

# TENNESSEE STATE FIRE MARSHAL'S OFFICE



## MONTHLY FIRE PREVENTION AND PUBLIC FIRE EDUCATION PLANNING GUIDE 2011-2012

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# **TENNESSEE STATE FIRE MARSHAL'S OFFICE**

## **Monthly Fire Prevention and Public Education Plan 2011-2012**

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### **MISSION STATEMENT**

*"The State Fire Marshal's Office is committed to protecting the safety of Tennesseans and their property through fire prevention, education, codes enforcement, regulation, investigation and law enforcement."*

Historically, Tennessee's fire mortality rate for civilians has been among the highest in the nation. During the past ten years, the national fire mortality rate declined, but the rate in Tennessee increased. The purpose of this document is to provide a 52-week public fire education program as a guide for State Fire Marshal's Office (SFMO) fire prevention activities. It is also provided to local fire departments and officials across the state to promote a statewide coordinated fire prevention effort. This plan is anticipated to help in the fight to reduce and prevent fire related fatalities that occur each year in our state.

### **Tennessee Fire Prevention Facts**

1. Last year, Tennessee had a fire dollar loss of more than \$427 million with 253 fire related injuries and 122 fire related deaths. There were also 145 firefighters injured and 2 firefighters killed in the line of duty. Tennessee fire departments responded to 28,187 fires with 9,901 of these fires inside buildings. These figures include what was reported however 40% of overall fires reported to the SFMO were listed as "Unknown" cause. Fires involving fatalities had 60% of the causes reported as "Unknown."
2. More than 80% of fire deaths are in residential occupancies – A theory exists that if you reduce the residential fire deaths then the overall death rate will decrease. Residential fire deaths are the one area where the fire mortality rate can be improved.
3. Properly installed and maintained smoke alarms are considered to be one of the least expensive means of providing an early warning of a potentially deadly fire and could reduce the risk of dying from a fire in your home by almost half.
4. The state's fire incident reports indicated that smoke alarms were present in only 28 percent of fatal fire cases. By contrast, smoke alarms were present in about 38 percent of fatal fires nationally suggesting that more lives might be saved if smoke alarms were more widely employed and maintained by Tennessee households. There are also documented cases where working smoke detectors did not alert occupants or occupants were affected by smoke and gases before smoke alarms activated.
5. According to NFPA, the combination of working smoke alarms and home fire sprinklers lowers the risk of death from fire by more than 80%. The fire death rate for people 85 and older is five times the national average. People with a physical or mental disability are more than twice as likely to die in a fire.

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6. Similar to the nation, the state's residential fire victims tend to be the very young, the very old, and minorities. Members of each of these groups die in fatal fires in proportions that exceed their size in the population.
7. The fire chiefs who responded to a statewide survey thought that the top four strategies to prevent and reduce residential fire deaths were (1) smoke alarm distribution and installation, (2) having home sprinkler systems, (3) enforcing applicable codes and (4) presenting fire safety demonstrations and instruction at local schools. In open-ended comments, most fire chiefs thought that the single best approach to reducing fire deaths was to ensure that all structures, residences included, have working smoke/fire alarms.
8. The analysis of mortality rates in the Tennessee's 1261 populated census tracts indicated that several social, economic and housing variables distinguished those tracts with residential fire deaths. These included educational variables, median household income and persons living in poverty, and the percentage of mobile homes of the housing stock and the median value of the housing units. These variables were used to identify the census tracts in which no fire deaths had yet occurred but were most like those tracts where fire deaths had occurred during 2002-2010. This analysis yielded 358 census tracts as having "above average" risk for fire fatalities, 199 tracts with "high" risk and 78 tracts with the "highest" risk for fire fatalities in addition to those where home fire deaths had already occurred.

In Tennessee during 2010,

A fire department responded to an alarm every minute and a half.  
A fire department responded to a fire every 18 1/2 minutes.  
One structure fire was reported every 53 minutes.  
One home structure fire was reported every hour and 11 minutes.  
One home fire injury was reported every 2 days.  
One home fire death occurred every 4 days.

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### BACKGROUND

In 1923, the Fire Prevention Division, also known as the State Fire Marshal's Office, was established by the Tennessee General Assembly. At that time under the Department of Insurance and Banking, the division was tasked to prevent and investigate fires. The mission of the Fire Prevention Division has been widely expanded and is now under the Tennessee Department of Commerce and Insurance. The seven sections within the Fire Prevention Division are Administrative Services, Bomb and Arson, Codes Enforcement, Contract Inspection Services, the TN Fire and Codes Enforcement Academy, Tennessee Commission on Firefighting and Manufactured Housing.

In Tennessee, there have been many attempts to improve fire prevention efforts dating back to 1948 when President Harry S. Truman conducted the nation's first Conference on Fire Prevention. Tennessee was one of 34 states that set up a "Fire Safety Committee" and one of 18 states that held a statewide fire prevention conference.

*"Governor Jim Nance McCord called a Statewide fire prevention conference, which was held at Nashville on April 26, 1948. Dr. Andrew D. Holt, conference chairman, State Fire Marshal James M. McCormack, and Leon McGilton, chairman of planning committee, organized a most successful conference, which provided for permanent Statewide activities, to be guided by a committee appointment by the Governor."*

*"Governor McCord personally participated in the conference, delivering an address which was broadcast throughout the State."*

..... From The Truman Report

President Truman was also quoted in the report as saying:

***"Safety from fire should not be a topic for discussion during only one or two weeks of the year. It is definitely a year-round public responsibility. I believe that the highest State and Municipal officials must assume greater responsibility for leadership in this field. We in the Federal Government can give aid within the framework of existing agencies. But the impetus must come from the States and from every community and every individual in the land."***

..... From The Truman Report

As a result of the national conference, a publication was distributed called, "A Guide to Community Organization for Fire Safety." This publication summarized a coordinated fire prevention program for use by state and local organizations in promoting fire safety.

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This year, the State Fire Marshal's Office is providing a "new" guide and a committed effort to improving fire prevention. Fire prevention must be considered a year-round process; and the attached document serves as both the tool to identify target areas where fire deaths are predicted but also provides a coordinated program of public fire education to reduce fire related deaths.

This is the first step of a new progressive public education program that is committing to updating, publishing, and distributing this guide and other information annually to fire service leaders across the state. Research, data tracking, and the use of new technology will support efforts as this is a never ending process.

