



PREVENTION

Highlights

Staying Winter Weather Safe

In This Issue...

- **Safety Concerns, Power Strips**
- **Dangers of Carbon Monoxide in Daycares**
- **Keeping Nursing Homes Safe this Winter**

PREVENTION Highlights

TABLE OF CONTENTS

Page 3
Edu-Note by Shawn

Page 4-5
New Employees

Page 6-7
Dangers of Carbon Monoxide
in Daycares

Page 8
Protecting Those who Kept Us Safe

Page 9
Safety Concerns Surrounding the
Use of Power Strips

Page 10
Spot the Violations

Page 11
Historical Fires...

Page 12
Winter Holiday Safety



Our Mission

The Office of the State Fire Marshal (OSFM) is dedicated to protecting lives and property from the hazards of fire or explosion and will promote prevention, educational and investigative activities to mitigate incidents, promote life safety and deter crimes.

The Fire Prevention Division

The goal of the Fire Prevention Division is to reduce the potential impact of fire and explosion hazards where people live, work and congregate (other than one- or two-family dwellings) through code enforcement, inspections, plans review, licensing, and public education.

Prevention Highlights

Prevention Highlights is published quarterly to provide facility managers and others with information necessary to operate fire-safe facilities.

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Edu-Note

by Shawn



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With fall upon us, winter is right around the corner. Cooler temperatures will bring the more frequent use of furnaces and other devices that can produce Carbon Monoxide (CO). In this Issue of Prevention Highlights, we will cover the risks and prevention options to keep us all safe from this potentially deadly gas.

As we enter the holiday season it is important for us to keep our mind on safety. Too often, preventable tragedies create unbearable memories for a time of year that should be filled with joy. Through careful planning and attention to the safety risks, we can all have a safe and joyful holiday season.

Fire Safety in our schools is an in-depth topic that has many facets. Power strip use is a major part of this topic. With today's technology requirements and the lack of power outlets in aging buildings, many school staff resort to the use of multiple power strips to meet the electrical needs of their classrooms. In this issue you will find information on the safe use of power strips. These tips can help provide a safe learning environment for our children and school staff.

In October of this year there were two incidents that received national attention regarding Carbon Monoxide (CO) poisoning. One involved over two dozen children and staff at a daycare, the other a school where six students were hospitalized with CO poisoning symptoms. These events have brought to light the importance of protecting everyone from the risks of CO exposure.

We at the Office of the State Fire Marshal would like to extend a heartfelt desire that we all have safe and wonderful holiday season.

If you have any questions, or if you would like to set up a presentation, please feel free to send me an email shawn.alexander@ks.gov.

-Shawn Alexander, Fire Prevention Education Consultant

Congratulations...



Spencer Smith

A special congratulations goes out to Fire Prevention Inspector Spencer Smith.

Spencer came to work for the OSFM in 2021 and has successfully passed all required coursework and exams to earn the necessary certifications for an Inspector I.

His accomplishments began with his Certified Fire Inspector 1 licensing coursework and exam. This exam is a 100-question exam with a 4-hour time limit. This certification was followed by 207 hours of coursework towards him earning his Federal Fire Inspectors certification through the Center for Medicare Services (CMS). These 17 coursework sections all come with their own exam and is no easy feat.

Spencer, as with all inspectors, completed this while learning all of the practical skills necessary to carry out inspections. With these certifications, Spencer is now a fully qualified Inspector 1 with the OSFM.

Great work Spencer!



Welcome to OSFM Prevention...



Jen Carder

The Office of the State Fire Marshal Prevention Division is pleased to welcome several new employees.

Jen Carder joined our Prevention Division as a Fire Prevention Inspector for Territory 1 in Northwest Kansas, after 8 years as a middle school and high school teacher. She has previous experience as a firefighter/EMT.

Jen lives in Hoxie with her two daughters and Dachshund, Dizzy. She enjoys reading, movies and traveling.

"I knew this would be a wonderful opportunity," Jen said. "My father was a fire chief for 40 years, and this was a dream career for me."

Heather Lopez started her position at OSFM as a Fire Prevention Inspector for Johnson County.

She lives with her husband, four children and dog in Lawrence.

"This is a great place to grow," Heather said. "I hope to one day retire from OSFM."



