

FLORIDA INTERNATIONAL UNIVERSITY

UNIVERSITY SAFETY COMPLIANCE GUIDE

FIRE SAFETY

SECTION 200

ENVIRONMENTAL HEALTH & SAFETY,
INSURANCE & EMERGENCY MANAGEMENT SERVICES

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USCG 201 - FIRE EXTINGUISHER

Last Update: 05/01/01

PURPOSE

To establish a portable fire extinguisher management program

SCOPE

All University Premises

GUIDELINES

Portable fire extinguishers are installed on the basis of hazard classification, of occupancy, and the nature of the contents of facility.

- The number and location of extinguishers is determined by the Fire Safety Compliance Officer.
- Departments with special needs may request additional fire extinguishers by calling the Department of Environmental Health & Safety at (305) 348-2621.
- Portable fire extinguishers are provided by the Department of Environmental Health & Safety, Insurance & Emergency Management Services for University facilities, on the basis of fire hazards encountered.
- Portable fire extinguishers may be used by those trained in their use, on fires of limited size.
- Fires are classified into groups according to the nature of the material subject to fire. Fire extinguisher classification corresponds to these groups:

Class A:

Fires consisting of ordinary combustibles, such as wood, paper, some plastics, and textiles, where a quenching and cooling action of the extinguishing agent is required.

Class B:

Fires consisting of flammable liquid and gas, such as oil, gasoline, paint, acetone, and grease, where oxygen exclusion or a flame-interrupting effect of the extinguishing agent is required.

Class C:

Fire involving electrical wiring and electrical equipment where a dielectric, nonconductive extinguishing agent is required.

Class D:

Fires consisting of combustible metals, such as magnesium, potassium, powdered aluminum, zinc, sodium, titanium, zirconium, and lithium, where a material specific extinguishing agent is required.

Fire Safety and Fire Extinguisher use training are available through the Department of Environmental Health & Safety.

If you observe portable fire extinguishers that have been tampered with, rendered nonfunctional, or missing from its cabinet or bracket, report it to the Department of Environmental Health & Safety by calling (302) 348-2621.

It is against the law to tamper with any fire safety equipment. The FIU Department of Environmental Health & Safety, Insurance & Emergency Management Services will vigorously pursue prosecution of anyone implicated in such actions.

(Florida Statute – 806.10, 806.101)

For more information regarding this guideline, contact the Department of Environmental Health & Safety at (305) 348-2621.

USCG 203 - CLASSROOM CAPACITY

Last Update: 11/05/03

PURPOSE

To establish the guidelines necessary to assure proper assignment of classes based on the approved occupant load for each location.

SCOPE

All University spaces assigned for instructional purposes.

AUTHORITY

Florida Statute, Chapter 633
University Policy 15.8

DEFINITIONS

Approved: Acceptable to the Authority Having Jurisdiction

Assembly Occupancy (assembly): Includes University classrooms with two or more exits and occupant loads of 50 or more persons.

Authority Having Jurisdiction: The office or person responsible for fire safety code administration (AHJ).

General Classrooms (classroom): University classrooms which have a single exit and hence a maximum occupant load of 49 or less persons.

Occupant Load: The total number of persons that may occupy a building or portions thereof at anyone time calculated using the approved occupant load factor for that particular occupancy and the egress capacity.

Occupant Load Factor: The net or gross area per person, permitted by code for a particular location, depending on its use and the egress capacity.

Seating Plan: A diagram showing the arrangement of chairs and minimum required aisle spaces.

GUIDELINES

Florida International University recognizes that the safety of building occupants and their ability to safely egress any classroom facility at the time of an emergency is contingent on:

1. The fire safety prevention, detection, protection and notification features of the facility.
2. The systems in place to support the proper maintenance of these features.
3. The total number occupants in the building at the time of the emergency.

The University is therefore committed to assuring compliance with the requirements of the applicable fire safety codes and the directives of the Authorities Having Jurisdiction (AHJ) which serve to assure that these conditions are monitored and controlled as appropriate.

RESPONSIBILITIES

Facilities Planning & Construction

Shall assure that:

- The design, construction, renovation and conversion of University facilities incorporate the features and considerations necessary to satisfy applicable fire safety codes and approved standards, including as appropriate, consideration for persons with disabilities.

Facilities Management

Shall assure that:

- Building fire prevention, detection, protection and notification systems are maintained in a state of compliance with applicable fire safety codes.
- The approved occupant loads for general classrooms and assembly occupancies are calculated in accordance with the approved occupant load factor, and properly posted in all classroom and assembly occupancies.
- Seating plans are posted in each classroom or assemblies where the AHJ has granted approval for an increase in the occupancy load, above that which is specifically prescribed by code.
- Timely and effective corrective actions are taken to address hazards which have the potential to substantially affect safe occupancy, timely notification, and the safe and unobstructed egress of occupants from University facilities.

Environmental Health & Safety (EH&S)

Shall provide for:

- Inspection and monitoring of University facilities for compliance with approved occupancy loads, and that building fire safety prevention, detection, protection and notification systems are maintained in compliance with applicable fire safety codes.
- Notification and follow-up for timely corrective actions regarding conditions that are found to be in violation of the acceptable standards for fire safety, prescribed by code or otherwise approved.
- Education of the University community regarding appropriate fire safety practices and response procedures, including but not limited to portable fire extinguisher training and fire drill/emergency response procedures.

Academic Space Scheduling, Utilization & Analysis (ASUSA)

Shall assure that:

- All space conversions, scheduling, and assignments are made in accordance with applicable codes and approved occupancy loads.
- Appropriate corrective actions are implemented upon receipt of notification about space utilization practices that do not comply with fire safety codes and standards.

For more information regarding this compliance guide, contact the Department of Environmental Health & Safety, at extension 2621.

USCG 204 - BUILDING EVACUATION EXERCISES

Last Update: 05/01/01

PURPOSE

The objective of this standard is to establish the guidelines to prepare building occupants to safely evacuate University buildings at the time of an emergency.

AUTHORITY

Fire exit drills are mandated by:

- Florida State Statute 633; and
- Florida Administrative Code Chapter 4A-3.

GUIDELINES

Florida law requires annual fire exit drills for all individuals in Category I buildings. Category I is defined as any building that:

- Contains combustible or explosive matter or flammable conditions dangerous to the safety of life or property .
- In which persons receive educational instruction.
- In which persons reside, excluding private dwellings,
- Containing three or more floor levels.

All occupants of these building, at the time of the drill, must participate in the fire drill.

RESPONSIBILITIES

Environmental Health & Safety (EH&S)

EH&S is responsible to:

- Supervise each fire drill and assist with the evaluation and record keeping.
- Schedule buildings for the fire drills and serve as the coordinator between the Public Safety Department, appropriate Facilities Management representatives and building occupants.
- Notify Deans and Directors when buildings under their control will be tested during the fall, spring or summer semester.

Deans and Directors

Deans and Directors are responsible to:

- Notify building occupants under their supervision of fire drill test procedures.
- Notify EH&S of any dates and times that are critical where disruption of classes and/or research is impractical.

Public Safety Department

Public Safety Department is responsible to:

- Assist EH&S in conducting the fire drills in accordance with their Standard Operating Procedure for emergency response to fires.

Facilities Management

Facilities Management is responsible to:

Operate the fire alarm system and reset it when instructed at the conclusion of the test.

Building Occupants

Building occupants are responsible to:

Vacate the building in an orderly fashion when the fire alarm signal is given and not return until the "ALL CLEAR" signal is given by Public Safety.

PROCEDURES

The drills are usually scheduled during the second and third weeks of the fall, spring or summer semester. Some drills may be held with no prior notification.

EH&S shall notify Deans and Directors annually of the fire exit drill requirement.

