



# TEXAS WOMAN'S UNIVERSITY™

## Life Safety Procedures

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## I. PURPOSE

This document establishes various procedures necessary to protect the life safety of employees, students and visitors from fires, electrocution, and related hazards within Texas Woman's University (TWU) facilities. TWU will also comply with various applicable Occupational Safety and Health Administration (OSHA), Texas State Office of Risk Management (SORM), Texas State Fire Marshal's Office (SFMO), and National Fire Protection Association (NFPA) regulations and standards not fully described in this document.

## II. POLICY

These procedures were developed in accordance with, and under the authority of, [University Regulation and Procedure Number 04.430](#).

## III. SCOPE

This procedure is applicable to all facilities owned by TWU. All TWU employees, students, and visitors must comply with the requirements of this procedure. Additional requirements applicable to life safety in laboratory settings can be found in the TWU [Chemical Hygiene Plan](#). TWU University Housing and Residence Life has additional [life safety requirements](#). Other TWU departments may also have requirements above and beyond these requirements that must be complied with.

## IV. REQUIREMENTS

### A. Training

Life safety training covering the following is required for all TWU employees who normally work on campus, and strongly encouraged for all employees and students:

- Fire prevention rules and guidelines
- Life safety equipment at TWU (e.g. fire alarms, sprinklers, etc.) and its functions
- Building evacuation procedure including procedures for mobility impaired individuals
- Fire extinguisher use

The Office of Environmental Health & Safety (EH&S) will develop, maintain, and present this training. The training is currently available on [Bridge](#).

### B. General Guidelines

- Learn the emergency evacuation routes from your work area(s), including all stairwells. Elevators must not be used during a building evacuation.
- Become familiar with the location of fire extinguishers, manual fire alarm pull stations, and evacuation chairs in buildings you work in or visit regularly.
- Know the location of your department's evacuation assembly point outside, and with whom in your department to report.

### C. Fire Alarm and Extinguishing Systems

Fire alarm and extinguishing system controls should only be operated by authorized TWU Department of Public Safety (DPS) and/or EH&S personnel. **Never** attempt to disable or silence any part of fire alarm or sprinkler systems.

Nothing should block proper functioning of sprinkler heads and other extinguishing system nozzles/heads. Materials must not be stored within **18 inches** of the bottom diffuser of any pendant sprinkler head. **Never** hang items from sprinkler heads. Sprinkler system controls should only be operated by authorized DPS, EH&S, and/or contracted vendors.

Some areas have **specialized extinguishing systems that use gases** instead of water (currently the Telecom/Data Network Switch Room in the Admissions Building and the Blagg-Huey Library Rare Book Collection). The extinguishing agents can displace oxygen and can cause asphyxiation or other possible health effects from exposure at high levels. When these systems are activated (indicated by different alarm/strobe than normal fire alarms), **leave the area immediately** and do not re-enter until cleared by DPS.

DPS is automatically notified when there is an alarm or trouble in the fire alarm and sprinkler systems. DPS will follow their internal procedures upon receipt of a notification, which includes receiving a trouble signal from the fire alarm and/or sprinkler, dispatching an officer to investigate, and notifying the local fire department should assistance be necessary. In addition, DPS will provide a copy of any Incident Reports prepared in response to activation of fire alarm systems to the Vice President of Finance and Administration. DPS will initiate work order requisitions for system repairs through the [TWU Work Order](#) system, or by contacting the Central Plant during non-business hours. EH&S is responsible for the maintenance of life safety systems and will inform DPS of the status of any systems that are not fully operational, or if DPS can expect test signals that do not require a DPS response.

### D. Portable Fire Extinguishers

Use of portable fire extinguishers is strongly discouraged unless necessary to escape a fire. Fire extinguishers will be maintained throughout TWU facilities by EH&S. Fire hoses have been removed from hose cabinets/racks, and should never be used by employees, students, or visitors to fight fires. Individuals should only use fire extinguishers if ALL of the following are true:

- The fire alarm has been activated or TWU PD/911 has been notified of the fire and evacuation is underway if possible,
- You have received training on fire extinguisher use,
- The fire is small and contained (for example, a small trash can fire),
- You have the proper type of fire extinguisher, **AND/OR**
- There is no alternative way to escape the fire.

