

Bloomsburg University of Pennsylvania
Fire Prevention and Control Practices
Effective Date: July 1, 2014

A. General Overview

1. This program applies to all faculty, staff, students, visitors and contractors working or conducting business on the Bloomsburg University campus and to provide general information and fire prevention guidelines to the campus community. This program will cover the following topics: fire prevention, fire identification/notification, emergency evacuation and detection and extinguishing equipment.

B. Background

1. Fire safety involves numerous safety issues including fire prevention, fire suppression and emergency evacuation/response.
2. Most fires produce an immense amount of smoke that is highly toxic. In fact, smoke is responsible for more fire fatalities than flames. A smoky fire can have the following effect on humans:
 - a. Within 30 seconds-disorientation
 - b. Within 2 minutes-unconsciousness
 - c. Within 3 minutes-death
3. Bloomsburg University is committed to providing a safe environment for building occupants and emergency response personnel. Bloomsburg University complies with the International Fire Code (IFC) and National Fire Protection Association (NFPA) when referenced in the IFC for inspections, testing and maintenance procedures.
4. Fires double in size every four minutes; therefore it is imperative that all constituents of Bloomsburg University activity practice fire prevention and emergency evacuation.

C. Fire Prevention

1. The greatest protection against property loss and injuries from fire is prevention. Follow these guidelines to promote fire safety:
 - a. Minimize combustible storage. By storing excess combustible materials improperly, employees not only increase the potential for having a fire, they increase the potential severity of a fire. To reduce the hazards associated with combustible storage, follow these guidelines:
 - i. Eliminate excess combustible materials such as paper and cardboard.
 - ii. Do not store combustible materials in hallways, stairwells or mechanical rooms.

- iii. When stacking combustible materials, leave at least 18 inches between the top of the stack and the ceiling, so that the sprinkler system (if present) can function properly.
- b. Store waste materials in suitable containers. Dispose of all trash as soon as possible in trash cans or dumpsters. Waste materials must never be piled in corridors or stairwells while awaiting removal.
- c. Use flammable materials in well-ventilated areas and only in the quantities required for the day's job. Use and store flammables away from ignition sources, such as cigarettes and open flames.
- d. All stairwells, exits and passageways to and from exits shall be kept free of all obstructions at all times. No furnishings, decorations, other combustible or flammable objects shall obstruct an exit, access or egress.
- e. Fire doors must be kept closed at all times unless they are held open by an approved device interconnected to the fire alarm system.
- f. Material must not obstruct sprinkler heads or be piled around fire extinguishers, fire alarm pull stations, fire alarm panels or sprinkles, standpipe control valves and electrical panels.
- g. Keep equipment in good working order. Inspect electrical wiring and appliances regularly.
- h. Ensure that heating units are properly safeguarded.
- i. Do not hunt for gas leaks using an open flame. Use approved gas indicators.
- j. Report and repair all gas leaks immediately.
- k. Conduct hot work in well-ventilated areas.
- l. Test enclosed or confined spaces for flammable atmospheres before entering.
- m. Use of open flames requires pre approval. Do not use open flames where flammable atmospheres may be present.
- n. Use of the following electrical appliances are prohibited:
 - i. Residential Buildings Residence Rooms
 - (a) Space Heaters
 - (b) Hot Plates
 - (c) George Foreman Grills
 - (d) Toaster Ovens
 - (e) Electric Blankets
 - (f) Coffee Pots that use a hot plate
 - (g) Microwave Oven (unless used with an amperage overload protector)
 - ii. Academic/Administration Buildings
 - (a) Space Heaters with exposed heating coils
 - (b) All other appliances with exposed heating coils

Refer to "Guide to Residence Hall Living" for a complete list of approved and prohibited items.

