

Texas A&M University Fire and Life Safety Manual



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Acronyms

AHJ – Authority Having Jurisdiction
BEAP – Building Emergency Action Plan
CPDC – Campus Planning, Design, and Construction
EDCS – SSC Engineering and Design Services
EHS – Texas A&M University Environmental Health & Safety
ETL – Intertek Laboratories
FACU – Fire Alarm Control Unit
FAS – Fire Alarm System
FLS – Fire and Life Safety
FM – Factory Mutual
FP&C – Texas A&M University System Office of Planning and Construction
ICC – International Code Council
IBC – International Building Code
IFC – International Fire Code
LSC – National Fire Protection Association 101, *Life Safety Code*®
RELLIS – Texas A&M University System Campus (Formally Riverside Campus)
SSC – SSC Service Solutions
NFPA – National Fire Protection Association
O&M – Operations and Maintenance
P³ – Public Private Partnership
SFM – State Fire Marshal, specifically the Texas State Fire Marshal
TAMU – Texas A&M University
TAMUS – Texas A&M University System
TDI – Texas Department of Insurance
TDLR – Texas Department of Licensing and Regulation
UL – Underwriters Laboratories
UPD – Texas A&M University Police Department

Fire and Life Safety Program Summary Table*

Program Area	Written Program	Code, Standard, or Guidance References	Permit Required	Rules or SAP	Comments
Amusement Rides	Yes	Texas Department of Insurance	Yes		State Inspection and Registration Required
Appliances				Residence Life Policy	
Arson					
Building Emergency Action Plans (BEAP) and Drills	Yes	BEAP Template Small Building Template		Emergency Operations Plan – Annex E	
Candles and Incense				SAP 24.01.01.M7.02 Residence Life Policy	
Combustible Storage		EHS Laboratory Safety			
Compressed Gas Cylinders					
Construction and Renovation	Yes			SAP 41.01.01.M0.01	
Decorations					
Crowd Manager Program		Crowd Manager FAQ's TalentLMS Website		SAP 24.01.01.M7.04	
Electrical Safety		NFPA 70			
Emergency Access and Egress					
Flammable and Combustible Liquids		NFPA 30			
Fire Detection and Notification Systems		NFPA 1 NFPA 101 NFPA 72			
Fire Doors		NFPA 1 NFPA 80 NFPA 101			
Fire Extinguishers	Internal EHS Program	NFPA 1 NFPA 10 NFPA 101			

Program Area	Written Program	Code, Standard, or Guidance References	Permit Required	Rules or SAP	Comments
Fire Hydrants	Internal EHS Program	NFPA 1 NFPA 291			
Fire Lanes	Internal EHS Program	International Fire Code			
Fire and Life Safety Inspections	Internal EHS Program				
Fire Investigation	Internal EHS Program				
Fire Prevention	Internal EHS Program				
Fire Reporting	Internal EHS Program				
Fire Suppression Systems	Internal EHS Program				
Fire Watch Program	Yes	Fire Watch Program			
Food Trucks	Future		Yes	SAP 24.01.01.M7.05 (Future)	
Fuel Gas		NFPA 54 NFPA 58 International Fuel Gas Code Texas A&M University Fuel Gas Management Plan Public Private Partnerships Fuel Gas Delivery Systems Management Plan			

Program Area	Written Program	Code, Standard, or Guidance References	Permit Required	Rules or SAP	Comments
Hot Work	Yes	Hot Work Program			
Liquified Petroleum Gas/ Liquified Natural Gas	Internal University Program	NFPA 58 Texas A&M University Fuel Gas Management Plan Public Private Partnerships Fuel Gas Delivery Systems Management Plan			
Open/Outdoor Burn	Yes	Outdoor Burn Program TCEQ Outdoor Burning in Texas	Yes	SAP 24.01.01.M7.03	
Pyrotechnics and Flame Effects	Yes	NFPA 1 NFPA 101 NFPA 160 NFPA 1126 Pyrotechnics and Flame Effects	Yes	SAP 24.01.01.M7.01	
Smoking				Rule 34.05.99.M1	
Space Heaters					
Tailgating				Athletic Tailgating Website SAP 21.99.09.M0.01	
Tents	Yes	NFPA 1 NFPA 101 NFPA 102	Yes	SAP 21.99.09.M0.01	
Two-Way Communication Systems		NFPA 1 NFPA 72 NFPA 101			

* This table is designed to provide a general list of program areas, codes, standards, forms, and documentation required for each program. It is not an all-inclusive list.

Purpose Statement

The Texas A&M University Fire and Life Safety Manual provides a general summary of various fire and life safety programs, required permits, guidelines, etc. If items are not addressed here please contact [Environmental Health and Safety](#) for further information or guidance.

