



TDCJ Risk Management's Training Circular



DID YOU KNOW OCTOBER IS FIRE PREVENTION MONTH?

It's the time of year when everyone is thinking about Pumpkin Spiced everything, but how many of us think about fire escape plans, fire extinguishers, or fire alarms?



Most of us only think about the smoke alarms when the battery gets low and the chirping starts. Waiting to think about these things only when we need them might be too late. Do you know where your smoke alarms are located or how many you need in your home? Where is the fire extinguisher located or do you have one? Do you have an escape plan?

The TDCJ conducts Fire Safety Awareness Training during this month for its unit staff, administration staff, and unit offenders. Thousands of people die in house or building fires yearly, and through education and practice this number can be reduced.

PREVENTION IS KEY

The best form of fire protection is prevention. Eliminating the probability of a fire reduces the chance of loss. Regular and periodic inspections can identify fire hazards and unsafe practices that may pose a threat to the safety of individuals within a specific area. Eliminating the probability of a fire reduces the chance for loss. Fire safety and prevention awareness is one of the most crucial components to a fire safety program. Knowing how to identify fire hazards before they result in a fire can save lives and serious property damage or loss. There is little time to respond. In **less than 30 seconds** a small flame can get completely out of control and turn into a major fire. It only takes a minute for thick black smoke to fill a house or office area. In no time an area can be engulfed in flames. Most fires occur in the home when people are asleep. If you wake up to a fire, you will not have time to grab valuables because fires spread. There is only time to escape.

- ◇ Store flammable liquids only in approved containers.
- ◇ No open flames near flammable materials.
- ◇ Do not overload electrical circuits.
- ◇ Good Housekeeping.
- ◇ Do not leave appliances in the ON position and unattended.
- ◇ Store bikes, chairs, desks and other items in proper locations and out of the point of travel to prevent blocked exits and tripping hazards.

AWARENESS

Fire safety and prevention awareness is one of the most crucial components to a fire safety program. Knowing how to identify fire hazards before they result in a fire can save lives and serious property damage or loss.

Frequent functional and tabletop fire and evacuation drills will ensure all effected individuals are familiar with their roles and responsibilities, as well as safe evacuation procedures in the event of an actual emergency.

INSIDE THIS ISSUE

PreventionFront Cover

Have a Plan.....2

Responding to a Fire.....2

General Principles of Fire Extinguisher Use.....2

Smoke Alarms.....3

Types of Fire Suppression Equipment.....4

Hazard Hunting.....4

Portable Space Heaters.....4

Inspections.....5

Fire Extinguisher Inspections.....6

POINTS OF INTEREST

- Emergency Escape Plan
- Testing Smoke Alarms
- Types of Fires
- Fire Drills
- Hot Work



The following steps should be followed when responding to incipient stage fire (when they are small and controllable with fire extinguishers):

Sound the fire alarm and call the fire department, if appropriate.

Identify a safe evacuation path before approaching the fire. Do not allow the fire, heat, or smoke to come between you and your evacuation path.

Select the appropriate type of fire extinguisher.

Discharge the extinguisher within its effective range using the P.A.S.S. technique (pull, aim, squeeze, sweep).

Back away from an extinguished fire in case it flames up again.

Evacuate immediately if the extinguisher is empty and the fire is not out.

DON'T BE A HERO!!



HAVE A PLAN

Each facility should have a site specific fire plan to address issues such as fire evacuation, fire suppression, and emergency notification. Posting evacuation routes conspicuously throughout the workplace communicates to staff and visitors evacuation routes to areas of safe refuge. Training should be conducted at least annually, in the prevention of fires, fire preparedness procedures, facility fire plans, fire evacuations, fire drill procedures, and fire suppression.

Everyone in the area must know what to do in the event of a fire in their area. A fire escape plan must be created and practiced so that everyone knows what to do. It is also very important to practice fire drills. Regardless of the cause of a fire, the area may be filled with smoke. This is a very dangerous situation and you may not be able to see very well. The smoke and toxic gases may cause dizziness and disorientation. In the confusion, one can easily become lost or trapped in a building. Everyone must understand that their safety depends upon quickly leaving the area. It has been proven that fire drills reduce chances of panic and injury in fires and through training and being informed you have a much better chance to survive a fire. Knowing your fire escape plan can mean the difference between life and death. Be prepared to act quickly.

“Never go back inside for ANYTHING!”