Evaluation records for each fire drills shall be maintained by EH&S in appropriate files.

For more information regarding this guideline, contact the Department of Environmental Health & Safety at (305) 348-2621.

USCG 205 - FIRE DOORS

Last Update: 05/01/01

PURPOSE

To establish a uniform guideline regarding fire doors on University premises.

SCOPE

University Premises

GUIDELINES

- Doors required to be fire rated should comply with NFPA 252, Standard Methods of Fire Test of Door Assemblies.
- Fire Rated Doors should be self closing. There should not be an undercut of more than 1/8 inch.
- Windows in fire rated door shall be less than 25 percent of the door and be constructed of wire glass or fire rated glazing material.
- Doors in corridors, stairway enclosures, horizontal exits, smoke barriers or hazardous areas may be held open only by an automatic release that is activated by the fire alarm system. These doors should not be held open with a wedge or other device.
- Do not drill into or otherwise modify fire doors. Modifications may negate the fire rating
- The Department of Environmental Health & Safety will inspect all fire doors during life safety code inspections and notify the Facilities Management Department regarding findings.
- The Facilities Management Department is responsible for maintaining all doors in working order.
- View panels in doors shall be kept clear to allow viewing for safety, security and emergency response.

For more information regarding this guideline, contact the Department of Environmental Health & Safety at (305) 348-2621.

USCG 206 - FIREWORKS AND PYROTECHNICS DISPLAYS ON UNIVERSITY

PREMISES

Last Update: 09/01/02

PURPOSE

To establish minimum guidelines for the safe use of fireworks on University premises.

AUTHORITY

NFPA 101 – Life Safety Code, 1994 Edition.

NFPA 1123 – Code for Fireworks Display, 1995 Edition.

NFPA 1126 – Use of Pyrotechnics before a Proximate Audience, 1992 Edition.

NFPA International Fire Code, First Draft Edition.

Chancellor’s Memorandum CM-03.00-02/97

Florida International University Policy 15.0 - Use of Fireworks on University Property.

SCOPE

All fireworks and pyrotechnic displays carried out on University premises.

GUIDELINES

Both outdoor fireworks displays and proximate pyrotechnic displays shall comply with this subsection. Any exception to these conditions must be permitted, in writing, by the FIU Director of the Department of Environmental Health & Safety, Insurance & Emergency Management Services and all conditions of the permit implemented as stated.

1. Approved Displays

Approved displays shall:

- a. Only be discharged by a competent, insured operator.
- b. Be arranged, located and discharged in a manner that does not endanger or pose a hazard to any person or property.
- c. Only include approved DOT Class 1.3G, Class 1.4G and Class 1.4S fireworks – Display Fireworks, Consumer Fireworks and Novelty and trick noise makers

Approved displays shall not:

- d. Have more than 800 shells in a single display.
- e. Use any remote ignition system that is not under the direct control of the approved on-site operator.
- f. Use free floating devices or shells less than four inches in diameter, unless approved by the Department of Environmental Health & Safety.

2. Safety Perimeter

A perimeter with a diameter in accordance with the values given in the table below shall be established.

Shell Size (in.)	Shell Size (mm)	Minimum Secured Perimeter Diameter (ft.)*
<3	<76	75
3	76	210
4	102	280
5	127	350
6	152	420
7	178	490
8	203	560
10	254	700
12	305	840

The following shall not be permitted inside the perimeter:

- a. Any person, except: authorized fireworks display personnel, Public Safety officers, EH&S staff and fire department personnel.
- b. Spectator parking.
- c. Inhabited or combustible structures.
- d. Flammable liquid or hazardous materials storage areas.
- e. Protected areas (animal refuge, nature preserves, etc.)
- f. Roadways.
- g. Open flames such as cigarettes, barbeque grills, etc.
- h. Uninhabited structures.
- i. Vehicles.

Exception to (f): Roadways may be permitted within the perimeter as long as they are at least 75 ft. from the display site and no traffic is allowed with the perimeter's edge at least 15 minutes prior to and at least 15 minutes after the fireworks display.

3. Minimum Distance

Whenever possible, all persons should be kept out of the perimeter from the time the fireworks arrive until the fireworks personnel leave. A minimum of 75 ft. (22.5 m) shall be maintained at all times.

4. Perimeter Duration

The entire perimeter shall be closed to all traffic, vehicular and pedestrian, at least 15 minutes prior to the display and for at least 15 minutes after the display.

Abbreviation of the wait time after the display requires completion of a post-display inspection of the fallout area and confirmation by fireworks by the fireworks display personnel.

5. Overhead Objects

The area selected for the discharge site of aerial shells shall be located so that the trajectory of the shells shall not come within 25 ft. (7.5 m) of any overhead object.

6. Tents

Fireworks shall not be discharged within 100 ft. (30 m) of any tent or canvas shelter.

7. Approved Proximate Pyrotechnic Displays

Approved displays shall:

- a. Be performed only in buildings that comply with the applicable provisions of NPFA 101, Life Safety Code.
- b. Use pyrotechnic devices and materials specifically manufactured for indoor use.

Approved displays shall not:

- a. Have any part, projectile, or debris from the pyrotechnic material or device propelled so that it damages overhead properties, overhead equipment, or the ceiling and walls of the performance site.
- b. Be permitted if bypassing the facilities fire suppression or fire detection appliances, devices and systems is required for the performance of the display.

Exception to (b): Bypassing the facilities fire detection system or elements thereof, may be permitted under special circumstances where prior review of the planned activity has been carried out by the Department of Environmental Health & Safety, and written approval has been granted. Under no circumstances shall the facilities fire suppression systems be compromised in any manner. A fire watch may be required.

8. Separation from Audience

Each pyrotechnic device fired during a performance shall be separated from the audience by at least 15 ft (4.6 m) but not less than two (2) times the fallout radius of the device, unless otherwise approved by the Department of Environmental Health & Safety.

9. Concussion Mortars

Concussion mortars shall be separated from the audience by a minimum of 25 ft (7.6 m).

10. Request for Demonstration

Upon request, a walk-through and a representative demonstration of the pyrotechnic special effects shall be given to the satisfaction of the Department of Environmental Health & Safety before the display is approved.

Exception: The Department of Environmental Health & Safety may waive this requirement based upon past history, prior knowledge, and other factors such as the experience and expertise of the display technicians.

11. Security of Display Area

Before firing of the pyrotechnic device, the pyrotechnic operator, Public Safety or designated security staff shall prevent unauthorized entry into the area where pyrotechnic special effects shall occur.

12. Smoking

Smoking shall be prohibited within 25 ft (7.6 m) of the area where pyrotechnic special effect devices are being handled or fired.

13. Safety Precautions

Precautions outlined here shall be considered the minimum safety precautions. Representatives from the Public Safety Department should be contacted for additional recommendations. All recommendations or requirements regarding fireworks safety issued by the local fire department and the Fire Marshal shall be incorporated into the fireworks plan.

14. Storage

No fireworks shall be left unattended on University premises. Fireworks display contractors shall not store display items on University premises overnight.

Pyrotechnic materials and devices shall not be stored within 50 ft (15.3 m) of any unprotected source of heat or open flame.

15. Weather Protection

Fireworks shall be kept dry and protected from the weather conditions after delivery to the display site.

16. Display Supervision

Whenever the State Fire Marshal, fire department personnel, the Public Safety officer or the EH&S Director identifies any hazardous condition likely to result in injury, destruction of property or violation of prudent safety practices, the fireworks display shall be discontinued immediately until such time as the hazards has been mitigated.

17. Post-Display Inspection

Following the display, the firing crew shall conduct an inspection of the fallout area for the purpose of locating any unexploded aerial shells or live components. The inspection shall be conducted before any access to the site shall be permitted.