Fire and Life Safety Commitment Statement

Texas A&M University is committed to providing a safe environment for all faculty, staff, students, visitors and emergency response personnel. Fire and life safety at Texas A&M University is governed by state and local standards including System Regulations, University Rules, and University Standard Administrative Procedures. Ultimate jurisdiction for fire safety lies with the Texas State Fire Marshal and with the local Authority Having Jurisdiction (AHJ) as designated by the President of Texas A&M University. By presidential designation, the Assistant Director for the Fire and Life Safety Program in Environmental Health and Safety is designated to be the local AHJ and to be responsible for the day to day fire prevention, inspections, and program oversight. However, each and every individual, whether faculty, staff, student, or visitor on our campus shares a role in fire safety.

Program Basis

The foundation for the fire and life safety program at Texas A&M University is provided by the following documents:

- [Texas A&M University System Policy 24.01 – Risk Management](#)
- [Texas A&M University System Regulation 24.01.01 – Health and Safety](#)
- [Texas A&M University System Regulation 24.01.04 – Fire and Life Safety](#)
- [Texas A&M University Rule 24.01.01.M4 – Environmental Health and Safety Program](#)
- [Texas A&M University Rule 24.01.01.M7 – Fire and Life Safety Compliance](#)

Applicable Codes & Standards

The Texas State Fire Marshal's Office has adopted the National Fire Protection Association (NFPA) 1 – *Fire Code* and NFPA 101 - *Life Safety Code*® and all referenced codes and standards as the primary guide for fire and life safety. It is important to note that these codes are not all inclusive, are not building codes, and that other codes and standards may also apply. This list of additional codes and standards include, but are not limited to:

- International Building Code
- International Fire Code
- International Mechanical Code
- Americans with Disabilities Act
- Texas Accessibility Standards Act

Texas A&M University adopts the most recent edition of all codes and standards.

Fire and Life Safety Program Overview

The fire and life safety program at Texas A&M University involves numerous activities, programs, and procedures to help ensure that our campus is a safe place to work, live, and play. These program areas include fire prevention, fire suppression, emergency preparedness, preplanning, education, and response. The following information is provided as a general guideline for activities associated with fire and life safety. Additional information may be obtained by contacting Environmental Health and Safety or by going to our [website](#) for the latest information. Links are provided throughout this document.

Program Areas

Amusement Rides

Amusement rides may present a significant fire and life safety hazard if not inspected, installed, and operated in accordance with the manufactures instructions, industry standards, and other mandatory regulations. To ensure the safety of these rides for all faculty, staff, students, and visitors this program has been implemented for the use of any amusement ride on Texas A&M University Campuses.

As defined by the [Texas Department of Insurance](#), an amusement ride is any mechanical, gravity, or water device or devices that carry or convey passengers along, around, or over a fixed or restricted route or course or within a defined area for the purpose of giving its passengers amusement, pleasure, or excitement. Examples of amusement rides include:

- Most mobile carnival rides
- Most theme park rides
- Most water park rides and devices
- Amusement rides also include, but are not limited to, the following:
 - o Go-karts
 - o Rock climbing walls
 - o Bungee jumps
 - o Zip lines
 - o Mechanical bulls
 - o Trackless trains
 - o Continuous air-flow inflatable rides/devices (bounce houses, inflatable slides), and various simulators

A university issued [permit](#) is required for the use of any amusement ride to be displayed or operated on Texas A&M University campuses.

Appliances

An appliance can be defined as any instrument or piece of equipment or device designed for a particular use and powered by electricity. (i.e. computers, copy machines, refrigerators, freezers, space heaters, etc.) Use the following guidelines when using appliances on campus.

Always use appliances that are listed by a national listing and testing agency such as Underwriters Laboratories (UL), Factory Mutual (FM), or Intertek Laboratories (ETL).

General Requirements:

- Adequate space should be given around appliances to allow for air circulation
- Clothes dryers should have the lint removed after each load and excess buildup of lint around the dryer should be cleaned regularly
- Large appliances such as refrigerators and freezers shall be plugged directly into wall outlets
- Frequently inspect the electrical connection of appliances to ensure a good connection with the receptacle
- Frequently inspect the condition of appliances
- If appliances begin to spark or produce an electrical burning smell, turn power off immediately and discontinue using the appliance

Students living in residence halls and University-owned apartments are governed by similar but separate rules as set forth by the [Department of Residence Life](#).

Arson

If arson is suspected, no matter how small the incident, contact the University Police Department and Environmental Health & Safety. Do not alter the fire scene in any way, unless you are trying to extinguish a live fire. The University Police Department will investigate any possible arson. Active fire situations and emergencies shall be reported by calling 911.

Building Emergency Action Plans/Drills

Each facility at Texas A&M University is required to have a written building emergency action plan (BEAP) as specified in the [Texas A&M University Emergency Operations Plan](#). Templates are available in MS Word format for the development of a standard [BEAP](#) as well as one for [small unoccupied facilities](#). Each department, facility manager, or building contact is responsible for developing and maintaining a comprehensive building emergency action plan and assisting with the coordination of emergency evacuations drills. For larger facilities or facilities with multiple departments, it is recommended that a small committee with representatives from each floor and/or department be assembled to develop the plan and distribute to building occupants.

