

DHHS POLICIES AND PROCEDURES

Section V:	Human Resources
Title:	Safety and Benefits
Chapter:	Fire Prevention Plan Policy
Current Effective Date:	5/1/09
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Purpose

To establish a Fire Prevention Plan Policy regarding fire emergencies and to establish General Provisions for Fire Prevention; to provide for Fire Exit/Evacuation Drills; to establish requirements for fire protection and prevention equipment; to provide for periodic testing, maintenance and inspection of fire extinguishers; to establish requirements for employee training; to establish requirements for testing of emergency lighting and to establish requirements for the storage of flammable and combustible liquids within DHHS owned/leased building space.

Policy

Division/Facility/School Directors shall ensure all department employees receive fire prevention information and training as required by Joint Commission, NC Fire Code and OSHA 1910/1926 Industry and Construction Standards.

Definitions (also see DHHS Safety and Health Policy 1 Definition Section)

1. Flammable and Combustible Liquids Classifications
 - A. Boiling Point - the temperature at which a given liquid will boil.
 - B. Class I Liquid - any liquid having a flashpoint below 100 degrees Fahrenheit. Class I liquids are further subdivided as follows:
 1. Class IA - Flashpoint below 73 and a boiling point below 100 degrees.
 2. Class IB - Flashpoint below 73 and a boiling point at or above 100 degrees.
 3. Class IC - Flashpoint at or above 73 and below 100 degrees.
 - C. Class II Liquid - A liquid with a flashpoint at or above 100 and below 140 degrees.
 - D. Class III Liquid - A liquid with a flashpoint at or above 140 degrees.

- E. Combustible Liquid - A Class II or III Liquid.
- F. Flammable Liquid - A Class I Liquid
- G. Flashpoint - the minimum temperature at which a liquid gives off vapor in sufficient concentration to form an ignitable mixture with air near the surface of the liquid.
- H. Fire Classifications
 - 1. Class A - Fires in ordinary combustible materials, such as wood, cloth, paper, rubber, and many plastics.
 - 2. Class B - Fires in flammable/combustible liquids and gases.
 - 3. Class C - Fires involving energized electrical equipment.
 - 4. Class D - Fires in combustible metals.
- I. Incipient Stage Fire - a fire which is in a smoldering stage or has been burning openly for no longer than 30 seconds, and is no larger than a single trash can.
- J. Fire Exit - Evacuation in the event of fires and other emergencies, where employees will follow predetermined routes to the exterior of the building and gather at the designated collection point.
- K. In-Building - Evacuation in the event of tornadoes, severe inclement weather, or other emergencies where the employees must remain in the building and gather in an inside safe area.

Implementation

- 1. General Provisions for Fire Prevention:
 - A. Employees shall not be allowed to smoke in State Vehicles or State Owned, Leased or Controlled buildings.
 - B. Employees shall not smoke or use other open flame devices within 50 feet of any flammable storage area or where an accumulation of flammable or combustible materials may pose a fire hazard.
 - C. Employees shall not smoke or use open flame devices within 50 feet of any vehicle refueling or servicing area where there may be a flammability hazard.

- D. Employees shall not be allowed to use open flames (candles, burners, warmers, incense, lighters) in Business/Office occupancies; except as provided for in the NC Fire Code for religious ceremonial purposes and where a permit has been issued by the fire agency having regulatory jurisdiction over the building.
- E. It shall be unlawful for any employee to give, signal, or transmit a false fire alarm.
- F. It shall be unlawful to interfere with, attempt to interfere with, conspire to interfere with, obstruct or limit the mobility of, or block the path of a fire department emergency vehicle in any way, or to hamper any fire department operation.
- G. Employees are prohibited from tampering with provided fire extinguishing equipment except for use of the equipment for its intended purpose or as required during normal and periodic servicing and inspections.
- H. All fires shall be reported to the DHHS Safety Manager by the end of the next business day.
- I. Employees shall not use extension cords as a substitute for permanent wiring.
 - 1. Where extension cords are used on a limited basis (not more than 30 days); they shall not be attached to anchor points by any means (staple, tack, zip tie), run through partitions, door openings, over walls, above drop ceilings, under carpets or by any other means so as to cause an obscuration along the entire length of the cord.
 - 2. Additionally, extension cords shall be serviceable along their entire length without cuts or defects, shall not be repaired by means of wrapping tape, shall be provided with appropriate strain relief and shall have serviceable three-prong grounding supply and feed ends.
 - 3. Two prong, non-grounding, extension cords are prohibited.
- J. Surge protectors type power strips shall only be used to provide power to Data Sensitive Devices (DSD) which includes:
 - 1. Computer Processing Unit (to include laptop computers)
 - 2. Monitors
 - 3. Computer Docking Stations
 - 4. Items connected to a computer by means of a cord or other interface device, but provided operating power by other means (speakers, peripherals, external drives, imaging devices, etc.)
 - 5. Accountant's Calculator
 - 6. Facsimile Machines