18. Disposal

Any shells or components found during the post-display inspection shall not be handled by any University employees. Disposal and removal of unexploded shells or live components shall be performed by the fireworks representative(s).

For more information regarding this guideline, contact the Department of Environmental Health & Safety at (305) 348-2621.

USCG 207 - USE OF EXTENSION CORDS ON UNIVERSITY PREMISES

Last Update: 05/01/01

PURPOSE

To establish a uniform guideline regarding the use of extension cords on University premises.

SCOPE

University Premises.

GUIDELINES

All extension cord use shall comply with NFPA 70 (National Electric Code).

- Extension cords shall not be used as a substitute for the fixed wiring of a facility, laboratory or shop.
- Extension cords shall not be used for permanent or semi-permanent installations, ie, must be less than 30 days, with the exception of extension cords designed for use with portable equipment.
- Extension cords shall be listed by the Underwriters' Laboratory (U.L.) and bear the U.L. label.
- Extension cords shall be a minimum of 16 gauge copper wire and rated for not less than 13 amperes, shall be of the grounding type (three wire) and shall not be used in excess of their rated capacity.
- Extension cords shall be used only in continuous lengths without splice or tap. Terminals and insulation shall be free of defects such as cracked, split or nicked insulation; exposed wires; knots; burn marks; loose connectors; or other damage that may present a fire or electrocution hazard. Destroy any extension cords showing defects.
- Extension cords shall not be connected in series.
- Extension cords shall not be used in bathrooms. Extension cords used in wet or damp areas shall be connected to a ground fault interrupter device or GFCI circuit only.
- For three wire extension cords, the ground prong shall not be removed. Departments shall request the installation of three prong type wall outlets where not provided.
- Proper polarization shall be maintained at all times.
- For extension cords equipped with single plug-in capability, a multiple plug adapter may be utilized provided the adapter is U.L. listed and rated for not less than 125 volts/15 amperes. Multiple plug adapters are not otherwise permitted in conjunction with an extension cord.
- Extension cords shall not be covered by carpeting, clothing, furniture, or other objects that could prevent adequate air circulation and cooling of the cord.
- Extension cords shall not be tacked, stapled or otherwise affixed in semi-permanent or permanent manner. Major appliances such as refrigerators, television sets, or other devices drawing currents for starting motors shall not be connected to an extension cord.
- Multi-plug devices may be used for: computer equipment, televisions, stereos, radios and similar devices. They may not be used with refrigerators, microwaves, coffee pots, hot plates toaster ovens and similar devices. Multi-plug devices must be Underwriters Laboratory

approved or approved by a similar nationally recognized testing laboratory and they must contain an integral circuit breaker.

For more information regarding this guideline, contact the Department of Environmental Health & Safety at (305) 348-2621.

USCG 208 - SAFE USE OF CANDLES

Last Update: 05/26/04

PURPOSE

To establish a uniform guideline regarding the safe use of candles on University premises.

SCOPE

University Premises

GUIDELINES

According to the National Fire Protection Agency, candle fires account for 2.4 % of all fires, result in 6 % of total injuries from fires and 3% of all fatalities from fires. Due to the significant increased usage of candles, these figures have been increasing. Candles, of course, are still rank far behind cigarettes, matches and lighters as the product of ignition in residential fires.

The most startling statistics from National Fire Incident Reporting System (NFIRS) is the fact that nearly 85% of the candle fire incidents were started because of misuse of the product. Following are some of the categories of ignition factors cited by NFIRS:

Combustible material too close to heat	17.7%
Unattended	16.0%
Misuse, not specified	13.1%
Inadequate control of open fire	9.2%

NEVER LEAVE A BURNING CANDLE UNATTENDED

1. Using Candles Safely

Remember: A candle is an open flame. It can easily ignite any combustible nearby.

- Trim wicks to 1/8" to 1/4" prior to each use
- Do not burn candles more than four hours at a time
- Extinguish all candles when leaving the area, never leave burning candles unattended.
- Keep candles away from items that can catch fire such as clothing, books, paper, curtains, flammable decorations or anything that burns.
- Make sure candles are placed on a secure piece of furniture in sturdy holders that will not tip over. Holders should be made from material that can not burn.
- Make sure the candle holder is big enough to collect dripping wax.
- Do not place lit candles in windows, where blinds or curtains can close over them.
- Do not use candles in places where they may be knocked over by the children or pets.
- Keep candles and all open flames away from flammable liquids.
- When purchasing or using candles, consider what would happen if the candle burned down. Could it burn the candle holder or decorative material nearby? Extinguishing candles when they get within two inches of the holder or decorative material.

2. Using Candles During Power Outages

Remember: Flashlights and other lights generated by batteries are much safer light sources than candles.

- Try to avoid carrying a lit candle. When you carry a candle, you are carrying something that would start a fire. Do not use a candle to go into a closet to look for things.
- Never use a candle for light when fueling equipment such as kerosene heater or lantern. The flame may ignite the fumes.
- Extinguish all candles when leaving home or when going to sleep.

3. Using Candles Where Young Children are Present

- Keep candles up high out of the reach of children.
- Never leave a child unattended in a room with a candle. A child should not sleep in a room with a lit candle.
- Keep all matches and lighters up high and out of the sight and reach of children, preferably in a locked cabinet.

4. Using Candles for Special Events

- No person shall cause or permit any open flame to be used in any place or public assemblage, or drinking or eating establishments, except when used in conjunction with approved heating or cooking appliance, or under written permit from the Department of Environmental Health & Safety.
- No person shall use or be allowed to use any open flame, burning candle or candle in connection with any public meeting or gathering for purpose of deliberation, worship, entertainment, amusement, instruction, education, recreation, awaiting assemblages such as churches, schools, restaurants, eating establishments, cocktail lounges or bars without first obtaining a permit.
- To apply for a candle permit please complete the application on page 23 and submit to the Department of Environmental Health & Safety at CSC 162 or by fax at (305) 348-3574

5. Candle Permit - Rule for Safety

The Environmental Health & Safety Department requires the following safety rules to be followed when a candle permit is issued:

- Only candles and equipment for candles that have a permit can be used.
- Candles that are used as aisle markers or any other use where the candle will be within reach of anyone will be protected by a glass globe that extends above the flame of the candle.
- Candles and equipment within reach of anyone will be securely attached to prevent tipping if bumped.
- Only non-combustible decorations will be used on candle equipment.
- For weddings, the bride and bridesmaids will be cautioned about flammability of their dresses and to stay clear of the candle flame.
- Unity candles will be allowed only if a candle lighter is used.
- Candelabra will be placed behind or to the side, out of reach of anyone.

For more information regarding this guideline, contact the Department of Environmental Health and Safety at (305) 348-2621.

USCG 208A - USE OF CANDLES AND OPEN FLAMES

Last Update: 05/26/04

PURPOSE

The purpose of this document is to provide guidelines which allow for the safe use of candles, open flames and devices that employ open flames so that the activation of fire sprinkler systems and fire alarm systems is prevented and the potential for casualties, fatalities and property damage is reduced.

SCOPE

This document applies to the use of candles, open flames and devices that employ open flames during University events and in or on property or structures leased, owned or operated by the University.

This document does not apply to fireworks or pyrotechnic displays. Requirements for the display of fireworks and pyrotechnics are covered separately in the University Safety Compliance Guide, Guidance Document for Fireworks and Pyrotechnic Displays, USCG Document # 206.

AUTHORITY

State of Florida, Department of Insurance, Division of State Fire Marshal, Uniform Fire Safety Rules and Standards, Chapter 4A-3.

FIU University Policy 15.8, University Safety Policy (Appendix A).

Occupation Safety and Health Administration (OSHA).

