



Fire Safety Plan

Environmental Health & Safety Office

March 2019

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Acronyms

AED	Automated External Defibrillator
AHJ	Authority Having Jurisdiction
CFR	Code of Federal Regulations
DGS	Department of General Services
EHS	Environmental Health and Safety Office
FM	Factory Mutual
GFCI	Ground Fault Circuit Interrupter
HEOA	Higher Education Opportunity Act
ICC	International Code Council
NFPA	National Fire Protection Association
NIMS/ICS	National Incident Management System / Incident Command System
OHRL	Office of Housing and Residential Life
OSHA	Occupational Health and Safety Administration
RA	Resident Advisor
SDS	Safety Data Sheet
SFMO	Virginia State Fire Marshal's Office
SFPC	Virginia Statewide Fire Prevention Code
UL	Underwriters Laboratory
USBC	Uniform Statewide Building Code

Document History

Version	Date	Comments
1	January, 2013	Initial <i>Fire Safety Plan</i>
2	January, 2016	Addition of section 6.2.4
3	August, 2017	Routine review
4	March, 2019	Update section 6.2.4

This *Fire Safety Plan* is reviewed and amended as necessary and whenever:

1. Applicable state, federal, or local codes or regulations are revised and/or adopted;
2. A student, employee, contractor, or visitor is injured during a fire emergency; or
3. University property or the environment is damaged during a fire emergency.

All revisions to this *Fire Safety Plan* will be shared with the parties identified in this document.

Foreword

George Mason University is required by the Virginia Statewide Fire Prevention Code (SFPC) Section 404 to create and maintain a fire safety plan. This *Fire Safety Plan* is designed to satisfy the requirements of federal and state regulations. This plan describes roles and responsibilities, policies, and procedures designed to mitigate the causes of fire, prevent loss of life and property by fire, and outline the procedures used to maintain fire protection and life safety systems.

1.0 Introduction

George Mason University is committed to providing a safe work environment. This *Fire Safety Plan* is a collaborative effort between the Environmental Health and Safety Office (EHS), Facilities Management, and University Police. This plan outlines the various responsibilities, activities, and procedures that the university observes to reduce the potential for fires and mitigate the damage should one occur on university property.

1.1 Purpose

The purpose of this document is to describe the procedures that George Mason University uses to mitigate the risk of fire on university property and satisfy the requirements of the Virginia Statewide Fire Prevention Code (SFPC) Section 4044. This document establishes the necessary testing, inspection, and certification of fire alarm and suppression equipment maintained by the university.

1.2 Scope

This document is applicable to all campuses, sites, centers, and buildings that are owned or operated by George Mason University personnel. Elements of this plan may be applicable to leased spaces based on university activities and contract stipulations. University employees that are responsible for university space or conduct activities on University property are expected to be familiar with the contents of this plan.

2.0 Roles and Responsibilities

The following units, shops, and individuals identified below are assigned specific roles and responsibilities to implement this *Fire Safety Plan*.

2.1 Environmental Health and Safety Office

EHS collaborates with the university community to promote health, safety, environmental protection, emergency preparedness and compliance with applicable regulations, guidelines, and best practices in order to sustain a healthful and safe working and learning environment. This mission is accomplished by establishing policies and procedures, providing training and education, facilitating emergency management, implementing preventive actions, and ensuring continuous improvement of Mason's health and safety programs for employees, students, and visitors.

EHS consists of several functional areas some of which have responsibilities related to fire safety. These responsibilities are outlined in the section below.

2.1.1 EHS-Fire Safety

EHS-Fire Safety is responsible for developing and maintaining this *Fire Safety Plan*. EHS-Fire Safety works collaboratively with various departments and individuals to implement this *Fire Safety Plan* and enforced as necessary. Specific responsibilities are to:

- Serves as George Mason University's primary point of contact with local, state, and federal officials with regard to the *Fire Safety Plan* and fire safety operations at George Mason University.
- Coordinate or conduct inspections and testing of buildings, fire detection systems, and fire suppression systems.
- Assist employees with interpretation of applicable federal, state, and local codes and regulations related to fire safety.
- Conduct inspections and annual certifications of all portable fire extinguishers.
- Conduct inspections of commercial cooking hood systems.
- Ensure that the proper inspection and testing contracts are in place for all fire alarm and suppression equipment, not inspected, tested, or certified by EHS-Fire Safety.
- Provide specific information and guidance on fire prevention and safety to assist in the development of *Unit Fire Safety Plans*.
- Provide floor plans, maps, and information to facilitate safe building evacuations in the event of a fire as required by section 404 of the SFPC.
- Conduct routine fire drills in accordance with the SFPC and maintain associated records.
- Conduct routine *Fire Extinguisher Training*.
- Conduct routine building inspections to identify hazardous conditions that may contribute to, cause, or exacerbate the effects of a fire.
- Coordinate with fire departments upon request or as necessary to familiarize fire department personnel with the layout and features of university buildings and campuses.
- Participate or conduct fire investigations in conjunction with Virginia State Police, University Police, or fire code official.
- Participate in annual Health and Safety Inspections of residence halls as conducted by the Office of Housing and Resident Life (OHRL) and assist the State Fire Marshal's Office (SFMO) to identify hazards that may contribute to, cause, or exacerbate the effects of a fire.
- Conduct or coordinate upon request fire alarm and suppression takedown procedures to facilitate hot work, systems repairs, or inspections.
- Conduct a fire watch whenever fire alarm or suppression systems are impaired due to EHS activities.
- Coordinate the purchase, installation, and maintenance of Knox Boxes[®].
- Maintain systems key boxes in buildings that require unique systems keys and do not have a Knox Boxes[®].
- Participate in the review of construction/renovation design plans to ensure conformance with applicable fire safety standards and regulations.
- Participate in building inspections, acceptance testing, and systems testing coordinated by Facilities Management.
- Maintain and update a sprinkler head database.
- Draft and publish an annual fire safety message to the university community.

2.1.2 EHS-Emergency Management

EHS-Emergency Management is responsible for coordinating with regional fire departments on a routine basis to ensure that the university provides appropriate support and assistance during a fire response. EHS-Emergency Management is responsible for responding to fire incidents on campus, when notified by University Police, to ensure that the proper university notifications are made, and provide support to emergency responders as necessary. EHS-Emergency Management will integrate into response activities in accordance with the incident command system and at the direction of the Incident Commander.

2.1.3 EHS-Laboratory Safety

EHS-Laboratory Safety (EHS-LS) is responsible for the inspection and condition of all laboratory spaces at George Mason University. Specific responsibilities of EHS-LSEC in regards to this *Fire Safety Plan* are:

- Conduct routine inspections of laboratories and recommend appropriate hazardous storage.
- Notify EHS-Fire Safety if storage, electrical, hazardous materials situations are suspected to be in violation of fire safety regulations.
- Assist EHS-Fire Safety in addressing fire safety issues within laboratories.
- Provide *Hazard Communication Training* to educate employees on the proper handling and use of hazardous materials.

2.1.4 EHS-Occupational Safety

EHS-Occupational Safety (EHS-OS) assists the university in maintaining compliance with OSHA standards. Specific responsibilities of EHS-OS in regards to this *Fire Safety Plan* include:

- Inspect non-laboratory work areas for compliance with OSHA standards.
- Notify EHS-Fire Safety if storage, electrical, hazardous materials situations are suspected to be in violation of fire safety regulations.