Heather Lopez



Debra Tyler

We are also pleased to welcome **Debra Tyler**, who has joined our Prevention Division as a Senior Administrative Specialist in our Topeka office. She comes to OSFM from the First United Methodist Church in Lawrence, where she was the Office Manager for the past three-and-a-half years.

Debra lives in Ozawkie with her husband, Monty, who is a mechanic at Goodyear, and their pet fish. They have six adult children in their blended family, Candice, Josh, Andy, Kyle, April, and Haley, and they have four grandchildren, with one on the way in January 2023. She enjoys spending time on the water and hiking in the mountains.

"I know prevention has the power to change outcomes," Debra said. "And I want to do my part to make the world a better place."

Anthony Roman, who has joined our Prevention Division as a Fire Prevention Inspector for Area 4, which covers Ellis, Russell, Ellsworth, Rush, Lincoln, and Mitchell counties. He brings 14 years of fire experience, five years of law enforcement experience and three years of private security experience to OSFM.

Anthony lives in Salina, where he enjoys hunting and fishing.

"I wanted to further my knowledge and skills in the fire service industry," he said. "That is why I took this position, and I hope to be able to make an impact."



Anthony Roman



Charles Rice

We are also pleased to welcome **Charles Rice** and **Jane Hammond** to our Prevention Division. Charles begins his career with OSFM as a Fire Prevention Inspector I for Morris, Lyon, Geary, Wabaunsee, and Chase counties. He comes to the position after 11 years working in corrections.

Charles lives in Topeka after buying his first home three years ago. He has a Rottweiler and German Shepherd. He enjoys volunteering, doing things around his house, reading, making playlists, roller skating and dancing.

"I changed careers for three reasons," Charles said. "Safety and security always come first (pun intended), two, I still don't know what I want to be when I grow up, and three, after my first day I can confirm how well OSFM treats their employees!"



Jane Hammond

Jane comes to OSFM in a Fire Prevention Inspector – Enforcement position. She previously worked as a security officer for Stormont Vail and has over 16 years of experience from the military, fire service, security, and medical communities.

Jane lives in Topeka with her husband, two sons and dog, Ranger. She enjoys walking at Lake Shawnee, workouts, weightlifting and sports with her kids

"I really wanted a more challenging job," she said. "Also, with my background this seemed like a good fit to work towards my long-term goal of moving into Emergency Management."

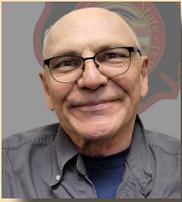
Welcome to the OSFM Prevention family, Jen, Heather, Debra, Anthony, Charles and Jane!

For a list of OSFM current job openings visit
[https://firemarshal.ks.gov/](https://firemarshal.ks.gov/Jobs.aspx)
Jobs.aspx



Welcome to OSFM Prevention...

The OSFM also recently hired one new boiler and four new fire prevention inspectors to its Prevention Division.



Larry Robinson will serve as a Boiler Inspector for Area #4. He comes to OSFM after five years of working as a boiler operator for Kansas DOA.

Larry lives with his wife in Burlingame. He has a son and a daughter, as well as a cat and dog. He enjoys black smithing and distilling.

"I look forward to helping people live longer," he said.

Kenny Jaske joins OSFM as a Fire Prevention Inspector for Reno and Rice counties. He has worked as a welder for Doonan Specialized Trailer.

Kenny lives in Hoisington with his two dogs. In his spare time, he enjoys hunting.

"I wanted something different than anything I have done in the past," he said.

James Jerome joins OSFM as a Fire Prevention Inspector for Miami, Franklin and Osage counties. He has seven years of experience in law enforcement and over six years of experience as a firefighter.

James lives with his wife and two daughters in lola, along with their cat, Stormi. He enjoys playing bass guitar, camping, fishing, traveling and visiting new places with his family.

"I chose to accept the position at the Office of the Fire Marshal so that I could continue to contribute to the welfare and safety for the residents of Kansas," he said.

James Jerome

Derek Jones joins OSFM as a Fire Prevention Inspector for Hamilton County, Kearney, Finney, Grant, Morton and Stevens counties. He has worked in construction and security and has nine years of active-duty service in the U.S. Navy in damage control and firefighting.

Derek lives in Lankin and has a daughter, 16, and a son, 5, as well as a cat, Kiwi. He enjoys music, song writing, recording and playing live. He also spends time with tech and tech-related devices.