National Fire Protection Association (NFPA).

It is not the intent or principle of the Department of Environmental Health & Safety to provide for deviation from the code requirements. However, specific conditions may arise where the Fire Prevention Officer may determine that an exception is permissible.

DEFINITIONS

Assembly occupancy: Assembly occupancies include, but are not limited to, all buildings or portions of buildings used for gathering together 50 or more persons for such purposes as deliberation, worship, entertainment, eating, drinking, amusement, or awaiting transportation.

Class I liquid: Any liquid having a flashpoint below 100°F and a boiling point at or below 100°F. Class I liquids are called flammable liquids.

Class II liquid: Any liquid having a flashpoint above 100°F but below 140°F. Class II liquids are called combustible liquids.

Open flame : Any combustion with a flame that is exposed to the atmosphere.

LP gas: Liquid Petroleum gas.

GUIDELINES

Monitoring of Candles and Open Flames

At no time shall a candle, open flame or any device employing an open flame, be left unattended.

Where Prohibited

Open flames shall not be utilized in any structure, vessel, boat or any other place where highly flammable, combustible or explosive material is utilized or stored, or in any other unauthorized area or location, except as covered in this document.

1. ASSEMBLY OCCUPANCIES

General Requirements

Candles, open flame or devices employing open flames shall not be used in any assembly occupancy, except as provided in Section 3.3.

Exceptions

Open flame devices may be permitted to be used in assembly occupancies under the following situations, provided adequate precautions, satisfactory to the Department of Environmental Health & Safety, Insurance & Emergency Management Services, Fire Prevention Officer, are taken to control the flame and prevent ignition of any combustible material or cause injury to the occupants.

- a. Where necessary for ceremonial or religious purposes.
- b. On stages and platforms as a necessary part of a performance.
- c. Food service operations.
- d. Controlled demonstrations authorized and observed by the Fire Prevention Officer.

Portable Fueled Open Flame Devices.

Portable open flame devices fueled by flammable or combustible gases or liquids shall be enclosed or installed in such a manner as to prevent the flame from coming in contact with combustible material.

Exceptions

- a. Cutting and welding operations in accordance with Section 700.

2. CANDLES AND OPEN FLAME DEVICES

General Requirements

A person shall not utilize or allow to be utilized, any open flame, burning candle or candles in connection with any public meeting or gathering for purposes of deliberation, worship, entertainment, amusement, instruction, education, recreation, awaiting transportation or similar purpose in assembly or educational-type occupancies without first obtaining approval from the Department of Environmental Health & Safety.

Exception

The use of Bunsen burners in approved laboratories.

Obtaining Approval

A *Permit for the Use of Open Flame* must be submitted to the Department of Environmental Health & Safety no later than five (5) business days prior to the planned use. Approval will be granted or denied by the Fire Prevention Officer following an investigation of the area and planned use of the open flame.

Appendix A: EH&S Form 42, Permit for the Use of Open Flame.

Candles and Other Open Flame Decorative Devices

Candles and other open-flame decorative devices shall comply with the following:

- a. Class I, Class II liquids and LP-gas shall not be used.
- b. Liquid- or solid-fueled lighting devices containing more than 8 ounces (236.6 ml) must self-extinguish and not leak fuel at a rate of more than $\frac{1}{4}$ teaspoon per minute (1.26 ml per minute) if tipped over.
- c. The device or holder shall be constructed so as to prevent the spillage of liquid fuel or wax at the rate of more than $\frac{1}{4}$ teaspoon per minute (1.26 ml per minute) when the device or holder is not in an upright position.
- d. The device or holder shall be designed so that it will return to the upright position after being tilted to an angle of 45 degrees from vertical.
Exception: Units that self-extinguish if tipped over and do not spill fuel or wax at the rate of more than $\frac{1}{4}$ teaspoon per minute (1.26 ml per minute) if tipped over.
- e. The flame shall be enclosed except where openings on the side are not more than $\frac{3}{8}$ inch (9.5 mm) diameter or where openings are on the top of the enclosure and the distance to the top is such that a piece of tissue paper placed on the top will not ignite in 10 seconds.
- f. Chimneys shall be made of noncombustible materials. Such chimneys shall be securely attached to the open-flame device.
Exception: A chimney is not required to be attached to any open-flame device that will self-extinguish if the device is tipped over.
- g. Fuel canisters shall be safely sealed for storage.
- h. Shades, if used, shall be made of noncombustible materials and securely attached to the open-flame device holder or chimney.
- i. Candelabras with flame-lighted candles shall be securely fastened in place to prevent overturning and located away from occupants using the area and away from possible contact with drapes, curtains or other combustibles.

Note: This information is available from manufacturers and distributors.

Location Near Combustibles

Open flames such as from candles, lanterns, kerosene heaters, and gas-fired heaters shall not be located on or in close proximity to decorative material or other similar combustible materials.

Aisles and Exits

Candles and open flame devices shall not be permitted in areas where occupants stand in an aisle or exit.

3. COOKING

Flaming Food and Beverage Preparation

The preparation of flaming foods or beverages in places of assembly and dining service shall comply with all portions of this standard and is only permitted in occupancies equipped with a fire protection sprinkler system.

Dispensing of Flammable and Combustible Liquids

Flammable or combustible liquids used in the preparation of flaming foods or beverages shall be dispensed from either a 1-ounce (29.6 ml) container or a container not exceeding 1 quart (946.5 ml) capacity with a controlled-pouring device that will limit the flow to a 1-ounce (29.6 ml) serving.

Containers Not in Use

Containers of flammable or combustible material shall be secured and properly stored to prevent spillage when not in use.

Serving of Flaming Food

The serving of flaming foods or beverages shall be done in a safe manner and shall not create high flames. In order to accomplish this, the pouring, ladling or spooning of liquids must be restricted to a maximum height of 8 inches (203 mm) above the receiving receptacle.

Location

Flaming foods or beverages shall be prepared only in the immediate vicinity of the table that is being serviced. Flaming foods or beverages shall not be transported or carried while burning.

Fire Protection

The person preparing the flaming foods or beverages shall have a wet cloth towel immediately available for use in smothering the flames in the event of an emergency.

Portable Cooking Equipment

Portable cooking equipment that is not flue-connected shall be permitted only as follows:

- a. Equipment fueled by small heat sources that can be readily extinguished by water, such as candles or alcohol-burning equipment (including "solid alcohol"), shall be permitted to be used provided adequate precautions, satisfactory to the Department of Environmental Health & Safety, are taken to prevent ignition of any combustible materials.
- b. Candles shall be permitted to be used on tables used for food service if securely supported on substantial noncombustible bases located so as to avoid danger of ignition of combustible materials, and only if approved by the Department of Environmental Health & Safety. Candle flames shall be protected.

- c. "Flaming sword" or other equipment involving open flames and flamed dishes, such as cherries jubilee or crêpe suzette, shall be permitted to be used provided necessary precautions are taken, and subject to the approval of the Department of Environmental Health & Safety.
- d. Listed and approved LP-Gas commercial food service appliances as permitted by NFPA 58, Standard for the Storage and Handling of Liquefied Petroleum Gases.

Table Carts

Table carts with open flames used as food warmers or for actual cooking are a potential source of ignition. In many cases, food on these tables is saturated with alcohol, which is then ignited. This activity generally is conducted very close to the dining patrons. There is no established means of protection against the obvious hazards of this practice except prohibition.

4. RELIGIOUS CEREMONIES

General Requirements

Limited use of candles by designated officials is permissible for religious purposes, when, in the opinion of the Fire Prevention Officer, adequate safeguards have been taken. Officials of the religious ceremonies may carry handheld candles.