2. For more information on fire safety, contact the University Safety Department at 570-389-4792.

D. Fire Identification/Notification and Fighting a Fire

1. If you see a fire or smoke, complete the following steps:
 - a. Pull the fire alarm to begin evacuating the building (only if it is on your way out).
 - b. Once safely outside, call 911 to report the fire. Provide the operator with the following information.
 - i. Building or area name
 - ii. Approximate location of the fire
 - iii. Size and type of fire
 - iv. Is there anyone still in the building
 - v. Your name and phone number
 - c. If you are trained in the use of a fire extinguisher and the fire is less than 4' by 4' and are not in immediate danger, you may attempt to fight the fire. Do not place yourself or others in unnecessary danger.
 - d. Exit the building by following posted evacuation routes. Do not use elevators during an emergency.
2. During actual emergencies, building occupants must receive permission from University Police or the Safety Department before re-entering the building.
3. Evacuation plans and fire/evacuation drills are essential for building occupants to respond correctly to a fire alarm.
4. If there is an odor of smoke or fire but no visible signs of smoke or fire, contact University Police at 570-389-4168.

E. Arson

1. If you suspect arson, no matter how small the incident, contact University Police at 570-389-4168. Do not alter the fire scene in any way, unless you are trying to extinguish a live fire.

F. Emergency Access and Exit

1. Emergency access and exits are critical during an emergency situation such as a fire. During a fire, timing and quick response are essential to save lives and property. Effective emergency access ensures that fire trucks can reach a building in time to extinguish the fire. Unobstructed emergency exits ensure that building occupants can exit a building to safety.
2. These definitions help clarify the concept of emergency access and exit.
 - a. Emergency Access-Pertinent facilities and equipment remain available and unobstructed at all times to ensure effective fire detection, evacuation, suppression and response.

- b. Emergency Exit-A continuous and unobstructed way to travel from any point in a public building to a public way. A means of exit may include horizontal and vertical travel routes, including intervening rooms, doors, hallways, corridors, passageways, balconies, ramps, stairs, enclosures, lobbies and courts yards.
3. Each location within a building must have a clear means of exit to the outside.
4. An exit corridor and/or stairway are a pedestrian pathway that allows direct access to the outside of a building and/or allows access to a building entrance and subsequent pathways to the outside of a building (i.e. an exit corridor is the quickest, easiest, and more direct pathway for leaving a building.) Because exit corridors or passageways are the primary means of egress during an emergency, employees must follow the safety guidelines outlined in this section.
5. Corridor and stairway shall be maintained clutter free and unobstructed.
6. Follow these guidelines to promote safe evacuation in corridors, stairways, and exits:
 - a. Keep all means of exit clean, clutter-free, and unobstructed.
 - b. Do not place hazardous materials or equipment in areas that are used for evacuation.
 - c. Do not use corridors or stairways for storage or office/laboratory operations. Corridors may not be used as an extension of the office, classroom or laboratory.

G. Evacuation

1. Be familiar with a primary and secondary evacuation route from your building.
2. If you need assistance to evacuate the building, contact the Safety Department at 570-389-4792 to create your Personal Emergency Evacuation Plan.
3. If the fire alarm is sounding or if there is a fire do not use the elevator.
4. When a fire alarm is activated or University Police or authorized personnel announce an immediate evacuation, all building occupants shall without delay, leave the structure. **Immediate evacuation is required.**
 - a. Occupants shall exit through the nearest exit and proceed to designated safe areas.
 - b. If time and conditions permit, close all doors and windows (do not lock doors, unless for security purposes).
 - c. Occupants shall take personal belongings (backpacks, coats, car keys, etc.) with them. The ability to re-enter the structure may not exist for a considerable length of time. Evacuated parties will remain at the evacuation area and wait for further directions.
 - d. Supervisors shall take role. It is imperative that the location of all faculty and staff members are known.

