

Title

Fire Emergency & Evacuation Training

Target Audience

Adult Learners

Time Frame

3 Hours

Objective

- A. On a written exam, the student shall be able to correctly list the components of an effective fire safety program.
- B. On a written exam, the student shall be able to correctly identify the types of fire extinguishers.
- C. In a practical demonstration, the student shall be able to identify and select the correct type of fire extinguisher and safely extinguish a training fire placed in a burn pan.

Teacher Introduction

Motivation/Preparation

The emergency planning and evacuation of Commercial occupancies are governed by Chapter 4 of the North Carolina Fire Prevention Code

The everyday hazards found in the workplace pose safety issues for the staff of commercial occupancies. The proper training of employees to react in the event of an emergency is imperative to insure life safety.

Each individual workplace has it own unique hazards that pose hazards to the employees of the facility. The instructor should be familiar with these types of hazards before teaching the course.

Presentation and Delivery

- A. Purpose for Training
 - 1. Provide guidelines for the development and implementation of emergency evacuation and fire safety plans.
 - 2. Provide guidelines for conducting and evaluating evacuation drills.
 - 3. To make people aware of fire prevention procedures and practices.
 - 4. To make people aware of how fire extinguishers work.
 - 5. To make people aware that sometimes it is better that they do not use an extinguisher.
 - 6. What people should do when they choose to use an extinguisher.
 - 7. How to report a fire incident.
 - 8. How to ensure all occupants have safety exited the building and are accounted for.

9. Fire Code Requirements
 10. The North Carolina Fire Codes require occupancies to have written Fire Evacuation and Safety Plans and employees trained in the procedures of the plan.
 - a. These documents are a written plan and is updated annually to meet the occupancy's changing needs.
 - b. These documents are to be available in the workplace for employees to review and if requested, employees are to be given a copy for their use.
- B. Fire evacuation plans shall be written and include the following information:
1. Emergency egress or escape routes and whether evacuation of the building is to be complete or, where approved, by selected floors or areas only.
 - a. Copies of maps indicating primary and secondary escape routes shall be posted in conspicuous locations throughout the facility.
 2. Procedures for employees who must remain to operate critical equipment before evacuating.
 - b. The location of these employees shall be given to the fire department upon arrival.
 3. Procedures for accounting for employees and occupants after evacuation has been completed.
 - a. The method used to account for employees shall include a written list of names and the whereabouts of the employees.
 - b. Employees shall know the last known locations of employees who are unaccounted for.
 4. Identification and assignment of personnel responsible for rescue or emergency medical aid.
 - a. These personnel should be trained in First Aid and CPR
 6. The preferred and any alternative means of notifying occupants of a fire or emergency.
 - a. Employees shall be trained on how to activate, silence and reset the Fire Alarm
 - b. An alternative method shall be identified and employees shall be trained in the method.
 7. The preferred and any alternative means of reporting fires and other emergencies to the fire department or designated emergency response organization.
 - a. Employees shall be assigned to Call 911
 - b. Employees shall be trained to activate, silence and reset the Fire Alarm

Instructor Lesson Plan

8. Identification and assignment of personnel who can be contacted for further information or explanation of duties under the plan.
 - a. A senior employee shall be trained in the use of the entire plan and be appointed as a contact for the fire department.
 - b. At least one additional employee shall be designated and trained to serve as a backup contact.
 9. A description of the emergency voice/alarm communication system alert tone and preprogrammed voice messages, where provided.
 - a. A script of this message shall be provided in the written plan.
 - b. Employees shall be familiarized with the content of the message
- C. Fire safety plans shall be written and include the following information:
1. The procedure for reporting a fire or other emergency.
 - a. Employees assigned to Call 911
 - b. Employees trained to activate, silence and reset the Fire Alarm
 2. The life safety strategy and procedures for notifying, relocating, or evacuating occupants including:
 - a. Primary and Secondary Evacuation Routes
 - b. Procedures and training in evacuating physically disabled individuals
 - c. Procedures for those employees designated to obtain occupant medications and accountability list.
 - d. Other types of occupancy specific items
 3. Occupancy Site plans shall be provided and include the following:
 - a. The occupancy exterior assembly points for occupants to assemble once outside the structure.
 - b. The location of fire hydrants on the facility and any no parking restrictions
 - c. The normal routes of emergency vehicle access into and out of the facility.
 4. Floor plans identifying the locations of the following:
 - a. Exit doors
 - b. Primary evacuation routes
 - c. Secondary evacuation routes
 - d. Handicap accessible exit routes
 - e. Safe areas of refuge
 - f. Fire alarm pull station locations
 - g. Fire extinguisher locations
 - h. Occupant use hose stations (if present)
 - i. Fire alarm panels and controls
 5. A list of major fire and/or other hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.

6. Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.
 - a. This should include contractors or companies that service fire suppression and protection.
7. Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.
 - a. This should include pager and cell phone numbers for these individuals.
8. Steps to take in a Fire Situation
 - a. Recognize a fire
 - b. Pull the Fire Alarm
 - c. Evacuate the Building & Perform Accountability.
 - d. Call 911
 - e. Use the Fire Extinguisher if you feel comfortable and have been trained.

D. When encountering a fire remember RACE

1. R = Rescue - remove persons to safe area
2. A = Alarm – Notify 911 and/or set of fire alarm
3. C = Confine – Confine the fire to one area by closing doors or windows
4. E = Extinguish – If fire is small enough, use a fire extinguisher and put fire out

E. Recognize a Fire Condition

1. Do you see or smell smoke?
2. Does equipment or electrical cords feel hot to the touch?
3. Do you see flames?

F. Activate the Fire Alarm

1. Pull the nearest Fire Alarm Pull station to start the evacuation of the building.

G. Emergency Evacuation

1. Dial 911
 - a. Call 911 to make sure help is on the way.
 - i. Be specific with all information.
 - ii. Who
 - iii. What
 - iv. When
 - v. Where

H. Evacuation Drills

1. The Fire Codes require certain occupancies to conduct evacuation drills at certain intervals.
2. The Codes further stipulate who is required to participate in the drills.

3. All drills should be documented; including the date, shift and time the drill was conducted.
4. Evacuation times for employees and/or occupants should be included in this document.
5. Drills should be evaluated and critiqued for good and bad points. Any bad points should be corrected and the plan, if necessary updated.

I. Evacuation Frequency

FIRE AND EVACUATION DRILL - FREQUENCY AND PARTICIPATION

<u>GROUP OR OCCUPANCY</u>	<u>FREQUENCY ^a</u>	<u>PARTICIPATION</u>
Group A	Quarterly	Employee
Group E	Monthly ^a	All occupants
Group I	Quarterly on each shift	Employees ^b
Group R-1	Quarterly on each shift	Employees
Group R-4	Quarterly on each shift	Employees ^b

a. The frequency shall be permitted to be modified in accordance with Section [408.3.2](#).

b. Fire and evacuation drills in residential care assisted living facilities shall include complete evacuation of the premises in accordance with Section [408.10.5](#). Where occupants receive habilitation or rehabilitation training, fire prevention and fire safety practices shall be included as part of the training program.

J. Fire Prevention

1. Fire prevention is never ending and requires constant attention
 - a. Never use extension cords
 - b. Never block or lock an exit
 - c. Always have emergency plans posted
 - d. Practice fire drills, include RACE
 - e. Maintain proper housekeeping
 - f. Practice safe cooking methods
 - g. Make sure interior finishes, furniture and decorations meet proper fire resistant regulations.

K. Interior Trim and Decorations

2. The Fire Codes have certain requirements regarding interior wall, ceiling and floor coverings and trim.
 - a. Depending upon the type of occupancy, these may need to be flame resistant.
3. The Fire Codes have certain requirements for bedding, furniture and other furnishings.
 - a. Depending upon the type of occupancy, these may need to be flame resistant.
 - b. Decorations used for normal furnishings and holiday decoration are to be evaluated for their burning characteristics. Certain type of decorations and wall adornments may be prohibited if they pose a fire hazard.