RESPONDING TO A FIRE

- ◊ Be familiar with fire evacuation procedures. Also familiarize yourself with the primary and secondary evacuation routes in your work area. Know the unit/department process for obtaining emergency keys if applicable.
- ◊ Know where fire suppression equipment is located and understand their use in the event it is needed to assist with the evacuation process.
- ◊ Each shift/department should have a means for accounting for all persons in their respective areas.
- ◊ Have someone designated to notify local emergency response.
- ◊ Never assume an activated alarm or fire evacuation is a drill.
- ◊ Ensure everyone in your office, building, and home knows the evacuation routes and exit locations, including windows.
- ◊ Ensure everyone understands where the areas of safe refuge are located.
- ◊ Test all smoke alarms monthly to ensure that they work. Replace batteries as needed.
- ◊ Remember to get out first, then call for help. Never go back inside for anything, until the fire department has given the OK.
- ◊ Once you are out, STAY OUT, and always leave the fire fighting to professionals.

GENERAL PRINCIPLES OF FIRE EXTINGUISHER USE

Remove fire extinguisher from mounting/Call for help

Remember when you are trying to extinguish a fire the four letter word **PASS...**

- ◊ Pull pin: This allows you to activate the extinguisher.
- ◊ Aim: Hold hose and point at the base of the fire.
- ◊ Squeeze: The trigger mechanism to release the extinguishing agent.
- ◊ Sweep: Back and forth at the base of the fire.

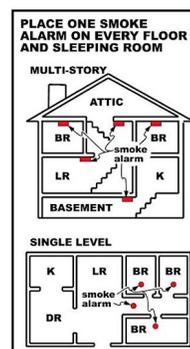


INSTALLING AND MAINTAINING SMOKE ALARMS

Installing your smoke alarms correctly and making sure they are in working order is an important step to making your home and family safer from fire. It's important to have enough smoke alarms in your home. Fire research has demonstrated that with today's modern furnishings, fires can spread much more rapidly than in the past when more natural materials were used. Because of this, having a sufficient number of properly located smoke alarms is essential to maximize the amount of available escape time. For many years NFPA 72, National Fire Alarm and Signaling Code, has required as a minimum that smoke alarms be installed inside every sleep room (even for existing homes) in addition to requiring them outside each sleeping area and on every level of the home. (Additional smoke alarms are required for larger homes.) Homes built to earlier standards often don't meet these minimum requirements. Homeowners and enforcement authorities should recognize that detection needs have changed over the years and take proactive steps make sure that every home has a sufficient complement of smoke alarms.

Installing smoke alarms

- ◇ Choose smoke alarms that have the label of a recognized testing laboratory.
- ◇ Install smoke alarms inside each bedroom, outside each sleeping area and on every level of the home, including the basement.
- ◇ On levels without bedrooms, install alarms in the living room (or den or family room) or near the stairway to the upper level, or in both locations.
- ◇ Smoke alarms installed in the basement should be installed on the ceiling at the bottom of the stairs leading to the next level.
- ◇ Smoke alarms should be installed at least 10 feet (3 meters) from a cooking appliance to minimize false alarms when cooking.
- ◇ Mount smoke alarms high on walls or ceilings (remember, smoke rises). Wall-mounted alarms should be installed not more than 12 inches away from the ceiling (to the top of the alarm).
- ◇ If you have ceilings that are pitched, install the alarm within 3 feet of the peak but not within the apex of the peak (four inches down from the peak).
- ◇ Don't install smoke alarms near windows, doors, or ducts where drafts might interfere with their operation.
- ◇ Never paint smoke alarms. Paint, stickers, or other decorations could keep the alarms from working.
- ◇ For the best protection, interconnect all smoke alarms. When one smoke alarm sounds they all sound. Interconnection can be done using hard-wiring or wireless technology.
- ◇ When interconnected smoke alarms are installed, it is important that all of the alarms are from the same manufacturer. If the alarms are not compatible, they may not sound.
- ◇ There are two types of smoke alarms – ionization and photoelectric. An ionization smoke alarm is generally more responsive to flaming fires, and a photoelectric smoke alarm is generally more responsive to smoldering fires. For the best protection, both types of alarms or combination ionization-photoelectric alarms, also known as dual sensor smoke alarms, are recommended.
- ◇ Keep manufacturer's instructions for reference.



TESTING SMOKE ALARMS

Smoke alarms should be maintained according to manufacturer's instructions. Test smoke alarms at least once a month using the test button.

Make sure everyone in the home understands the sound of the smoke alarm and knows how to respond. Follow manufacturer's instructions for cleaning to keep smoke alarms working well. The instructions are included in the package or can be found on the internet. Smoke alarms with non-replaceable 10-year batteries are designed to remain effective for up to 10 years. If the alarm chirps, warning that the battery is low, replace the entire smoke alarm right away. Smoke alarms with any other type of battery need a new battery at least once a year. If that alarm chirps, warning the battery is low, replace the battery right away or as needed.