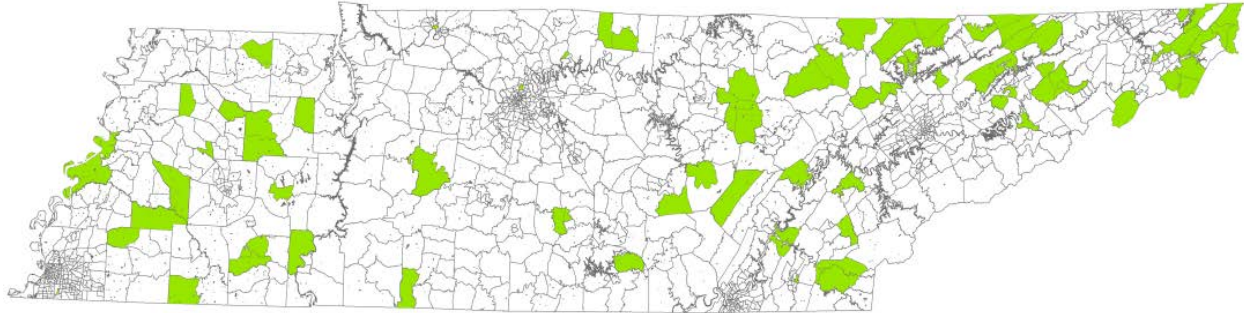
Please share the "**SFMO Monthly Fire Prevention and Public Fire Education Planning Guide (2011-2012).**"

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## TARGET COMMUNITIES FOR ACTIVITIES

Utilizing the “Fire Mortality Risk Analysis Map” developed by researchers at the University of Tennessee, certain demographics were targeted across the state as priorities for needing public fire education programs. The 78 “Highest Risk” areas are being identified so fire prevention efforts can be targeted to these areas in the 2011-2012 Fire Prevention Programs. Below is the description of these target areas:



Census Tract 1, Putnam County  
Census Tract 1008, Hamblen County  
Census Tract 1009, Montgomery Co.  
Census Tract 103, Bradley County  
Census Tract 110.01, Davidson County  
Census Tract 110.10, Shelby County  
Census Tract 1101, Morgan County  
Census Tract 14, Shelby County  
Census Tract 207, Anderson County  
Census Tract 208, Anderson County  
Census Tract 208, Sumner County  
Census Tract 402.01, Union County  
Census Tract 431, Sullivan County  
Census Tract 5003, Grainger County  
Census Tract 5004, Grainger County  
Census Tract 501, Lauderdale County  
Census Tract 502, Hawkins County  
Census Tract 509, Hawkins County  
Census Tract 603, Fayette County  
Census Tract 607, Loudon County  
Census Tract 702, Jefferson County  
Census Tract 710, Carter County  
Census Tract 712, Carter County  
Census Tract 713, Carter County  
Census Tract 715, Carter County

Census Tract 716, Carter County  
Census Tract 717, Carter County  
Census Tract 801, Union County  
Census Tract 901, Greene County  
Census Tract 907, Greene County  
Census Tract 912, Greene County  
Census Tract 913, Greene County  
Census Tract 9501, Campbell County  
Census Tract 9502, Campbell County  
Census Tract 9502, Polk County  
Census Tract 9503, Hickman County  
Census Tract 9504, Bedford County  
Census Tract 9505, Bedford County  
Census Tract 9506, Hardeman County  
Census Tract 9506, Overton County  
Census Tract 9509, Campbell County  
Census Tract 9510, Campbell County  
Census Tract 9532, Bledsoe County  
Census Tract 9561, Johnson County  
Census Tract 9563, Johnson County  
Census Tract 9564, Johnson County  
Census Tract 9601, Franklin County  
Census Tract 9602, Hancock County  
Census Tract 9603, Hancock County  
Census Tract 9603, Meigs County

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Census Tract 9604, Hancock County  
Census Tract 9606, Lawrence County  
Census Tract 9620, Carroll County  
Census Tract 9623, Carroll County  
Census Tract 9624, Carroll County  
Census Tract 9660, Gibson County  
Census Tract 9669, Gibson County  
Census Tract 9673, Gibson County  
Census Tract 9687, Weakley County  
Census Tract 9703, Cumberland County  
Census Tract 9703, Macon County  
Census Tract 9704, Claiborne County  
Census Tract 9704, Macon County  
Census Tract 9705, Claiborne County  
Census Tract 9705, McMinn County

Census Tract 9708, Claiborne County  
Census Tract 9750, Rhea County  
Census Tract 9750, Scott County  
Census Tract 9754, Henderson County  
Census Tract 9754, Scott County  
Census Tract 9801, Haywood County  
Census Tract 9802, Cocke County  
Census Tract 9802, Hardin County  
Census Tract 9808, Haywood County  
Census Tract 9852, Van Buren County  
Census Tract 9902, McNairy County  
Census Tract 9903, McNairy County  
Census Tract 9909, Warren County  
Total = 78

The goal for the 2011-2012 Statewide Public Fire Education Program is to target each of these census tracks with the public fire education program. While working with the local fire departments, the goal is to accomplish the following in each of the targeted areas:

1. Provide resources to assure that all residential structures have working smoke detectors.
2. Educate and promote what to do in the event of a fire. In particular, promote using escape plans and practice exit drills.
3. Provide information on how residential fire sprinklers can save your life.
4. Provide local fire departments with resources to conduct door-to-door public education programs including offering home fire safety surveys.
5. Promote the public fire education messages that are specific to each community.
6. Establish community involvement and awareness about fire safety with local officials.
7. Provide outreach to high risk populations within the targeted areas.
8. Use local media and other technology to reach high risk targets.

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### **2011-2012 SFMO Theme: "It's Fire Safety Time In Tennessee"**

The Fall season each year brings on many changes. It's when the leaves turn, the weather cools, and football is so popular both at local high schools as well as on a state level. This is also a time when the fire mortality rate climbs in Tennessee. As the weather becomes colder, heating sources are used more and fire deaths in structures typically rise. As of October 1, 2011, Tennessee has suffered 63 fire deaths in structure fires this calendar year. There were a total of 69 structure fire deaths reported during the entire calendar year 2010 making the fire mortality rate in 2011 probably higher than 2010.

The Tennessee State Fire Marshal's Office through the process of setting strategy and goals has placed the mission to reduce the Tennessee fire mortality rate as its top priority. Every employee, regardless of what they do, plays a role in achieving this mission. It is expected that the mortality rate will not change overnight; however over time and with assistance from many stakeholders and volunteers outside of state government, we expect to reduce at least some of the fire related deaths.

With football in the air and a revitalized committed effort to work on this problem, the yearly theme for the state's 2011 fire prevention is.....

### ***"It's Fire Safety Time in Tennessee"***

This message will be promoted throughout the next 12 months in an effort to support fire prevention in the most comprehensive effort ever in Tennessee. The SFMO is now using data from fire reports, news media articles, death certificates, bomb and arson section reports, insurance reports, and other means to track the fire mortality rate. Maps developed by the University of Tennessee utilizing GIS technology to analyze social economic conditions and fire mortality data collected over the past 10 years are being studied to pinpoint target areas. Until now, this technology has never been used to predict where future fire deaths are likely to occur. The targets are specific not only locally identified but are developed from census tracts at the street level. Special emphasis will be placed on these areas with individualized programs developed to address local issues.

The public education topics used to support this program are from the National Fire Protection Association (NFPA) publication titled, "NFPA Educational Messages 2011 Edition, Desk Reference." These seventeen topics are introduced into monthly plans from existing state and local sources. The result is a comprehensive public fire education plan or guide for use by state and local officials.

Please utilize the information provided to promote fire prevention and life safety measures. The participation of local and state resources is critical in reducing the fire mortality rate in Tennessee.