2.2 University Police

University Police Communications Officers are responsible for monitoring all incoming fire alarms for all buildings that are owned by George Mason University, and select buildings that are leased by George Mason University. Communications Officers are responsible for dispatching University Police to all alarms and requesting local fire departments respond to incidents when a general building alarm is reported. Communications Officers are also required to notify the appropriate EHS personnel in the event that a fire incident has been reported on campus.

University Police are responsible for responding to all fire alarm calls reported to the University Police Communications Center. Specific responsibilities of University Police are:

- Respond to and investigate all fire alarms.

- Determine the cause of the alarm and:
 - Reset the fire alarm if appropriate; or
 - Notify University Police Communications that a fire department response is required.
- Establish Incident Command and observe Incident Command System (ICS) procedures throughout the response.
- Assist other emergency response personnel as necessary.
- Request assistance from EHS as necessary.
- Notify EHS of long-term unscheduled fire alarm outages.
- Publish the *Annual Security and Fire Safety Report* which contains fire safety statistics required by federal regulations.
- Maintain a list of employees authorized to impair fire alarm and suppression systems.

2.3 Facilities Management

Facilities Management is responsible for conducting and/or managing repairs or modifications to fire safety and life safety systems to ensure that they function properly and meet applicable code requirements.

2.3.1 Facilities Management Fire Alarm Shop

The Fire Alarm Shop has ultimate responsibility for the condition and operation of fire detection and alarm systems. Specific responsibilities of the Fire Alarm Shop are:

- Conduct preventative maintenance of fire alarm systems in university owned buildings.
- Conduct or coordinate upon request, fire alarm system takedown procedures to facilitate hot work, systems repairs, or inspections.
- Conduct a fire watch whenever fire alarm or suppression systems are impaired due to Facilities Management activities.
- Participate in the take-down and activation of fire alarm systems as necessary to facilitate scheduled and unscheduled repairs, maintenance, or construction.
- Conduct repairs of fire alarm panels in accordance with SFPC and NFPA regulations.
- Maintain fire alarm systems.
- Notify EHS of long-term unscheduled fire alarm outages.
- Maintain contract with a licensed sprinkler company to make necessary repairs to the sprinkler systems.

2.3.2 Facilities Management Plumbing Shop

The Plumbing Shop is responsible for maintenance and repairs of fire suppression systems at George Mason University. Specific responsibilities of the Plumbing Shop are:

- Coordinate with EHS-Fire Safety and/or the Fire Alarm Shop to ensure that repairs are consistent with the SFPC and NFPA related standard(s).
- Conduct or coordinate upon request fire suppression system takedown procedures to facilitate hot work, systems repairs, or inspections.

- Conduct a fire watch whenever fire alarm or suppression systems are impaired due to Facilities Management Plumbing Shop activities.

2.4 Virginia State Fire Marshal's Office

The SFMO is the authority having jurisdiction (AHJ) for George Mason University pertaining to fire safety and fire prevention. George Mason University works closely with the SFMO to maintain compliance with all applicable fire codes and that faculty, staff and students conduct their business in such a way to mitigate property damage and injuries due to fire or other related hazards. Specific responsibilities of the SFMO are:

- Inspect residence halls annually.
- Inspect, permit, and supervise the use of pyrotechnics.
- Approve the use of open flames in performance spaces.
- Interpret and enforce the SFPC.
- Serve as the AHJ for all university owned property.

2.5 Building Occupants

Building occupants are required to conduct themselves in a manner so as to not put any other person or property in any unnecessary jeopardy. Building occupants are subject to all university policies, and state or federal codes pertaining to fire safety, which includes but not limited to, statutes that prohibit the tampering with fire suppression equipment, and false summoning of emergency personnel. Specific responsibilities of building occupants:

- Maintain work spaces in accordance with SFPC.
- Evacuate buildings when a fire alarm sounds.
- Keep clear all materials from fire lanes, egress and ingress walkways and corridors, and building exits.
- Observe university policies and procedures regarding fire safety.
- Participate in routine fire drills.
- If assigned responsibilities to shut down unique building or workspace equipment in the event of a fire (and in accordance with the *Unit Fire Safety Plan*), to understand response procedures and perform them accordingly.
- Notify EHS-Fire Safety of unsafe work conditions or fire hazards.

2.6 Supervisors

Supervisors of work areas and personnel are responsible for ensuring that work spaces and employees maintain conformance with applicable fire safety standards and regulations. Supervisors are responsible for seeking information on or identifying the appropriate university policies and procedures applicable to their work areas to include; university emergency response procedures, OSHA health and safety programs and guides, and EHS health and safety guides. Supervisors are required to inform their employees of required health, safety, and emergency response training commensurate with their duties. An employer must also review with each employee those parts of this plan that are necessary for self-protection.

Supervisors are responsible for notifying EHS of activities or events that may delay or obstruct emergency response personnel responding to an emergency to include but not limited to; construction/renovation projects, inoperable building systems, landscape features, and temporary structures.

2.7 Facilities Construction-Project Managers and Project Inspectors

Project Managers and Project Inspectors are responsible for ensuring that any state employee or contractor who is working on George Mason University property is provided a safe work environment and that the construction or renovation projects are completed in accordance with the SFPC and referenced codes and standards.

Project managers are responsible for ensuring that contractors and personnel under their supervision observe university policies and procedures related to fire safety to include but not limited to; hot work, fire watch, university design standards, emergency response procedures, storage of hazardous materials, and permitting processes. Specific responsibilities of Project Managers and Project Inspectors are:

- Notify EHS of activities or events that may delay or obstruct emergency response personnel responding to an emergency to include but not limited to; construction/renovation projects, inoperable building systems, landscape features, and temporary structures.
- Coordinate fire alarm and suppression system acceptance tests of renovated or new buildings during which the fire alarm or suppression system was modified or installed with EHS-Fire Safety to ensure the systems work correctly and the test is documented in accordance with the SFPC.

2.8 Student Residents

Student Residents are expected to follow guidelines in the *Residential Student Handbook* that is provided to all students from OHRL. Student residents are required to maintain their residence, in accordance with the *Residential Student Handbook*. Residents are responsible for addressing violations noted by either the SFMO or a representative of EHS-Fire Safety. Student Residents are required to participate in routine fire drills.

3.0 Administrative Controls

Administrative controls are policies and procedures intended to protect health, safety, and the environment through administrative processes when engineering controls are not appropriate and are intended to mitigate the potential for injury or failure to maintain university operations in a manner consistent with the SFPC. Administrative controls are implemented by the parties identified in this document as necessary to satisfy their roles and responsibilities.

3.1 Building Inspections

Building inspections are conducted routinely by an EHS-Fire Safety Inspector. Inspectors identify violations of the SFPC and university policies, note any unsafe practices or conditions, and record observations in an inspection report. Inspection reports are shared with the appropriate faculty or staff who has responsibility for the work area in which violations are noted. Deficiencies that are unable to be addressed by the building occupant are submitted to the appropriate university unit for correction.

The SFMO is responsible for inspecting residence halls and issuing notices of violations whenever violations of the SFPC are noted. Students are provided 30 days to correct the violation before it is re-inspected by EHS-Fire Safety. If the violation has not been corrected, the matter will be referred to the Office of Student Conduct. For further information on residence hall building inspections refer to the *Residential Student Handbook*.