### E. Fire Evacuation Procedure

#### a) General Evacuation Procedure

When a fire alarm sounds, or if you detect smoke/fire, evacuate the building immediately! **Do not assume it is a false alarm.**

- Check for smoke seeping around the door and feel the door for heat with the back of your hand; if smoke or heat is found, DO NOT OPEN THE DOOR! See below for instructions for if you cannot leave the room.
- Turn off fire/heat-producing equipment and put hazardous materials in a storage cabinet or hood if you can do so quickly and safely.
- Quickly and calmly leave the building, do not go back for ANYTHING!
- If there is smoke, stay low and cover your nose and mouth with cloth (preferably wet), if possible.
- Close doors behind you, if possible, to slow the spread of fire.
- WALK to the nearest exit; DO NOT USE ELEVATORS.
- Do not block stairs; stay to the right to allow fire department to pass on left.
- Once outside, move away from the building, and stay out of the path of emergency equipment/personnel.
- Go to your department's assembly point and report in to ensure you are accounted for.
- Report any individuals who are missing/trapped/need assistance.
- Do not reenter the building until the "All Clear" has been given by DPS.

***b) If You Cannot Leave the Room***

- Seal the cracks around the door, wet cloth or similar is best if possible.
- **Call for help.** Call DPS (x2911 or 940-898-2911) or 911.
- Hang a sheet out the window/place sign on window, or otherwise signal for help in addition to calling, where possible.
- Remain close to the floor and STAY CALM.

***c) Evacuation of Mobility Impaired Individuals***

Individuals with mobility impairments may need special assistance evacuating in an emergency. Mobility impairments include permanent or temporary physical or mental impairments that would impede an individual's ability to descend stairs or otherwise self-evacuate a building.

Individuals with mobility impairments need to know where the "Areas of Evacuation Assistance" (see next section) are located prior to an emergency. Stairwell landings (in completely enclosed staircases) serve as Areas of Evacuation Assistance for most buildings.

Employees should assist mobility impaired individuals to these areas if possible, and then inform emergency personnel of the individual's location. Many buildings on campus are equipped with signage at each stairwell landing indicating the staircase designation (north stairwell, center stairwell, etc.), and the floor landing number.

TWU has obtained evacuation chairs (called "Evac+Chairs" by the manufacturer) that can be used to assist mobility impaired individuals to evacuate down the stairs.

Limitations of the evacuation chairs:

- The chairs cannot go up stairs
- The chairs can handle up to a 300-pound individual

- The person operating the chair should weigh the same or substantially more than the passenger; help may be required for heavier passengers

The intent is that these chairs will **be used primarily by emergency personnel**, as the chairs require training to use properly. Individuals with mobility impairments should be assisted to an Area of Evacuation Assistance as noted above. Efforts should be made by TWU employees to notify students and visitors of these procedures prior to an emergency.

**d) Area of Evacuation Assistance/Refuge**

As previously mentioned, stairwell landings in most completely enclosed staircases serve as Areas of Evacuation Assistance. Some buildings, such as the Administration Conference Tower (ACT), Hubbard Hall, and Scientific Research Commons have a Two-Way Communication System which connects to TWU's DPS dispatch. This can be used to signal the need for assistance.

**e) Folding Accordion/Coiling Fire Partitions (aka Won Doors)**

Folding accordion/coiling fire partitions, also commonly referred to by the brand name, Won doors, are rated, physical fire barriers that protect openings from the spread of fire and smoke. These units are typically kept in the open position but have a safe, automatic-closing system in the event of fire detection. They are a useful application for elevator lobbies, stairwells, and area separations. When the partition is in the closed position, individuals may still proceed along their egress route generally by pressing on a paddle located on the partition or through pushing open Velcro enclosures. Pressing the paddle will cause the partition to automatically open wide enough for individuals to proceed to their exit, then return to a closed position.

**f) Assisting Students and Visitors**

Faculty and staff are encouraged to start classes/meetings with students and visitors with a brief summary of the fire evacuation procedure and exit routes. Even individuals regularly in the building may not know direction to nearest stairs/exit route!

If the fire alarm sounds, help direct students/visitors to the nearest exits while exiting. Do not stay behind to make sure everyone has exited (see below).

**g) Sweepers**

Employees **MAY NOT** be assigned to "sweep" their area or be the last person in the area. Instead, instruct individuals to leave as you are travelling along the exit route. Employees must **NOT** be travelling away from an exit when a fire alarm is activated (with the exception of DPS when they are determining if a fire alarm is a false alarm).

**h) Floor Above, Floor Below**

Some high-rise buildings (currently Administration & Conference Tower, Stark Hall, and Guinn Hall on the Denton campus, and both the Houston and Dallas campuses) are equipped with fire alarms that are programmed to initially only activate the occupant notification alarms (horns and strobes) on the floor where the fire/smoke is detected, the floor above, and the floor below.