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### **Understanding the Impact of Fire and Life Safety Messages on Children**

By the National Fire Protection Association (NFPA)

#### Overall conclusion and recommendations for safety programming:

For both younger and older children watching positively framed videos was more effective than watching negatively framed videos. Parents also rated positively framed videos as more effective. Thus, safety messages should focus on depicting the positive outcomes that result from engaging in safety behaviors. Communicating safety messages by depicting the negative consequences of unsafe behaviors were not as effective as communicating the positive outcomes of safe behavior.

When parents discuss media content with their children, children learn more. These parental mediation effects were maximized when parents were provided with discussion guidelines. When parents were simply asked to discuss the videos with their children, without being given specific guidelines on how to do so, outcomes were less favorable.

Parents need assistance with how to discuss media content with their children.

Overall, findings from this research suggest that the impact of safety messages on children will be greatest when messages are framed positively, parents are encouraged to discuss these messages with children, and parents are provided with discussion guidelines.

Even though this study used parents (or legal guardians), the findings also will likely generalize that teachers and other adults who discuss media content with children fall under the same recommendations. Thus, if safety videos are to be developed for use in schools, our findings indicate that such videos should be accompanied with guides to assist teachers.

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## OCTOBER 2011

### EVENTS:

- National Fire Prevention Month
- Halloween
- SFMO Poster Contest
- NFPA Residential Fire Sprinkler Program Kickoff
- National Fallen Firefighter Memorial Weekend

### THEMES:

SFMO Annual Theme: "It's Fire Safety Time in Tennessee"

NFPA Theme: "Protect Your Family From Fire"

SFMO Monthly Theme: "Protect Your Family From Fire"

Smoke Alarms, Escape Planning, and Residential Sprinklers Save Lives.



"Protect your Family from Fire!" This year, our campaign is all about keeping you, your family, and your community safer from fire.

### SFMO October 2011 Topics

Week 1 – "Protect Your Family From Fire"

Week 2 – Smoke Alarms

Week 3 – Escape Plans

Week 4 – Residential Sprinklers

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### **State Fire Marshal's Office Annual Poster Contest**

State officials and local fire departments across Tennessee will be promoting participation in the fire prevention poster contest. The local community school children will be creating posters based on the national fire prevention theme of the year. They will be judged on a local level and the winners from each participating community will be turned into the State for judging. The State contest will be held in December. A State winner for each grade level K-12 will be chosen. All winners and their families will get to attend the State Awards banquet held in February 2012.

### **Halloween Safety**

Special emphasis on Halloween Safety includes safety with candles, decorations, and costumes. Halloween falls on a Monday this year, so education efforts should start at least the week before.

### **National Fire Service History**

- October 8-9, 1871 – Great Chicago Fire (300 deaths)
- October 8, 1871 – Great Peshtigo Fire (1152 deaths)
- October 17, 1966 – New York Mercantile Building Fire (12 firefighters killed)
- October 19, 1857 – Chicago Building Collapse (10 firefighters killed)
- October 26, 1962 – New York Building Collapse (6 firefighters killed)
- October 28, 1954 – PA Chemical Tank Explosion (12 firefighters killed)

### **Tennessee Specific History**

- October 22, 1930 – Tennessee Fireman's Association formed

## **NFPA PUBLIC EDUCATION RESOURCES – OCTOBER 2011**

### **Smoke Alarms**

#### 1.1 Fire Deaths — Smoke Alarms Save Lives

1.1.1 Working smoke alarms save lives and should be installed and maintained in every home.

#### 1.2 Installation

1.2.1 Smoke alarms should be installed in every sleeping room, outside each separate sleeping area, and on every level of the home, including the basement. Larger homes may require additional smoke alarms to provide a minimum level of protection.

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1.2.2 For the best protection, interconnect all smoke alarms throughout the home. When one sounds, they all sound.

1.2.3 Wireless battery-operated interconnected smoke alarms are now available.

1.2.4 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 or where extra time is needed to awaken or assist others, both types of alarms or combination ionization and photoelectric alarms are recommended.

1.2.5 Choose a smoke alarm that has the label of a recognized testing laboratory.

1.2.6 Smoke alarms should be installed away from the kitchen to prevent false alarms. Generally, they should not be closer than 10 feet (3 meters) to a cooking appliance.

1.2.7 A smoke alarm installed between 10 and 20 feet (3 and 6 meters) of a cooking appliance must have a hush feature, which temporarily reduces the sensitivity of the alarm, or be a photoelectric type.

#### 1.3 Testing and Maintenance

1.3.1 Test smoke alarms at least once a month using the test button.

1.3.2 Make sure everyone in the home understands the warning of the smoke alarm and knows how to respond.

1.3.3 Dust or vacuum smoke alarms annually and/or whenever the battery is changed. Follow manufacturer's instructions for cleaning.

#### 1.4 People Who Are Deaf and Hard of Hearing

1.4.1 Smoke alarms are available for people who are deaf. These alarms use strobe lights to wake the person. Install vibration equipment — pillow or bed shakers. This equipment is activated by the sound of the smoke alarm.

1.4.2 Recent research has shown that as people age, their ability to hear high-pitched sounds decreases. People with mild to severe hearing loss can use equipment that emits a mixed, low-pitched sound. This device is activated by the sound of a traditional smoke alarm. The low-pitched sound is more effective than the sound of a smoke alarm for waking people up in all age groups.

1.4.3 Choose products that have the label of a recognized testing laboratory.

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### 1.5 Battery Replacement

1.5.1 Smoke alarms with non-replaceable (long-life) 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. For smoke alarms with any other type of battery, replace batteries at least once a year. If that alarm chirps, replace only the battery.

### 1.6 Smoke Alarm Replacement

1.6.1 Replace all smoke alarms when they are 10 years old or sooner if they do not respond properly when tested.

### 1.7 Rental Units

1.7.1 All rental units need working smoke alarms.

1.7.2 Check with your local fire department for state and local ordinances on smoke alarm installation and maintenance in rental units.

1.7.3 If you rent and do not have working smoke alarms, contact your landlord or property manager immediately to have them installed.

1.7.3.1 If after you have contacted your landlord or property manager smoke alarms remain uninstalled, contact your local fire department. Some fire departments will install smoke alarms for you.

1.7.4 Advise your landlord or property manager if the smoke alarms are not working. The battery or the entire unit must be replaced.

1.7.5 Test smoke alarms at least once a month using the test button.

1.7.6 Make sure everyone in the home understands the warning of the smoke alarm and knows how to respond.

1.7.7 Dust or vacuum smoke alarms annually and/or whenever the battery is changed. Follow the manufacturer's instructions for cleaning.

## **Home Fire Escape**

### 4.1 Planning

4.1.1 Make a home escape plan. Draw a map of each level of the home. Show all doors and windows. Discuss the plan with everyone in your household.

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4.1.2 Children, older adults, and people with disabilities may need assistance to wake up and get out. Ensure that someone will help them.

4.1.3 Know at least two ways out of every room, if possible. Make sure all doors and windows that lead outside open easily.

4.1.4 Windows with security bars, grilles, and window guards should have emergency release devices.

4.1.5 Make sure everyone in your home knows how to call 9-1-1 or your local emergency number from a cell phone or from a neighbor's phone.