3.2 Fire Drills

Fire Drills are conducted on campus in accordance with Section 405 of the SFPC. The purpose of the fire drills is to evaluate the efficiency and effectiveness of faculty, staff, students, and visitors in carrying out emergency evacuation procedures. The frequency of fire drills depends on the use and primary occupancy classification of the building, which can be found on the building's Certificate of Occupancy (Table 1. *Fire Drill Frequency*). Fire drills must be documented according to the SFPC; EHS-Fire Safety maintains documentation of all routine fire drills.

Table 1: Fire Drill Frequency

Use Group	Frequency	Example of Building
Group A (Assembly Buildings)	Quarterly	Eagle Bank Arena, Hylton Performing Arts Building, RAC
Group B (Educational / Business)	Annually	Innovation Hall, Founders Hall, Research Hall, Discovery Hall
Group E (Adult / Child Care)	Monthly	Child Development Center
Group R-2 (Residence Halls)	Four Annually (One at night)	Residence Halls

3.3 Unit Fire Safety Plan

A *Unit Fire Safety Plan* is a customizable plan for each university unit on campus that outlines unique hazards that may contribute to a fire and procedures that must be observed by the unit to mitigate the potential damages from fire based on the unit's activities. All units are encouraged to maintain a *Unit Fire Safety Plan* as matter of precaution and preparation. *Unit Fire Safety Plan* templates are available on the EHS website (ehs.gmu.edu).

3.4 Evacuation Plans

Evacuation Plans are maps that designate primary and alternate routes of evacuation and assembly areas. Evacuation Plans designates the location of, automated external defibrillators (AED) if available, fire extinguishers, and fire alarm pull stations. Evacuation Plans are posted throughout all buildings on campus regardless of use or occupancy classification.

Evacuation Plans are reviewed and updated as buildings are renovated by EHS-Fire Safety. EHS provides an *Emergency Evacuation Guide* that outlines building evacuation procedures to assist individual and units in identifying appropriate designated assembly areas, areas of assistance, procedures for accounting for occupants, and guidelines for people who have mobility impairments. The *Emergency Preparedness Guide* is available on the EHS website (ehs.gmu.edu)

3.5 Sprinkler Database

EHS-Fire Safety maintains a database of all sprinkler heads that are used in university owned buildings. The database is used to record the make, model, and type of each sprinkler head found within each university building. The purpose of the database is to facilitate a manufacture recall; EHS is able to determine which university owned buildings are affected by the recall and make repairs as necessary. The information on sprinkler heads is collected by Project Managers and Project Inspectors and submitted to EHS-Fire Safety when new building are constructed or renovated.

3.6 Preplanning with Fire Departments

EHS collaborates with regional fire departments to allow access to campus for training, familiarization, and completion of fire department preplanning procedures. Through preplanning, fire departments make notes and observations of unique situations that require special consideration when responding to a fire on university campuses. Information that will be made available to local fire departments upon request include but are not limited to:

- Chemical inventories for areas that contain hazardous materials.
- Building floor plans.
- Schematics of unique building or fire suppression and detection systems.
- Information regarding the number of occupants and nature of work.
- The status or anticipated schedule of construction/renovation projects.
- Access to campus for preplanning activities.

3.7 Notification of Obstructed Roadways and Egress

EHS is responsible for notifying regional first responders of activities or events that obstruct traffic, or otherwise hinder emergency response procedures. In the event that such a situation occurs, it is the responsibility of EHS to ensure that first responders are made aware of the situation and assist with the modification of plans or response procedures as necessary.

3.8 Fire Watch

The SFPC F-901.7 and NFPA 72 mandate that a “fire watch” be implemented whenever a fire suppression or fire alarm system is out of service or compromised. Notification must be made to EHS when a fire suppression or fire alarm system is out of service, under repair, or otherwise inoperable to determine if a fire watch is warranted. EHS provides a *Fire Watch Guide* that outlines specific procedures regarding Fire Watch.

A fire watch is defined as, “the assignment of a qualified person or persons for the express purpose of notifying the fire department, the building occupants, or both of an emergency; preventing a fire from occurring; extinguishing small fires; or protecting the public from fire or life safety dangers”. The responsibilities of an individual assigned to fire watch duty is to fulfill the intent of NFPA-72 are outlined in the *Fire Watch Guide* available on line at ehs.gm.edu.

3.9 Fire Investigations

Fires that occur on George Mason University property will be investigated by the appropriate authority as determined by the fire department Incident Commander. An EHS Fire Investigator will assist with investigations upon request, and may be the primary investigator with permission from the Virginia State Police. Virginia State Police and local fire officials will serve as the primary investigator for all incidents that are suspected to be the result of arson. Fire investigations will be conducted in a manner that is consistent with the SFPC, the Code of Virginia and NFPA 921. EHS will coordinate with local fire investigators as necessary.

3.10 Annual Fire Safety Message

In conjunction with the national fire safety month, EHS will send an email to all Faculty, Staff, and Students reminding them about the fire safety resources that EHS provides. The message will also encourage Faculty, Staff, and Students to practice fire safety not only at work but also at home.

4.0 Engineering Controls

George Mason University possesses a broad spectrum fire suppression and detection systems. EHS-Fire Safety is responsible for ensuring that tests and inspections are completed and documented appropriately. EHS-Fire Safety is directly responsible for the testing and inspections of most systems, however when appropriate, testing and inspections are coordinated with Facilities Management or the local fire department. Table 2. Outlines the testing and inspection schedule for fire protection equipment.

Table 2: Fire Suppression Equipment Testing

Equipment	Inspection Frequency	Resp. Party	Testing Frequency	Resp. Party
Automatic Fire Doors/Curtains/Rollup Doors	Semi-Annually	Facilities Management	Annually	EHS
Back Flow Preventers	Monthly	EHS	Annually	EHS
Commercial Cooking Hood Systems	As Necessary. Dependent on Use	EHS	Semi-Annually	EHS
Control Valves (sealed or unmonitored)	Weekly	EHS	Quarterly	EHS
Control Valves (locked or tampered)	Monthly	EHS	Quarterly	EHS
Dry / Pre-action systems	Monthly	EHS	Annually	EHS
Elevator Hoistways			Annually	EHS
Emergency Exit Signs			Monthly	Occupant
Fire Department Connections	Quarterly	EHS	5- Year	EHS / Fire Dept
Fire Alarm Systems	Weekly	Facilities Management	Annually	EHS
Fire Extinguishers	Monthly	EHS	Annually	EHS
Fire Pumps	Weekly / Monthly	EHS	Annually	EHS
Internal Pipe Inspection			5-Year	EHS
Pressure Gauges	Monthly	EHS	5-Year	EHS
Pressure Indicator Valves (include in control valve)	Monthly	EHS	Quarterly	EHS
Stand Pipes	Monthly	EHS	5-Year	EHS
Smoke Detectors (battery)	Weekly	Building Occupant	Annual	EHS
Smoke Evacuation Systems (non-dedicated)			Annually	Facilities Management.
Smoke Evacuation Systems (dedicated)			Semi-Annually	Facilities Management
Sprinkler Systems	Annually	EHS	Quarterly	EHS

4.1 Fire Extinguishers

NFPA 10 defines fire extinguisher as: “a portable device, carried or on wheels and operated by hand, containing an extinguishing agent that can be expelled under pressure for the purpose of suppressing or extinguishing fire.” Fire extinguishers are found in every building that is occupied by George Mason University. They can either be found hanging on the walls or in marked cabinets. The location of fire extinguishers are identified on Evacuation Plans posted throughout university buildings. Fire extinguishers are maintained annually by EHS-Fire Safety. Employees are not encouraged to use fire extinguishers. See section 11.0 *Fire and Fire Alarm Response Procedure* for appropriate actions during a fire.

