

NORFOLK STATE UNIVERSITY Residential Housing and Building Fire Safety Program Safety and Risk Management

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Residential Housing Fire Safety Program

Introduction

Fire safety is an important area of concern for the university. The potential for loss of life or injury from a fire-related incident is a serious risk. In addition, few occurrences on campus represent a greater potential for property loss than a serious fire or explosion. This plan takes a proactive approach to recognizing and evaluating fire safety risks and instituting appropriate steps to remove or reduce them.

An effective fire safety program requires sufficient resources to attain code compliance, education of the campus community in fire safety practices, and enforcement to correct fire safety violations. Beyond basic life safety code compliance, fire safety should be a primary component in the design and construction of new or renovated campus buildings. Equally important are the inspection, testing and maintenance of alarm systems, sprinkler systems, emergency signs and lighting, inspection of smoke detectors, and maintenance of fire suppression equipment. Fire risk analysis and fire prevention programs are also key components of a comprehensive fire safety program.

This plan is designed to provide guidelines for identifying, monitoring, and addressing fire safety issues at Norfolk State University. The plan describes emergency procedures, fire safety equipment, drills, inspections, training and procedures that reduce the possibility of fires. This plan is evaluated annually and revised as needed by the University Safety Engineer.

The rules, regulations, and recommendations in this manual are in conformity with codes established by the National Fire Prevention Association (NFPA), The Virginia Statewide Fire Prevention Code (VSFR), the Building Officials and Code Administration (BOCA), and the Occupational Safety and Health Administration (OSHA).

CONTACT(S)

Environmental, Health, Safety and Risk Management (EHS&RM) officially interprets this program. EHS&RM is responsible for obtaining approval for any revisions.

Fire Detection and Warning Equipment

Fire alarms

Manual pull-stations are located along the means of egress, usually at exit doors, to provide a means to alert occupants to a hazardous condition. All alarms in residential buildings are connected to the University Police Department. To reduce malicious alarms stations may be equipped with covers (STOPPERS) that sound an internal alarm when the cover is removed.



Testing. Fire alarm systems are installed, repaired, and tested by outside contractors and the Safety Office. All horns are checked for operation. In accordance with NFPA regulations an outside contractor tests the alarms in the Residential Halls every six months. Problems are corrected as quickly as possible. Records are maintained in the Safety Office concerning all tests.

False Alarms. Persons who knowingly turn in a false fire alarm endanger the lives of others and may cause damage to the persons and equipment responding to the false alarm. This is a violation of the Code of the State of Virginia and may result in jail terms and/or fines. Persons maliciously activating fire alarms or fire detection equipment will be severely disciplined to include dismissal from student residence, expulsion from school, and/or criminal prosecution.

Investigations. The University Police, City of Norfolk Fire Department, Safety Engineer or the State Fire Marshal's Office will investigate all fire alarms to determine the cause and to prevent recurrence. A fire incidence report is completed by the Resident Director in Residence Halls and forwarded to the Safety Office for review.

Smoke Detectors

Smoke detectors respond to both visible and invisible products of combustion and sense fire at the earliest practical detection stage. Smoke detectors are used for warning occupants.

Locations. Residential buildings have single station smoke detectors located in the halls and in each student room. Detectors located in the halls and other public areas are hardwired and connected to the building alarm system. Those located in the student's room will only sound inside their room.

Inspections. Hardwired smoke detectors in student rooms should be tested monthly to ensure proper operation. Resident **Staff** member are responsible for checking their floor smoke detectors using provided form. Any problems should be reported to the Residential Hall Director as soon as possible. They are responsible to re-inspect prior to submission to the Residential Life Office. Inspection forms are sent to the Safety Office by the 5th of each month for review of problems and correct deficiencies. Hardwired smoke detectors in the halls and other public areas are inspected semiannually by an outside contractor.

Maintenance. In order for smoke detectors to function properly they must be periodically cleaned. Dust accumulates in detectors over time and reduces the ability of the detector to detect smoke. Hardwired smoke detectors in the Residence Halls are cleaned and tested by an outside contractor every six months to ensure the sensing chamber and alarm circuits function properly.



Abuse. Misuse, deactivation or tampering with smoke or heat detectors is prohibited. Smoke detectors **must not be covered or blocked**. Nothing may be attached to the wiring of hardwired detectors.