4.1.6 Make sure everyone in your home understands the warning of the smoke alarm and knows how to respond.

4.1.7 Have an outside meeting place (something permanent, like a tree, light pole, or mailbox) a safe distance in front of the home.

4.1.8 Make sure your house number can be seen day or night from the street.

4.1.9 If you have escape ladders for escaping from the second and third floors, make sure they are listed by a recognized testing laboratory. Make sure the escape ladder fits the window. Use only if all other exits are blocked. To prevent injury from a fall, use the ladder only in a real emergency.

4.1.10 Teach your children how to escape on their own in case you cannot help them.

4.1.11 Have a plan for everyone in your home who has a disability.

4.1.12 Practice your home fire drill with overnight guests.

#### **4.2 If There Is a Fire**

4.2.1 When the smoke alarm sounds, get out fast. You may have only seconds to escape safely.

4.2.2 If there is smoke blocking your door or first way out, use your second way out.

4.2.3 Smoke is toxic. If you must escape through smoke, get low and go under the smoke to your way out.

4.2.4 Before opening a door, feel the doorknob and door. If either is hot, leave the door closed and use your second way out.

4.2.5 If there is smoke coming around the door, leave the door closed and use your second way out.

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4.2.6 If you open a door, open it slowly. Be ready to shut it quickly if heavy smoke or fire is present.

4.2.7 If you can't get to someone needing assistance, leave the home and call the fire department. Tell the fire department where the person is located.

4.2.8 If pets are trapped inside your home, tell firefighters right away.

4.2.9 If you can't get out, close the door and cover vents and cracks around doors with cloth or tape to keep smoke out. Call 9-1-1 or your local emergency number. Say where you are and signal for help at the window with a light-colored cloth or a flashlight.

#### **4.3 Safe Escape**

4.3.1 Push the smoke alarm button to start the drill.

4.3.2 Practice what to do in case there is smoke. Get low and go. Get out fast.

4.3.3 Practice using different ways out.

4.3.4 Close doors behind you as you leave.

4.3.5 Get out and stay out. Never go back inside for people, pets, or things.

4.3.6 Go to your outside meeting place.

4.3.7 Practice your home fire drill twice a year with everyone in your home. Practice at night and during the day time.

4.3.8 After the drills, evaluate and discuss your home fire drill with the family.

#### **Home Fire Sprinklers**

##### **2.1 General Tips**

2.1.1 Sprinklers keep fires small. Because the sprinkler system reacts so quickly, it can dramatically reduce the heat, flames, and smoke produced in a fire, allowing people time to escape safely.

2.1.2 Sprinklers activate independently. Only the sprinkler closest to the fire will activate, spraying water directly on the fire, not the rest of the house.

2.1.3 A sprinkler will control or put out a fire with a tiny fraction of the water that would be used by fire department hoses.

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2.1.4 Accidental sprinkler discharges are extremely rare.

2.1.5 If you are building or remodeling your home, install a home fire sprinkler system.

### 2.2 Installation

2.2.1 Have a qualified contractor install your home fire sprinkler system according to NFPA codes and standards and local fire safety regulations.

2.2.2 Home fire sprinklers work along with smoke alarms in saving lives. Sprinklers and smoke alarms together cut the risk of dying in a home fire 82 percent compared with having neither smoke alarms nor sprinklers.

### 2.3 Maintenance

2.3.1 A simple visual inspection should be done routinely to ensure that the water valve on the sprinkler is open.

2.3.2 Inspect the pipes and sprinklers occasionally to make sure nothing is blocking them.

2.3.3 Do a water flow test on the sprinkler system once a year or have a fire sprinkler contractor do the test.

2.3.4 Keep sprinklers clear and free of objects that can interfere with their proper use.

## ESCAPE PLANNING

In 2007, there were an estimated 362,500 reported home structure fires and 2,565 associated civilian deaths in the United States.

Fire can spread rapidly through your home, leaving you as little as two minutes to escape safely once the alarm sounds.

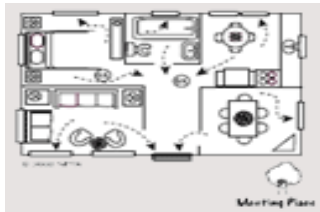
Your ability to get out depends on advance warning from smoke alarms, and advance planning — a home fire escape plan that everyone in your family is familiar with and has practiced.

### Facts and figures

Only one-fifth to one-fourth of households (23%) have actually developed and practiced a home fire escape plan to ensure they could escape quickly and safely.

One-third of American households who made an estimate thought they would have at least 6 minutes before a fire in their home would become life-threatening. The time available is often less. And only 8% said their first thought on hearing a smoke alarm would be to get out!

Source: [Harris Interactive Survey, Fall 2004](#) (PDF, 759 KB).



## NFPA SAFETY TIPS

- ▶ Draw a home escape plan and discuss it with everyone in your household.
- ▶ Practice the plan night and day with everyone in your home twice a year.
- ▶ Know at least two ways out of every room, if possible. Make sure all doors and windows leading outside open easily.
- ▶ [See all safety tips](#)

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## **NOVEMBER 2011**

### **EVENTS:**

- Time Change – “Change Your Clock, Change Your Battery”
- Thanksgiving Holiday

### **THEMES:**

**SFMO Annual Theme: “It’s Fire Safety Time in Tennessee”**

**SFMO Monthly Theme: Smoke Alarms and Cooking Safety**

### **November 2011 Topics**

Week 1 – Carbon Monoxide Hazards

Week 2 – Cooking Safety – Turkey Fryers

Week 3 – Electrical Hazards

Week 4 – Portable Heaters

### **Holiday Travel Safety**

Promote fire safety during holiday travel at Thanksgiving and the need for having an “Escape Plan” while staying in hotels, motels, and with family members. Also remind family members to have working smoke detectors and check smoke detectors on a regular basis. Thanksgiving is November 24<sup>th</sup> so remember fire safety while visiting friends and relatives and have a fire safe weekend.

### **National Fire Service History**

- November 9, 1872 - Great Boston Fire (9 FF's Killed)
- November 15, 1942 - Boston Wall Collapse (6 FF's Killed)
- November 21, 1980 - MGM Grand Hotel Fire (85 deaths)
- November 28, 1942 - Coconut Grove Nightclub Fire (492 deaths) Boston
- November 29, 1988 - Kansas City Trailer Explosion (6 FF's Killed)

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### **Tennessee Specific History**

- November 3, 2001 - Chattanooga Complex Fire Disaster
- November 14, 2001 - TN Ridge Crest Fire Disaster, Pigeon Forge
- November 17, 1908 - Lookout Mt Inn Burned
- November 22, 1900 - Columbia Tornado Kills 25 people

## **NFPA PUBLIC EDUCATION RESOURCES - NOVEMBER 2011**

### **Chapter 3 Carbon Monoxide**

#### **3.1 Dangers of Carbon Monoxide**

3.1.1 Carbon monoxide (CO), often called “the silent killer,” is an invisible, odorless, colorless gas created when fuels (such as kerosene, gasoline, wood, coal, natural gas, propane, oil, and methane) burn incompletely.

3.1.2 Carbon monoxide can result from faulty furnaces or other heating appliances, portable generators, water heaters, clothes dryers, or cars left running in garages.