4.1.1 Replacement

Fire extinguishers are replaced according to NFPA 10 §7.3.1.1.2, which requires all stored pressure fire extinguishers to be emptied and refilled or replaced every six years. EHS-Fire Safety is responsible for replacing fire extinguishers.

4.1.2 Annual Certification

Fire extinguishers are certified annually by EHS-Fire Safety personnel and in accordance with NFPA 10 §7.3.2. Specifically EHS-Fire Safety Inspectors:

- Confirm extinguisher is in proper location.
- Check for sufficient pressure.
- Inspect rubber hose for cracks and/or deficiencies.
- Invert the extinguisher.
- Inspect the extinguisher for and damage or deficiencies.
- Confirm pin is in place with tamper tag attached.
- Inspect bracket or cabinet for any damage.

4.1.3 Monthly Inspection

Fire extinguishers are required to be visually inspected monthly. Monthly inspections are the responsibility of building occupants. Inspections must be noted on the fire extinguisher inspection tag. All defective or damaged fire extinguishers must be reported to EHS for replacement or repair. Monthly visual inspections consist of the following:

- Confirm extinguisher is in proper location.
- Check for sufficient pressure.
- Inspect the extinguisher for and damage or deficiencies.
- Confirm pin is in place with tamper tag attached.
- Inspect bracket or cabinet for any damage.

4.2 Commercial Cooking Hood Systems

NFPA 45 defines a hood system as: “a suspended ventilating device used only to exhaust heat, water vapor, odors, and/or other nonhazardous materials.” Hoods must be located over

commercial cooking appliances. Hood systems are required to be clean, maintained, and inspected in accordance with manufactures specifications and usage.

4.2.1 Inspections

All commercial cooking hood systems are required to be inspected at least twice annually to ensure that hoods are properly integrated into the building fire alarm and suppression systems. Inspections are conducted by a certified inspector and supervised by EHS-Fire Safety Inspectors.

4.2.2 Cleaning

Commercial cooking hood systems must be cleaned on a routine basis to prevent the accumulation of cooking grease that can cause fires if ignited by a cooking appliance. The frequency of hood cleanings is dependent upon usage; hoods that are used routinely require more frequently cleaning than hoods that are used periodically. All hoods must be cleaned at least twice annually. Hoods that are used heavily will require more frequent cleanings. All hood cleanings are scheduled and supervised by EHS-Fire Safety.

4.3 Certifications for Inspectors

EHS-Fire Safety utilizes in-house inspectors and contractors to inspect fire safety equipment. NFPA requires that systems be inspected, tested, and maintained by personnel who have developed competence through training and experience. When inspections are conducted minimum qualifications must be held by the inspectors. For sprinkler system tests, a minimum of NICET II- Inspection and Testing of Water-Based systems is required. For fire alarm tests, a minimum of NICET II- Fire Alarm Systems is required. Technicians who are working towards their NICET certifications are allowed to assist with inspections, however must be supervised by NICET II certified inspector. These certification requirements are the same for in-house inspectors and contractors.

5.0 Fire Protection System and Equipment Repairs

Fire suppression or alarm system equipment that is found to be damaged, destroyed, missing, malfunctioning, or expired must be repaired or replaced as soon as possible.

5.1 System Impairments

Whenever scheduled repairs demand that a fire suppression or fire alarm system be taken out of service, notification must be made to University Police (703) 993-2810 and EHS (703) 993-8448. University Police maintain a list of university employees who are authorized to impair fire alarm and suppression systems; only certain Facilities Management and EHS-Fire Safety employees may initiate a system impairment.

Additionally, when it is discovered that a fire suppression or fire alarm system is inoperable due to damage, utility failure, or operates improperly, EHS and the Office of Risk Management must be notified. When reporting such an outage, include the following information:

1. Location of the system;
2. System(s) impacted and corresponding areas of coverage;
3. Anticipated duration of the outage;
4. Suspected reason for the outage if know; and
5. Name and contact information.

5.1.1 Fire Alarm Systems

The Fire Alarm Shop will have primary responsibility for taking fire alarm systems out of service for repair or construction in university buildings. EHS-Fire Safety is responsible for taking fire alarm systems out of service during testing, emergency repairs, and when requested to do so by the Fire Alarm Shop.

5.1.2 Fire Suppression Systems

Fire suppression systems can be taken out of service by EHS-Fire Safety. When renovations to a building require the suppression system to be taken out of service, the persons doing the renovations can isolate the affected area and take it out of service after EHS-Fire Safety has been notified. EHS-Fire Safety will assist with system takedowns upon request.

5.2 Acceptance Testing

Following renovation or construction of a building, the fire alarm and/or fire suppression system must be tested prior to occupancy or re-occupancy to ensure that all systems are functioning as designed. An acceptance test must include all devices or equipment associated with the system that was impacted by the renovation or construct, the test must be observed by EHS-Fire Safety or other competent university official and be documented in accordance with SFPC.

6.0 Fire Prevention

Fire prevention is accomplished through education, and inspections. EHS-Fire Safety utilizes building inspections to educate occupants of various fire hazards that they are exposed to while at George Mason University and how to mitigate those hazards. The following are the most common types of fire hazards that employees and students are exposed to at George Mason University. Questions about what is prohibited or permitted in residence halls should be directed to the *Resident Student Handbook*. Equipment, activities, and circumstances not covered by this plan that pose a fire hazard as determined by EHS- Fire Safety, will be reviewed on a case by case basis and risk assessment. EHS- Fire Safety will approve or deny individual issues based on best practices, safety, NFPA, and SFPC regulations.

6.1 Common Fire Hazards

George Mason University is exposed to many fire hazards due to the nature of the campus, and the occupancy types of the buildings. Faculty, staff, students, and visitors are required to adhere to all campus policies regarding the safe usage of appliances and fire safety.

6.1.1 Smoking

George Mason University Policy 2214 regulates smoking on university property (owned or leased). Smoking may not occur in or within 25 feet of any university building or within any structure to include; tents, parking garages, temporary structures, or trailers. Smoking policies also include the use of electronic cigarettes (e-cigs).

Employees, students, and visitors must properly dispose of their smoking materials in such a way that a fire cannot be ignited. The university provides ashtrays in designated smoking areas around campus that allow for the proper disposal of smoking devices. Individuals who do not use the proper receptacles for disposing their smoking devices can be held liable for any damage or financial loss that is substantially caused by their actions.

6.1.2 Indoor Décor

Interior decorations are a common factor in the spread of fire. Decorations are considered any flammable wall hanging, artificial vegetation, or other decorative material that is not permanently attached to the building. Decorations used during the holiday seasons are a large concern. The SFPC section 807 requires that all decorations used are fire resistant in accordance with NFPA 701. Decorations, even if in compliance with NFPA 701, cannot cover more than 10 percent of the wall or ceiling that it is attached to. Any decoration, whether purchased from a store, dealer, catalog or other business or if handmade, will require proof acceptable to EHS-Fire Safety and/or the SFMO that the materials used meet the fire safety standards of fire resistance. Proof can be in the form of a manufacturer's tag stating that the decoration conforms to NFPA 701 standards, or the label off of the container of fire retardant used to treat the decoration.

6.1.3 Open Flames

Candles, incense, and other decorative flame devices are not permitted in residence halls, offices, or public assembly areas. Open flames are permissible in lab settings, during performances, and to complete maintenance as long as the proper safety precautions are taken. Open flames, in every setting can pose a fire hazard and all precautions should be taken when using a device that has an open flame.