To ensure that building occupants are prepared for an emergency evacuation, drills must be conducted on a regular basis. Evacuation may be used to vacate a building for several reasons such as fires, gas leaks, chemical spills, bomb threats or other similar emergencies and emphasis should be placed on orderly evacuation rather than on speed and should:

- Involve all occupants
 - o Everyone should leave the building when the fire alarm sounds
 - o A person may be exempt from an evacuation drill if it will cause undue hardship (e.g., interrupt an experiment or procedure that cannot be halted); however, exemptions are strongly discouraged
- Occupants should close (not lock) doors as they leave the work area, provided this does not violate security procedures. Items that require security may be placed in a locking file cabinet or desk drawer on the way out
- Floor proctors should check all rooms and close doors on their way out
- All building occupants should gather in the preplanned meeting place
- Floor proctors should take a "head count" to determine if all occupants have left the building
- Upon completion of the drill, an evaluation of the drill shall be conducted and filed with EHS to identify any areas for improvement and to document the drill

Candles & Incense

The use of candles, incense burners, oil lamps and other items are governed by university [SAP 24.01.01.M7.02 – Restriction on Candles](#).

General guidelines include:

- Candles, incense burners, oil lamps or other personal items that have open flames or that smolder, are prohibited in work areas (individual or group), conference rooms, restrooms, etc. in all campus buildings, regardless of whether the item has been lit.
- Candles, flame effects, or pyrotechnics used for banquets, ceremonies, science demonstrations, theatrical productions, indoor fireworks or other entertainment are addressed in a separate [SAP 24.01.01.M7.01 – Use of Pyrotechnics, Flame Effects, or Laser Light Shows](#)
- This use of candles does not apply to such devices used in the course and scope of University or Agency sponsored research or activities necessary to conduct business operations. If the burning of a candle(s) is permitted under the above-mentioned exemption, the candle must be in a glass or similar container and kept away from combustible materials.

Students living in residence halls and University-owned apartments are governed by similar but separate rules administered by the [Department of Residence Life](#).

In lieu of candles, listed (UL, FM, ETL) air fresheners and wax or potpourri warmers may be used.

Combustible Storage

One of the most common violations of general fire safety practices is that of improper or excessive storage of combustible material. By storing excess combustible materials improperly, employees not only increase the potential for having a fire but increase the potential severity of a fire. To reduce the hazards associated with combustible storage, follow these guidelines:

- Eliminate excess combustible materials such as paper and cardboard
- Never store combustible materials in hallways, stairwells, or mechanical/electrical rooms
- When stacking combustible materials, leave at least 24” from the top of the storage to the ceiling

Compressed Gas Cylinders

Compressed gas cylinders, in service or in storage, shall be adequately secured (chained) to prevent falling or being knocked over. Ropes, cords, rubber bungees and other combustible material are not approved for this purpose. Compressed gas cylinders shall have their caps in place except when they are in use or are being serviced or filled.

Construction and Renovation

EHS serves as the local Authority Having Jurisdiction (AHJ) for all Texas A&M University owned property and any buildings or structures on that property, including any public private partnership (P-3) entities. All proposed construction, structural changes, or changes in use, any change effecting egress from a building or space, or any modification or work involving life safety systems or equipment on the Texas A&M University campuses, regardless of facility ownership, must be reviewed and approved by EHS as well as the appropriate construction design, management, or review team in order to address fire and life safety issues in accordance with [SAP 24.01.01.M7 – Fire and Life Safety Compliance](#).

Information regarding the construction process at Texas A&M University may be found on the [Campus Planning, Design, and Construction](#) website.

Crowd Manager Program

To conform with the requirements of NFPA 1 – *Fire Code* and NFPA 101 – *Life Safety Code*®, EHS has developed a crowd manager program as well as trainings that shall be completed by any faculty, staff, student, or third-party vendor and their staff who may serve in the capacity of a crowd manager or crowd manager supervisor at Texas A&M University. This training would include, but not be limited to, the following levels:

- Crowd Manager – General Training
- Crowd Manager – Supervisor Training
- Crowd Manager – Venue Specific Training(s)

Decorations

When decorating your area, there are several things that you must be aware of:

- Never hang anything from fire sprinkler piping or heads
- Never obstruct fire alarm devices
- Any combustible decorations such as curtains or drapes must be of a fire-resistant material
- Never obstruct an exit or the visibility thereof
- Never staple or tack light strings
- Decorations should not be placed in exit corridors or stairways

Holiday Decorations

Holiday decorations are often fire hazards if not utilized properly. Follow these guidelines to improve fire safety during the holidays:

- Artificial fire-resistant Christmas trees, no live cut trees, are allowed in university buildings
- Holiday decorations may not block emergency egress (e.g., stairways, corridors, near doors, etc.)
- Only use decorations that are fire retardant
- Practice good housekeeping by minimizing paper and other combustible decorations
- Avoid using extension cords
 - o If extension cords must be used, a heavy gauge cord should be used
 - o Cords must be in plain view and may not pose a tripping hazard or subject the cord to damage
- Use listed electrical decorations (those bearing a UL, FM, ETL, or similar listing)
- Do not light candles or use other decorations with open flames
- Disconnect any lighting or decorations when the space is unoccupied

Electrical Safety

Extension Cord and Power-Strip Use

The use of extension cords or power strips/surge protectors may be necessary to reach a work area or to provide additional outlets. It is important not to overload outlets, to protect cords, and follow the manufacturer's recommendation.