7. Copiers
 8. Printers
 9. Other items identified as a DSD and approved by the Safety & Health Director
- K. Surge protector power strips shall be plugged directly into a power providing permanently affixed wall outlet; except for strictly temporary use, when powering DSD's during a briefing or audio-visual presentation.
- L. Temporary extension cords shall be disconnected by unplugging or other means when not in use.
- M. Surge protector power strips shall not be "daisy-chained" (plugged one into another) to increase the number of available outlets.
- N. The following items (except where use is specifically prohibited by division/facility/school policy) shall be plugged directly into a power providing permanently affixed wall outlet:
1. Microwave ovens
 2. Toaster ovens
 3. Coffee pots
 4. Refrigerators, freezers and coolers
 5. Heaters (only as authorized under DHHS Heater Guidelines for a medically related condition)
 6. Window air conditioning units with cord provided power supply
 7. Any item which may cause an overload condition due to high wattage (greater than 1000watts) requirements for compressor, motor, or element operation
- O. Power consuming items shall be used in accordance with their listing and labeling as provided by a national recognized testing institute (e.g. Underwriters Laboratories [UL]) in a manner consistent with the same testing. Power consuming items without listing and labeling from a nationally recognized testing institute shall be prohibited.
- P. Stairwell landings, treads and collection areas shall not be used to store items and shall remain free from obstruction at all times.
- Q. Heating pads, electric blankets and other electrically powered heat producing personal comfort items shall be prohibited except upon the requirement of the employee's medical physician and as approved by the division/facility/school Director through applicable approval procedures.

- R. Space heaters are prohibited. Division/Facility/School directors may allow exceptions on a case-by-case basis when the employee provides a physician's note stating the specific medical condition and that supplemental heat is required or when it is impossible to maintain a suitable working environment (68-76 degrees), as documented by the HVAC supervisor or other qualified person, the Division/Facility/School Director or his/her designated representative (Supervisor, etc.) may authorize the use of space heaters in adherence to the following guidance.
1. Contact Division/Facility/School Maintenance Department to correct any operating deficiencies in the HVAC system.
 2. Install weather stripping or control other sources of cold and or drafts.
 3. Verification by a certified electrician that the electrical service and circuit to be used at the work site is suitable to safely supply the current required for a space heater.
 4. For medical conditions requiring supplemental space heating in an otherwise suitable working environment (68-76 degrees F), proper medical documentation from a Licensed Practicing Physician stating the nature of the medical condition and that supplemental heat is required prior to placement of the space heater.
 5. The space heater must contain fully enclosed heating surfaces, be provided with a thermostat, tip over safety shut off and be listed by a approved listing agency such as Underwriter Laboratories or Factory Mutual.
 6. The space heater must plug directly into an appropriately rated power providing permanently affixed wall outlet. Space heaters shall not be plugged into surge protector power strips or extension cords.
 7. Procedures shall be established to ensure the space heater is disconnected from service at the close of business and or shift change.
 8. Space heater exceptions shall be reviewed annually to determine whether or not continued use is warranted.
2. Divisions/Facilities/Schools shall ensure that the above items are monitored on a routine basis through development and implementation of a monthly/quarterly safety inspection process. Inspections shall at a minimum address the compliance issues of the DHHS Monthly/Quarterly Workplace Safety Inspection Checklists.
 3. Fire Exit/External Evacuation Drills:

- A. Drills shall be conducted by occupancy type, on a schedule as defined by NFPA LSC 101 and or the NC Fire Code as appropriate for each building:
1. Business Occupancies:
 - a. Annually
 2. Institutional/Health Care Occupancies:
 - a. I-1,-OES, Wright and Whitaker School's residential buildings (NC Fire Code)

Once per quarter per shift
 - b. I-2-Psychiatric Hospitals, Developmental Centers, Neuro-Medical Treatment Centers and Alcohol, Drug Abuse Treatment Centers(NFPA LSC 101) and DHHS Schools with residential board and care facilities (NC Fire Code)

Once per quarter per shift
 3. Educational Occupancies:
 - a. OES, Wright, and Whitaker Schools (NC Fire Code)