Heat Detectors

Heat detectors typically operate when a preset temperature has been reached or a rapid temperature change occurs. Heat detectors are the least expensive fire detectors and have the lowest false alarm rate. They are also the slowest in detecting fires.

Locations. Heat detectors are frequently found in mechanical rooms, storage rooms, attics, and other normally unoccupied areas. These devices are also found in bathrooms where smoke and steam could cause smoke detectors to give false alarms.

Fire Suppression Equipment

The university maintains appropriate fire suppression systems in each building to include: fire extinguishers, sprinkler systems, standpipes and interior hose packs. The various fire suppression systems are inspected on a routine basis by Safety Office and by external contractors. Deficiencies noted during the inspections are reported to the Safety Office.

Portable Fire Extinguishers

Portable fire extinguishers are the first line of defense against a fire. They are designed to extinguish or contain a small fire or open an escape route. Portable fire extinguishers are not designed to fight a large or spreading fire. Fire extinguishers should be used after the evacuation plan has started. If you know how to use an extinguisher, locate and identify the ones in your area - before you need them.

Operation. Persons trained in their proper use should only use fire extinguishers. If you have the slightest doubt, get out and call the fire department.

• Never fight a fire if:

The fire could block your escape route.

You are unsure of the proper operation of the extinguisher.

You are in doubt that the extinguisher is designed for the type of fire or is large enough.

Fight the fire only if all of the following are true: The fire department has been notified. The area has been evacuated. The fire is small and confined to its immediate area of origin (wastebasket, sofa, small appliance). You have a way out and can fight the fire with your back to an exit. You have the proper extinguisher and know how to use it. You use careful judgment and get out fast if the fire starts to spread.



To operate a fire extinguisher, recall the word PASS: PULL the pin by grasping the extinguisher neck in one hand and removing the pin with the other.
AIM the nozzle, hose, or horn at the base of the fire.
SQUEEZE the handle to release the extinguishing agent.
SWEEP from side to side at the base of the fire until it is out.

Responsibilities. Approximately 600 portable fire extinguishers are located throughout the campus. The Safety Engineer is responsible for training, inspecting, testing, and refilling fire extinguishers.

Types of fire extinguisher.

Class ABC. Class ABC fire extinguishers will put out most types of fires that could start on campus- wood, paper, flammable liquids, and electrical fire. These extinguishers are also known as multi-purpose extinguishers. Most extinguishers on campus are classified as ABC.

Location. Fire extinguishers are installed according to guidelines established by BOCA and NFPA. Laboratories, workshops and other areas in which flammable solvents are used must have an appropriate fire extinguisher. Travel distances should normally be less than 75 feet for ordinary combustibles.

Access. Fire extinguishers should be readily accessible and the location of the extinguisher should be clearly identified. Fire extinguishers must be mounted off the floor and no higher than five feet.

Inspections. All portable fire extinguishers should be visually inspected each month. The Safety Office replaces missing, discharged or damaged fire extinguishers usually replaced within one day in areas with overnight accommodations. The Residential Life staff should visually inspect fire extinguishers daily to ensure that they are properly charged, pinned and sealed. All discrepancies must be reported to the Safety Office.

Training. The Safety Office offers training on the proper use of portable fire extinguishers for faculty, staff, and students. Classes can be scheduled by calling the Safety Office at 823-2230.

Maintenance. Every fire extinguisher is numbered and a record kept showing the inspection date, maintenance date, and type of extinguisher. Upon completion of the routine yearly maintenance the fire extinguisher tagged. Maintenance procedures include a thorough examination of mechanical parts, extinguishing agent and expelling means.



Hydrostatic testing is performed within the time specified by the manufacturer according to NFPA 10. An outside contractor does hydrostatic testing.

Records. The Safety Office is responsible for maintenance of all fire extinguishers, updating hydrostatic testing records and maintaining an inventory of all fire extinguishers. Hydrostatic testing and maintenance records are placed on the fire extinguisher.

Misuse. Misuse of fire extinguishers is prohibited. Fire extinguishers are not to be removed from their proper locations or discharged unless there is a true fire emergency. Anyone found tampering with a fire extinguisher would be subject to disciplinary action. Report vandalism and/or discharged fire extinguishers to the Safety Office.

Standpipes and Hose Systems

The purpose of a standpipe system is to provide hose connections inside the building, usually located in or near stairwells.