- Extension cords are for temporary use (defined as an 8-hour work day or less) - Install permanent code compliant wiring/outlets for long term use
- Unplug and properly store cords when not in use
- Extension cords or power strips must be plugged directly into a wall receptacle – no daisy chaining is permitted
- Extension cords should only be used for portable equipment
- Extension cords and power strips should be examined regularly for damage and removed from service if damage is found
- Extension cords and power strips shall be listed per one of the listing and testing agencies (UL, FM, ETL, etc.)
- Extension cords shall not be run above ceiling or under carpet or other similar materials

Electrical Panel Access

A working space of not less than 30” wide (or width of equipment), 36” deep and 78” high shall be provided in front of electrical service equipment. No storage shall be permitted within this designated work space and electrical panels should be closed and locked to prevent injury.

Emergency Access and Egress

Emergency access and egress are critical during an emergency situation such as a fire. During a fire, timing and quick response are essential to save lives and property. Effective emergency access ensures that fire trucks can reach a building in time to extinguish the fire. Unobstructed emergency egress ensures that building occupants can exit a building to safety.

Emergency access helps ensure that facilities and equipment remain available and unobstructed at all times to ensure effective fire detection, evacuation, suppression, and response. Emergency egress is defined as a continuous and unobstructed way to travel from any point in a public building to a public way. A means of egress may include horizontal and vertical travel routes, including intervening rooms, doors, hallways, corridors, passageways, balconies, ramps, stairs, enclosures, lobbies, courts, and yards.

Corridors, Stairways, and Exits

Corridors, stairways, and other similar components provide a pathway that allows direct access to the outside of a building and/or allows access to a building entrance and subsequent pathways to the outside of a building (i.e., an exit corridor is the quickest, easiest, and most direct pathway for leaving a building). Because exit corridors or passageways are the primary means of egress during an emergency, employees must follow the safety guidelines outlined in this section.

Follow these guidelines to promote safe evacuation in corridors, stairways, and exits:

- Keep all means of egress clean, clutter-free, and unobstructed
- Do not place hazardous materials or equipment in areas that are used for evacuation
- Do not use corridors or stairways for storage or office/laboratory operations
- Do not place locks, chains, or other devices that can defeat or obstruct an exit
- Corridors may not be used as an extension of the office or laboratory

Flammable and Combustible Liquids

Definitions:

- Combustible Liquid** – Any liquid that is classified as a Class II or Class III liquid (NFPA 30, 3.3.34.1, 2021 edition)
- Flammable Liquid** – An ignitable liquid that is classified as a Class I liquid (NFPA 30, 3.3.34.2, 2021 edition)
- Flash Point** – The minimum temperature at which sufficient vapor is given off to form an ignitable mixture with the air, near the surface of the liquid or within the vessel uses, as determined by the appropriate test procedure and apparatus (NFPA 30, 3.3.21, 2021 edition)

Flammable Liquids are further classified as Class I, Class IA, IB and IC liquids. Combustible liquids are further classified as Class II, Class III, Class IIIA and Class IIIB liquids. You can identify if you are working with flammable or combustible materials by referencing the flash point on the product label or SDS sheet.

When working with these materials, precautions should be taken to prevent the ignition of flammable vapors by sources such as the following: open flames, hot surfaces, radiant heat, smoking, cutting and welding, sparks, static electricity.

Make sure you are in a well ventilated and/or exhausted area to allow dangerous vapors to dissipate or escape the area. Only acceptable containers that meet the requirements set forth in NFPA 30 - Flammable and Combustible Liquids Code should be used with flammable and combustible liquids. The allowable size of these containers is dependent upon the class of liquid and the container type and is specified in NFPA 30. Flammable and combustible liquids should be stored inside a flammable liquid storage cabinet. Further information regarding flammable and combustible liquids in laboratories and similar spaces may be found in the [EHS Laboratory Safety webpage](#).

Fire Detection and Notification Systems

Most occupied buildings on the Texas A&M University campus have automatic fire detection/notification systems installed in them. These systems are monitored at the Texas A&M University Communications Center and the University Police Department. These systems utilize several different types of detection devices including heat and smoke detectors, relays from automatic suppression/extinguishing systems, and manual pull stations to activate the notification portion of the system.