While the congregation occasionally holds lighted candles and sometimes marches in procession with them, handheld candles shall not be passed from one person to another while lit, unless the number of handheld candles being passed is restricted to one (1).

5. MAINTENANCE OPERATIONS

Torches for Removing Paint

Any person utilizing a torch or other flame-producing device for removing paint from any structure shall assure that at least one portable fire extinguisher with a minimum 4-A rating, two portable fire extinguishers with a minimum 2-A rating each, or a water hose connected to the water supply is immediately accessible and operable. In all cases, the person doing the burning shall remain on the premises one (1) hour after the torch or flame-producing device is utilized.

Approval

Approval shall be secured from the Fire Prevention Officer prior to the utilization of a torch or flame-producing device to remove paint from any structure.

Open Flame Devices

Torches and other devices, machines or processes with the potential to start or cause fire shall not be operated or used in or upon areas that are susceptible to easy ignition, except by permit from the Department of Environmental Health. Examples of susceptible areas are: protected nature areas, hazardous materials storage areas, locations storing large quantities of flammable or combustible materials, etc.

Welding and Cutting Operations

In all instances where the operation to be performed is cutting or welding, the operator's Project Manager shall submit EH&S Form 32, Application for Permit for Cutting and Welding to Facilities Management and the Department of Environmental Health & Safety. The cutting or welding operation shall not begin until approval has granted by both departments.

6. THEATRICAL PRODUCTIONS

General Requirements

When approved, open-flame devices used in conjunction with theatrical performances are allowed to be used when adequate safety precautions have been taken.

Performances Not Permitted

Productions that involve a performer who conducts any act using flaming torches or other flaming objects are not permitted in University facilities, near protected areas, in proximity of any area where the occurrence of fire poses a severe hazard, and only upon approval from the Department of Environmental Health & Safety.

7. EMERGENCY SITUATIONS

Signals and markers

Flame-employing devices, such as lanterns or kerosene road flares, shall not be operated or used as a signal or marker in or upon hazardous fire areas.

Exception

The proper use of flares at the scenes of emergencies or as required by the Department of Public Safety.

For more information regarding this guideline, contact the Department of Environmental Health and Safety at (305) 348-2621.



**Environmental Health & Safety, Insurance
& Emergency Management Services**

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(305) 348-3574
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CANDLE PERMIT APPLICATION

NAME OF APPLICANT: _____

TELEPHONE: _____ Fax: _____

CANDLES USED FOR: _____

NAME OF BUILDING: _____ Room #: _____

BLDG. ADDRESS: _____

- TEMPORARY PERMIT
- PERMANENT PERMIT

USE WILL COMMENCE ON DATE: _____ TIME: _____

AND WILL TERMINATE ON DATE: _____ TIME: _____

SIGNATURE: _____ DATE: _____

EH&S USE ONLY

INSPECTED BY: _____

DATE: _____ TIME: _____

PERMIT:

- APPROVED
- DISAPPROVED

REASONS OR COMMENTS: _____

USCG 209 - STAIRWELL AND CORRIDOR FIRE SAFETY GUIDELINES

Last Update: 05/01/01

PURPOSE

To establish a uniform standard regarding storage in stairwells and corridors.

SCOPE

University Premises.

AUTHORITY

Items in stairwells, blocking exit doors, restricting corridors, or blocking fire emergency equipment constitute serious fire and life safety hazards and violations of the State Fire Prevention Code.

GUIDELINES

Stairwells and corridors are intended to provide a safe and adequate means by which occupants may exit the building and emergency personnel may access the building during an emergency. Corridors and other means of egress must be free of obstructions.

The following items are subject to immediate removal:

Departments will be notified of violations

- Any items located within a stairwell or stair enclosure.
- Any items that restrict the width of any portion of a corridor to less than 44 inches.
- Any items that obstruct fire emergency equipment (fire alarm pull stations, sprinklers, fire extinguishers, etc.).
- Any items that are determined to be an immediate fire or life safety hazard

The following items and processes are not acceptable in any stairwells, corridors or elevator lobby:

- Storage of any kind within 8 feet of exit doors and stairwell doors
- Any item which obstructs utility panels, utility valves, or electrical receptacles.
- Laboratory procedures which involve transfer or processing of an infectious agent, potentially infectious agent, radioactive material, or chemical.
- Storage or manipulation of ALL chemicals and radioactive materials.
- Storage or use of compressed gas cylinders.
- Equipment which would present significant hazards under routine or emergency conditions, such as equipment that uses volatile materials or hazardous chemicals, equipment that may produce steam, excessive heat or aerosols, or equipment with unguarded belts, pulleys and/or gears. Examples of this type of equipment includes, but is not limited to; scintillation counters, electrophoresis equipment, autoclaves, pumps, incubators, and centrifuges.
- Any items which move easily or could fall over and cause an obstruction.
- Unapproved workstations (including copiers, office equipment, coffee stations, desks), break areas, and waiting areas.
- Combustible materials outside of enclosed cabinets. This includes journals, papers, books and boxes.

- Any item or combination of items in a quantity that presents a fire or life safety hazard.

Notice of violation will be sent to departments requiring corrective action to be completed within 30 days. If no action is taken in 30 days after the notice, the unacceptable items are subject to removal by Facilities Management.

For more information regarding this guideline, contact the Department of Environmental Health and Safety at (305) 348-2621.

USCG 210 - EMERGENCY EVACUATIONS

Last Update: 05/01/01

PURPOSE

To establish a uniform standard regarding Emergency Evacuations on University premises

SCOPE

University Premises

GUIDELINES

The continuous ringing of the fire alarm is **the** evacuation signal for all types of emergencies. All building occupants must respond to the sound of the alarm by immediately initiating evacuation procedures, as follows:

1. Complete internal departmental or class evacuation procedures
2. Follow EXIT signs to the nearest safe exit. **Do not use the elevators!** All types of footwear that may hamper descent, such as high heels and clogs, should be removed.
3. The Safety Warden must assure that everyone, including individuals with mobility impairments, have evacuated the area.
Note: Evacuation plans for persons with disabilities must be made part of each department's documented emergency evacuation procedures.
4. Walk down stairs. **Do Not Run!**
5. As you approach the landing of each floor allow evacuees from that level to enter the stairwell.
6. If evacuation becomes difficult because of smoke, flames or blockage, re-enter the building, **but first**, assure that the floor on which you re-enter is safe. Continue evacuation via the nearest safe stairwell.
7. Once you have exited the building proceed to your designated Evacuation Assembly Area.
8. Do not re-enter the building unless authorized by a Public Safety Officer, fire department personnel, or until a recognized University authority broadcasts the "All Clear" directive

For more information regarding this guideline, contact the Department of Environmental Health and Safety at (305) 348-2621.

USCG 211 - FIRE INVESTIGATIONS

Last Update: 05/01/01

PURPOSE

To establish a uniform standard regarding fire safety investigations

SCOPE

University Premises

AUTHORITY

The investigation of fires occurring on State property falls under the authority of the Division of State Fire Marshal, Bureau of Fire & Arson Investigations. Under most circumstances the state investigators will arrive after the fire and conduct the investigation. The Department of Environmental Health & Safety shall provide any information that may be requested by the state investigators.

On occasion, the state investigators may be unable or unwilling to investigate the fire. In such a case, the Fire Prevention Officer shall contact Public Safety and request assistance so that an investigation can be performed. If at any time, it is believed that the cause of the fire is other than accidental or of natural origin, Public Safety should be notified and a second request for a state investigator be made.

During the investigation, every effort should be made to disturb the scene as little as possible, insurance adjusters or investigators may determine at a later time that they wish to investigate the scene.