6.2 Appliances

George Mason University allows for certain appliances to be used on campus in work areas and residence halls. It is imperative that appliances be utilized solely for their intended purposes, and be maintained in accordance with the manufacturer's specifications. Additionally all appliances must be Underwriters' Laboratory (UL) or Factory Mutual (FM) approved. For more information on electrical safety please see the *Electrical Safety Guide* on the EHS website (ehs.gmu.edu).

6.2.1 Cooking

Cooking appliances should be used for the sole purpose of food preparation. While using this type of appliance the user should take all care and caution in order to mitigate the hazard of fire. The user should be familiar with the operation of the appliance and how to respond to any potential fire. Appliances that utilize a hot plate, other than coffee makers, or an open flame

should only be used in a commercial kitchen setting. The following guidelines should be followed when cooking:

- Stay in the kitchen while you are cooking on the stove. If you leave turn the stove off.
- When using an oven, set a timer as a reminder that food is cooking.
- Keep anything that could burn away from stoves, including oven mitts, kitchen towels, food packing, paper plates, etc.
- Keep a lid nearby when you're cooking to smother small grease fires. Smother the fire by sliding the lid over the pan and turn off the stove top.

6.2.2 Laundry Facilities

Laundry facilities should remain clean and free of any debris that could ignite or fuel a fire. Driers in a laundry facility have an increased potential for fires, especially if they are not installed or maintained properly. All washers, dryers or other appliances in laundry facilities on George Mason University are to be installed and maintained in accordance with the manufacturer's specifications, and industry best practices. Lint traps and duct hose must be cleaned periodically or more frequently depending upon usage, and in accordance with the manufacturer's specifications. All duct work must be installed according to the driers manufacturer's specifications.

6.2.3 Space Heaters

Space heaters are permitted in university work areas however they must be used in accordance with the directives below.

- Space heaters must have tip over automatic safety cut-offs and wiring that is in good condition.
- All combustible materials must be removed at least three feet from the space heater.
- Never place a space heater directly on top of combustible paper products, wood, or fueled equipment.
- Space heaters must be plugged directly into the wall, without the use of an extension cord or power strip.
- Space heater may never be used in areas where hazardous materials (i.e., flammable materials) are used or stored.
- Space heaters must be turned off when they are left unattended.
- Heaters must have a ceramic element. Coil elements are not permitted.

6.2.4 Personal Electrically Propelled Transportation Devices

Due to documented fire hazards, all personal electrically propelled transportation devices (e.g., hoverboards, hands-free segways, and electrically powered skateboards or scooters) may not be used, stored, or brought into university-owned or leased buildings.

Electrically powered transportation devices found in buildings must be removed immediately by the owner or relinquished to EHS-Fire Safety or Housing and Residence life for storage until they are removed from campus. Students, employees, and visitors, that have a medical condition

that may requires a power-driven mobility device must request that accommodation in accordance with Mason policies and procedures; students contact Disability Services, employees and visitors contact Compliance, Diversity and Ethics. Individuals with an approved accommodation may use such devices inside university-owned, leased, or controlled buildings or structures in accordance with mason safety standards and the manufacturers storage and charging specifications. For more information about the use of power-driven mobility devices please visit <https://www.ada.gov/opdmd.pdf>.

6.3 Electrical

Extension cords should be utilized in a manner that is consistent with the SFPC, NFPA, and OSHA standards. For specific information on the use of extension cords see the *Electrical Safety Guide*. The following are basic guidelines in using extension cords at George Mason University.

- Do not fasten flexible cords with staples or hang in a way that can damage the outer jacket or insulation.
- Flexible power cords may not be routed through walls, windows, ceilings, floors, doorways, or similar openings; attached to building surfaces; or concealed behind building walls, ceilings, or floors, unless temporary (i.e., eight hours or less).
- If temporary wiring is required longer than eight hours, it must be disconnected before leaving the work area at the end of the work day.
- Flexible cords and cables must be protected from accidental damage. Sharp corners and projections must be avoided. Where temporarily passing through doorways or other pinch points, flexible cords and cables must be protected to avoid any possible damage.
- Do not use extension cords on equipment with a 10 ampere rating or greater such as refrigerators, appliances and industrial equipment.

All electrical devices used at George Mason University must be UL or FM tested and approved by a recognized testing laboratory such as Underwriters' Laboratory (UL) or Factory Mutual (FM). The device must bear the appropriate label, sticker or tag supplied by the manufacturer. Trained electricians must address electrical hazards that result from faulty equipment or wiring. Any electrical hazards that are found on campus should be reported to Facilities Management.

- Do not perform housekeeping duties or use electrically conductive cleaning materials near energized parts where there is a possibility of contact, unless adequate safeguards (such as insulating equipment or barriers) are provided.
- Do not enter spaces containing exposed energized parts. Do not reach blindly into areas which may contain energized parts.
- Remove cords from receptacles by pulling on the plug, not the cord.
- Do not plug and unplug extension cords and other portable electric equipment with wet hands.
- Do not modify, cut, splice, or repair flexible power cords, to include the plugs and prongs.
- Do not alter, defeat, or remove plugs or prongs from electrical cords. Electrical devices that have been altered are forbidden to be used at George Mason University.

- Extension cords that are frayed, defective, damaged, or have exposed wires must not be used under any condition and should be replaced.
- Do not attempt to connect, disconnect, or use electrical equipment when the equipment or plug is wet.
- Do not use electrical equipment when electrical equipment or user is located in standing water. .
- Equipment that is used in an environment prone to moisture or potential liquids (i.e., pools, laboratories, outdoors, or dining facilities) electrical outlets must be equipped with ground fault circuit interrupter (GFCI) plugs or circuits.
- Do not plug a power strip, multi-plug, or extension cord into another power strip, multi-plug, or extension cord; this may start a fire. Power strips, multi-plugs, and extension cords must be plugged directly into an outlet.
- Do not place extension cords or cords to power strips and electrical devices where they present a tripping hazard.

6.4 Outdoor Grills

Outdoor grills have the potential to be dangerous if not maintained or used properly. The following guidelines shall be followed for any outdoor grilling that at George Mason University:

- Charcoal is the only fuel source that is approved to be used in outdoor grills; compressed natural gas or propane grills are prohibited, except for commercial purposes as deemed necessary by EHS-Fire Safety.
- Grills must be at least 20 feet from any building, or structure (which includes tents, umbrellas, or amusement devices), and should not be near the air intake vents on a building.
- A minimum of one (1) five pound ABC fire extinguisher must be within 10 feet of each grill. Extinguishers can be loaned from EHS-Fire Safety.
- Grills must never be left unattended when hot.
- Grills must be maintained as per the manufacturer's specifications.
- Ashes must be completely cooled before being disposed.
- Ashes must be disposed of in a metal trash can or container. Ashes may not be placed cool or hot in any plastic container, or trash receptacle, including dumpsters.

6.5 Deep Fryers

Deep fryers (electric or propane fueled) are prohibited from use by students, faculty, and staff. Only contracted or university food/dining service employees are permitted to use deep fryers on campus. The use of all cooking equipment must be in accordance with this *Fire Safety Plan* and the SFPC.