Detection and Initiation Devices

- Heat or thermal detectors
 - Heat detectors respond to the convected heat in hot smoke and fire gases (i.e., heat).
 - Heat detectors are normally located in laboratories, mechanical rooms, storage areas, break rooms, and areas that could produce high levels of dust, steam, or other airborne particles.
- Smoke Detectors
 - Smoke detectors respond to the solid and liquid aerosols produced by a fire (i.e., smoke).
 - Since smoke detectors cannot distinguish between smoke particles and other particles such as steam, building occupants must be aware of detector locations and be considerate when working around them.
 - Smoke detectors are normally found in exit corridors, office areas, assembly areas, and sleeping areas.
- Manual Pull Stations
 - Manual pull stations, when activated, will initiate the buildings fire alarm notification system
 - Pull stations are generally located in exit paths near stairways, building exits, or midways of long corridors
 - Occupants should be familiar with the location of these devices should one need to initiate a building evacuation
- Beam Detectors
 - Certain facilities with large open spaces may utilize an automatic beam detector to detect smoke in the general area
- Automatic Relays
 - Other fire suppression systems such as automatic sprinkler systems, fixed chemical or gas suppression systems, kitchen hood systems, etc. are connected to the building fire detection and notification systems and will initiate building notification upon their activation

Notification Devices

- The building notification system may consist of horns, bells, speakers, strobes, or a combination of these devices. It is important to maintain a clear line of sight to any of these devices to ensure they can be seen and/or heard.

Fire Doors

Fire doors serve as a barrier to limit the spread of fire and restrict the movement of smoke. Unless these doors are held open and released by the building fire alarm system, fire doors should remain closed at all times.

Fire doors are normally located in stairwells, corridors, and other areas required by fire, building, or life safety codes. The door, frame, locking mechanism, and closure are rated between 20 minutes and three hours. A fire door rating indicates how long the door assembly can withstand heat and a water hose stream. All fire doors will have a label affixed to the door indicating the manufacturer, rating, serial number of the door and other information. It is important to not remove, paint, or in any way damage or destroy the label.

For your safety and to maintain the integrity of fire doors there are several important items to remember:

- Know which doors are fire doors and keep them closed to protect building occupants and exit paths from fire and smoke
- Never block a fire door with a non-approved closure device such as a door stop, blocks of wood, or potted plant
- For fire doors with approved closure devices, make sure that nothing around the door can impede the closure
- Never alter a fire door or assembly in any way - simple alterations such as changing a lock or installing a window can lessen or completely void the fire rating of the door
- Doors to offices, laboratories, and classrooms help act as smoke barriers regardless of their fire rating - keep these doors closed whenever the room is unoccupied
- A closed door is the best way to protect your path to safety from the spread of smoke and fire

Fire Extinguishers

Fire Extinguishers, when used properly, play a vital role in containing and/or extinguishing small fires. Portable fire extinguishers are designed to be used on small, contained fires, by properly trained individuals. Lives could be saved and property damage reduced, when fire extinguishers are used correctly.

Building occupants should know the location of the closest extinguisher and ensure the extinguisher is not blocked or obstructed. A quick response is crucial to effectively put out a fire. As a general rule, extinguishers should be located within a 75' travel distance. This distance may be reduced in labs and other high hazard areas such as commercial cooking facilities.

Classification of Fires

- Class A: Fires involving ordinary combustibles, such as paper, wood, plastic, cloth, and trash
- Class B: Fires involving flammable or combustible liquids and gasses, such as gasoline, solvents, and oils
- Class C: Fires involving energized electrical equipment or appliances
- Class D: Fires involving flammable metals, such as magnesium and sodium
- Class K: Fires involving cooking media, such as vegetable oils

Fire extinguishers may be designed for only one classification or multiple classifications of fires. Be familiar with the type(s) of extinguishers and their capabilities/limitations in your office or workspace.

- Class A extinguishers
 - o Use only on Class A fires
 - o These extinguishers use water and compressed air and are not to be used on Class B, Class C, Class D, or Class K fires
- Carbon Dioxide CO₂ extinguishers
 - o Recommended for Class B and Class C fires
 - o Halon, Halotron, or other clean agent extinguishers may be rated for Class B and Class C fires
- Dry Chemical extinguishers
 - o An ABC or multipurpose extinguisher is the most common extinguisher found on the Texas A&M University campuses
- Class D extinguishers
 - o Specialized to be used only on flammable and combustible metals
 - o Dry sand may also be used in certain situations
- Class K extinguishers
 - o Designed to be used on commercial cooking oils
 - o Used in conjunction with a commercial fire suppression system
 - o Operators of commercial cooking operations must be familiar with the proper operation and sequence for the use of hood suppression systems and Class K extinguishers
- There is no extinguisher that is designed to be used on all types of fires. It is important to know your fire extinguisher and its limitations

Inspection and Maintenance

EHS conducts regular inspections and services extinguishers that have been used. EHS also performs the required maintenance and testing of extinguishers. If used, fire extinguishers must be serviced or replaced. If an extinguisher has been used, is missing, needs to be relocated, or any requires any other type of service, email [EHS](#) for assistance.

Locations

Portable fire extinguishers are located throughout most buildings across the campus. Extinguishers are installed according to National Fire Protection Association codes and standards. Extinguishers are readily accessible in hallways, near exits, and in areas containing high fire hazards and should never be blocked, covered or otherwise rendered inaccessible.