"It's a great opportunity to work for the state and continue in the firefighting/fire safety space," he said.



Michael Yanez

Michael Yanez joins OSFM as a Fire Prevention Inspector for Butler and Cowley counties. He comes to OSFM from the Sedgwick County Code Enforcement, Metropolitan Area Business Construction Department, where he worked for over two years.

Michael lives with his wife, two sons, and two dogs in Wichita. He enjoys waterfowl hunting, KU sports, whatever his kids are into currently, which is baseball and football and reading nonfiction books and medical journals for further education purposes.

"I'm always up for a challenge and new adventures," he said. "My favorite quote is: 'There are no bad teams, only bad team leaders,' from Extreme Ownership, 2015."



Kenny Jaske



Derek Jones

Welcome to the OSFM, Larry, Kenny, James, Derek and Michael!

Visit GetAlarmedKS.org to learn about our *FREE* Smoke Alarm Installation Program

Smoke alarms available:

- Smoke & CO combination alarms
- Smoke alarm devices for residents who are deaf or hard-of-hearing



Dangers of Carbon Monoxide in Daycares

Recently, it has come to light that there are several states that do not require the use of carbon monoxide (CO) alarms in daycares. Kansas is one of them. While the Fire Marshal's Office is unable to make enforcement due to the adopted code, it is still highly recommended that such alarms be utilized in all occupancies.

CO exposure is an important but most often under appreciated health concern. It is the most common form of accidental poisoning in the homes. Exposure to CO can result in severe cardiovascular and neurobehavioral effect and even death. Because CO is an odorless, tasteless, and colorless gas, its presence indoors can only be detected using CO alarms. CO is produced from incomplete combustion of carbon-containing fuels such as natural gas, gasoline, oil, and wood. Indoor CO concentrations are typically low, but harmful levels can result from persistent sources and poor ventilation.

The level and duration of CO exposure determines the resulting health effects. At lower levels symptoms are nonspecific and can include headache, fatigue, nausea, vomiting, and dizziness. Continued exposure to moderate or high CO levels (acute exposure) can result in disorientation, unconsciousness, convulsions, and cardiorespiratory arrest.

Steps that can be taken to prevent CO poisoning are eliminating emissions, providing quality ventilation and the use of CO alarms in all occupancies. As with fire, early warning is our best defense.

Some common devices and appliances that can produce CO include fireplaces, wood stoves, gas dryers, gas water heaters, gas stoves, furnaces fueled by fire and vehicles. When CO enters the body, it restricts the flow of oxygen to body tissues and major organs. This includes organs such as the brain and heart.

When it comes to choosing a CO alarm system that is right for you, there are some things to consider. It is important to make sure there is full coverage throughout a building or home. This means at least one alarm on every level as well as additional detectors in areas containing the use of appliances



or devices that could produce CO. It is important to follow all manufacturer's instructions for placement and mounting height.

Some options to choosing CO alarms are:

- Sealed unit carbon monoxide alarms: With these CO alarms, the battery is sealed inside the unit. When the battery runs out, the detector will alert you and you will have to get the unit replaced. The good thing about these is they are tamper-proof, and you won't have to worry about someone accidentally removing the battery. They have a lifespan of around ten years and are ideal for commercial buildings and those with low maintenance resources.
- Replacement battery carbon monoxide alarms: This type of CO alarm is the replacement battery type, which is where you replace the batteries whenever they run out, but you can continue using the same unit. Batteries typically need replacing every couple of years, but your detector will alert you when the battery is running out. These are better suited for small businesses and homes.
- Smart carbon monoxide alarms: In today's age of digital technology, it is only natural that smart CO alarms are available. With these, the alarm will sound if any CO is detected but you will also receive notification on your smartphone. This is the costliest option listed. However, if you spend a lot of time away from your business or home it may be worth investing in, so you receive a notification regardless of your location.

The benefits of having CO alarms far outweigh the cost. You really can't put a price on peace of mind.



Carbon Monoxide Safety



Often called the invisible killer, carbon monoxide is an invisible, odorless, colorless gas created when fuels (such as gasoline, wood, coal, natural gas, propane, oil, and methane) burn incompletely. In the home, heating and cooking equipment that burn fuel can be sources of carbon monoxide.