GUIDELINES

When investigating a fire, there are 6 steps that should be taken:

1. What is the **AREA OF ORIGIN**? Work from the area of no damage to the area of most severe damage. Read the fire language; reassemble the remains if necessary.
2. If **EQUIPMENT** was **INVOLVED IN IGNITION**, record complete description.
3. What **FORM OF HEAT** caused ignition of surrounding material?
4. What was the **TYPE OF MATERIAL** that first **IGNITED**?
5. What was the **FORM OF THE MATERIAL IGNITED** (its shape and use)?
6. What **ACT OR OMISSION** brought the heat of ignition and the material ignited together?

Photographs should be taken during the investigation to record key details. After investigating the fire, a report should be generated and recommendations made as to what measures can be taken to prevent this type of fire from reoccurring.

For more information regarding this guideline, contact the Department of Environmental Health and Safety at (305) 348-2621.

USCG 212 - DECORATIONS

Last Update: 05/01/01

PURPOSE

To provide guidelines for the safe use of decorations on University premises.

SCOPE

The Department of Environmental Health & Safety advocates that all event planners include these guidelines. The information provided in this document should be considered minimum requirements only.

DEFINITIONS

Decorations: A material or object that is used to increase the aesthetics of an area or celebrate a special event and is not essential to normal operations that occur in that area.

Flame or Fire retardant: A material that is constructed or treated so that it will not support or convey flame.

Special Amusement Facility: A special amusement facility is defined as any building or portion of a building that contains a system that conveys passengers along, around, or over a course in any direction as a form of amusement, arranged so that the egress path is not readily apparent due to distractions or a confounded egress path. Included are amusements such as a "haunted house," a "roller coaster" type ride within a building, a "merry-go-round" within a building, a "submarine" ride, and similar amusements where the occupants are not in the open air.

GUIDELINES

1. Prohibited Materials

The following materials have been determined to be highly flammable and shall not be used as decorations in any enclosed University facility or enclosed structure unless a special permit has been issued by the Department of Environmental Health & Safety.

- Bamboo
- Confetti (loose, in large quantities)
- Corn stalks or shucks
- Cotton batting
- Cloth drapery (non-fire retardant)
- Crepe paper decorations
- Dried vines
- Dry moss
- Flammable powders or liquids
- Foam or plastic materials
- Dried leaves
- Paper streamers
- Plastic sheeting
- Sawdust
- Straw
- Tumbleweeds
- Wood bark or shavings

In addition, the use of extension cords for the purpose of providing power to electrical decorations is prohibited unless such use is in strict compliance with the requirements of *USCG # 207 – Use of Extension Cords on University Premises*.

2. Trees and Cuttings

Trees and green cuttings when permitted for use as decorations should comply with the following:

a. Live Trees

- Live trees are either potted or have their root ball wrapped in burlap.
- Live trees must be watered frequently to keep the soil moist to the touch.
- If a tree turns brown or begins to shed many needles or leaves, it shall immediately removed from the facility and be disposed of properly.

b. Cut Trees

- Cut trees are difficult to maintain and their placement inside or in close proximity to buildings should be avoided.
- If a tree turns brown or begins to shed many needles or leaves, it shall immediately be disposed of properly.
- Cut trees shall not be permitted in areas that lack sprinklers in University residential facilities.

c. Artificial & Green Cuttings

- Artificial trees and flowers that are labeled as fire resistant or flame retardant may be used as decorations.
- Green cuttings may be used in limited quantities, however if the cuttings turn brown they must be properly disposed of immediately.
- Cuttings used for door adornment, corridor or stairwell decorations or in any other location in public areas shall be fire retardant.
- Trees and cuttings must be located away from exits and passageways to exits.
- Care must be taken not to block doors, aisles, corridors, fire equipment, fire alarm devices or access to facilities.
- Trees and cuttings must be placed away from heat sources.
- Trees or cuttings used for decorative purposes must have proof of “manufactured fire resistive qualities” or fire resistive treatments. If no proof is available regarding the fire resistance of a decorative item, the decoration shall be considered unacceptable for use.

3. Electric Lights

- Electric light set used must bear the Underwriters’ Laboratories (UL) or Factory Mutual (FM) label or other recognizable approval entity mark.
- It is the users responsibility to ensure that the electric lights are in good operational condition. Each set of lights must be inspected for broken or cracked sockets, frayed or bare wires and loose connections. The use of light sets that are damaged is prohibited.

- a. The following guidelines shall be followed at all times with regard to the use of electric decorative lights:
- Connect no more than three (3) sets of lights together.
 - Do not overload electrical outlets.
 - Protect the electrical wires from damage. Wires shall not be run under carpeting or rugs, through or across doorways, or in any location where they may be walked on or run over by equipment and machinery. Wires shall not be placed across aisles, hallways or corridors, where they are subject to damage and present a trip hazard.
 - Electric lights shall not be placed on metallic trees; use spotlights for illumination.
 - Lights must be unplugged when the areas is vacant.

4. Curtains, Draperies and Similar Loosely Hanging Decorations

- Curtains and draperies used in assembly occupancies and in University residential facilities shall be appropriately treated to be flame resistant. Treated curtains and draperies shall be maintained in accordance with treatment requirements.

Curtains that cover a proscenium opening shall be fire retardant in accordance with *NFPA 101, Life Safety Code, 8-3.2.1.7 Proscenium Opening Protection*.

5. Open Flames and Candles

- Open flames for decorative purposes should be avoided whenever possible. Specific guidelines for the use of open flames and candles are provided in the USCG 208 - Safe use of Candles

6. Stage Scenery/Theatrical Productions

- The use of combustible decorations is strongly discouraged, and non-combustible alternatives should be fully explored and the possibility of their use exhausted before combustible materials are used. In all cases, guidelines provided in this document and USCG 208 - Safe use of Candles should be followed. Production personnel are required to adequately evaluate the risks associated with the use of open flames and implement controls that are appropriate to the prevention of an “unfriendly fire.”

7. Haunted Houses And Specials Amusement Facilities on University Premises

All special amusement structures shall comply with the following requirements:

- Shall meet the requirements for assembly occupancy per *NFPA 101, Life Safety Code* and as a special amusement building per *NFPA 101, 8-4.6.1*.
- Materials used in the construction of special amusement structures shall comply with requirements stated in this document.
- Special amusement facilities shall not be established within University facilities that are not protected throughout by an approved, automatic sprinkler system and an approved, automatic fire alarm system known to be fully functional and uncompromised for the duration of the “amusement facility activity.”
- Exits shall be marked with luminescent, self-luminous or electro luminescent materials, in addition, floor proximity exit signs shall be provided in accordance with NFPA 101.

- In special amusement facilities where mazes, mirrors, or other designs are used to confound the egress path, approved directional exit marking that will become apparent in an emergency shall be provided.

8. Removal

- Decorations shall be removed the day after the event for which they were used. Indoor holiday decorations shall be removed, and properly stored, as soon as possible after the recognized end day/date of the holiday celebration.

9. Outdoors

- Any decorations to be located on the exterior of University facilities or outdoors must be coordinated with and approved by the Department of Facilities Management and notification provided to the Department of Environmental Health & Safety prior to placement.

For more information regarding this guideline, contact the Department of Environmental Health and Safety at (305) 348-2621.

USCG 213 - BONFIRES

Last Update: 09/01/02

PURPOSE

To establish a uniform standard regarding bonfires on University premises.

SCOPE

Except as hereinafter provided no person, department or organization shall light, ignite, start, allow or cause to be lighted, ignited or started, a fire of any kind whatsoever in the open air, on the premises of Florida International University unless a permit is issued by the Department of Environmental Health & Safety.

