

FIRE AND LIFE SAFETY TRAINING

Clinical Staff



Office of Environmental Health and Safety
East Carolina University



Objectives

- ▶ **General Information**
- ▶ **Emergency Evacuation Plans / Regulatory Requirements**
- ▶ **Notification Systems**
- ▶ **Emergency Exits and Fire Doors**
- ▶ **Electrical Safety**
- ▶ **Fire Prevention**
- ▶ **Types of Portable Fire Extinguishers**
- ▶ **Use of Portable Fire Extinguishers**

Fire Statistics

There were 1,240,000 fires in the United States in 2013. Of these were:

- **487,000 Structure fires**
 - **2855 deaths.**
 - **Home fires accounted for 85% of the total.**
 - **14,075 injuries.**
 - **\$9.5 billion in property damage.**
 - **One structure fire was reported every 65 seconds.**



ECU Policy

EVACUATE IMMEDIATELY!

Regardless of the internal policies that may have been in place previously, current University policy is to evacuate the area where a fire occurs regardless of the amount or cost of equipment that may be lost.



There Is A Fire What Do I Do?

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- ▶ Upon discovering a fire, immediately sound the building fire alarm and/or alert other occupants.
- ▶ From outside of the building:
 - ▶ Dial 911
 - ▶ ECU Police
 - ▶ East Campus, 328-6787
 - ▶ West Campus, 744-2246
 - ▶ Go to a campus 'Blue Light Phone'.
- ▶ Provide your name, department, and location of the fire.



Notification System

An alarm system must be in place to notify all staff, faculty, students, and patients of a fire. This may include one or more of the following:

- **Public address system (PA)**
- **Alarm pull stations that sound an audible alarm.**
- **Voice – call out ‘fire’, “Code Red”, etc. (if no electronic alarm system)**

Means of Egress

- ▶ Employees must know two means of egress in case one becomes blocked during an emergency evacuation.
- ▶ A continuous and unobstructed way of exit travel from a building or structure.
- ▶ Routes of Egress must be unobstructed and unlocked while the structure is occupied.



Emergency Exits

- All exits must be clearly visible – no mirrors, curtains, or other items covering the signs or doors.



- All exits must be clearly illuminated with at least 5 candlepower, and have backup lighting.



- Doors which may be mistaken as exits must be clearly labeled as “Not an Exit.”



Fire Doors

- ▶ Door stops, wedges and other unapproved hold-open devices are prohibited on fire doors.
- ▶ Swinging fire doors shall close from the full-open position and shall latch automatically.





Building Evacuation

- ▶ Proceed to nearest exit in an orderly fashion, closing doors behind you.
- ▶ Assemble at the designated meeting location and account for all patients, visitors, and staff.
- ▶ Provide safety representatives with information about people still in the building, location of 'Area of Rescue', etc.
- ▶ Never re-enter a building until instructed to by the police department, fire department, or EH&S staff.



RACE Method Of Evacuation

- ▶ R Remove All Persons In Danger!
- ▶ A Always Pull The Alarm and Call ECU Police Department.
- ▶ C Contain The Fire By Closing the Windows and Doors.
- ▶ E Extinguish the Fire Only if You Are Trained and Confident.

Emergency Procedures

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- Staff members should have specific roles in equipment shutoff.
- All doors should be checked for visitors and shut on the way out of the clinic in order to contain smoke and fire.



Regulatory Requirement

- ▶ The Occupational Safety and Health Administration (OSHA) requires emergency evacuation/action plans under 29 CFR 1910.38.

▶ **EAP's ARE REQUIRED!**

Emergency Action Plan

- ▶ All employees should have read the Emergency Action Plan (EAP) and fully understand it.
- ▶ It is important to update Safety Representatives and contacts whenever a change is made.
- ▶ The meeting locations should be away from any traffic and equipment areas that might be a danger.
- ▶ Updated plans should be submitted annually to the Office of Environmental Health and Safety.

Emergency Action Plan

- ▶ This plan must cover the approved primary and secondary meeting locations, the notification method, any unique procedures for that specific building, and designate a Safety Representative and Alternative Safety Representative.