3.1.3 Symptoms of carbon monoxide poisoning may include headache, nausea, and drowsiness.

3.1.4 Extremely high levels of poisoning can be fatal, causing death within minutes.

#### **3.2 Installation**

3.2.1 Install and maintain CO alarms inside your home to provide early warning of carbon monoxide.

3.2.2 CO alarms should be installed in a central location outside each separate sleeping area, 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.

3.2.3 Follow the manufacturer’s instructions for placement and mounting height.

3.2.4 Combination smoke and CO alarms must be installed in accordance with requirements for smoke alarms.

3.2.5 Choose a CO alarm that has the label of a recognized testing laboratory.

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3.2.6 CO alarms are not substitutes for smoke alarms. Know the difference between the sound of smoke alarms and the sound of CO alarms.

### 3.3 Testing and Replacement

3.3.1 Test CO alarms at least once a month and replace CO alarms according to the manufacturer's instructions.

3.3.2 Know the difference between the sound of the CO alarm and the low-battery signal. If the audible low-battery signal sounds, replace the batteries or replace the device. If it still sounds, get to a fresh air location and call 9-1-1 or the fire department.

3.3.3 Dust or vacuum CO alarms annually and/or whenever the battery is changed.

### 3.4 Carbon Monoxide Precautions – Inside the Home

3.4.1 Have fuel-burning heating equipment (fireplaces, furnaces, water heaters, wood stoves, coal stoves, space heaters, and portable heaters) and chimneys inspected by a professional every year.

3.4.2 Open the damper for proper ventilation before using a fireplace.

3.4.3 Never use your oven or stovetop to heat your home.

3.4.4 When purchasing new heating and cooking equipment, select products tested and labeled by a recognized testing laboratory.

### 3.5 Carbon Monoxide Precautions — Outside the Home

3.5.1 If you need to warm a vehicle, remove it from the garage immediately after starting it. Never 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 blocked with snow, ice, or other materials.

3.5.2 During and after a snowstorm, make sure vents for the dryer, furnace, stove, and fireplace are clear of snow build-up.

3.5.3 Only use barbecue grills — which can produce carbon monoxide — outside. Never use them in the home, in the garage, or near building openings.

3.5.4 Use only battery-powered lights in tents, trailers, motor homes, and boats.

### 3.6 Portable Generators

3.6.1 Use portable generators outdoors in well-ventilated areas away from all doors, windows, vents and other building openings to prevent exhaust fumes from entering the home.

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3.6.2 When using portable generators, install battery-operated CO alarms or plug-in CO alarms with a battery backup in the home according to the manufacturer's installation Instructions.

### 3.7 If Your CO Alarm Sounds

3.7.1 Immediately move to a fresh air location (outdoors or by an open window or door). Make sure everyone inside the home is accounted for.

3.7.2 Call 9-1-1 or the fire department from a fresh air location (outdoors or by an open window). Remain at a fresh air location until emergency personnel arrive to assist you.

## **Cooking – General Info**

### 7.1 Stay Alert

7.1.1 To prevent cooking fires, you must be alert. You won't be alert if you are sleepy, have consumed alcohol, or have taken medicine or drugs that make you drowsy.

### 7.2 Watch What You Heat!

7.2.1 The leading cause of fires in the kitchen is unattended cooking.

7.2.2 Stay in the kitchen when you are frying, grilling, or broiling food. If you leave the kitchen for even a short period of time, turn off the stove.

7.2.3 If you are simmering, baking, roasting, or boiling food, check it regularly, remain in the home while food is cooking, and use a timer to remind you that you're cooking.

### 7.3 Keeping Things That Can Catch Fire Away from Heat Sources

7.3.1 Keep anything that can catch fire — oven mitts, wooden utensils, food packaging, towels, or curtains — away from your stovetop.

7.3.2 Keep the stovetop, burners, and oven clean.

7.3.3 Wear short, close-fitting or tightly rolled sleeves when cooking. Loose clothing can dangle onto stove burners and can catch fire if it comes in contact with a gas flame or an electric burner.

### 7.4 What to Do If You Have a Cooking Fire

7.4.1 Always keep a lid nearby when you're cooking. If a small grease fire starts in a pan, smother the flames by carefully sliding the lid over the pan. Turn off the burner.

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Do not move the pan. To keep the fire from restarting, leave the lid on until the pan is completely cool. Never pour water on a grease fire. Never discharge a multipurpose fire extinguisher onto a pan fire — it can spray or shoot burning grease around the kitchen, actually spreading the fire.

7.4.2 In case of an oven fire, turn off the heat and keep the door closed. After a fire, the oven should be checked and/or serviced before being used again.

7.4.3 When in doubt, just get out! When you leave, close the door behind you to help contain the fire. Call 9-1-1 or the local emergency number after you leave.

7.4.4 If you are trained and decide to fight the fire, be sure others are already getting out and you have a clear path to the exit.

### **7.5 Keeping Kids and Pets Away from the Cooking Area**

7.5.1 Have a “kid-free zone” of at least 3 feet (1 meter) around the stove and areas where hot food or drink is prepared or carried.

7.5.2 Never hold a child while you are cooking, drinking a hot liquid, or carrying hot foods or liquids.

7.5.3 Keep pets off cooking surfaces and nearby countertops to prevent them from knocking things onto the burner.

### **7.6 Choosing Safe Cooking Equipment**

7.6.1 Always use cooking equipment that has the label of a recognized testing laboratory.

7.6.2 Follow the manufacturer's instructions and code requirements when installing cooking equipment. Follow the manufacturer's instructions when cleaning and operating cooking equipment.

7.6.3 Plug microwave ovens or other cooking appliances directly into an outlet. Never use an extension cord for a cooking appliance — it can overload the circuit and cause a fire.

7.6.4 Check electrical cords for cracks, breaks, damage, or overheating. Have a professional repair the appliance or cord as needed, or replace the appliance.

### **7.11 Turkey Fryers**

7.11.1 NFPA discourages the use of outdoor gas-fueled turkey fryers that immerse the turkey in hot oil. These turkey fryers use a substantial quantity of cooking oil at high temperatures, and units currently available for home use pose a significant danger that

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hot oil will be released at some point during the cooking process. The use of turkey fryers by consumers can lead to devastating burns or other injuries and the destruction of property.

### **Chapter 11 Electrical**

#### 11.1 Inside the Home

11.1.1 Electrical work should be done only by a qualified electrician.

11.1.2 Have your home electrical system inspected by a qualified professional when buying, selling, or renovating a home.

11.1.3 Keep lamps, light fixtures, and light bulbs away from anything that can burn, including lamp shades, furniture, bedding, curtains, clothing, and flammable or combustible gases and liquids.

11.1.4 Use light bulbs that match the recommended wattage on the lamp or fixture.

11.1.5 If a fuse blows or a circuit breaker trips often, find out why and correct the problem. Have a licensed electrician inspect and correct it.

11.1.6 Replace blown fuses with the correct amp rating. Never replace a fuse with a higher rated fuse. If the problem continues, call an electrician.

11.1.7 Major appliances (refrigerators, stoves, washers, dryers, etc.) should be plugged directly into a wall outlet. Never use an extension cord.