These requirements do not apply to:

- Small confined fires used for cooking foods on grills and barbecue
- Fire Extinguisher training
- "The Flame" located by the fountain area

GUIDELINES

In order to qualify for a EH&S bonfire permit, the applicant must meet the following requirements:

1. Obtain burn permits from the Metro Dade fire department when required. Note there are times during drought conditions that burn permits will not be issues. Please check with fire department
2. The Facilities Management Department shall approve the site selected for the bonfire.
3. Bonfires fuel sources cannot include: building materials, flammable materials, waste oil, plastics, hazardous materials or general trash.
4. Open Burning / Bonfires shall not be permitted within 50 feet of any structure.
5. Open Burning / Bonfires shall not be permitted within 150 feet of any flammable storage area. A case by case evaluation will determine if additional clearance is required.
6. Absolutely no burning or smoldering materials shall be left unattended for the duration of or after the planned event.
7. All permitted burns shall be attended at all times by individuals appropriately trained to respond and/or notify emergency response crews.
8. Young children shall be kept a safe distance away from any permitted burn.
9. Bonfire burn areas may not exceed 10 feet by 10 feet.
10. Bonfire must be barricaded at least 25 feet from the edge of the perimeter of the burn for crowd control.
11. Bonfire shall not be ignited if winds exceed 14 MPH.
12. Fire prevention control equipment required at the site shall, at minimum include:
 - a. 2 buckets of sand
 - b. 2 fire extinguishers
 - c. 2 shovels
13. If possible a water hose connected to a source
14. Communication devices shall be available on site to provide for emergency notification as may be required.

15. The area used for the bonfire shall be properly cleaned of all debris and appropriately restored to an acceptable condition.

These are minimum conditions only.

For more information regarding this guideline, contact the Department of Environmental Health and Safety at (305) 348-2621.

USCG 214 - FIRE WATCH

Last Update: 05/01/01

PURPOSE

To establish a fire watch standard for the University

SCOPE

A fire watch shall be posted whenever any of the following conditions exists:

- The fire protection sprinkler system is completely disabled or disabled to a point where the system cannot be relied upon to activate in the event of a fire.
- The standpipe system is completely disabled or disabled to a point where the system cannot be relied upon to deliver water for fire fighting operations.
- The fire alarm, fire protection sprinkler system, or standpipe system is more than 25% disabled; a fire watch shall be posted to tour the unprotected area.
- The fire alarm, fire protection sprinkler system, or standpipe system has been disabled on one or more floors of a building, a fire watch shall be posted to tour the unprotected area(s).
- If a representative of the State Fire Marshal's office or the FIU Fire Prevention Officer determines that a situation requires the posting of a fire watch.

DEFINITIONS

Post: To place a fire watch.

Tour: A periodic inspection of the building or area for which a fire watch has been posted.

GUIDELINES

Notification of Intent to Post Fire watch

The Department of Environmental Health & Safety and the Public Safety Department shall be notified at least 24 hours in advance of any situation where it is foreseeable that any fire detection, suppression or protection system(s) will be completely or partially disabled. In the event of an unforeseen disablement of any fire detection, suppression or protection system(s), the Department of Environmental Health & Safety and the Public Safety Department shall be notified immediately and a fire watch shall be placed upon the building or area. In addition, both EH&S and Public Safety shall be notified once the system(s) has been placed back into a fully operational status. The fire watch on a building is shall not be lifted until the system(s) are fully operational.

Fire watch Requirements

Personnel assigned as fire watch, whether an FIU employee or outside contractor, shall meet the following minimum requirements:

- Must be 18 or older.
- Must be mentally alert.
- Must be able to effectively communicate in spoken English.
- Must be able to comprehend written English.
- Must be able to climb stairs that may be part of the building or area placed under the fire watch.

- Must be able to recognize the indicators of fire through the senses of sight, hearing and touch.
- Must be capable of using a two-way radio.
- Must be equipped with a radio capable of contacting the Public Safety dispatcher and a flashlight. Exception: Facilities that are not capable of contacting the Public Safety dispatcher via radio. In such case, reports shall be made via telephone.
- Must understand how to operate and be able to use a fire extinguisher.

Fire watch Functions

The duties and functions of those personnel assigned as fire watch are as follows:

- Prompt discovery of fire and notification of the Public Safety Department.
- Operation of fire extinguishers after Public Safety has been notified and the alarm has been given.
- Monitoring signals of fire alarm systems.
- Detecting conditions likely to cause a fire.
- Detecting conditions likely to reduce the effectiveness with which a fire may be controlled, such as missing or discharged fire extinguishers or damaged fire safety equipment.

Fire watch Procedures

Fire Watch Record:

A log shall be kept by the Public Safety dispatcher of the fire watch activities. This purpose of this log is to provide proof of the placement of a fire watch at times when fire protection systems are not functioning properly.

Fire Watch Log Procedures:

The following procedures shall be followed for completing the fire watch log:

- Fire watch shall notify the Public Safety dispatcher after completion of every tour. After business hours, the fire watch must contact the Public Safety dispatcher.
- Fire watch shall contact the dispatcher no less frequently than once per hour.
- The Public Safety dispatcher shall log the name of the watch, time of contact and reported condition at time of contact.
- Dispatcher shall contact the fire watch 10 minutes after failure to report. If the fire watch cannot be contacted, the dispatcher shall send a police officer to investigate.

Exception:

In locations where contact with Public Safety is via telephone, Public Safety will contact the fire watch supervisor, if the fire watch fails to make a report within 10 minutes of the deadline.

Patrolling

General:

The following procedures shall be followed when the fire watch is patrolling:

- In the event that a fire is suspected, but cannot be confirmed, the fire watch shall contact the dispatcher, notify the dispatcher of the situation and request the assistance of a police officer.

Exception:

In locations where contact with Public Safety is via telephone, the local fire department will be contacted first, followed by contacting Public Safety to report the situation.

- In the event that a fire is evident, the fire watch shall contact the dispatcher, notify the dispatcher of the situation, request the assistance of a police officer and give the alarm to the building.

Exception:

In locations where contact with Public Safety is via telephone, the local fire department will be contacted first, followed by contacting Public Safety to report the situation.

- The fire watch shall not open any door to an area that is suspected of containing a fire. This could result in injury to the fire watch or extension of the fire into uninvolved areas.
- The dispatcher shall note the reports of such occurrences on the fire watch log.

Length of Patrol:

- One complete tour of the building or area, no longer than 45 minutes, shall be completed each hour. The remaining 15 minutes is a rest period. If, because of the size of the building or other circumstance, the tour cannot be completed by one fire watch in a 45-minute period, additional fire watches shall be posted.
- Fire watch shall not leave their patrol unless properly relieved.

Areas to be Patrolled:

- All hallway and common areas shall be patrolled. Laboratories, classrooms and offices are not required to be checked, unless specifically indicated by the Fire Prevention Officer. Personnel assigned to fire watch should be alert for signs of fire inside of a laboratory, classroom, or office.

Signs may include:

- The sight or smell of smoke.
- Heat radiating from the door to a room.
- Blistering paint on the door or walls of a room.
- “Crackling” or “popping” noises originating from a room.
- Flickering or glowing light under the door.

In addition, if the building or area is equipped with a fire sprinkler system, the sound of spraying water may be heard or water may be seen leaking under the door. Should the fire watch observe any of these signs, a request should be made to Public Safety for a police officer. At no time should the fire watch investigate further without the presence of a police officer.

- Each tour shall include an inspection of the outside perimeter of the building.
- Particular attention should be given to new construction or alterations that may be in progress. The inspection by fire watch personnel under the authority of the University shall be conducted without entering the construction area.

First Round of Patrol:

- The first round shall begin immediately after being posted. A thorough inspection of the building/area should be conducted at this time. During this first inspection, the fire watch

should become familiar with the building layout, location of fire alarm pull stations and fire safety equipment.