Emergency Evacuation Plan
<p>In the case of a fire, it is ECU policy to evacuate the building. Do not attempt to fight a fire unless you have been designated and trained to use a fire extinguisher or it is your only method of escape. Please see attached documents for evacuation floor plans, fire systems information and approved meeting locations.</p>
<p>Department / Clinic Name:</p>
<p>Building(s):</p>
<p>Room Numbers:</p>
<p>Primary meeting location:</p>
<p>Secondary meeting location:</p>
<p>Report individuals needing assistance with evacuation, those in areas of refuge or other evacuation issues to Department Safety Representative. The Representative will collect this information and report to emergency personnel. Name of Department Safety Representative (or other designate):</p>
<p>Alternate Safety Representative:</p>
<p>Are there disabled occupants? Where are the areas of refuge for those requiring assistance? (See discussion below for additional guidance.)</p>
<p>Department Plan Completed By:</p>
<p>Date: Revisions are required annually or as required due to personnel/facility changes.</p>
<p>R Remove all persons in danger. A Always dial 911 or 744-2246 and pull the alarm. C Contain the fire by closing windows and doors. E Evacuate.</p>
<p>If fire alarm system is activated or you detect fire or smoke:</p> <ul style="list-style-type: none"> • Immediately evacuate the building using the nearest available exit. Do not attempt to fight a fire unless you have received the appropriate training. • Know an alternate exit route in case the primary exit is blocked. Do not use elevators. Feel doors before opening them. If they are hot, do not open them. Close doors as you exit. If possible, secure any experiments or any hazards under your control. If you get caught in smoke, get down and crawl, as cleaner, cooler air will be near the floor. • Sound the alarm as you leave the building by activating a pull station. • Call 911 or 744-2246 (Brody SOM campus) from a safe location outside the building. Provide emergency personnel with specific information including your name, location of the incident, and nature of the emergency.

<ul style="list-style-type: none"> • Assemble at designated location and account for all personnel. No one should leave area unless they are accounted for and the department safety representative or other response personnel know that they are leaving. • Provide information to safety representative regarding missing and/or disabled persons. They will in turn provide information to the emergency personnel • Evaluate your evacuation plan at least annually and make changes as necessary.
<p>Evacuation Procedure for Disabled Occupants:</p> <ul style="list-style-type: none"> • An area of refuge is an area adequately separated from the rest of the building by fire resisting construction, i.e. stairwell. • Persons with mobility impairments should go to the nearest approved stairwell or area of refuge and wait for emergency personnel; this area will receive attention first. Fire doors must remain closed to protect from smoke and fire. Be sure to wait in an area that will not impede the egress of other occupants. • If unable to go to the stairwell due to smoke, fire, or otherwise, occupants should stay in their room/office and follow the steps below. Be sure to notify a co-worker who can pass the room number to the Department Safety Representative. The Department Safety Representative will coordinate information and report to emergency personnel.
<p>If unable to exit:</p> <ul style="list-style-type: none"> • Keep doors closed. • Seal cracks and vents with towels or sheets (wet if possible) to prevent smoke from entering the room. • Signal for help by hanging an object out of the window, such as a towel or jacket, to attract attention. • If possible, call 911 or 744-2246 on the Brody SOM campus, to report the emergency, being sure to give your name, building, and specific location inside the building.
<p>Faculty/Staff Responsibilities:</p> <ul style="list-style-type: none"> • Faculty/Staff are responsible for informing students of proper evacuation routes and a designated assembly area at start of the semester and at time of evacuation. • Faculty/Staff should be the last to leave the classroom/laboratory during an evacuation, making sure all students exit properly and to the designated assembly area. • It is the responsibility of faculty/staff to account for his/her students at the designated meeting area and inform department safety representative (or emergency personnel if you are in a different building) of anyone that is unaccounted for.
<p>List any additional departmental / clinic procedures for emergency evacuations (i.e. patient evacuation, medical gas shut off).</p>
<p>Information on adverse weather emergencies can be found at: http://www.ecu.edu/oehs/emergencyprocedures/severeweather.htm.</p>

Training

- All faculty and staff should be trained on emergency action plans and participate in scheduled drills.
 - Clinic fire drills are conducted annually by EH&S.
 - Emergency Action Plan training should be conducted by the Clinic Manager or Safety Representative for the department.
 - Departments can conduct their own bi-annual or semi-annual fire drill to assess their department.
- This training should be updated annually and/or when staff or the facility changes.
- This training is specific and should be conducted by your safety representative or the individual in charge of completing the EAP.