- e. Residence life personnel will take role if a residential building has been evacuated.
 - f. No one will be permitted to re-enter the evacuated structure/area until University Police or the Safety Department announce permission to re-enter.
5. Evacuation of Individuals with Disabilities
- a. When the alarm sounds and you are unable to make your way down stairs, obtain assistance from other individuals who are familiar with your disability.
 - b. If no one is able to assist you down the stairs, proceed to the stairwell and inform other evacuees that you need immediate rescue and to inform rescuers of your whereabouts. Stairwells are designed to provide protection from smoke and fire; however, doors to these areas must be kept closed.

H. Fire Doors

1. A fire door serves as a barrier to limit the spread of fire and restricts the movement of smoke. Unless they are held open by an automatic system, fire doors must remain closed at all times.
2. Fire doors are normally located in stairwells, corridors and other areas required by Fire Code. The door, door frame, locking mechanism and closure are rated between twenty minutes and three hours. A fire door rating indicates how long the door assembly can withstand heat.
3. Know which doors are fire doors and keep them closed to protect building occupants and exit paths from fire and smoke. Never block a fire door with a non-approved closure device such as a door stop, block of wood or potted plant. For fire doors with approved closure devices, make sure that nothing around the door can impede the closure.
4. Never alter a fire door or assembly in any way. Simple alterations such as changing a lock or installing a window can lessen the fire rating of the door.
5. Doors to offices, laboratories and classrooms help act as smoke barriers regardless of their fire rating. Keep these doors closed whenever possible.
6. A closed door is the best way to protect your path to safety from the spread of smoke and fire.

I. Fire/Emergency Alarm System

1. Bloomsburg University uses several types of fire detection and notification systems including heat detectors, smoke detectors, pull stations, horns, and lights. The following sections discuss these components:
2. Fire detectors at BU are linked to the Central Alarm. Once a building alarm system is activated, the Reporting System alerts University Police, who initiates emergency response.

3. There are two types of fire detection devices used on the BU campus: heat detectors and smoke detectors. Please note the location of the detectors in your area and prevent damage and accidental activation.
 - a. Heat Detectors-Heat detectors respond to the convected energy in hot smoke and fire gases (i.e. heat.). Heat detectors are normally located in laboratories, mechanical rooms, storage areas and areas that could produce high levels of dust, steam or other airborne particles.
 - b. Smoke Detectors-Smoke detectors respond to the solid and liquid aerosols produced by a fire (i.e. smoke.). Since smoke detectors cannot distinguish between smoke particles and other particles such as steam, building occupants must be aware of detector locations and be considerate when working around them. Smoke detectors are normally found in exit corridors, office areas, assembly areas and residence halls.
4. Fire alarm manual pull stations. Fire alarm manual pull stations are installed to manually activate a building's alarms in addition to the automatic fire sensing devices. When pulled manually, a pull station activates the fire alarm system and notifies University Police that an emergency exists. Pull stations are located near exit stairways and/or building exits.
5. Emergency horns/bells and lights are located throughout University buildings with fire alarm systems. Do not block emergency horns or lights. Report damage or defective horns and lights to the Safety Department at 570-389-4792.
6. Inspections
 - a. Semiannually: In accordance with NFPA 72 by an outside contractor.

J. Fire Extinguisher, Sprinkler Systems, Suppression Systems, Standpipes and Fire Hoses

1. BU uses various types of fire suppression equipment including portable fire extinguishers, sprinklers systems and Kitchen Suppression Systems. The following sections discuss each type of fire suppression equipment:
2. Fire Extinguishers
 - a. Fires are classified according to three basic categories. Each type of fire requires special treatment to control and extinguish it. Therefore, all fire extinguishers are clearly marked to indicate the fire classes for which they are designed. Fires are classified as indicated below.
 - i. Class A- Fires involving ordinary combustibles such as wood, textiles, paper, rubber, cloth, and trash. The extinguishing agent for a Class A fire must be cool. Water and multi-purpose dry chemical fire extinguishers are ideal for use on these types of fires.