11.1.8 Window air conditioners should be plugged directly into a wall outlet. Many manufacturers of room air conditioners prohibit the use of extension cords. If the manufacturer's instructions allow extension cords, follow the instructions for the proper type.

11.1.9 Buy only appliances that have the label of a recognized testing laboratory.

11.1.10 Replace cracked, damaged, and loose electrical cords.

11.1.11 Avoid putting cords against walls or furniture or running them under carpets or across doorways.

11.1.12 Extension cords are for temporary use only. Have a licensed electrician determine if additional circuits or outlets are needed.

11.1.13 Replace outlets if plugs do not fit snugly or the outlet does not accept plugs with one blade larger than the other.

11.1.14 Cover outlets and switches with wall plates to prevent shocks.

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11.1.15 If you have young children, install tamper-resistant electrical outlets. Where replacement is not possible, install new protective outlet covers, which do not allow a child to insert an object into the outlet.

11.1.16 Call a licensed electrician if you have any of the following:

- (A) Recurring problems with blowing fuses or tripping circuit breakers
- (B) A tingling feeling when you touch an electrical appliance
- (C) Discolored or warm wall outlets or switches
- (D) A burning smell or rubbery odor coming from an appliance
- (E) Flickering lights
- (F) Sparks from an outlet
- (G) Cracked or broken outlets

11.1.17 Arc fault circuit interrupters (AFCIs) shut off electricity when a dangerous condition occurs. Have a qualified electrician install AFCIs in your home.

11.1.18 Ground fault circuit interrupters (GFCIs) reduce the risk of shock. GFCIs shut off electricity when it becomes a shock hazard. Make sure GFCIs are installed in bathrooms, basements, garages, outdoors, and at kitchen counters and other locations in the home where there are sinks or basins.

11.1.19 Test AFCIs and GFCIs once a month by pushing the test button to make sure they are working properly.

### 11.2 Outside the Home

11.2.1 Electrical work should be done by a qualified professional.

11.2.2 Keep ladders away from overhead power lines into your home.

11.2.3 Never touch a power line — you could be electrocuted. Assume that all power lines are live. Stay at a safe distance.

11.2.4 Never touch a person who is in contact with a downed wire.

11.2.5 Report downed power lines to authorities.

11.2.6 Some power lines are underground. Call your local authority regarding digging.

## **Chapter 9 Portable Heating**

### 9.1 General Heating

9.1.1 Have a 3-foot (1 meter) “kid-free zone” around open fires and space heaters.

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9.1.2 Supervise children whenever a wood or oil stove or other space heater is being used. Use a sturdy metal screen to prevent contact burns, which are more common than flame burns.

9.1.3 All heaters need space. Keep anything that can burn at least 3 feet (1 meter) away from heating equipment.

9.1.4 Use heating equipment that has the label of a recognized testing laboratory.

9.1.5 Never use your oven or stove for heating. Ovens and stoves are not designed to heat your home.

9.1.6 Install stationary space heating equipment, water heaters, or central heating equipment according to the local codes and manufacturer's instructions.

9.1.7 Have a qualified professional install the equipment.

9.1.8 Make sure all fuel-burning vented equipment is vented to the outside to avoid carbon monoxide (CO) poisoning. Carbon monoxide is created when fuels burn incompletely. Carbon monoxide poisoning can cause illness and even death. Make sure the venting for exhaust is kept clear and unobstructed. This includes removal of snow and ice and other debris around the outlet to the outside.

9.1.9 Install and maintain CO alarms inside your home to provide early warning of carbon monoxide.

9.1.10 Maintain heating equipment and chimneys by having them cleaned and inspected annually by a qualified professional.

#### 9.2 Portable Electric Space Heaters

9.2.1 Turn heaters off when you go to bed or leave the room.

9.2.2 Only purchase and use portable space heaters from a recognized testing laboratory with an automatic shut-off so if they're tipped over they will shut off.

9.2.3 Place the space heater on a solid, flat surface, and place them and their electrical cords away from high traffic areas and doorways.

9.2.4 Plug space heaters directly into outlets and never into an extension cord or power strip.

9.2.4.1 Do not plug anything else into the same outlet as the one you are using for your space heater. This could result in overheating.

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9.2.4.2 Check often for a secure plug/outlet fit. If the plug does not fit snugly into the outlet or if the plug becomes very hot, the outlet may need to be replaced. Have a qualified electrician replace the outlet.

9.2.5 Inspect for cracked or damaged cords, broken plugs, or loose connections. Replace before using the space heater.

#### 9.3 Fuel Burning Space Heaters

9.3.1 Always use the proper fuel as specified by the manufacturer.

9.3.2 When refueling, allow the appliance to cool first and then refuel outside.

9.3.3 When using the space heater, open a window to ensure proper ventilation.

9.3.4 In portable kerosene or other liquid fueled space heaters, always use the proper grade of the proper fuel.

9.3.5 All new unvented gas-fired space heaters have an oxygen depletion sensor that detects a reduced level of oxygen in the area where the heater is operating and shuts off the heater before a hazardous level of carbon monoxide accumulates. If you have an older heater without this feature, replace it with one that does.

9.3.6 If the pilot light of your gas heater goes out, allow 5 minutes or more for the gas to go away before trying to relight the pilot. Follow manufacturer's instructions when relighting the pilot. Do not allow gas to accumulate, and light the match before you turn on the gas to the pilot to avoid risk of flashback.

9.3.7 If you smell gas in your gas heater, do not light the appliance. Leave the building immediately and call 9-1-1, the fire department, or the gas company.

#### **Thanksgiving Day Fires – History from the US Fire Administration**

##### Findings

■ An estimated 2,000 Thanksgiving Day fires in residential buildings are reported to U.S. fire departments each year and cause an estimated average of 5 deaths, 25 injuries, and \$21 million in property loss.

■ Smaller, confined fires account for 71 percent of Thanksgiving Day fires in residential buildings.

■ Thanksgiving Day fires in residential buildings occur most frequently in the afternoon hours from 12 to 4 p.m., peaking from noon to 1 p.m.

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- Cooking is the leading cause of all Thanksgiving Day fires in residential buildings at 69 percent. Nearly all of these cooking fires (97 percent) are small, confined fires with limited damage.
- Electrical malfunctions (14 percent), carelessness or other unintentional actions (14 percent), and open flames (13 percent) are the leading causes of the larger, nonconfined Thanksgiving Day fires in residential buildings.
- Nonconfined Thanksgiving Day fires in residential buildings most often start in cooking areas and kitchens (22 percent).
- The leading category of factors contributing to ignition of nonconfined Thanksgiving Day fires in residential buildings is the "misuse of material or product" (35 percent). Within this category, heat source too close to combustible materials and abandoned or discarded materials account for 14 percent and 9 percent of all nonconfined Thanksgiving Day fires in residential buildings, respectively.
- No smoke alarms were present in 20 percent of nonconfined Thanksgiving Day fires in occupied residential buildings

#### **Report:**

From 2006 to 2008, an estimated 4,300 Thanksgiving Day fires occurred annually in the United States causing 10 deaths, 50 injuries, and \$30 million in property loss. Of these Thanksgiving Day fires, an estimated 2,000 fires occurred in residential buildings resulting in an estimated average of 5 deaths, 25 injuries, and \$21 million in property loss each year.