Once within the first 10 days of classes beginning and monthly thereafter.
 - b. Facilities with Schools (NFPA LSC 101)

Twice during the first two (2) weeks of school and monthly thereafter.
 4. Buildings with Mixed Use Occupancies shall follow the guidance in NFPA LSC 101 and or the NC Fire Code as appropriate for all other buildings.
- B. The Emergency Evacuation Coordinator (EEC), Safety & Health Director, or Designated Safety Representative should be notified in advance of any drill. Personnel conducting drills and tests shall make proper coordination with emergency response personnel and their Fire Department (or other reporting agency) as necessary to ensure emergency services are aware of the drill. Employees should not have prior notification of Fire Exit/Evacuation Drills.

- C. Drills should be conducted in a manner which periodically requires employees to exit by secondary exit routes. Drills should be conducted at different times of the day; however, drills should be scheduled during times when a majority of the employees are available to respond to the drill. The exception to this rule would be in the case of shift work where it is necessary to determine the actions of employees on a particular shift.
- D. An Area of Refuge shall be pre determined for all building evacuation scenarios.
 - 1. Upon completion of the accountability of all building occupants and the determination that returning to the building from the Primary and or Secondary Collection Point will not be possible, building evacuees shall be immediately relocated to the designated Area of Refuge.
 - 2. The collection point(s) shall be located appropriately to protect the evacuees from the hazard(s) requiring evacuation and shall not create an obstruction or delay to the emergency response personnel.
 - 3. The external evacuation collection point shall be at least 500 feet from the building or located in Area of Refuge that protects the evacuees from any hazards associated with the evacuation causing event
- 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.
- F. For I-2 Occupancies (NC Fire Code) and/or Health Care Occupancies (NFPA LSC101), third shift fire drills may be simulated.
- G. DHHS Schools with residential board and care facilities (NC Fire Code I-1 Occupancies): all “Emergency evacuation drills shall involve the actual evacuation of all residents to a selected assembly point” (NC Fire Code, Table 405.2, Group I).
- H. The Emergency Evacuation Coordinator (EEC), Safety & Health Director, Safety Representative, or other designated responsible individual shall ensure the drill is documented to include the following items:
 - 1. Identity of the person conducting the drill
 - 2. Date and time of the drill
 - 3. Notification method used
 - 4. Staff members on duty and participating
 - 5. Number of occupants evacuated
 - 6. Special conditions simulated
 - 7. Problems encountered
 - 8. Weather conditions where occupants were evacuated

9. Time required to accomplish complete evacuation

- I. The EEC shall ensure a review of the fire drill is conducted with the floor monitors and include any lessons learned or problems encountered during the drill.
- J. The EEC shall forward a copy of the completed report to the Safety & Health Director or Designated Safety Representative and management for appropriate actions.
- K. The Safety & Health Director or Designated Safety Representative shall maintain a copy of the reports for a one year following the month of the report. The reports will be available for inspection and review by authorized personnel.

4. In-Building Evacuation Drill

- A. One in-building evacuation drill shall be held each year. The in-building evacuation drill should be held during National Severe Weather Week.
- B. Employees may have prior notification of the in-building evacuation drill.
- C. The Emergency Evacuation Coordinator (EEC), Safety & Health Director, Safety Representative, or other designated responsible individual shall ensure the drill is documented to include the following items:
 - 1. Identity of the person conducting the drill
 - 2. Date and time of the drill
 - 3. Notification method used
 - 4. Staff members on duty and participating
 - 5. Number of occupants evacuated
 - 6. Special conditions simulated
 - 7. Problems encountered
 - 8. Weather conditions where occupants were evacuated
 - 9. Time required to accomplish complete evacuation
- D. The EEC shall ensure a review of the evacuation drill is conducted with the floor monitors and include any lessons learned or problems encountered during the drill.
- E. The EEC shall forward a copy of the completed report to the Safety & Health Director or Designated Safety Representative and management for appropriate actions.

- F. The EEC shall maintain a copy of the reports for a period of year following the year of the report. The reports will be available for inspection and review by authorized personnel.
 - G. Horizontal evacuations are allowed and shall satisfy the requirements of external and internal evacuations as required by the needs of the facility (i.e. Psychiatric hospitals, MR/DD centers, forensic detention, etc.).
5. Fire Department Pre-Planning
- A. The Emergency Action Plan should be shared with the local emergency response officials by the Emergency Evacuation Coordinator and/or Safety & Health Director or Designated Safety Representative.
 - B. The Emergency Evacuation Coordinator (EEC) and/or the Safety & Health Director or Designated Safety Representative should invite the local Fire Department to the building for the purposes of preplanning firefighting activities.
6. Portable Fire Extinguishers
- A. Types of Extinguishers
 - 1. Unless otherwise authorized by the Safety & Health Director, ABC type portable fire extinguishers shall be used in all buildings.
 - 2. Type ABC portable fire extinguishers may be installed in State-owned or leased vehicles.
 - a. Size

The minimum size of portable fire extinguishers in buildings should be five (5) pounds.