- CO alarms should be installed in a central location outside each sleeping area and on every level of the home and in other locations where required by applicable laws, codes or standards. For the best protection, interconnect all CO alarms throughout the home. When one sounds, they all sound.
- Follow the manufacturer's instructions for placement and mounting height.
- Choose a CO alarm that is listed by a qualified testing laboratory.
- Call your local fire department's non-emergency number to find out what number to call if the CO alarm sounds.
- Test CO alarms at least once a month; replace them according to the manufacturer's instructions.
- If the audible trouble signal sounds, check for low batteries. If the battery is low, replace it. If it still sounds, call the fire department.
- If the CO alarm sounds, immediately move to a fresh air location outdoors or by an open window or door. Make sure everyone inside the home is accounted for. Call for help from a fresh air location and stay there until emergency personnel declare that it is safe to re-enter the home.
- If you need to warm a vehicle, remove it from the garage immediately after starting it. Do not run a vehicle or other fueled engine or motor indoors, even if garage doors are open. Make sure the exhaust pipe of a running vehicle is not covered with snow.
- During and after a snowstorm, make sure vents for the dryer, furnace, stove, and fireplace are clear of snow build-up.
- A generator should be used in a well-ventilated location outdoors away from windows, doors and vent openings.
- Gas or charcoal grills can produce CO — only use outside.

HOME HEATING EQUIPMENT



Have fuel-burning heating equipment and chimneys inspected by a professional every year before cold weather sets in. When using a fireplace, open the flue for adequate ventilation. Never use your oven to heat your home.

FACTS

- ! A person can be poisoned by a small amount of CO over a longer period of time or by a large amount of CO over a shorter amount of time.
- ! In 2010, U.S. fire departments responded to an estimated 80,100 non-fire CO incidents in which carbon monoxide was found, or an average of nine calls per hour.



NATIONAL FIRE PROTECTION ASSOCIATION

The leading information and knowledge resource on fire, electrical and related hazards



Protecting Those who Kept Us Safe



As those we have depended on to keep us safe and comfortable continue to age, it is important that we do our part to reciprocate that action. As temperatures drop, keeping those in nursing homes warm becomes a challenge. Meeting this challenge is exacerbated by the need to remain fire code compliant and the natural aging process which limits the body's ability to keep itself warm.

The most common reaction to this challenge is to create an additional heat source. These often include space heaters, electric blankets, and heating pads. From a fire prevention standpoint, fire code does not allow for the use of space heaters in that environment. While electric blankets and heating pads are not governed by fire code, their use is regulated by the medical side of a nursing facility. The

answer to this dilemma is not an easy one.

With conditions that can be favorable to the production of fire, having a loved one in a nursing home can be stressful and can often make people feel somewhat helpless. Worries can intensify when you hear of the tragic nursing home fire that occurred in Hartford, Connecticut. You can play a role to increase the safety of your loved one.

Here are a few things to consider when either choosing or checking on someone already in a nursing home.

1. Is the building well maintained? Make sure that paper and other storage items do not block doors or hallways needed for escape.
2. Check to make sure there is an evacuation plan in place that involves all staff and is practiced regularly.
3. Are there safety systems in place such as alternative exits, smoke detectors, and sprinklers?
4. Check on the staff-to-patient ratio. How many staff per resident during the day and especially at night or on weekends and holidays? Is supervisory staff available to carry out an escape plan if there is a fire?
5. Are there guidelines for people who smoke such as a separate room or staff supervision?
6. Does nursing home management take your questions regarding safety seriously and are they forthcoming with information?

Most people think the danger from fire is the flames, however, it is the smoke that can travel quickly to areas far from the fire. It is important to realize that people living in nursing homes may not be able to evacuate because of limited or impaired mobility. Proper planning, training, and practice of all staff are essential to provide for the safety of residents. It is important for staff to know that patient safety is their number one priority.

It is everyone's responsibility to protect those that can't protect themselves.

Adequate Planning

- Every facility should have written fire procedures that are understood and practiced by all staff. Staff should be responsible for knowing and carrying out their part of the plan. That includes doctors, nursing staff, kitchen staff, maintenance, volunteers, and others.
- Response procedures should be practiced regularly
- There should be a clear "code word" agreed upon beforehand for the facility to alert other staff in case of fire.
- Quick response
- Call out the code to alert staff.
- Activate the fire alarm.
- Evacuate everyone in immediate danger.
- Close doors to contain smoke and fire.
- Once the fire is contained to the room of origin behind closed doors, never reopen the door or reenter the room to extinguish the fire.
- Close all doors to patient rooms.
- In evacuating, make sure no patient is left behind.