On Thanksgiving Day, many families customarily spend the holiday inside their home or the home of a friend or family member with the family dinner being the highlight of the day.

Because of this holiday custom, from 2006 to 2008, the average number of reported residential building fires on Thanksgiving Day almost doubled (49 percent) from the average number of fires in residential buildings on all days other than Thanksgiving (26 percent). As a result, it is particularly important to look at the characteristics of residential building fires on Thanksgiving.

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## **DECEMBER 2011**

### **EVENTS:**

- **SFMO Poster Judging**
- **Christmas Holiday**

### **THEMES:**

**SFMO Annual Theme: "It's Fire Safety Time in Tennessee"**

**SFMO Monthly Theme: "Heating, Cooking Safety, Holiday Safety & Candles"**

### **December 2011 Topics**

Week 1 – Home Heating

Week 2 – Candles

Week 3 – Holiday Safety

Week 4 – Cooking Safety

### **State Fire Marshal's Office Annual Poster Contest Judging**

The local community school children will be creating posters based on the national fire prevention theme of the year. The posters will be judged on a local level and the winners from each participating community will be turned into the State for judging. The State contest will be held in December. A State winner for each grade level K-12 will be chosen. All winners and their families will get to attend the State Awards banquet held in February 2012.

### **Holiday Travel Safety**

Promote fire safety during holiday travel at Christmas and the need for having an "Escape Plan" while staying in hotels, motels, and with family members. Also remind family members to have working smoke detectors and check smoke detectors on a regular basis. Christmas is on a Sunday this year so remember fire safety while visiting friends and relatives and have a fire safe weekend.

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### **WINTER RESIDENTIAL BUILDING FIRES**

1. Winter residential building fires result in an estimated average of 945 deaths, 3,825 injuries, and \$1,708,000,000 in property loss each year.
  2. Fires in one- and two-family dwellings account for 67 percent of all winter residential building fires.
  3. Cooking is the leading cause of all winter residential building fires.
  4. Winter residential building fires occur mainly in the early evening hours, peaking from 5 to 8 p.m.
  5. Although at its highest in December, residential building fire incidence is collectively highest in the 3 winter months of January, February, and March.
- Source: Winter Residential Building Fires (PDF, 1.0 Mb)

### **National Fire Service History**

- December 1, 1958 - Our Lady of Angels School Fire (95 deaths)
- December 3, 1999 - Cold Storage Warehouse Fire (6 FF's killed)
- December 5, 1876 - NY Theater Fire (300 deaths)
- December 7, 1946 - Atlanta Winecoff Hotel Disaster (119 deaths)
- December 22, 1910 - Chicago Stockyard Fire (21 FF's killed)
- December 22, 1910 - PA Leather Factory Fire (13 FF's killed)
- December 29, 1963 - Roosevelt Hotel Fire (21 guests and 1 ff killed)
- December 30, 1903 - Iroquois Theatre Fire (602 deaths)

### **Tennessee Specific History**

- December 9, 1911 - Briceville Coal Mine Explosion
- December 12, 1960 - Major Fire in Dayton, TN
- December 22, 2008 - TVA Kingston Ash Spill
- December 25, 1961 - Maxwell House Hotel Fire

## **NFPA PUBLIC EDUCATION RESOURCES - DECEMBER 2011**

### **Chapter 9 - Home Heating**

#### 9.1 General Heating

- 9.1.1 Have a 3-foot (1 meter) "kid-free zone" around open fires and space heaters.

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9.1.2 Supervise children whenever a wood or oil stove or other space heater is being used. Use a sturdy metal screen to prevent contact burns, which are more common than flame burns.

9.1.3 All heaters need space. Keep anything that can burn at least 3 feet (1 meter) away from heating equipment.

9.1.4 Use heating equipment that has the label of a recognized testing laboratory.

9.1.5 Never use your oven or stove for heating. Ovens and stoves are not designed to heat your home.

9.1.6 Install stationary space heating equipment, water heaters, or central heating equipment according to the local codes and manufacturer's instructions.

9.1.7 Have a qualified professional install the equipment.

9.1.8 Make sure all fuel-burning vented equipment is vented to the outside to avoid carbon monoxide (CO) poisoning. Carbon monoxide is created when fuels burn incompletely. Carbon monoxide poisoning can cause illness and even death. Make sure the venting for exhaust is kept clear and unobstructed. This includes removal of snow and ice and other debris around the outlet to the outside.

9.1.9 Install and maintain CO alarms inside your home to provide early warning of carbon monoxide.

9.1.10 Maintain heating equipment and chimneys by having them cleaned and inspected annually by a qualified professional.

#### 9.4 Wood Burning Stoves

9.4.1 Have a qualified professional install stoves, chimney connectors, and chimneys following the manufacturer's instructions.

9.4.2 Wood stoves should bear the label of a recognized testing laboratory.

9.4.3 In wood stoves, burn only dry, seasoned wood. In pellet stoves, burn only dry, seasoned wood pellets.

9.4.4 Start the fire with newspaper, kindling, or fire starters. Never use a flammable liquid, such as lighter fluid, kerosene, or gasoline, to start a fire. They produce invisible vapors that can easily catch fire.

9.4.5 Keep the doors of your wood stove closed unless loading or stoking the live fire.

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9.4.6 Allow ashes to cool before disposing of them. Place ashes in a tightly covered metal container and keep the ash container at least 10 feet (3 meters) away from the home and any other nearby buildings. Never empty the ash directly into a trash can. Douse and saturate the ashes with water.

9.4.7 Chimneys and vents need to be cleaned and inspected by a qualified professional at least once a year.

#### 9.5 Fireplaces

9.5.1 Always use a metal or heat-tempered glass screen on a fireplace and keep it in place.

9.5.2 Burn only dry, seasoned wood. Never burn trash in the fireplace. Not only is it cleaner for the environment, it also creates less buildup in the chimney.

9.5.3 Use artificial fire logs according to manufacturer's recommendations. Never burn more than one log at a time.

9.5.4 Use only newspaper and kindling wood or fire starters to start a fire. Never use flammable liquids, such as lighter fluid, kerosene, or gasoline, to start a fire. They produce invisible vapors that can easily catch fire.

9.5.5 Chimneys and vents need to be cleaned and inspected by a qualified professional at least once a year.

9.5.6 Keep children and pets away from the outside vents. Have a "kid-free zone" of at least 3 feet (1 meter) away from the fireplace. Glass doors and screens can remain dangerously hot for several hours after the fire goes out.

9.5.7 Use chimineas, outdoor fireplaces, and fire pits outdoors only and at least 10 feet (3 meters) away from the home or anything that can burn.

#### 9.6 Fire pots, personal fireplaces, and patio torches

9.6.1 The Consumer Product Safety Commission (CPSC), in cooperation with nine manufacturers and distributors, has announced a voluntary recall of all pourable gel fuel made or sold by these companies. Gel fuel is used with fire pots, personal fireplaces, and patio torches. For more information go to [www.cpsc.gov](http://www.cpsc.gov).