Once DPS determines that the alarm is not a false alarm, it is necessary to use the manual pull station located next to the main fire alarm panel to notify occupants to evacuate the remainder of the building.

#### **F. Open Flame/Spark**

Candles, incense, and any other open flames or sparks are prohibited with the following exceptions:

- “Hot work” involving cutting, brazing, welding, soldering, grinding, or any other similar operations are permitted with a properly completed hot work permit as per the [TWU Hot Work Procedure](#).
- A hot work permit is not required in certain designated areas listed in the [TWU Hot Work Procedure](#) (e.g. properly equipped welding shops).
- Any other candles or open flames not previously approved should be submitted to EH&S for risk analysis and approval.
- A [grilling permit](#) approved by EH&S is required for outdoor cooking activities. Grilling permits require the following:
  - Trained Fire Watch person(s) must be present at all times (Risk Management’s Fire Safety training is acceptable training)
  - Fire Watch person(s) must have a means of contacting TWU DPS (cell phone, radio, etc.)
  - Two (2) ten-pound ABC fire extinguishers kept on standby a minimum distance of 10 feet from, and on opposite sides of, the grilling area. These are available for loan from EH&S at no cost
  - After grilling, fully extinguish the heat source. For charcoal, this includes maintaining a fire watch until all coals are extinguished or fully spent. Do not dispose of hot coals/ashes.

#### **G. Combustible Solids**

TWU employees and students may not accumulate unnecessary combustible materials (e.g. paper, cloth, combustible waste/debris) that EH&S deems a risk to life safety. This determination will depend on the type of combustible materials being accumulated and the ability of the life safety systems in the area to adequately protect occupants of the building if the material were to become involved in a fire.

Keep combustible materials away from heat sources. For example, never cover light bulbs with paper, clothing/fabric, or other combustibles.

#### **H. Flammable/Combustible Materials**

Whenever possible, flammable and combustible liquids must be stored in appropriate flammable storage cabinets or specially designed storage rooms when *not actively in use*.

Maximum quantities of flammable and combustible materials stored outside of flammable storage cabinets or rooms, as well as maximum container sizes, will be limited as per NFPA codes (e.g. NFPA 30: Flammable and Combustible Liquids Code).

Dispensing/transferring of flammable liquids with a flash point <100 °F need to be restricted to specially equipped areas. This will generally include grounding and bonding equipment, explosion proof electrical equipment, and adequate ventilation. Contact EH&S for assistance.

Similarly, some equipment using flammable gases require bonding and grounding, a flashback arrestor (check valves will not stop a flashback) and other specific requirements related to set up and storage. Piping and related gas-flow components must be of compatible and non-combustible construction. Only compatible tubing appropriate for the operation may be used. Copper tubing should never be used with Acetylene gas. Flammable gas cylinders in storage must be segregated from oxidizer gases such as oxygen with a separation distance of at least 20 feet or a ½ hour fire rated non-combustible barrier. Additionally, flammable gas cylinders should not be placed between an individual's working area and the only exit out of the room. Contact EH&S prior to set up and use of equipment with flammable gases.

## I. Electrical Safety

The following are basic electrical safety requirements applicable to all TWU employees and students. Employees performing maintenance on electrical equipment or systems will also need to comply with the TWU [Hazardous Energy Control](#) and [Electrical Work Safety](#) programs.

Improper use of flexible and temporary wiring, such as extension cords, multi-outlet adapters, uninterruptible power supplies, and power strips, can present both **fire and electrical shock hazards**. The following is a list of rules for proper use of extension cords and power strips at TWU. The EH&S website includes [photographic examples of these rules](#).

Extension cords are for **temporary use only**, for **short** periods of time (hours or days, **not** weeks or months). An example of acceptable extension cord use would be a custodian using an extension cord with a vacuum to clean a hallway carpet. An example of unacceptable use is connecting a computer to an outlet under your desk with an extension cord.

- Power strips, multi-outlet adapters, and uninterruptible power supplies (UPSs) are acceptable **IF** they have a resettable circuit breaker and are plugged directly into a properly installed outlet.
- **Power strips, multi-outlet adapters, and UPSs may never be "daisy-chained"** (one plugged into another). Again, all power strips, multi-outlet adapters, and UPSs must be plugged directly into a properly installed outlet.
- Larger appliances, such as microwaves and refrigerators, **must not be plugged into a power strip or extension cord**. Such appliances must be plugged directly into a properly installed outlet.
- All extension cords, power strips, multi-outlet adapters, and UPSs **must be listed by a nationally recognized testing lab** (e.g. UL Listed) and so marked. "Homemade" extension cords fabricated out of a length of wire and an outlet box are **not permitted!**
- **Never overload outlets or power strips! Tripping circuit breakers are a warning sign not to be ignored!** If you have questions about the amount of equipment that may be plugged into an outlet or power strip, contact EH&S.