6.6 Hazardous Materials

Hazardous materials should be stored and used in such a way that they do not needlessly create or increase the hazard or potential of a fire. Employees that work with hazardous materials must receive Hazard Communication Training. Information on the fire hazard of a material can be

found on the safety data sheet (SDS). Any time there is a potential for an exposure to hazardous materials, the proper personal protection equipment should be utilized. For more specific information about the use of hazardous materials, see the Hazard Communication Program and the *Flammable and Combustible Liquids Safety Guide* found on the EHS website (ehs.gmu.edu).

6.7 Building Construction and Renovations

Building plans for new and renovated campus construction projects are reviewed by EHS-Fire Safety for compliance with life safety codes and applicable fire safety standards. Buildings should be constructed or renovated to be in compliance with the NFPA, the SFPC, and the Uniform Statewide Building Code (USBC). Whenever possible during a building renovation, fire suppression and detection systems should be updated in accordance with university construction standards, EHS design standards and the SFPC.

Contractors and university personnel should conduct themselves in such a way that mitigates fire hazards on university construction sites. Accepted safety protocol shall be adhered to when performing all hot work, or using an open flame. Installation of electrical equipment, appliances and any other powered equipment shall be done to the manufacturer's specifications. The proper construction permits must be kept on the premise in accordance the relevant SFPC sections.

6.8 Accumulation and Storage of Combustible Materials

Employees and students are required to control the accumulation of flammable or combustible materials so that they do not contribute to fire hazards. Occupants of university buildings should follow storage requirements of the relevant sections of the SFPC.

- The SFPC requires a clearance of 24 inches between the ceiling and any materials in the room to allow proper operation of the fire suppression system.
- All university employees are required to maintain their work spaces in a manner that prevents the unnecessary accumulation of combustible materials in work areas.
- No combustible materials may be stored in egress pathways, stairwells, or corridors.
- Combustible materials must be stored away from ignition and heat sources.
- Items that are combustible that no longer serve a purpose should be discarded instead of stored.

7.0 Building Egress and Access Requirements

Egress requirements for all buildings on campus are clearly specified in Section F- 1005.1 of the SFPC. Upon receiving a building Certificate of Occupancy, the building has been certified that it was constructed in a manner consistent with egress requirements of the USBC and the SFPC. The occupants of the building are responsible for ensuring that egress routes are not blocked or impeded.

7.1 Minimum Egress Requirements

Means of egress refers to a continuous and unobstructed route of travel from any point in a building to an exterior exit. The route of travel consists of three parts; access to an exit, the exit

itself, and the area into which the exit discharges. In order to safely exit a building, these three parts of the route of travel must be kept clear. It is responsibility of every build occupant to ensure that all means of egress be kept clear. In order to maintain egress widths:

- Do not prop open or block fire doors.
- Report damaged doors, walking surfaces, or exterior objects that may obstruct a path of egress to Facilities Management.
- Do not block fire extinguishers, electrical panels, Evacuation Plans, pull stations, or other equipment with furniture or storage.
- Do not store materials in hallways, isle ways, or near exits in a manner that could impede access to an emergency exit or from a building.
- Do not obstruct any doorway (interior or exterior) under any condition unless appropriate signage has been posted and it has been approved by EHS-Fire Safety.

Table 3 provides the maximum occupancy in rooms that have limited exits.

Table 3: Rooms with Limited Means of Egress

Occupancy	Maximum Occupancy Load for One Exit	Maximum Occupancy Load for Two Exits	Maximum Occupancy Load for Three Exits
Group A (Assembly Buildings)	49	500	1,000
Group B (Educational / Business)	49	500	
Group E (Adult / Child Care)	49		
Group R-2 (Residence Halls)	10		

7.2 Occupancy

All spaces that are designated as "A use group" (i.e., having a capacity of 50 persons or more) must have a posted occupancy limit stating the maximum number of persons allowed in the space at one time. Occupancy limits must be posted near each entrance and may not be blocked or removed under any condition. Depending on the configuration of furniture temporary structures, and equipment used in the room, the posted occupancy limit may be reduced. In any case, the posed number shall never be exceeded without the express permission of the SFMO.

7.3 Crowd Manager

For events that are held on campus with 1,000 or more person congregated for the purpose of the event, crowd managers are required. There must be one crowd manager for every 250 people

when a crowd exceeds 1000. Specific responsibilities and duties of Crowd Managers are further defined in the *Crowd Manager Guide* available on the EHS website (ehs.gmu.edu).

7.4 Fire Lanes

Fire Apparatus Access Roads, also known as fire lanes are designated areas on campus that restrict parking and placement of temporary structures. These areas have been deemed by EHS, SFMO, Facilities Management, and the fire department as areas that need to be clear of obstructions to allow fire apparatus access to the buildings. Fire lanes are designated by a yellow painted curb and /or a “Fire Lane” sign. Fire lanes are always designated around fire hydrants to ensure that the fire department has unobstructed access to the hydrant. Fire lanes are enforced by George Mason University, and vehicles that are found parked in them are subject to being towed or ticketed.

8.0 Emergency Access

George Mason University is responsible for providing access to university buildings to first responders during emergencies. The following equipment is maintained by EHS to facilitate access by first responders to buildings and mechanical spaces.

8.1 KNOX-BOX®

Knox boxes are mounted on the exterior of many university buildings that contain the keys or swipe cards for access to that particular building. KNOX-BOX® are tamper proof and secured to a building. Fire departments maintain keys to access KNOX-BOX® in an emergency. EHS is responsible for the installation and management of KNOX-BOX® and their contents. EHS coordinates with the various departments to obtain keys and/or swipe cards as necessary.

8.2 Systems Key Boxes

EHS has mounted and maintains systems key boxes in each building in a secure location. Systems key boxes contain key building systems keys that are required to inspect/test such equipment as elevators, fire alarm systems, and pull stations. EHS-Fire Safety inspects systems key box contents on a routine basis.

9.0 Permits

George Mason University requires employees, students, and anyone else who is on university property to complete and gain approval for any activity that increases the potential of a fire on university property or has the potential to obstruct egress or access to a building by the fire department. This is done through a permit process. Permit applications can be found on EHS’s website under forms. All permits need to be completed and approved by EHS-Fire Safety and/or Facilities Management before any activity commences. Permits are required for the following activities and structures:

- Hot work (welding, cutting, or brazing)
- Temporary structures
 - Tents

- Amusement devices
- Stages
- The erection of temporary structures designed to support or shelter people
- Pyrotechnics

9.1 Hot Work

Hot Work Permits are required for operations involving open flames or producing heat and/ or sparks. This includes, but is not limited to: brazing, cutting, grinding, soldering, and thawing pipe, torch-applied roofing, and cad welding. All George Mason University personnel and contractors who perform hot work are required to get prior approval. Further information on the requirements for hot work can be found in the *Hot Work Safety Guide*.

9.2 Temporary Structures

All temporary structures, including tents, stages, inflatable devices, and any other amusement devices that are erected on campus must be approved by EHS-Fire Safety. A *Temporary Structure Permit* must be completed for each device that is being utilized. The specific requirements and restrictions of temporary structures can be found in the *Temporary Structure Guide* found on EHS website.

All temporary structures shall be positioned in such a way as to not block egress routes from any building, fire lanes, or any equipment that aids in the suppression of a fire (e.g., fire hydrants, fire department connections, or post indicator valves). No open flames or non-electrical cooking appliances allowed under tents. EHS-Fire Inspectors reserve the right to revoke any permit at any time due to unsafe conditions or if any regulations are found to be violated.

9.3 Pyrotechnics

Any pyrotechnic display on campus must be approved by the SFMO and EHS-Fire Safety. All pyrotechnic displays must follow the regulations that are specified in the *Pyrotechnic Display Guide*.