4. Any questionable items should be evaluated by the Fire Department prior to them being used.
- L. You are NOT required to use a fire extinguisher on a fire.
1. Your responsibilities in a fire situation are:
 - a. Recognize a fire condition.
 - b. Activate the fire alarm system.
 - c. Evacuate the building and ensure all personnel have been accounted for.
 - d. Call 911 to report the fire condition and to make sure help is on the way.
 - e. Remember you are not a trained firefighter. You should never put your life in danger.
- M. How Does a Fire Work?
1. Four components
 - a. Oxygen
 - b. Heat
 - c. Fuel
 - d. Chemical Chain Reaction
 2. Need all four components to start a fire
 3. Fire extinguishers remove one or more of four the components.
- N. Types of Fires
1. **Class A** - Wood, paper, cloth, trash
 2. **Class B** - Flammable liquids, oil, gas, grease
 3. **Class C** - Electrical
 4. **Class D** - Combustible metals
- O. Different Kinds of Extinguishers
1. The common type fire extinguishers:
 - a. Pressurized Water (wood, paper, trash)
 - b. Carbon Dioxide (electrical)
 - c. Multi-Purpose Dry Chemical (ABC/BC)
 - d. K-Class Extinguishers (commercial cooking operations)
 - e. Halotron and Foam (special applications)
- P. Fire Extinguishers
1. Fire extinguishers vary in size and types with the most popular type being an ABC.
 2. They work by matching the extinguisher type with the type of fire (what's burning).
 3. Check to make sure the extinguisher is fully charged and ready to use before approaching the fire.
 4. Check to make sure the extinguisher is the correct type for the class of fire. Improper selection can cause injuries and intensify the fire.
 5. Always have an exit to your back.

Q. Extinguisher Types

1. Water Extinguisher
 - a. Contains water.
 - b. Used on Class A fires only.

2. CO2 Extinguisher
 - a. Contains Carbon Dioxide.
 - b. Used on Class BC fires only.

3. ABC (Multi-purpose) is the most common type of extinguisher used.
 - a. Types include:
 - b. BC -Sodium Bicarbonate
 - c. ABC – Mono-Ammonium Phosphate
 - d. Depending upon type of extinguisher, can be used on Class ABC or BC fires.

4. K-Class Extinguisher
 - a. Extinguisher used to extinguish fires in commercial cooking operations.
 - b. Chemical is similar to firefighting foam know as Wet Chemical.
 - c. K-Class is used in conjunction with a commercial cooking hood fire extinguishing system.

5. Halotron Extinguisher.
 - a. Contains Clean Agent.
 - i. Substitute for Halon
 - b. Used to extinguish Class ABC fires involving sensitive equipment.

R. Make sure your extinguisher can be used in an emergency.

1. The extinguisher should be mounted on the wall.
2. The area in front of the extinguisher shall be clear. No obstructions
3. The pressure gauge should be in the green zone
4. The inspection tag should show that the extinguisher has been inspected within the last year.

S. Operation of an extinguisher remember PASS

1. P = Pull the pin.
2. A = Aim the nozzle at the base of the fire.
3. S = Squeeze the handle.
4. S = Sweep from side to side.

T. The PASS Method will work on all types of extinguishers.

1. Pull the pin
 - a. This will allow you to squeeze the handle in order to discharge the extinguisher
2. Aim at the base of the fire
 - a. Aiming at the middle will do no good.
 - b. The agent will pass through the flames.

3. Squeeze the handle
 - a. This will release the pressurized extinguishing agent
4. Sweep side to side
 - a. Spray the extinguisher at the base of the fire.
 - b. Cover the entire area that is on fire. Continue until fire is extinguished. Keep an eye on the area for re-lighting.

U. Safety Precautions when fighting a fire

1. Stay upwind of to the fire.
2. Stay low; never try to work over top the fire.

V. Safety Precautions when fighting a fire

1. Spray the extinguisher at the base of the fire.

W. Safety Precautions when fighting a fire

1. Never allow the fire to get between you and a route to escape.

X. Safety Precautions when fighting a fire

1. Never go into a unknown area to fight a fire.

Y. Any Questions...

1. Please call the Fire Marshal's Office at 704-920-5517 if you have questions, comments or need additional information on any of the items mentioned in this presentation.

Z. Fire Extinguishment

1. Now using different fire extinguishers you will get a turn to put a fire out
2. Remember to stay upwind of the fire
3. Remember PASS
4. Be CAREFUL and HAVE FUN

Summary

Commercial occupancies are required by the NC Fire Code to develop fire safety and evacuation plans. Code requirements state that employees shall be trained in the use and implementation of the safety plan and evacuation procedures.

The NC Fire Code also states that employees shall be properly trained in the proper selection of fire extinguishers. Employees shall be trained regularly in making these decisions and be able to proficiently use fire extinguishers.

Questions and Comments

Please call the Fire Marshal's Office at 704-920-5517 if you have questions, comments or need additional information on any of the items mentioned in this presentation.

Conclusion

The Concord Department of Fire and Life Safety would like to thank you for your time and attention.

Fire Prevention and Safety – It's Your Responsibility!!!