The minimum size of portable fire extinguishers in vehicles should be two and one half (2.5) pounds.
 - b. Distribution

Portable fire extinguishers shall be placed within each building to ensure that:

 - The travel distance from any portion of the building to an extinguisher is no greater than 75 feet, measured along the path of travel.

- There is one extinguisher for each 6000 square feet of occupied floor space.
- 3. Portable fire extinguishers shall be installed in kitchens and other 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 50 feet, measured along the path of travel. Additionally, a fire extinguisher shall be installed no more than 30 feet away from commercial type cooking equipment. Cooking equipment involving vegetable or animal oils and fats shall be protected by a Class K rated portable fire extinguisher.
- 4. Where a commercial cooking hood system is required by section 609 of the North Carolina Fire Protection Code, the hood shall be protected with an approved automatic fire extinguishing system installed in accordance with Section 904 of the North Carolina Fire Prevention Code. Testing, servicing, and inspection of these automatic fire suppression systems will also be in accordance with section 904.4 of the North Carolina Fire Protection Code for the type of hood system installed.
- 5. 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 (4) inches from the floor to the base of the extinguisher.
 - b. Extinguishers should be mounted along exit routes 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.
- 7. Inspection, Maintenance and Testing of Fire Extinguishers
 - A. Monthly Visual Inspections
 - 1. All fire extinguishers shall have a visual inspection performed once each month by the Safety & Health Director, Designated Safety Representative or other designated properly trained personnel.
 - 2. The following items on the extinguisher shall be checked:
 - B. Check the gauge to ensure it is in the proper range (indicated by the green shaded are); thereby evidencing no leakage or expansion of the propellant has occurred.

- C. Check the locking pin and plastic tamper indicator to ensure they are in place and have not been removed.
- D. Check the annual inspection tag to ensure it has not been removed.
- E. Check the hose to ensure that there are no cracks and no foreign objects have been inserted into the nozzle or opening.
- F. Check the cylinder body to ensure that no visual damage, rust, or corrosion has occurred.
- G. Check the weight and balance of the cylinder (by hefting) to ensure that the extinguishing agent has not compacted at the bottom. The inspector should invert and shake the extinguisher to loosen compacted agent.
- H. Check the Annual, Breakdown, and Hydrostatic test dates to ensure they are current and the appropriate inspection, maintenance, and tests have been performed on schedule.
 - 1. The following items concerning the mounting of the extinguisher shall be checked:
 - a. Check that the extinguisher is in its proper location.
 - b. Check to ensure operating instructions are facing outward.
 - c. Check to ensure the extinguisher is free from obstructions and allowed access to the extinguisher within 36 inches.
 - 2. The inspector shall certify the monthly inspection by placing his or her initials in the appropriate block indicating the month of the inspection.
 - 3. Any extinguisher found in an unsafe condition shall be immediately tagged out of service until maintenance action can be performed on the extinguisher. A temporary replacement extinguisher of the same class and type as required shall be installed to provide adequate protection.
- I. Maintenance of Fire Extinguishers
 - 1. Each extinguisher shall have an annual inspection.
 - 2. Breakdown test - every six (6) years.
 - 3. Hydrostatic testing - Each extinguisher shall be subjected to periodic hydrostatic tests; normally by an independent vendor contractor.

Hydrostatic tests will be in accordance with 29CFR1910.157(f) as outlined below:

- a. Stored pressure dry chemical extinguishers - every 12 years.
- b. All others - every five (5) years.
- c. Following any direct exposure to a fire.
- d. Whenever pitting from corrosion or structural damage to the shell is observed.
- e. Tests shall meet the requirements outlined in the most current edition of NFPA 10, Portable Fire Extinguishers.
- f. The vendor/maintenance personnel shall certify that the tests were successfully completed by installing tags or markings on the extinguisher, as required by the applicable standards.