Common Causes of Fires in Health Care Facilities

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- ▶ Electrical Malfunctions
- ▶ Friction
- ▶ Open Flames
- ▶ Sparks
- ▶ Hot Surfaces
- ▶ Compressed O₂
- ▶ Anesthetic Gases



Precautions Against Fire

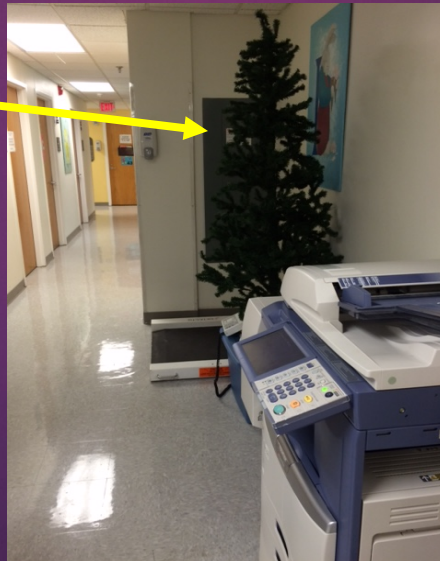
- ▶ Extension cords and flexible cords cannot be a substitute for permanent wiring.
- ▶ Regularly inspect electrical cords for damage.
- ▶ Use caution when working with open flames or hot surfaces.



Precautions Against Fire

- ▶ Clearance of not less than 36 inches shall be provided between all electrical service equipment (electrical panels) and storage.
- ▶ Multi plug adaptors, such as cube adaptors, unfused plug strips or any other device not complying with NFPA 70 are prohibited.

Electrical Panel



Electrical Panel



Electrical Safety

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- ▶ Surge Protectors are the only approved means of multiplying a receptacle.



- ▶ Extension cords are **NOT** an approved means of permanent wiring.



**Underwriters
Laboratories Inc.**

- ▶ All appliances **MUST** have a UL label.

Portable Space Heaters and Open Flames

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- ▶ Space heaters are prohibited from use in all State-owned buildings.
- ▶ Open flames are not allowed in ECU buildings.
- ▶ Candles/burning incense are not permitted in ECU buildings.

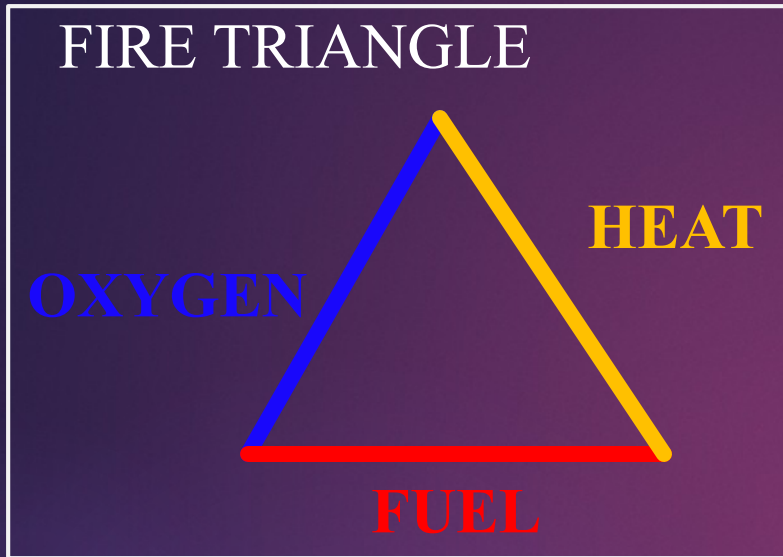
Approved Portable Safety Can

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How Does a Fire Work?

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- ▶ Three components
 - ▶ Need all three components to start a fire
 - ▶ Fire extinguishers remove one or more of the components
 - ▶ Oxygen is required as a catalyst – may come from the air OR from the fuel itself
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- Fire extinguishers are used to ‘extinguish’ one of the three components that allow the fire to exist.



Portable Fire Extinguishers

- ▶ Locate and identify extinguishers so that they are readily accessible.
- ▶ Only approved extinguishers shall be used.
- ▶ Maintain extinguishers in a fully charged and operable condition.