10.0 Training

Education and training is an important tool in fire safety. EHS provides training to employees and students upon request in fire suppression and fire safety techniques. EHS provides *Fire Extinguisher Training* to all staff. Classes are held monthly, the schedule and registration portal for the class can be found on EHS's website (ehs.gmu.edu). EHS-Fire Safety personnel also use building inspections as an opportunity to teach building occupants fire safety techniques. During the inspections, building occupants are made aware of any hazards that need to be corrected in order to mitigate the occurrence of a fire.

10.1 Fire Extinguisher Training

Fire Extinguisher Training is offered by EHS to all employees. The intent of the training is to educate university personnel on basic fire safety techniques, and the proper procedure for using a

portable fire extinguisher. The class does not encourage the use of a Fire Extinguisher for a fire on campus. The course concludes with a half hour hands on practice with the equipment.

11.0 Fire and Fire Alarm Response Procedures

The following procedures should be followed when a building must be evacuated:

1. If you become aware of a dangerous situation that warrants an evacuation, activate the fire alarm by using a manual pull station. If you are unable to activate the fire alarm, notify the building occupants of the dangerous situation and contact the university police immediately.
 - If you are unaware of a dangerous situation but hear a fire alarm, you must evacuate the building as quickly as possible.
2. Notify University Police by dialing 911 from a university phone or (703) 993-2810 from a cell phone and report the situation and associated details if known.
3. Do not use elevators during a fire or evacuation.
4. Assist individuals with special needs and those unfamiliar with evacuation procedures.
5. Exit the building by way of the nearest exist.
6. Assemble at the designated assembly area and await further instruction from emergency response personnel.
7. Report missing persons to emergency response personnel.
8. Do not re-enter the building until authorized to do so by University Police or emergency response personnel.

Information identifying the location of designated assembly areas for each building is provided on fire evacuation signage posted throughout university buildings or available upon request from EHS.

11.1 Designated Assembly Areas

Designated assembly areas have been identified for all university buildings. Designated assembly areas are to be utilized when a building has been evacuated. These designated areas are a safe distance from the building, and keep building occupants safe while allow emergency response personnel to access the building. In the event that a designated assembly area is inaccessible or inappropriate for the current situation, the following guide lines should be taken into consideration when choosing a more appropriate place:

- At least 50 feet away from the building.
- Upwind from the building to avoid any possible smoke/fume inhalation.
- Sheltered, if possible, to protect against the elements.
- Away from fire lanes or other areas that must remain unobstructed to allow emergency response personnel and vehicles access to the building.

11.2 Individuals with a Disability

Persons with a disability may have difficulty evacuating a building without assistance. Individuals who have a mobility challenge and are unable to exit the building should proceed to an Area of Assistance to await aid from emergency response personnel. Persons with a disability should attempt to coordinate with an evacuation assistant receive the proper assistance necessary to remain safe. If they don't have an evacuation assistant with them, they should attempt to make

contact with emergency response personnel and relay to them what their location is any other pertinent information.

11.2.1 Areas of Assistance

An Area of Assistance is a location in a building that, due to its construction, offers protection from fire or damage and can provide temporary shelter for individuals unable to exit a building until emergency response personnel arrive. Accepted areas of assistance include enclosed stairwell landings, exterior rooms with windows and fire-rated doors, elevator lobbies, and “fire rated” corridors. All areas of assistance should be approved by EHS.

11.2.2 Evacuation Assistant

An Evacuation Assistant is a volunteer, co-worker, classmate, suite mate, or friend who can lend assistance to persons with a disability during an emergency. Evacuation Assistants provide instruction during an evacuation, help individuals with special needs relocate to Areas of Assistance, notify first responders or emergency personnel of persons with special needs that are unable to evacuate a building, and provide support as necessary to ensure a safe evacuation. Evacuation Assistants are not responsible for physically evacuating an individual from a building. Except in a life threatening situations, trained emergency response personnel should only do carrying a person down a set of stairs or out of a building.

11.2.3 Individuals with a Mobility Challenge

Individuals who have a mobility challenge should relocate to an Area of Assistance if they are unable to evacuate the building. Mobility challenged individuals and their Evacuation Assistants, if identified, are encouraged to know the Areas of Assistance for their work area and go to these locations during an evacuation when possible. The Evacuation Assistant should then self-evacuate and immediately relay the location of the mobility challenged person(s) to emergency response personnel. Persons occupying an Area of Assistance should dial 911 and provide their exact location to the dispatcher.

11.2.4 Individuals with a Hearing Impairment

An Evacuation Assistant(s) should be designated or selected to immediately alert a person with a hearing impairment of any alarm or order to evacuate. Evacuation Assistants should coordinate with the person who has the hearing impairment prior to the alarm to establish the best way to alert them to an alarm, or danger.

11.2.5 Visually Impaired

Individuals with visual impairment should be familiar with their immediate surroundings, frequently traveled routes, and emergency evacuation routes. However, since an evacuation route may be different from a commonly traveled route, a visually impaired person may need assistance. Evacuation Assistant(s) should be identified and provide assistance as necessary during an evacuation.

11.3 Residential Students

When the fire alarm sounds, residents must immediately evacuate the building, report to the designated assembly area, attempt to report to their Resident Advisor (RA), and follow the instructions of emergency response personnel and/or OHRL staff. Residents who do not evacuate in a timely manner, or fail to adhere to instructions given by emergency personnel and/or OHRL staff, may be subject to disciplinary action. Residents are responsible for their guests while in the residence halls and should familiarize guests with fire alarm and evacuation procedures.

To aid in the safety of residents with mobility challenges, either permanent or temporary, student residents should report special needs or conditions to their RA. A list of residents with disabilities and/or mobility challenges is provided to University Police and City of Fairfax Fire & Rescue to adequately prepare for special rescue, if necessary.

12.0 Record Keeping

George Mason University Policy Number 1102 requires that all records be maintained in accordance with the Library of Virginia, Records Retention and Disposition Schedule. Records that pertain to fire protection equipment testing, inspection, maintenance, fire drills, and corrective actions produced by EHS are to be maintained according to the Library of Virginia General Schedule 108 and 111. Further the SFPC Section F-901.6.2 stipulates that all records pertaining to equipment testing, inspection and maintenance be kept for a minimum of three years. EHS-Fire Safety program maintains all documents in accordance with the above codes.

Table 4: Records Retention and Disposition Schedule

Records Series and Description	Series Number	Scheduled Retention	Example File Types
Evacuation Plan	GS108-102275	Retain until superseded, obsolete or rescinded	Building Evacuation maps
Fire Extinguisher Inspection Records	GS108-012276	Retain until new tag is created or life of extinguisher	Fire Extinguisher tags Fire Extinguisher inventory
EHS-Fire Safety Inspections	GS108-012277	Retain 5 years	Building inspections Equipment inspections/tests

13.0 Reporting

The George Mason University *Annual Security and Fire Safety Report* is required by the *Jeanne Clery Disclosure of Campus Security Policy and Crime Statistics Act* and the *Higher Education Opportunity Act* (HEOA). It is prepared in cooperation with local law enforcement, local fire services, EHS, and University Police.