Proper Extinguisher Use

- ❑ To use a fire extinguisher, you must remember the **PASS**-word.
 - **Pull** the ring-pin (held in place by a plastic seal) to “un-lock” the operating lever
 - **Aim** the nozzle at the base of the fire
 - **Squeeze** the lever completely
 - **Sweep** the extinguishing agent from side to side until the fire is extinguished

The operating distance and duration of different extinguishers may vary considerably. Dry chemical extinguishers will have a discharge range of 8-10 feet, while a carbon dioxide extinguisher may only reach 5-6 feet.

- ❑ Remember:
 - Activate the fire alarm system by pulling the nearest manual pull station
 - Call 911
 - Only attempt to extinguish small, contained fires
 - Make sure you are properly trained, and capable of fighting the fire
 - Be certain that you have the correct extinguisher for the type of fire
 - Always keep a clear, unobstructed exit
 - Never turn your back on a fire
 - Fires may re-ignite, so be prepared

Training

- ❑ Learn how to use a fire extinguisher before an emergency occurs. EHS provides hands on training in the use of portable fire extinguishers. Participants will learn about the different types of extinguishers, how to use each type, and will have the opportunity to extinguish a simulated fire. Make sure you have the correct extinguisher for the type of fire to be extinguished. All extinguishers have a label that states what type of fire they can be used on and this will be explained to further assist occupants in selecting the proper type of extinguisher. For information or to register for a class, visit the [EHS website](#).
- ❑ Training is available for university employees through [TrainTraQ](#)

Fire Hydrants

Fire hydrants are located throughout the campus and play a vital role in fire suppression operations. It is important to maintain a clear path to all hydrants and allow clear distances around hydrants to allow uninhibited operation should an emergency occur. It is also important that vehicles are not parked within 15 feet of fire hydrants or other fire safety equipment. A minimum of six (6) feet shall be maintained around all fire hydrants.

Fire Lanes

Fire lanes are designated for emergency personnel and equipment. Fire lanes provide clear vehicle access to buildings and allows responders to gain quick access to the building and/or fire protection systems. Unattended parking in or blocking any fire lane is prohibited.

Fire and Life Safety Inspections

Fire and life safety inspections are conducted at least annually in Texas A&M University facilities. The goal of these inspections is to help identify potentially unsafe practices and conditions in Texas A&M University facilities. These are not surprise inspections. EHS will notify the building proctor or facility coordinator prior to inspecting a facility. We want to work with building occupants to help ensure a fire safe environment in which to work.

Some of the items that our inspectors will be looking for include but are not limited to:

- Access to the facility for emergency responders
- Means of egress and verifying that egress components are unobstructed and in working condition
- Electrical safety (extension cords, power strips etc.)
- Storage of materials (24" from ceiling, 18" from sprinkler heads)
- General Housekeeping
- Presence of ignition sources

At the conclusion of the inspection a report is generated and sent back to the facility contact to be disseminated to the building occupants for remediation of any deficiencies.

In addition to regular facility fire and life safety inspections, EHS conducts inspections in our residence halls and apartment complexes as well. Residence hall inspections are conducted during the first few weeks of the fall semester while apartment inspections are conducted during the early spring and late summer semesters.

Fire Investigation

EHS conducts or coordinates investigation of all fires on the Texas A&M University Campus as a part of the reporting requirements of the Texas State Fire Marshal. EHS must be notified of any and all fires, regardless of size or property ownership (including P³ entities).

Fire Prevention

Fire Safety is everyone's responsibility, in fact, you are your office's best fire inspector. The following section will provide ways you can help prevent fires.

- Fire prevention starts with good housekeeping
- Loose papers, trash and other combustible items such as cardboard boxes are a fuel source for fire. If these combustible items are stored neatly and properly the risk of fire can be greatly reduced
- Here are some things to be mindful of when it comes to combustible items:
 - o Never store combustible items within 24 inches of the ceiling
 - o Keep ALL storage at least 18 inches below the sprinkler heads unless storage is directly against a wall
 - o Keep combustible items away from electrical sources that may produce heat and/or sparks (outlets, multiple adapters, etc.)
 - o Keep combustibles away from any heat sources (water heaters, portable heaters, etc.)
 - o Keep quantities of combustible items to a minimum
 - o Never store combustible items in an exit corridor or stair enclosure
 - o Combustible items should not be stored in mechanical equipment rooms or electrical rooms

Fire Reporting

All fires, regardless of size on any Texas A&M University property, including Public Private Partnerships (P-3) entities, must be reported to EHS (979-845-2132 or 979-862-1111 after hours) for investigation and notification of the State Fire Marshal's office.

If you discover a fire in a facility you should

- Locate and activate the nearest manual pull station (pull stations should be located near building exits) to initiate a building evacuation
- Call 911 to report any fire, explosion, medical, active shooter, or other similar emergency and provide the call taker with any information requested such as:
 - o Your name
 - o Building name and address
 - o Room number
 - o Type of emergency
 - o Any injuries
 - o Any other information requested by the emergency operator
- If you are trained in the proper use of portable fire extinguishers and are not in immediate danger you may attempt to extinguish the fire (see [Fire Extinguishers](#))

Fire Suppression Systems

Buildings at Texas A&M University utilize various types of fire suppression equipment including portable fire extinguishers, fire sprinklers, gaseous/clean agent extinguishing systems, cooking hood systems, and fire hose/standpipe systems. The following sections discuss each type of fire suppression equipment.