When replacing a battery, follow manufacturer's list of batteries on the back of the alarm or manufacturer's instructions. Manufacturer's instructions are specific to the batteries (brand and model) that must be used. The smoke alarm may not work properly if a different kind of battery is used.



TYPES OF FIRES

Fires are chemical reactions that occur when fuel, oxygen, and an ignition source combine. Would you know what fire extinguisher to use?

Class A Fire: Paper, wood, cloth, etc. (solids that are not metal) where quenching by water or insulating by general purpose dry chemical is effective.

Class B Fire: Flammable liquids (gasoline, oils, or other flammable gasses) where smothering action is required.

Class C Fire: Fire in live electrical equipment (motors, switches, computers and etc.) where a non-conductive extinguishing agent is required.

Class D Fire: Fires involving metals, magnesium, potassium, sodium and sodium-potassium alloys.

Class K Fire: Designed specifically for kitchen grease fire hazards and are now required for extinguishers installed in commercial kitchens. To only be used after suppression system discharges



TYPES OF FIRE SUPPRESSION EQUIPMENT

To understand how fire extinguishers work, you need to understand a little about fire. Fire is a very rapid chemical reaction between oxygen and a combustible material, which results in the release of heat, light, flames, and smoke.

All portable fire extinguishers must be approved by a nationally recognized testing laboratory to verify compliance with applicable standards. Equipment that passes the laboratory's tests are labeled and given an alpha-numeric classification based on the type and size of fire it will extinguish.

◇ Multipurpose "ABC" Dry Chemical Fire Extinguishers

Come in many different sizes. Normally these will be 5-10 pound fire extinguishers found in various locations. Can be used on Class A, B, and C fires.

◇ Class "D"

A class D fire extinguisher is used for fighting class D fires. Class D fires are metal fires involving magnesium, potassium, sodium and sodium-potassium alloys. The class D extinguishers are mostly used in the aircraft industry, auto body shops and factories working with metal.

◇ Class "K" Kitchen Fire Extinguishers

Wet chemical fire extinguishers for use with kitchen appliances. Discharges a fine mist that helps prevent grease splash and fire re-lash while cooling the appliance.

◇ Standpipe Hose/Non-Collapseable Hose Reels

Is mounted and supplies a hose reel in a fixed location on TDCJ units, on the wall of a dormitory, department, or on a cellblock run. Hard rubber hose that sprays a fog or straight stream pattern of water. Only to be used on Class A fires.

HAZARD HUNTING

- ◇ Replace or repair any electrical device with a loose, frayed, or broken cord. Heaters should be UL listed and the circuit capable of supporting the additional electrical load. The use of surge protectors may be used as long as they do not cause circuits to trip.
- ◇ All appliances should have the approval of the Warden or Department head prior to use.

PORTABLE SPACE HEATERS

Colder temperatures often prompt the use of portable space heaters. The National Fire Protection Association (NFPA) 101 Life Safety Code prohibits the use of portable space heaters in correctional/detention occupancies. If approved, administrative areas should exercise caution when using space heaters.

- ◇ Purchase only space heaters that have been safety tested and UL approved.
- ◇ Make sure the unit is equipped with an emergency tip-over shut-off feature and heating element guards.
- ◇ There MUST be a radial clearance of three feet of any combustible material.
- ◇ If at any time a breaker trips due to the use of the heater, the heater SHALL be removed immediately and not used on that circuit any longer. Re-setting the breaker and continuing to use the heater on that circuit could result in a short or fire.
- ◇ Read and follow all of the manufacturer's instructions for operation and care. Check to make sure the heater is clean and in good condition, and have all problems professionally repaired.
- ◇ Never use extension cords or multiple plugs with a space heater, and make sure the unit is not plugged into the same circuit as other electric appliances.

INSPECTIONS

Often when people think of fire safety the first thing that comes to mind is usually fire extinguishers and smoke detectors. Rather than focusing primarily on what to do in the event of a fire, first we must understand how to keep fire from happening.

Inspections

- ◇ When properly utilized, inspections are an effective method of eliminating hazards and an educational opportunity for employees and offenders.
- ◇ Regular and periodic inspections can identify fire hazards and unsafe practices that may pose a threat to the safety of individuals within a specific area. There are some simple areas to focus attention when conducting a fire safety inspection.

Housekeeping

- ◇ Housekeeping is one of the easiest forms of fire prevention. Look to see how combustibles, or things that burn, are being stored in each area. Don't allow unnecessary paper to build up and ensure there is a process in place for regular waste disposal. Store excess materials and equipment out of the range of fire exits to prevent blocking or tripping.
- ◇ Do not store materials in such a manner that would block sprinkler heads, fire suppression equipment, or emergency lights.