Use. Only trained personnel should use the hoses. Standpipe systems should be used with caution because the pressure may be difficult to control. Unless occupants are properly trained, it is best to leave hose lines to fire fighters. Hose connections should be in readily accessible locations, clearly visible, and in good working order.

Inspections. An outside contractor inspects standpipes every year for water flow. Inspection records are kept on file in the Safety Office.

Automatic Sprinkler Systems

Automatic sprinkler systems are located in Babbette Smith Residential Halls, Phyllis Wheatley and Mid-Rise dormitories. The systems consist of a series of pipes and nozzles that distribute water when heat activates the sprinkler heads. Most sprinkler heads activate at 165 F. Only the heads exposed to this heat will discharge. They are typically connected to the building fire alarm systems. Automatic sprinkler systems are extremely effective at preventing fire spread. In terms of life safety there have been no reported cases of multiple deaths occurring in fully sprinkled buildings where the system was operating properly.

Inspections. All automatic sprinkler systems are inspected quarterly by an outside contractor. Documentation is maintained in the Safety Office.

Precautions. Storage clearance shall be maintained at least 18 inches around the sprinkler head. Sprinkler heads must be kept clean and not painted. Ensure that all heads are pointed down. Do not cover or block the sprinkler heads. Piping shall not be used to support ladders, equipment or other materials.



Fire Safety Inspections

Buildings. The Safety Office will conduct a comprehensive inspection of all university buildings monthly to ensure compliance with applicable fire codes. Deficiency reports are sent to affected departments for correction.

Code Compliance. The State Fire Marshall conducts annual inspections in Residence Halls. Corrections must be made in a timely manner. If needed, follow-up inspections are made on a monthly basis.

Fire Protection Equipment. To ensure safe operation, the Safety Office, or an outside contractor, periodically inspects all fire suppression and detection equipment not specifically addressed above.

Residence Halls. Resident Hall Directors and Residential Hall Staff members will perform a fire safety inspection using a form provided by the Safety Office. This includes an inspection of all fire extinguishers, storage rooms for combustible materials, hallways for obstructions, exit lights, fire doors, and to ensure that fire evacuation procedures are conspicuously posted. The form is signed and retained in the Housing Office. The Safety Office is notified if the inspections identify fire hazards. The Safety Office may also conduct random inspections of the Residence Halls.

(Building Plans. Building plans for new and renovated campus construction projects are reviewed by the State Fire Marshal's Office for compliance with life safety codes and applicable fire safety standards.) Removed

Fire Hazards in Residential Buildings

Fire hazards at a university can range from popcorn in a microwave oven to trash accumulation. Usually most fires are small and are quickly extinguished. Fires on college campuses are especially worrisome because students are concentrated in places of assembly and dormitories. The practices and procedures discussed below are designed to reduce the potential for fires in residential buildings by controlling combustible materials, reducing ignition sources, and ensuring that means of egress are properly maintained.

Prohibited Items

- Firearm ammunition and explosives (including firecrackers) are not permitted in residential buildings.
- Motorized vehicles (motorbikes, mopeds, or motorcycles) may not be stored or parked inside buildings under any circumstances.



- Flammable or combustible liquids such as gasoline, kerosene, charcoal lighter, turpentine, or similar substance may not be stored in any university housing unit. Gasoline is not allowed in any university building.
- The storage of excessive amounts of paper is prohibited in Residential Housing.
- Open or enclosed flame devices including kerosene lamps, stoves, candles, or similar items are not permitted in university housing units.

Appliances

- In the residence halls, several student rooms are wired into the same circuit. To prevent overheating of circuits and possible fires surge protected power strips are utilized.
- Extension cords cannot be used in place of permanent hardwiring. Guidance on the non-use of extension cords is provided to students prior to their arrival on campus.
- Refrigerators are permitted in student rooms if they do not exceed a capacity of 2.5 cubic feet and use less than two amps.
- Air conditioners, microwave ovens, hot plates, heating coils, and toaster ovens are prohibited in residence hall rooms. Other appliances may be banned at the discretion of the Residence Hall staff and/or Fire Safety Engineer.
- Multiple plug adapters cannot be used in place of permanent hardwiring.
- Any appliance with a damaged cord or plug may not be used in a resident hall and may be confiscated by the Housing Staff or fire officials.
- The air openings of an appliance must remain unblocked.

Holiday Decorations

For personal protection faculty, staff, and students are urged to use good judgment in decorating offices and rooms so that furniture, posters, fishnets, mobiles, etc., do not create potential fire hazards.

