishers shall only be used by employees as a means to quell a fire blocking a means of egress, in order to evacuate to the exterior of the building.

## III. Fire Alarm Systems

- A. A fire alarm system shall be provided in each building (including DOL- and non-DOL-occupied spaces) where:
  - 1. There are two or more stories above the level of exit discharge;
  - 2. There are 100 or more occupants above or below the level of exit discharge; or
  - 3. The occupant load for the building is 1000 or greater.
- B. In buildings which do not meet the above criteria, either a fire alarm system shall be installed or an employee alarm system shall be developed by the Building Emergency Coordinator.

## IV. Storage of Flammable and Combustible Liquids

- A. All flammable or combustible liquids in quantities greater than 2 quarts shall be stored in approved plastic, metal, or safety containers, in compliance with the requirements of 29 CFR 1910.106(d).
- B. Only one container of flammable or combustible liquids shall be stored in open storage, and only if that container is necessary to current operations. The Safety and Health Coordinator may allow a variance to this procedure if deemed necessary due to operating procedures.

- C. All remaining flammable and/or combustible liquids shall be stored in an approved safety cabinet, an inside storage room, or an outside storage room or warehouse.
  - 1. Storage in a safety cabinet shall be limited to 120 gallons of Class III liquids, 60 gallons of Class I or Class II liquids, or 60 gallons if any mixture of classes. Only one approved cabinet is permitted per occupied portion of a building, unless approved by the Safety and Health Coordinator.
  - 2. Storage Rooms and Buildings shall meet the applicable requirements of the Occupational Safety and Health Standards for General Industry and the North Carolina State Building Code, and shall be approved by the Safety and Health Coordinator prior to use.

V. Defibrillators

- A. The Building Emergency Coordinator, or his/her designee, is responsible for the maintenance of defibrillators and their storage unit, for buildings that have defibrillators. This responsibility will include the establishment of a regular inspection schedule of the unit and recording battery change-outs.
- B. The Building Emergency Coordinator will maintain the defibrillator inspection log in a place accessible to the unit Safety and Health Committee and/or the Safety and Health Coordinator.

Approved:

\_\_\_\_\_  
 John Baldwin, Chief of Staff  
 NC Department of Labor

\_\_\_\_\_  
 Allen McNeely, Deputy Commissioner  
 Division of Occupational Safety & Health

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 July 1, 2012  
 Review Date

\_\_\_\_\_  
 Andy Frazier, Deputy Commissioner  
 Standards and Inspections Division

\_\_\_\_\_  
 Date