Chemicals

- ◇ Flammable liquids should only be stored in approved containers. Chemicals with a flash point less than 100 degrees must be stored in an approved flammable storage cabinet. Never store combustibles inside or on top of flammable storage cabinets.
- ◇ If Flammable liquids and substances are present in the workplace, look to see if the chemical is actually needed to perform the work required, if so try to identify any non-flammable alternatives.

Open Flames

- ◇ No open flames should be produced near flammable materials. The use of candles is prohibited.

Electrical Hazards

- ◇ Electrical circuits should not be overloaded. Use only appropriate 3-wire extension cords and plug them directly into an outlet. Never "piggy-back" or "daisy chain" extension cords and power strips.
- ◇ If electrical equipment or cords feel hot, unplug them and discontinue their use until cleared by an electrician.
- ◇ Appliances should be in the "OFF" position when unattended.

**Report hazards in the work-place to a supervisor.
Do not use equipment that is unsafe**



FIRE DRILLS

The purpose of fire drills in offender living areas is to ensure that assigned staff understand their duties and responsibilities, that the emergency key system is functional, that locks and doors are operational, and any concerns or deficiencies are addressed.

Fire drills shall be practiced in all housing areas at least once per quarter, per shift. (RM-22)

All other areas are required to have a drill ran at least quarterly.

HOT WORK

Any time welding, grinding, or other types of work that produce a flame or spark is performed outside an approved hot work area, a Hot Work Permit is required.

Ensure there is an appropriate fire extinguisher available for the work being performed.

After any hot work is completed, a fire watch must be implemented for a time of no less than 30 minutes to ensure a fire does not start due to the hot work.

Training Circular TDCJ Risk Management Department

Kelvin Scott
Director

Administrative Review and Risk Management Division

Christopher Carter
Deputy Director

Administrative Review and Risk Management Division

Cliff Prestwood
Manager II

Risk Management

The Training Circular, a publication of the Texas Department of Criminal Justice Risk Management Department, is published monthly in an effort to promote and enhance risk management awareness on issues relating to TDCJ employees. Design and layout of the Training Circular is preformed by Cliff Prestwood, Risk Management. Comments, suggestions and safety related items are welcome.

Send suggestions to:

Cliff Prestwood

Risk Management

1060 Hwy 190 East

Huntsville, Texas 77340

Or,

cliff.prestwood@tdcj.texas.gov

All items received become property of the Risk Management Department unless otherwise agreed and are subject to be rewritten for length and clarity. Permission is hereby granted to reprint articles, provided source is cited.

FIRE EXTINGUISHER INSPECTIONS



- ◇ Fire extinguishers shall be inspected either manually or by means of an electronic monitoring device/system at intervals not exceeding 31 days (NFPA-13.6.4.2.1.2).
- ◇ Where manual inspections are conducted, records for manual inspections shall be kept on a tag or label attached to the fire extinguisher, on an inspection checklist maintained on file, or by an electronic method (NFPA– 13.6.4.2.4.1.1).
- ◇ Personnel making manual inspections shall keep records of all fire extinguishers inspected, including those found to require corrective action (NFPA-13.6.4.2.4.1.3).
- ◇ Records shall be kept to demonstrate that at least the last 12 monthly inspections have been performed (NFPA-13.6.9.2.4.5).
- ◇ Six-year Internal Examination. Every 6 years, stored-pressure fire extinguishers that require a 12-year hydrostatic test shall be emptied and subject to the applicable internal examination procedures as detailed in the manufacturer’s service manual and NFPA 10 (NFPA-13.6.4.3.6).
- ◇ Six-Year Service Label. Fire extinguishers that pass the applicable 6-year requirement of 13.6.4.3.6 shall have the maintenance information recorded on a weather-proof, durable label that is a minimum size of 2 in x 3 1/2 (NFPA-13.6.4.3.6.5).
- ◇ The six-year examination label shall, as a minimum, identify the following information (NFPA– 13.6.4.3.6.5.3).
 - ◇ Month and year the six-year internal examination was performed
 - ◇ Person performing the work
 - ◇ Name of the agency performing the work
- ◇ Each extinguisher shall be in its designated place, clearly visible, and not blocked by equipment, coats, or other objects that could interfere with access during an emergency.
- ◇ The nameplate with operating instructions shall be legible and facing out-ward.
- ◇ The pressure gauge should show that the extinguisher is fully charged (the needle is in the green zone).
- ◇ The pin and tamper seal shall be intact.
- ◇ The extinguisher shall be in good condition and showing no signs of physical damage, corrosion, or leakage.



References:

- RM-22 <http://www.tdcj.texas.gov/> OSHA <https://www.osha.gov/> [29 CFR 1910.164(d)(1)] NFPA 1 Fire Code
- <http://www.nfpa.org>