The use of combustible materials for decorations and displays can lead to serious fire hazards. Combustible materials include paper and cloth of all varieties, plastics, and all vegetation. It does not include lumber, peg-board, or paper mache. In order to reduce the potential for fires the following procedures should be adhered to:

- All decorations using combustible materials shall be treated with a flame retardant solution. The label on commercial decorations will indicate if the item has been flame proofed.
- Paper napkins, facial tissue, waxed paper, dried vegetation, wrapping paper, corrugated cardboard, and light plastics such as polyethylene film shall not be used inside residence halls because they cannot be effectively flame proofed. No more than 10% of the room may be decorated.
- Paper or other materials must be kept at least 12 inches away from any incandescent or fluorescent bulb. Improvised paper shades for lights are not to be used.



- All electrical equipment (such as lights, wires, plugs, connectors, sockets, etc.) must be UL (Underwriter's Laboratory) approved and in good condition. The use of cube taps and improvised wiring is prohibited. **Extension cords are strictly prohibited.**
- Open or enclosed flame devices (i.e., candles, kerosene or gasoline lanterns, torches, oil lamps, etc.) **are not permitted** in residence halls.
- No decorations or displays shall be erected in a way that blocks or obstructs an exit, exit lights, fire suppression equipment, or fire detection equipment. Decorations are prohibited in a means of egress. Do not hang decorations from the ceiling.
- The narrow corridor within the student room that leads to the doorway shall not be obstructed in any way. Furniture and other items shall not be placed near the doorway or impede exit from the room.
- To reduce fuel sources all materials should be promptly and properly disposed after the celebration is over or before leaving on holiday break.

Housekeeping.

Good housekeeping practices can prevent fires, control the spread of fires in case of ignition, and avert injury during evacuation. The following are basic housekeeping requirements:

- Provide sufficient waste receptacles and empty on a daily basis.
- Remove litter from hallways, stairways and floors on a daily basis.
- Keep the accumulation of paper and flammables to a minimum.
- Store combustible materials away from heating devices.
- Keep passageways clear of obstacles.
- Do not store materials closer than 18 inches from a sprinkler head.
- Keep fire doors unblocked and do not prop open.
- Do not store materials in stairwells.
- Materials should never block fire extinguishers, sprinklers, and standpipe controls.
- Keep materials at least 36 inches away from electrical panels.
- If no sprinklers are present, piled materials must be kept at least two feet from the ceiling to permit use of hose streams.
- Periodically check "No Smoking" areas for evidence of discarded smoking materials.

Exit ways.

The following procedures are designed to ensure that halls and exits do not present a fire hazard and are maintained according to OSHA and State Fire Code Regulations:

• No obstructions of any kind shall be placed in front of, or upon, any fire escape, balcony, or other exit intended for egress from a fire.



• No aisle, exit access, or stairway in a place of occupancy shall be obstructed with tables, showcases, filing cabinets, coat racks, or other obstructions to reduce its required width as an exit way during the hours the facility is open to employees and the public.

- All exit doors shall be unlocked when the building or a portion of the building, served by the exit, is occupied. Exit doors shall swing in the direction of exit travel.
- Storage of any kind, or use of office or laboratory equipment in hallways is not permitted.
- Permanently attached lockers, bulletin boards, display cabinets, etc. may be permitted in some hallways, subject to the approval of the Safety Office.
- Transparent covers on bulletin boards and display cabinets must be made of safety glass or other non-splintering material.
- Storage of materials on stairs, landings, or under stairs is strictly prohibited.
- Fire doors separating stairwells from hallways, or smoke partition doors are to be equipped with self-closing mechanisms or automatic release hold-open devices and must be maintained in working order. They are never to be blocked, wedged or tied open.
- Stairways, hallways, and other exit ways including the exterior open spaces to or through which exits lead, shall be kept adequately lighted at all times when the building is occupied.
- Lighting shall provide at least one-foot candles of illumination on walking surfaces.
- The area immediately outside building exits shall be maintained free of material at all times.
- Bicycles and gasoline-operated vehicles are not permitted in hallways, stairwells, or on sidewalks immediately next to exits.
- All exits shall be marked with a readily visible sign. Doors, passages, or stairs that could be mistaken for an exit must be marked with a sign stating "Not an Exit."
- Emergency lighting should be provided for exit floor illumination in case of failure of normal lighting.