8. Fire Safety Training

- A. Within one (1) week of entering employment, the supervisor/manager shall ensure the employee receives an orientation regarding the Emergency Evacuation Plan for their Division/Facility/School work area; to include training or educational materials describing the purpose and proper method of using fire extinguishers, types of fire extinguishers, and the definition and description of an incipient stage fire.
- B. Employees shall receive annual training on Fire Safety including the types of fire extinguishers, locations of fire extinguishers, how to use a fire extinguisher, and the purposes for fire extinguisher usage.

9. Use of Extinguishers

- A. The primary purpose of the extinguisher is to provide employees a means to extinguish a fire blocking an egress route, in order to evacuate to the exterior of the building.
- B. The secondary purpose of the extinguisher is to provide a means for trained employees to extinguish a fire only in its initial stage, such as a smoldering fire or one the size of a trash can.
- C. Employees should not attempt to extinguish a structural fire or a fire burning from multiple sources.

- D. Upon becoming aware there is a fire, employees shall activate the alarm system (thereby activating the Emergency Evacuation Plan), exit the building and should not reenter the building to attempt a rescue.

10. Emergency Lights

- A. Emergency Lights shall be provided in each building where required by the North Carolina Fire Prevention Code and NFPA 101 (Life Safety Code) 2000 edition.
- B. Emergency lights, where required, shall be located in each stairwell, hallway, ramp, corridor, and passageway leading to an exit.
- C. Inspection and Testing
 - 1. The Safety & Health Director or Designated Safety Representative will ensure the lights are tested according to the following schedule:
 - a. Monthly, each emergency light in the building utilizing an internal battery backup system shall be tested for 30 seconds. Testing will be documented on the Monthly/Quarterly Safety Inspection Report.
 - b. Annually, each emergency light in the building shall be tested for 90 minutes. Testing will be documented on the Monthly Safety Inspection Report during the month completed. Documentation provided by other agencies responsible for this testing will be maintained by the Safety & Health Director or Designated Safety Representative.
 - c. Inspection Reports shall be maintained by the Safety & Health Director or the Designated Safety Representative for one year following the year of inspection.

11. Fire Alarm Systems

- A. A fire alarm system shall be provided in each building where required by the North Carolina Fire Protection Code and/or NFPA 101 (Life Safety Code) 2000 edition.
- 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 Safety & Health Director or the Designated Safety Representative.
- C. Fire alarm maintenance and testing schedules and procedures shall be in accordance with Chapter 9, Section 907.20 of the North Carolina Building Code:

Fire Code and Chapter 7, NFPA 72. Additionally, manufacturer's approved testing requirements shall be followed.

- D. The building owner shall be responsible for ensuring the fire and life safety systems are maintained in an operational condition at all times. Additionally, service personnel shall meet the qualification requirements of NFPA 72 for maintaining, inspecting and testing systems.
- E. A written record of fire alarm tests shall be maintained and shall be made available to the fire code official and/or other duly authorized inspectors upon request.

12. 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 should be stored in open storage, and only if that container is necessary to current operations. The Safety & Health Director may allow a variance to this procedure if deemed necessary due to operating procedures.
- C. All remaining flammable and/or combustible liquids should 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 & Health Director.
 - 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 Director prior to use.

13. Applicability: These procedures shall apply to all Divisions/Facilities/Schools unless replaced by specific procedures which retain mandatory statements.

14. The Safety Program Manager shall develop general operating procedures to guide Divisions/Facilities/Schools in developing their specific procedures.

15. Each Division/Facility shall develop specific operating procedures for the implementation of this policy.

16. Employees shall adhere to the requirements of this policy and its associated procedures.

References

1. North Carolina General Statutes
 - A. Chapter 95: North Carolina Occupational Safety and Health Act: 95-129(2) and 95-148(1)
 - B. Chapter 143, Section 63: Workplace Requirements Program for Safety and Health: 143-582(1), (3), and (4)
 - C. North Carolina Administrative Code: 25 NCAC 1N.0105 (a)
 - D. North Carolina Occupational Safety and Health Standards for General Industry, 29 CFR Part 1910:
 1. 29CFR1910.38: Emergency Plans
 2. 29CFR1910.106: Flammable and Combustible Liquids
 3. 29CFR910.157: Fire Extinguishers
2. National Fire Protection Association
 - A. Code 101: Code for Safety to Life from Fire in Buildings and Structures, Chapter 31
 - B. Code 10: Standard for Portable Fire Extinguishers
 - C. D. North Carolina State Building Code: Fire Code

For questions or clarification on any of the information contained in this policy, please contact [Human Resources](#). For general questions about department-wide policies and procedures, contact the [DHHS Policy Coordinator](#).