Classification of Fires & Extinguishers

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Class A Fires

- Wood
- Paper
- Rags
- Some rubber and plastic materials

Ordinary
Combustibles



Classification of Fires & Extinguishers

Class B Fires

- Gasoline
- Oil
- Grease
- Paint
- Flammable Gases
- Some rubber and plastic materials



B

Classification of Fires & Extinguishers

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Class C Fires

- Electrical Fires
 - Office Equipment
 - Motors
 - Switchgear
 - Heaters



Classification of Fires & Extinguishers

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Class D Fires

- Metals
 - Magnesium
 - Titanium
 - Sodium
 - Zirconium
 - Potassium
 - Lithium



Multi-Class Ratings

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- There are several types of multi-class extinguishers: A-B, B-C, or A-B-C.
- Be sure the correct extinguisher is provided for the hazards.



- Generally, ABC combinations are used to extinguish a wide variety of fires including: Combustibles, Flammable Liquids, and Electrical Fires.

Types of Extinguishers

- ▶ All Purpose Water
- ▶ Carbon Dioxide
- ▶ Multi-Purpose Dry Chemical
- ▶ Dry Powder

How to Use an Extinguisher

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PASS Method

P: Pull the pin.

A: Aim extinguisher nozzle at the base of the flame.

S: Squeeze trigger while holding the extinguisher upright.

S: Sweep the extinguisher from side to side, covering the area with the extinguisher agent.



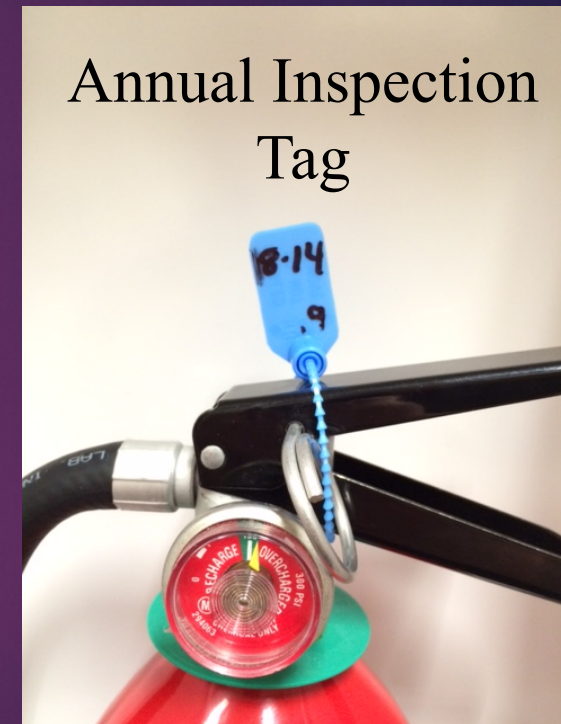


Fire Extinguishers

Inspection, Maintenance and Testing

- ▶ Visually inspected monthly
- ▶ Maintained annually
- ▶ Hydrostatically tested periodically (5 or 12 yrs.)

Fire extinguishers on ECU property are maintained by Facilities Services via the Life Safety Department.



When NOT to Fight a Fire!

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- ▶ Only fight a fire in the incipient stage
- ▶ Fire has spread beyond its point of origin
- ▶ Your instincts tell you **GET OUT**
- ▶ Remember to keep an exit to your back

Partnership with GFR

- ▶ Greenville Fire & Rescue:
 - ▶ Pre-fire planning.
 - ▶ Campus building surveys.
 - ▶ Training / Education.
- ▶ Authority having jurisdiction is the State Dept. of Insurance, Office of State Fire Marshal.
 - ▶ Conduct annual inspections for fire and life safety compliance.



Questions to ask yourself?

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- ▶ Where is the nearest fire alarm pull station?
- ▶ Where is the nearest fire extinguisher?
- ▶ Where are the primary and secondary exits?
- ▶ Where are the primary and secondary designated meeting locations?
- ▶ Where is the emergency procedures manual?
- ▶ What is your specific role in patient evacuation and emergency equipment shut-off?

Questions and Comments

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- ▶ Office of Environmental Health and Safety

328-6166

safety@ecu.edu

- ▶ Office of Radiation and Biological Safety – 744-2236

- ▶ ECU Police – 328-6787
East Campus

- ▶ ECU Police – 744-2246
West Campus

Quiz

- In order to receive credit for this training, you must complete the QUIZ.
- You will be sent confirmation via email.