Fire Drills and Evacuations

Fire evacuation procedures are a vital part of a comprehensive campus fire safety program. Fire drills are held to familiarize occupants with drill procedures and to make the drill a matter of established routine. Providing well-marked exits does not ensure life safety during a fire or emergency. Exit drills are needed so that occupants will know how to make an efficient and orderly escape. Before a fire, occupants should:

- Know the location of the fire alarm pull stations and how to activate them.
- Know the location of two exits.
- Know the location of and how to use fire extinguishers.
- Post the phone numbers of the campus police near their phone.



- Report any tampering or malfunction of fire protection equipment to the Resident Hall Director or the Safety Office.
- Know the location of the predetermined assembly point.
- Keep fire doors closed.

Training. During the Residential Staff Workshop, each Residential Hall Director will meet with the Resident Assistants about duties in their particular hall. The duties, responsibilities, and evacuation routes for that particular hall will be explained. The Residence Hall Staff will undergo a series of fire alert training sessions conducted by Residence Life during the fall workshop.

Drills. The Residential Life Office conducts fire drills in the residential halls at least four times per year. The Director coordinates the fire drills with the Safety Engineer and University Police. The Residential Hall Director will notify the University Police, Safety Office, and the Office of Residential Life at least one day before the fire drill. Personnel will be assigned to check exits, search for stragglers, count occupants once they are outside, and to control reentry into the building. Drills will be conducted under varying conditions (e.g., blocking a fire exit) and unexpected times to help simulate the actual conditions that may occur in a fire. Emphasis will be placed upon orderly evacuation with proper discipline rather than speed. Any person who fails to immediately evacuate the Residence Halls during an alarm will be judicially charged with failure to vacate. The Residential Hall Director will issue a report to the Safety Office and the Residential Life Office after the drill is completed. After the drill, a meeting will be held to evaluate the drill and to solve any problems.

Evacuation Plans. Evacuation plans shall be posted on all floors of a Residential Building. The plans show the locations of fire extinguishers, fire alarm pull stations, and fire exit doors. The plans are conspicuously located and updated as needed by the Safety Office.

Procedures for Reporting a Fire

The person who first discovers a fire should do the following:

- Pull the nearest fire alarm station to alert residents. An alarm will automatically sound in the University Police Department.
- Remove any person in immediate danger.
- Call the University Police at 3-8102. Give the location and description of the fire.
- If the fire is small, and if you have had training, use the proper type of fire extinguisher to extinguish the fire. Do this only after the evacuation has started and the Fire Department and University Police have been called.
- If you cannot put out the fire, close all doors and exit by the nearest safe exit. Go to the assigned assembly point.
- Do not use elevators.



Procedures for Exiting

- Exit the building as calmly and quickly as possible using the nearest safe exit. **Do not use the elevator.**
- Alert all persons in your area.
- Close windows and doors, leave the door unlocked, wear a coat and shoes, and take a towel to place over your face in case of smoke.
- Proceed to the assigned assembly area. Remain outside until the appropriate signal is given to re-enter. A headcount should be conducted and reported to the senior Residential Life staff member on scene.
- If all exits are blocked go back to your room, close the door and call 3-8102 to report your location.
- If your clothing should catch on fire, DO NOT RUN. Drop and roll to smother the flames.
- Feel the doorknob with the back of your hand before opening any door. If it is hot do not open the door. Brace yourself behind the door, crouch low, and open the door slightly if it is warm. If heat or heavy smoke is present, close the door and stay in your room. Stay low to the floor.
- Building and/or floor wardens will assist in the evacuation of the floor, close all doors, keep all persons at a safe distance from the building, and direct the fire department to the scene of the fire.
- If the City Fire Department responds, they will assume control of the building. Students and staff must give full cooperation to the Fire Department.
- The Residential Hall Director will submit a report of the fire to the Director of Residential Housing and the Safety Office within 24 hours of the fire.

Emergency Procedures.

- If you cannot safely leave the room, seal the cracks around the door with wet towels. Call the Campus Police at 3-8102 to report your location.
- Open the window a few inches for fresh air and hang a brightly colored cloth or bed sheet out the window to alert the Fire Department of your location. If you have a flashlight use it to signal with at night.
- If smoke gets in your room, keep low and dampen a cloth with water, place it over your nose and breath lightly through it.
- Stay calm. Do not jump from windows above the second floor. Rescue personnel have the proper equipment to get to you quickly.