Safety Concerns Surrounding the Use of Power Strips

By: Mike Wikle, OSFM Enforcement Officer

Our office gets questions on a regular basis asking what codes cover the use of power strips. Usually only after a facility has been issued a violation notice for the improper use of. Below are current adopted fire codes. These items are covered by any of the following code locations depending on the type of occupancy.

2006 Edition, NFPA 101 LSC (section 9.1.2)

2006 Edition, IFC section (605.4.1)

2008 Edition, NEC (article 400)

Power strips, also known as relocatable power taps, strip plugs, temporary power taps or flex cords were invented and designed to be used as a multiple outlet extension in the laboratory and at home. Officially called relocatable power taps, they are listed by Underwriter Laboratories Inc. under standard UL1363. Those power taps have some degree of electrical surge protection and electrical noise filtering for the protection of sensitive electronic equipment are also known as transient voltage surge suppressors.



Relocatable power taps and transient voltage surge suppressors are only designed for use with a high concentration of low-powered loads such as computers, audio and video equipment, musical instruments, home movie lighting, home workshops and laboratory equipment. They are not intended for use with high load equipment such as refrigerators, coffee pots, space heaters, microwave ovens, toaster, toaster ovens, fans and shop equipment. Essentially anything with an electric motor and possibly a pulley and belt.

Relocatable power taps and transient voltage surge suppressors are not extension cords. Power taps are not considered temporary wiring. Although one of the alternative names is temporary power taps. The temporary, refers to the physical mounting of the device. Physical mounting of relocatable power taps is permitted if removal does not require the use of tools.

So, all the fire code sections above direct us to look at the UL listing 1363, which is an installation instruction for power strips, relocatable power taps, strip plugs, power taps and temporary taps. These above references tell you what they can and can't be used for.

Here is what they are NOT intended for:

- Not intended to be series connected (daisy chained) to other relocatable power taps or to extension cords;
- Not intended for use at construction sites and similar locations;
- Not intended to be permanently secured to building structures, tables, work benches or similar structures, nor are they intended to be used as a substitute for fixed wiring; and
- The cords are not intended to be routed through walls, windows, ceilings, floors or similar openings.

Keep in mind the UL requirement on permanent securing. It is often desirable to secure the relocatable power taps to avoid damage but secured such that no tools are required to remove it. Do use relocatable power taps for their intended purpose and with the intended equipment or loads. Avoid physical damage, exposure to water or wet locations.

Consider the load before plugging into a relocatable power taps. Do not plug in heavy appliances with high-powered loads or into extension cords. Do not use outdoors or on construction sites.

So remember, living better with electricity safety is the key, and will help prevent violations by your local fire inspectors.