- ii. Class B-Fires involving flammable or combustible liquids or gases such as solvents, gasoline, paint, lacquer and oil. The extinguishing agent for a Class B fire must remove oxygen or stop the chemical reaction. Carbon dioxide, multi-purpose dry chemical, and halon fire extinguishers are ideal on these types of fires.
 - iii. Class C-Fires involving energized electrical equipment or appliances. The extinguishing agent for a Class C fire must be a non-conducting agent. Carbon dioxide, multi-purpose dry chemical and halon fire extinguishers are ideal for use on these types of fires. Never use water on a Class C fire.
 - iv. Class D- Certain metals are flammable or combustible. Fires involving such are designated Class D in both systems. Examples of such metals include sodium, titanium, magnesium, potassium, uranium, lithium, plutonium and calcium. Magnesium and titanium fires are common. Water and other common firefighting materials can excite metal fires and make them worse. The NFPA recommends that metal fires be fought with "dry powder" extinguishing agents. Some extinguishers are labeled as containing *dry chemical* extinguishing agents. This may be confused with *dry powder*. The two are not the same.
 - v. Class K- Fires that involve cooking oils or fats are designated Class K. Though such fires are technically a subclass of the flammable liquid/gas class, the special characteristics of these types of fires, namely the higher flash point, are considered important enough to recognize separately. Saponification can be used to extinguish such fires, as can dry-powder, CO2 or, for small fires, mechanical smothering. Appropriate fire extinguishers may also have hoods over them that help extinguish the fire.
- b. Inspections and Recharging
- i. Monthly Inspections: In accordance with NFPA 10 by the Safety Department
 - ii. Annual Inspection: In accordance with NFPA 10 by an outside contractor.
 - iii. The Safety Department also ensures that extinguishers are recharged. (Fire extinguishers must be recharged after every use.) In accordance with NFPA 17A. To move a fire extinguisher to a new location or report a missing or damaged fire extinguisher, call the Safety Department at 570-389-4792.
- c. Using Fire Extinguishers

- i. Most fire extinguishers provide operating instructions on their label; however, the time to learn about fire extinguishers is not during a fire. The sooner you know how to use a fire extinguisher, the better prepared you are.
 - ii. **How to operate a fire extinguisher:** There are four (4) basic steps for using modern portable fire extinguishers. The acronym **PASS** is used to describe these four basic steps.
 - **Pull Pin:** Pull pin at the top of the extinguisher, breaking the seal. When in place, the pin keeps the handle from being pressed and accidentally operating the extinguisher. Immediately test the extinguisher. (Aiming away from the operator) This is to ensure the extinguisher works and also shows the operator how far the stream travels
 - **Aim:** Approach the fire standing at a safe distance. Aim the nozzle or outlet towards the base of the fire.
 - **Squeeze:** Squeeze the handles together to discharge the extinguishing agent inside. To stop discharge, release the handles.
 - **Sweep:** Sweep the nozzle from side to side as you approach the fire, directing the extinguishing agent at the base of the flames. After an A Class fire is extinguished, probe for smoldering hot spots that could reignite the fuel.
 - iii. When using a fire extinguisher to fight or control a fire, aim the spray at the base of the fire. Because most extinguishers only work for a short time, employ a sweeping motion and work quickly to control the fire.
 - iv. Portable fire extinguishers are located throughout all University facilities. They are mounted in readily accessible locations such as hallways, near exit doors and areas containing fire hazards. Make sure that fire extinguishers are accessible and securely mounted.
 - v. Do not attempt to fight a fire unless it is small and controllable. Use good judgment to determine your capability to fight a fire. When fighting a fire, always maintain an escape route. Never allow a fire to block your egress.
- d. Portable Extinguishers and Automobiles
- i. All state-owned vehicles in excess of 20 horsepower must contain a 2 ½ pound ABC Class fire extinguisher.