13.1 Higher Education Opportunity Act

The HEOA is specific on the reporting requirements in regards to fires and fire safety in on-campus student housing facilities. On-campus student housing is defined by HEOA as “any student housing facility that is owned or controlled by the institution, or is located on property that is owned or controlled by the institution, and is within the reasonably contiguous geographic

area that makes up the campus.” The following is the reporting section found in the HEOA § 488(g). Subsection (i) of section 485 of the Higher Education Opportunity Act that requires all Title IV institutions that maintain on-campus student housing facilities to publish an annual fire safety report that contains information about campus fire safety practices and standards of the institution to include:

- Statistics for each on-campus student housing facility during the most recent calendar years for which data are available concerning each of the following categories:
 - The number of fires and the cause of each fire;
 - The number of injuries related to a fire that result in treatment at a medical facility;
 - The number of deaths related to a fire; and
 - The value of property damage caused by a fire;
- A description of each on-campus student housing facility fire safety and sprinkler system;
- The number of regular mandatory supervised fire drills;
- Policies or rules on portable electrical appliances, smoking and open flames (such as candles);
- Procedures for evacuation from student housing in case of a fire
- Policies regarding fire safety education and training programs provided to students, employees; and
- Plans for future improvements in fire safety if determined necessary by the institution.
- A list of titles of each person or organization to which students and employees should report that a fire occurred.

Appendix A: OSHA Emergency Action Plan and Fire Prevention Plan Compliance

29 CFR 1910 requires an Emergency Action Plan (1910.38) and a Fire Prevention Plan (1910.39) for employers who meet specific requirements as required by individual sections of 29 CFR 1910. The following table illustrates the university's conformance with 29 CFR 1910.38 and 1910.39.

Table A1: 29 CFR 1910 Compliance

Requires Emergency Action or Fire Prevent Plan	Description	Requires Emergency Action Plan 1910.38	Requires Fire Prevention Plan 1910.39	Does this section apply?
1910.119	Process Safety for High Hazard Chemicals	X		No – The quantity of materials on university property is below the threshold quantify.
1910.157	Portable Fire Extinguisher	X		No – employees are not expected to use fire extinguishers and an educational program is provided. The university complies with all sections of 1910.157
1910.160	Fixed Extinguishing Systems	X		No – The university does not have a total flood fire suppression system on university property
1910.164	Fire Detection Systems	X		No – The university does not have any delayed fire alarm signals in university buildings
1910.272	Grain Handling	X		No – The university does not engage in this activity
1910.1047	Ethylene Oxide	X	X	No – Concentrations of this chemical do not exceed the threshold PEL or STEL
1910.1050	Methylenedianaline	X	X	No – This material is not present on university property
1910.1051	1,3-Butadiene	X	X	No – This material is not present on university property

George Mason University does not meet any 29 CFR 1910 requirements to maintain an Emergency Action Plan or a Fire Prevention Plan. George Mason University will continue to monitor the activities of the University and reevaluate compliance with applicable sections of 29 CFR 1910 as necessary. Conformity with each of the regulations listed above is discussed in detail below. The quantities of hazardous materials that require an Emergency Action Plan and Fire Prevention Plan are reevaluated by EHS-Laboratory Safety when this plan is reviewed or more frequently if necessary.

Process Safety Management of Highly Hazardous Chemicals (29 CFR 1910.119)

29 CFR 1910.119 applies hazardous chemicals in quantities documented in Appendix A of 29 CFR 1910.119. George Mason University does not maintain or use chemicals in excess applicable quantity set in 29 CFR 1910.119.

Portable Fire Extinguishers (29 CFR 1910.157)

Mason is in compliance with 29 CFR 1910.157. Portable fire extinguishers are installed, inspected, maintained and tested per paragraph (c), (d), (e), and (f) of 29 CFR 1910.157 and NFPA 10. Portable fire extinguishers are provided on university property in accordance with the Virginia Statewide Fire Prevention Code; however, university employees are not required to use fire extinguishers in the workplace. Instead, employees are directed to exit buildings immediately when they discover a fire and alert other occupants by activating the building fire alarm system. Fire extinguisher training is available to all employees; however, training is intended as an outreach program not as a condition of employment or designation of firefighting responsibilities. Training requirements outlined in 29 CFR 1910.157 (g) are only required when the employee is provided fire extinguishers to be used in the workplace. None of the exceptions granted in 29 CFR 1910.157 are observed by the university, therefore an Emergency Action Plan is not required by 29 CFR 1910.157. The university's position is further explained by section VII (c)(3) of the OSHA CPL Directive 2-1.037:

The employer keeps portable fire extinguishers in the workplace but does not want employees fighting fires and therefore evacuates the employees to safety [1910.157(a)]: OSHA recognizes that portable fire extinguishers may be required in the workplace by other organizations (e.g., insurance companies, local fire departments, etc.). Portable fire extinguishers that are not intended for employee use may still pose a hazard if they are not properly maintained. Employers who select this option must comply only with the maintenance, inspection, and testing requirements in paragraphs (e) and (f) of 1910.157.

Employers who do not select any of these options but instead provide portable fire extinguishers for use by any employee to use in fighting incipient stage fires must comply with 1910.157 in its entirety. Employees who provide portable fire extinguishers for employee use must provide an educational program to familiarize all employees with the general principles of fire extinguisher use [1910.157(g)(1) and (g)(2)]. Employees who are expected to use portable fire extinguishers must be provided with "hands on" training in the use of the fire extinguishing equipment [1910.157(g)(3)]. If the employer chooses to comply with all of 1910.157, there is no requirement to comply with 1910.38.

Fixed Extinguishing Systems, General (29 CFR 1910.160)

29 CFR 1910.160 requires an Emergency Action Plan be provided when there is an area of the workplace that is covered by a total flood fire suppression system. George Mason University does not maintain a total flood fire suppression systems in university owned or operated buildings. Therefore, an Emergency Action Plan is not required.

Fire Detection Systems (29 CFR 1910.164)

29 CFR 1910.164 requires an Emergency Action Plan be provided when a fire alarm signal is delayed by more than 30 seconds. George Mason University does not have any fire alarm systems that delay alarms by more than 30 seconds. Therefore, this section does not apply.

Grain Handling (29 CFR 1910.272)

29 CFR 1910.272 requires an Emergency Action Plan when the following equipment is used or the following processes are taking place: grain elevators, feed mills, flour mills, rice mills, dust pelletizing plants, dry corn mills, soybean flaking operations, and the dry grinding operations of soycake. George Mason University does not own or operate any equipment associated with grain handling operations.

Ethylene Oxide (29 CFR 1910.1047)

29 CFR 1910.1047 requires an Emergency Action Plan and a Fire Prevention Plan if there are airborne concentrations of ethylene oxide greater than 1 ppm over an 8-hour time weighted average or a 5 ppm over a 15-minute time weighted average in the workplace. Although the university does possess and use ethylene oxide on campus, concentrations do not exceed the threshold limits that require an Emergency Action Plan or Fire Prevention Plan is required.

Methylenedianiline (29 CFR 1910.1050)

29 CFR 1910.1050 requires an Emergency Action Plan and Fire Prevention Plan if airborne concentrations of methylenedianiline exceed 10 ppb over an 8-hour time weighted average or a short term exposure limit of 100 ppb. The university does not currently have methylenedianiline in any quantity in university owned or operated buildings.

1,3 Butadiene (29 CFR 1910.1051)

29 CFR 1910.1051 requires an Emergency Action Plan and a Fire Prevention Plan if there are airborne concentrations of 1,3-butadiene greater than 1 ppm over an 8-hour time weighted average or a 5 ppm over a 15-minute time weighted average in the workplace. The university does not currently have 1,3-butadiene in any quantity in university owned or operated buildings.