- **Never use a three-to-two prong plug adapter!** If you only have two-pronged plugs and/or outlets, contact Facilities Management & Construction for assistance.
- When using electrical equipment - including extension cords - **near any source of moisture or outdoors**, the equipment **must be** plugged into a Ground Fault Circuit Interrupter (GFCI) equipped outlet or a GFCI adapter plugged directly into the outlet.
- Never use any electrical equipment that shows **any signs of damage or overheating**. This includes any indication of damage to the insulation on flexible cords, such as cuts, nicks, cracks, electrical tape, or insulation that is otherwise not fully covering the wires inside.
- Electrical equipment/systems installed in TWU facilities must meet the current version of [NFPA 70 \(National Electrical Code\)](#).

#### **J. Prohibited and Restricted Equipment**

The following electrical devices are **prohibited at TWU** ([University Housing rules differ](#)):

- Coffee cup warmers
- Candle warmers
- Curling irons and other hair styling tools
- Floor fans (small desk fans are acceptable)
- Immersion water heaters
- Irons and steam irons (permitted in certain properly equipped areas where necessary for educational or operational needs)
- Halogen desk or floor lamps
- Turkey fryers
- Battery-powered “hoverboards” (all electronic skateboards, self-balancing boards, self-balancing scooters, battery-operated scooters, or similar devices)

The following devices are permitted in properly equipped break rooms and foodservice areas **only**:

- Water dispensers with heating and/or cooling functions
- Cooking devices with heating elements such as crock pots, toasters, toaster ovens and hot plates (cooking devices may never be left unattended while cooking).

Space heaters may be used **IF** all the following requirements are met:

- Only electric space heaters may be used.
- Must be listed by a nationally recognized testing laboratory (e.g. UL)
- Must have tip-over protection AND an overheat auto-shutoff.
- Must have a thermostat to control temperature.
- Must be kept 3 feet from all combustibles/flammables.
- Must not be left unattended when turned on.
- Space heaters are NOT allowed in labs and studios.
- Electrical coil/resistance space heaters are prohibited.

#### **K. Assembly/Event Layouts**

Setting up furniture in a space that normally does not have it (such as a science fair, luncheon, etc.), permanently re-arranging furniture (such as in a classroom), or temporarily re-arranging furniture for an event (such as in the Student Union conference room), must be done in accordance with applicable fire code. This applies to all furniture, not just tables and chairs.

The applicable fire code has very specific requirements including, but not limited to, egress pathways, aisle widths, table spacing, and maximum capacity. Prior to your event or rearranging furniture permanently in larger occupancy spaces, you must contact EH&S for approval and/or assistance. EH&S can provide customized furniture layouts for the space that meets fire code.

## **V. REPORTING**

Should any fire or smoke incident occur on any of Texas Woman's University sites, the Director of EH&S and/or Designee must report the occurrence of such incident to the State Fire Marshal's Office (SFMO) in a timely manner using the SFMO reporting system. Should there be a fire that causes death, injury, or significant property damage, the SFMO should be notified immediately and no clean-up of the fire damage should occur until the State Fire Marshal has determined whether further investigation is to be completed.

## **VI. EQUIPMENT**

EH&S oversees the inspection and maintenance of relevant life safety equipment, including emergency lights, exit signs, generators, fire alarms, sprinklers, and fire extinguishers, in accordance with NFPA standards. NFPA 70 requires that all university lab equipment be certified by an OSHA-recognized [Nationally Recognized Testing Laboratory](#) (such as UL, Intertek, or FM), confirming that the equipment has been tested against established safety standards. Please refer to this link for a list of products that require [NRTL Approval](#). If custom/specialized equipment is not readily available with an NRTL certification, a field evaluation conducted by a Professional Engineer (PE), complete with stamped documentation, is permitted to help ensure employee protection and satisfy Risk Management requirements. It should be noted, however, that an engineer's stamp of approval is not equivalent to an NRTL certification; under Texas State Fire Marshal regulations, only an NRTL certification is formally recognized. Contact EH&S for more information.

## **VII. ADDITIONAL INFORMATION**

For additional information, questions, or clarification on procedures outlined in this document, please contact the EH&S at 940-898-4001, option 3, or at [risk@twu.edu](mailto:risk@twu.edu).