For more information regarding this guideline, contact the Department of Environmental Health and Safety at (305) 348-2621.

USCG 215 - CONDUCTING A FIRE ASSESSMENT FOR CONSTRUCTION SITES IN AN OCCUPIED BUILDING

Last Update: 12/01/04

Risk assessments are used to establish priorities and in so doing allow more dangerous situations to be addressed first and those less likely to cause major problems to be scheduled for future response.

PURPOSE

To assist building project managers to conduct fire safety risk assessments in occupied buildings undergoing construction and renovation activities. This activity takes on increased significance when a project involves the use or storage of flammable materials, work in close proximity to hazardous materials, welding or tasks that result in interruption of building fire suppression or alarm system.

SCOPE

All buildings/facilities owned or maintained by the University, which are occupied during a significant renovation, repair or maintenance activity.

REFERENCES

- U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
- Public Health Service
- Centers of Disease Control and Prevention (CDC)
- National Institute for Occupational Safety and Health (NIOSH)

GUIDELINES

Step 1: Determine who will conduct the analysis.

Those involved in the analysis should be knowledgeable about the scope and schedule of the work and the area that is being assessed. The findings from various sources including, but not limited to: area occupants, contractors, EH&S staff, and maintenance personnel should be combined for a comprehensive site analysis.

Step 2: Define the area to be included.

The area to be included involves potential impact as well as work areas. If a large area is selected, it is best to subdivide and, then, combine the results. Conduct an analysis of each problem area identified and combine these results to assess the hazards in the total area.

Step 3: Identify all the possible fire hazards that exist in the area selected for evaluation.

Start by determining all likely sources of ignition in the area and organize them with the help of the attached form: POTENTIAL FIRES (Attachment #1). Under each general label, i.e., electrical, frictional, etc., list all the specific sources of ignition of this type that can be found in the area being analyzed. For example, under the label "electrical" - list power centers, fan motors, etc., and under the label "frictional" - belt rollers or the belt of a motor may be identified. Be specific and realistic as possible when listing fire hazards.

Step 4: Evaluate the Risks

Use the following two concepts: Probability of occurrence, and Severity of effects. For each fire hazard identified, a judgment is required about the probability of a fire being caused by that ignition source and the severity of the consequences.

In summary, to assess risk:

- identify a source of ignition; (i.e., hazard)
- determine the likelihood that this source will actually cause a fire; (probability)
- estimate how serious the damage to life, property, and the environment could be.

Step 5: Use Hazard Ratings

Those hazards deemed to have the greatest probability of occurring should be flagged. They should be made the top priority for mitigation, and/or response efforts.

Organize these findings in terms of their severity potential and allocate resources accordingly

For more information regarding this guideline, contact the Department of Environmental Health and Safety at (305) 348-2621.

USCG 217 - USE OF BARBEQUE FOR SPECIAL EVENTS

Last Update: 12/01/04

SCOPE

The Department of Environmental Health & Safety advocates that all departments, clubs and organizations holding events sponsored by the University assure that the following guidelines are adhered to when using a barbeque grill

GUIDELINES

1. Before Barbecuing

- a. Assure the grill is at least 10 feet away from any structure
- b. Check your grill thoroughly for leaks, cracking or brittleness before using it.
- c. Clean out the tubes that lead into the burner.
- d. Store and use your grill on a large flat surface that cannot burn (i.e.- concrete or asphalt).
- e. Establish a safety zone around the grill and instruct participants to remain outside the zone. A chalk line works great for this purpose.
- f. Have a fire extinguisher, a water hose, or at least 16-quarts of water close by in case of a fire.

2. Food Preparation

- a. Keep foods to be cooked away from foods which are ready to eat.
- b. Keep meats and salads cold until it's time to cook or eat them.
- c. Undercooked burgers, sausages and poultry can be a serious health hazard. Take extra care to cook them throughout until the juices run clear and no pink bits remain.
- d. Wash hands before touching food. Clean all cooking and eating utensils and work surfaces after use.
- e. For additional information see the USDA guidelines for barbeque safety [click here](#)

3. During Barbecuing

- a. Do not wear loose clothing that might catch fire.
- b. Use long handled barbecue tools and/or flame resistant mitts.
- c. Never use any flammable liquid other than a barbecue starter fluid to start or strengthen a fire.
- d. Never pour or squirt starter fluid onto an open flame. The flame can easily flashback along the fluid's path to the container in your hands.
- e. Keep alcoholic beverages away from the grill, they are flammable!
- f. NEVER leave the grill unattended.

4. After Barbecuing

- a. Always follow the manufacturer's cleaning and storing instructions that accompany the grill.
- b. Keep your grill clean and free of grease buildup that may lead to a fire.
- c. Never store liquid or pressurized fuels inside your home and/or near any possible sources of flame.
- d. Assure all coals are properly extinguished.

For more information regarding this guideline, contact the Department of Environmental Health and Safety at (305) 348-2621.

USCG 219 - USE OF TENTS FOR SPECIAL EVENTS

Last Update: 12/01/04

DEFINITION

A tent is defined as a temporary structure, the covering of which is made of pliable material that achieves its support by mechanical means such as beams, columns, poles, arches, rope, and/or cables.

AUTHORITY

The State Fire Marshal's Office

REFERENCE

The National Fire Protection Association

PURPOSE

The Department of Environmental Health & Safety advocates that all departments, clubs and organizations holding events sponsored by the University assure that the following minimum conditions have been/or will be satisfied before approving a contract with a vendor for use of tents for special events.

GUIDELINES

- Pull down roles shall be provided for all poles.
- There shall be a minimum of 10ft between stake lines.
- Good judgment shall apply with regard to the placement of tent structures in proximity to other structures.
- Tent poles and supporting guys, stays, stakes and fastenings shall be of sufficient strength and attachment to resist a minimum wind pressure of 20lb/sq. ft. of projected area of the tent.
- Tents shall be adequately guyed, supported and braced to withstand a minimum pressure or suction of 10lb/sq. ft.
- The ground enclosed by any tent, and for a reasonable distance not less than 10ft. around the perimeter of each tent, shall be cleared of all combustible materials, including vegetation, prior to the erection of the tent.
- No hay, straw, shavings or similar combustible materials that have not been treated to make them flame retardant shall be permitted inside the tent.
- Fireworks are prohibited inside tent structures.
- Open flames may be used under special permit conditions only – open flames include food warmers, candles and barbeques grills. Permits are issued by the Department of Environmental Health & Safety and are based on an event fire safety evaluation.
- Portable fire extinguishing equipment shall be stationed in tents in such locations as are deemed necessary and approved by the Department of Environmental Health & Safety and/or the State Fire Marshal's Office.

- A copy of the certificate of fire rating of the tent fabric shall be provided to the Department of Environmental Health and Safety and/or the State Fire Marshal's Office.

- The means of egress from tent facilities shall comply with the provisions of the life safety code including but not limited to:
 - Adequate numbers of egress shall be available
 - Exits shall be maintained clear and unobstructed at all times
 - Exits shall be identified with the appropriate use of exit signs
 - Exits shall discharge into/onto a clear and unobstructed areas
 - Exit routes shall be kept clear of equipment, furniture and display items
 - No guy wire or guy rope shall cross any means of egress unless these are at a height of 7ft or above.
 - Tent stakes adjacent to any means of egress shall be capped or railed off.

Vendors shall provide a certificate of insurance for commercial general liability listing “*The Florida International University Board of Trustees, Florida International University, State of Florida, the Florida Board of Education as successor to the Florida Board of Regents, and their respective trustees, directors, officers, instructors, agents or employees*” as additional insured. Coverage shall include \$5000 medical payments.

For more information regarding this guideline, contact the Department of Environmental Health and Safety at (305) 348-2621.