3. Sprinkler Systems
 - a. The purpose of water sprinkler systems is to help extinguish and minimize the spread of fires. Sprinklers are normally activated only by heat. They are not connected to emergency pull stations. To ensure that the sprinkler system is effective in the event of a fire, maintain at least 18 inches of clearance between any equipment or storage items and the ceiling. (Anything close to the ceiling can alter the spray pattern of the sprinkler head, leaving some areas unprotected.) Never hang anything from a sprinkler head or pipe. Arrange work areas to facilitate sprinklers and allow even water distribution.
 - b. Inspections
 - i. Weekly Inspections: In accordance with NFPA 25 by the Fire and Safety Coordinator.
 - ii. Monthly Inspections: In accordance with NFPA 25 by the Fire and Safety Coordinator.
 - iii. Quarterly Inspections: In accordance with NFPA 25 by the maintenance department
 - iv. Annual Inspection: In accordance with NFPA 25 by an outside contractor.
 - v. Five Year Inspection: In accordance with NFPA 25 by an outside contractor.
4. Automatic Fire Extinguishing Systems
 - a. These systems are for Commercial Cooking Equipment and Exhaust Systems. The systems are activated by heat or a manual activation device.
 - b. Inspections
 - i. Semiannual Inspections: In accordance with NFPA 17 by an outside contractor.
5. Standpipes
 - a. Standpipes are used by the fire department to pump water into the system to meet the system's demand, during a fire.
 - b. Inspections
 - i. Annual Inspection: In accordance with NFPA 25 by an outside contractor.
 - ii. Five Year Inspection: In accordance with NFPA 25 by an outside contractor.
6. Fire Hoses
 - a. Fire hoses are for extinguishing a fire and can only be used by trained personnel.
 - b. Inspection
 - i. Annual Inspection: In accordance with NFPA 1962 by an outside contractor.

K. Holiday Decorations

1. Unfortunately, holiday decorations are often fire hazards. Follow these guidelines to improve fire safety during the holidays:
 - a. All Christmas trees (formally living) are to be sprayed with a flame retardant, which is available by submitting a maintenance request work order.

- b. Candles and other open flame decorations are not permitted in University buildings.
- c. Electric lights should not be used on metal trees because of electrical shock potential.
- d. Lights and decorations should not be utilized in unoccupied areas.
- e. Extension cords should not be used. Position electrical decorations to permit direct connection to electrical power.
- f. Only use electric lights and decorations that have been tested and approved by a recognized agency such as Underwriters Laboratory (UL) or Factory Mutual (FM).
- g. Check electrical items for broken/cracked sockets, frayed/bare wires, loose connections, etc. Discard if damaged.
- h. Trees and other decorations should be located well away from sources of ignition such as radiators, heaters, light fixtures, etc. Be sure that trees are out of the traffic pattern and do not block designated paths of exit.
- i. Only flameproof or non-combustible materials should be used for decoration.
- j. Never place an extension cord in a doorway.
- k. LED Lights are recommended.

L. Responsibilities

- 1. University Safety Department is responsible for inspection and maintenance of fire protection equipment in accordance with International Fire Code (IFC) and the National Fire Prevention Association (NFPA) were referenced in the IFC.
- 2. All levels of supervision are responsible for inspection, enforcement and reporting of fire safety issues.
- 3. The Director of Residence Life is responsible for the inspection, enforcement and reporting of fire safety hazards for all on campus housing.

M. Fire Safety Training

- 1. Fire Safety Training is required for each new student living on campus. The training is offered at the beginning of each semester.
- 2. Faculty and Staff are offered Fire Safety Training throughout the year.

N. Fire/Evacuation Drills

- 1. Fire/Evacuation Drills are conducted in accordance with PRP 5225.
 - a. On campus housing: Fire/Evacuation Drills are conducted twice during the fall and spring semester and during the summer as occupancies require.
 - b. Academic/Administration Buildings: Fire/Evacuation Drills are conducted once during the fall and spring semester in the Academic/Administration Buildings.

2. Fire/Evacuation Drills are conducted with a collaborated effort between the Safety Department, Residence Life, Facilities Management and Police Department.