Sprinkler Systems

The purpose of a water sprinkler system is to contain and to minimize the spread of a fire, but is often successful in extinguishing fires. Sprinkler heads are normally activated by heat. Generally, if one is activated not all of the sprinklers in a building will discharge. Only in specialized sprinkler systems are they connected to smoke detectors or manual pull stations.

To ensure that sprinklers are effective in the event of a fire:

- Maintaining a minimum of 18 inches of clearance below the sprinkler head is required to any equipment or stored items
- Do not hang drapes, curtains, tarps, etc. that will interfere with the spray pattern of the sprinkler
- Never attach or hang anything from sprinkler piping or sprinkler heads
- Do not paint or damage sprinkler heads in any manner

Gaseous/Clean Agent Fire Extinguishing Systems

Special work areas such as computer server rooms or bulk chemical storage rooms may contain specialized gaseous fire extinguishing systems such as carbon dioxide (CO₂), FE 13, FM 200, or Halon 1301 in addition to water based fire suppression systems. These systems work by displacing the oxygen in the room to a level that will no longer support a fire. To ensure that the system operates as designed, the area or room(s) protected must have its structural integrity preserved in order to maintain the required concentration level of the gas. There should be no penetrations through walls, ceilings, or floors and doors should be kept in the closed position.

Once a system is activated, the low level of oxygen is also dangerous to humans. Caution should be used when working in areas where these oxygen-depriving extinguishing agents are used. Manually operated systems, such as a pull-station or push button, should have signs posted indicating it will activate the agent. *Do not* enter a room that has discharged an oxygen-depriving agent until it has been ventilated and appropriate tests of the atmosphere have verified it is safe to enter.

Kitchen Hood Suppression Systems

Commercial cooking operations as well as common kitchens in residence halls utilize automatic kitchen fire suppression systems to control/extinguish cooking fires. These systems are monitored by the fire detection and notification system. Kitchen hood systems utilize both automatic as well as manual initiation via the activation of a pull station. In addition, code requires the installation of a Class K portable fire extinguisher within a specified distance to the kitchen hood suppression systems. Occupants should be aware of the operation of these systems and the use of the Class K extinguisher ([see fire extinguishers](#))

Standpipe and Hose Systems

A standpipe system is an arrangement of piping, valves, hose connections and allied equipment installed in a building or structure for the purpose of manually extinguishing a fire. Fire hose cabinets are located in several buildings near or in the exit stairwells and in corridors. The position of Texas A&M University is that employees should only attempt to extinguish a fire with a portable fire extinguisher. Local fire department responders will use the standpipe system in the event of a fire in a building. Access to these systems should be maintained at all times and should not be blocked by any equipment, chairs, desks, etc.

Fire Watch

Fire watches require the continuous patrol of all areas of the building affected by the impairment to look for evidence of smoke, fire, or any abnormal conditions. As noted in its definition, if a life-threatening situation is discovered, the person conducting the fire watch must immediately contact emergency personnel, alert the occupants (if applicable) to the emergency and assist in their evacuation.

Food Trucks (Reserved)

Fuel Gas (Reserved)

Hot Work

Fire prevention plays an integral role in ensuring a safe campus for faculty, staff, students and visitors. [Hot Work procedures](#) must be followed to prevent the outbreak of fire, fire alarm activations, smoke, and odor migration in buildings resulting from any temporary operation involving the use of open flames or which produces heat and/or sparks. Hot work includes but is not limited to brazing, grinding, cutting, torch soldering, thawing pipes, torch applied roofing and welding. For general hot work use, an application must be submitted to EHS for review and issuance of a [permit](#).

This procedure applies to work performed by any Texas A&M University employee, student or contractor performing work in existing buildings, new construction in existing buildings or new construction attached to existing buildings. When hot work is performed outdoors, necessary precautions should be taken to ensure combustible materials have been cleared and the risk of fire has been eliminated. This procedure does not apply to new construction where there is no attachment to existing buildings or to areas that are specifically designed and equipped for such operations, i.e. maintenance shop areas and designed welding areas.

Projects under the management of SSC EDCS will utilize the Hot Work process within e-Builder.

Contractors with written safety programs and having a protocol for Hot Work that is equivalent to this program may utilize their program. Documents to be submitted to the AHJ for review.

Liquefied Petroleum Gas (LPG)

The Texas Railroad Commission regulates the sale and use of LPG, including butane and propane. In addition, the Liquefied Petroleum Gas Code (NFPA 58) provides regulations on the use of LPG as well. These regulations govern several types of LPG-powered equipment and procedures including the following:

- Forklifts
- Floor buffers
- Cooking and heating equipment
- [Laboratory equipment](#)

Exhaust fumes may contain carbon monoxide which can present a health hazard. Exhaust can also create smoke which may activate a smoke detector. Take special precautions to ensure adequate ventilation when using these machines indoors.