SPOT the violations



A



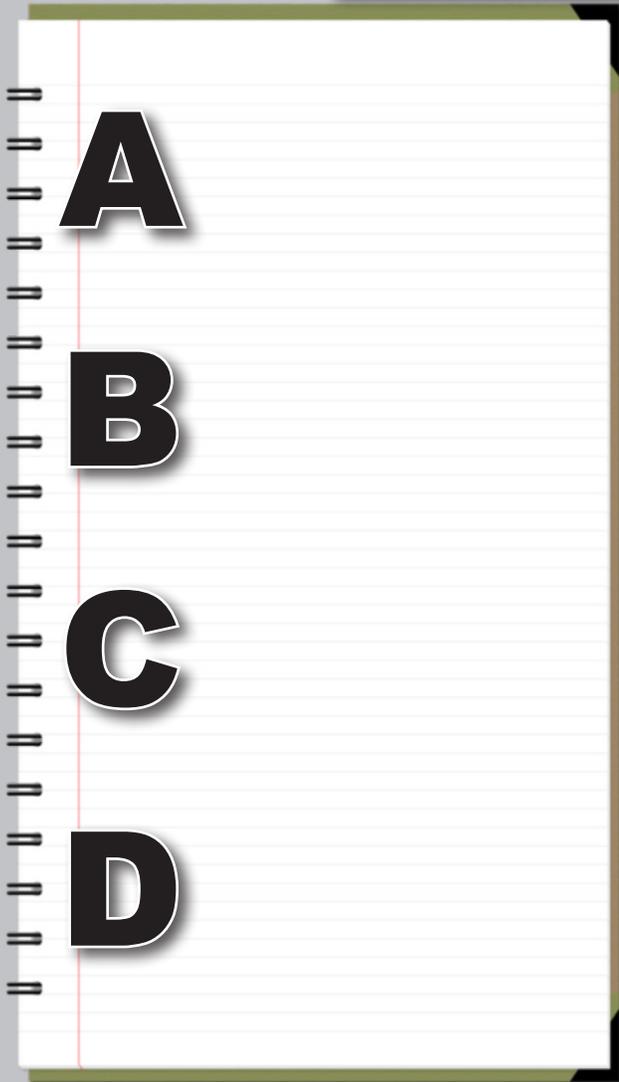
B



C



D



Answers on Page 11



Historical Fires...



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Iroquois Theatre Fire December 30, 1903

One cannot help but draw correlations to the story of the Titanic when considering the Iroquois Theatre fire in Chicago on December 30th, 1903. Over a century later, the fire that broke out inside the then newly minted and “absolutely fireproof” Iroquois Theatre in Chicago still ranks as the deadliest single building fire in U.S. history. Rushing to finish the theatre to open for Christmas holidays, the owners and their hired fire warden ignored many of the fire safety deficiencies noted by the City’s fire captain.

Municipal and regional fire chiefs did not have the same level of authority they have today to implement fire safety measures in buildings since many codes had not yet been enacted. The building was completed with no sprinkler system or fire alarm, poorly marked exits, an overabundance of combustible wood trim finishes, and fire extinguishers that proved to be useless. Perhaps more harmful than the lack of designed fire safety features (controlled today by building codes), it was measures taken by theatre staff and owners (guided today by fire codes) that were responsible for the 602 deaths.

Awareness of the fire was relatively quick and the fire only lasted 20 minutes but because 27 of the 30

exit and egress doors were locked or blocked with curtains or metal accordion gates, two thirds of the patrons were trapped and unable to escape. The theatre was also well over capacity with standing room tickets sold to increase profits.

The events resulting from the fire would go on to inform some of our most trusted and referenced building and fire codes used today. With the lessons learned from the fire came new fire safety provisions including:

- Limits on maximum seating capacity;
- Improved paths of egress;
- Exit markings along egress paths;
- Continuously lit exit signs;
- Emergency power for emergency lights and exit signs; and
- Improvements to exit doors including the invention of panic bars .

At this time in the evolution of building and fire codes, the act of forcing building owners to pay for costly lifesaving equipment and features was still considered a burden by many property owners but lawmakers and politicians were beginning to realize that the risk to lives was much too great to ignore.

Answers to Spot the Violations (page 10)

**A. COVERED SPRINKLER; B. BLOCK POINT OF EGRESS; C. PROPANE TANKS
STORED INDOORS; D. USE OF AND DAISY CHAINED EXTENSION CORDS.**



Winter Holiday Safety

Winter holidays are a time for families and friends to get together. But that also means a greater risk for fire. Following a few simple tips will ensure a happy and fire-safe holiday season.



HOLIDAY DECORATING

- Be careful with holiday decorations. Choose decorations that are flame resistant or flame retardant.
- Keep lit candles away from decorations and other things that can burn.
- Some lights are only for indoor or outdoor use, but not both.
- Replace any string of lights with worn or broken cords or loose bulb connections. Read manufacturer's instructions for number of light strands to connect.
- Use clips, not nails, to hang lights so the cords do not get damaged.
- Keep decorations away from windows and doors.



HOLIDAY ENTERTAINING

- Test your smoke alarms and tell guests about your home fire escape plan.
- Keep children and pets away from lit candles.
- Keep matches and lighters up high in a locked cabinet.
- Stay in the kitchen when cooking on the stovetop.
- Ask smokers to smoke outside. Remind smokers to keep their smoking materials with them so young children do not touch them.
- Provide large, deep ashtrays for smokers. Wet cigarette butts with water before discarding.



Before Heading Out or to Bed

Blow out lit candles when you leave the room or go to bed. **Turn off** all light strings and decorations before leaving home or going to bed.

FACTS

- ! More than **one-third** of home decoration fires are started by candles.
- ! More than **two of every five** decoration fires happen because decorations are placed too close to a heat source.



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