Because LPG is extremely flammable, it is a potential fire hazard. Do not store LPG near heat, flame, or other ignition sources. In addition, do not leave portable LPG containers larger than 16 oz. in a building overnight. Instead, place portable LPG containers and LPG equipment outside in a storage area that is at least 25 feet away from other buildings, combustible materials, roadways, railroads, pipelines, utility lines, and the property line. This storage area should prevent unauthorized entry and have a portable fire extinguisher within 25 feet.

When using portable LPG containers, the requirements listed below shall be followed:

- Inspect containers for excessive denting, bulging, gouging, and corrosion and check hoses for cracks and deterioration; containers displaying any of these signs shall be removed from service
- Label all containers as Flammable and as LP-Gas, Propane, or Butane
- Cylinders shall be located to minimize exposure to excessive heat, and physical damage
- Cylinders shall be stored away from exits, stairways, or areas normally used or intended for the use of egress for occupants
- The maximum allowable quantity of LPG stored in a building shall not exceed 2 pounds
- Quantities in excess of this amount shall be stored outside in a lockable ventilated enclosure of metal exterior construction; protection against vehicle impact shall be provided

LPG powered Industrial Trucks

Use of LPG powered industrial trucks shall follow the guideline for containers in the previous section, in addition to the following:

- LPG cylinders shall be refueled outdoors
- The number of cylinders on an industrial truck shall not exceed 2
- The size of a cylinder on an individual truck shall not exceed 45 pounds
- Cylinder pressure relief valve discharge shall be directed upward within 45 degrees of vertical and shall not impinge on the cylinder, exhaust system, or any other part of the truck
- The discharge opening shall be provided with a protective cover
- Trucks shall not be parked or left unattended without the cylinder shutoff valve being closed
- Do not park truck near areas of excessive heat or near sources of ignition

Open/Outdoor Burning

Texas A&M University must comply with all Texas Commission on Environmental Quality (TCEQ) guidelines and the Texas A&M University [SAP 24.01.01.M7.03 – Safe Use of Outdoor Fires](#). In order to conduct such a burn, several criteria must be met prior to the issuance of an authorization to burn. These general [guidelines](#) include but are not limited to:

- Only natural occurring materials may be burned
- Only materials from on the site may be burned (no materials may be brought in from other locations)
- A responsible person must be present during the entire burn, be equipped with adequate firefighting agents, and be able to quickly communicate with emergency response personnel

Prior to any burn an [application](#) must be submitted for review. Once received, a site inspection will be conducted and if approved a permit for the burn will be issued noting the location, approved date(s) and time(s), and any special restrictions for the approval. EHS will provide copies of permits for approved burns to the Texas A&M University Communications Center as well as local fire and police departments.

Pyrotechnics and Flame Effects

The use of pyrotechnics or open flames on the Texas A&M University Campus is regulated and requires an [operator licensed](#) to operate in the state of Texas. An [application](#) must be submitted for review and approval. Once received, a site inspection will be conducted as well as request for a product demonstration of any pyrotechnics or flame effects prior to the actual production. If approved a permit for the use of the pyrotechnics or flame effects will be issued noting the location, approved date(s) and time(s), and any special restrictions for the approval. EHS will provide copies of permits available to the local fire and police departments via a secured information website.

The use of consumer fireworks by the public on campus is prohibited. An exception request for university approved/sponsored events may be considered by EHS.

Smoking

Effective January 1, 2020, Texas A&M University prohibited smoking and use of all forms of tobacco on University Property per university rule [34.05.99.M1 – Smoking and Tobacco Use](#).

Space Heaters

Some general guidelines to remember when using space heaters are:

- Heaters must be listed or labeled (UL, FM, ETL, etc.)
- Heaters must never be left on unattended, even if you are just going to step out for a moment
- Heater must be equipped with an automatic shut off feature
- Heaters should be unplugged when not in use
- A minimum of 36" should be maintained from any combustible materials
- Adequate space should be provided around space heaters to allow for air circulation
- Heaters should be plugged directly into wall receptacles
- Frequent inspections of electrical cords for damage and to ensure a tight connection of the cord into the receptacle
- If a heater begins to spark, produce an electrical burning smell, or any other signs of failure, disconnect the heater immediately and discontinue using the appliance

Tailgating

Guidelines for tailgating activities on Texas A&M University Campus may be found [here](#).

Tents

Erection of tents on the Texas A&M University campus shall be in accordance with University SAP [21.99.09.MO.01 – Temporary Tent or Canopy Installation on Campus](#) and the [requirements](#) as outlined in the *Life Safety Code*® and the *International Building and International Fire Code*. An application for the erection of tents may be found [here](#).

Two-way Communication Systems

Certain facilities on the Texas A&M University Campus are required by code to be equipped with emergency two-way communication systems. The purpose of these system is to provide a method of communication between the upper floors of buildings and the fire command/ground level. Two-way communications installed on the Texas A&M University campus will transfer to the Texas A&M Communications Center if there is no answer at the base system (located within the building) within a predetermined time period.