9.6.2 Due to the serious risk of flash fire and burns when consumers add pourable gel to an already burning fire pot, NFPA and CPSC are warning consumers to immediately stop using the pourable gel fuel.

9.6.3 Gel fuel and gel fuel pots should be considered an open flame and pose a serious danger.

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9.6.4 The fuel can ignite unexpectedly and splatter onto people and objects nearby when it is poured in a firepot that is still burning.

9.6.5 Pouring gel fuel in a device that is not completely cool may result in a fire or injury.

9.6.6 These devices will be hot during and after burning.

9.6.7 The burning gel fuel sticks to skin and is difficult to extinguish.

9.6.8 It is not easy to see the gel fuel flame, especially in daylight.

9.6.9 All pourable gel fuel, regardless of manufacturer, poses a fire hazard.

9.6.10 Stop, drop, and roll may not put out clothing that catches fire involving splattered or spilled gel fuel. A dry chemical extinguisher or baking soda can be used to extinguish the fire.

9.6.11 Several deaths and multiple victims with second and third degree burns from gel fuel have been reported.

#### **9.7 Central Heating**

9.7.1 Furnaces need to be inspected and serviced at least once a year by a qualified professional.

9.7.2 Keep things that can burn at least 3 feet (1 meter) away from the furnace. Keep the furnace area clean and uncluttered.

9.7.3 If you smell gas, do not light the appliance. Leave the building immediately and call 9-1-1, the fire department, or the gas company.

## **Chapter 13 - Candles**

### **13.1 General Candle Safety**

13.1.1 Consider using battery-operated flameless candles, which can look, smell, and feel like real candles.

13.1.2 When using candles, place them in sturdy, safe candleholders that won't burn.

13.1.3 Protect candle flames with glass chimneys or containers.

13.1.4 Keep candles at least 12 inches (30 centimeters) from anything that can burn.

13.1.5 Never leave a burning candle unattended. Burning candles can start a fire.

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13.1.6 Avoid using candles in bedrooms and sleeping areas. Extinguish candles when you leave a room or the home, or go to bed. Keep children and pets away from burning candles.

13.1.7 Be careful not to splatter wax when extinguishing a candle.

13.1.8 Never use a candle where medical oxygen is being used. The two can combine to create a large, unexpected fire. Medical oxygen can cause materials to ignite more easily and burn at a faster rate than normal. It can make an existing fire burn faster and hotter.

13.1.9 Always use a flashlight—not a candle—for emergency lighting.

13.1.10 Use only battery-powered lights in tents, trailers, motor homes, and boats.

#### 13.2 Candle Use in Home Worship

13.2.1 Lit candles are used in some religious rites and ceremonies in the home. Candles should be used with care.

13.2.2 Lit candles should not be placed in windows, where blinds and curtains can close over them, causing a fire.

13.2.3 Handheld candles should not be passed from one person to another at any time.

13.2.4 To lower the risk of fire, candles should be used by only a few designated adults.

13.2.5 Candles placed on or near tables, altars, or shrines must be maintained under the supervision of an adult.

13.2.6 Candles should be placed in sturdy, non-combustible candle holders that do not allow dripping wax to escape through the bottom of the holder.

13.2.7 If a sturdy, non-combustible candle holder is not available, the candle can be placed on a non-combustible plate.

13.2.8 A handheld candle should be put out before the person holding it moves from the place of initial lighting. Once it is put out, the candle should be placed in an approved, non-combustible container.

13.2.9 The best way to avoid getting burned from splashed wax is to use a candle snuffer instead of blowing on the flame.

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### Holiday Fire Safety

#### A Season for Sharing in Fire Safety

Each year fires occurring during the holiday season claim the lives of over 400 people, injure 1,650 more, and cause over \$990 million in damage. According to the United States Fire Administration (USFA), there are simple life-saving steps you can take to ensure a safe and happy holiday. By following some of the outlined precautionary tips, individuals can greatly reduce their chances of becoming a holiday fire casualty.

#### Preventing Christmas Tree Fires

- **Christmas Tree Fire Hazards** - Movie segments demonstrate how fast a live Christmas tree can become fully engulfed in flames. Special fire safety precautions need to be taken when keeping a live tree in the house. A burning tree can rapidly fill a room with fire and deadly gases.
- **Selecting a Tree for the Holiday**  
Needles on fresh trees should be green and hard to pull back from the branches, and the needle should not break if the tree has been freshly cut. The trunk should be sticky to the touch. Old trees can be identified by bouncing the tree trunk on the ground. If many needles fall off, the tree has been cut too long, has probably dried out, and is a fire hazard.
- **Caring for Your Tree**  
Do not place your tree close to a heat source, including a fireplace or heat vent. The heat will dry out the tree, causing it to be more easily ignited by heat, flame or sparks. Be careful not to drop or flick cigarette ashes near a tree. Do not put your live tree up too early or leave it up for longer than two weeks. Keep the tree stand filled with water at all times.
- **Disposing of Your Tree**  
Never put tree branches or needles in a fireplace or woodburning stove. When the tree becomes dry, discard it promptly. The best way to dispose of your tree is by taking it to a recycling center or having it hauled away by a community pick-up service.

#### Holiday Lights

- **Maintain Your Holiday Lights**  
Inspect holiday lights each year for frayed wires, bare spots, gaps in the insulation, broken or cracked sockets, and excessive kinking or wear before putting them up. Use only lighting listed by an approved testing laboratory.
- **Do Not Overload Electrical Outlets**  
Do not link more than three light strands, unless the directions indicate it is safe. Connect strings of lights to an extension cord before plugging the cord into the outlet. Make sure to periodically check the wires - they should not be warm to the touch.
- **Do Not Leave Holiday Lights on Unattended.**

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### Holiday Decorations

- **Use Only Nonflammable Decorations**  
All decorations should be nonflammable or flame-retardant and placed away from heat vents.
- **Never Put Wrapping Paper in a Fireplace**  
It can result in a very large fire, throwing off dangerous sparks and embers and may result in a chimney fire.
- **Artificial Christmas Trees**  
If you are using a metallic or artificial tree, make sure it is flame retardant.

### Candle Care

- **Avoid Using Lit Candles**  
If you do use them, make sure they are in stable holders and place them where they cannot be easily knocked down. Never leave the house with candles burning.
- **Never Put Lit Candles on a Tree**  
Do not go near a Christmas tree with an open flame - candles, lighters or matches.

Finally, as in every season, have working smoke alarms installed on every level of your home, test them monthly and keep them clean and equipped with fresh batteries at all times. Know when and how to call for help. And remember to practice your home escape plan.

## **Cooking**

### 7.1 Stay Alert

7.1.1 To prevent cooking fires, you must be alert. You won't be alert if you are sleepy, have consumed alcohol, or have taken medicine or drugs that make you drowsy.

### 7.2 Watch What You Heat!

7.2.1 The leading cause of fires in the kitchen is unattended cooking.

7.2.2 Stay in the kitchen when you are frying, grilling, or broiling food. If you leave the kitchen for even a short period of time, turn off the stove.

7.2.3 If you are simmering, baking, roasting, or boiling food, check it regularly, remain in the home while food is cooking, and use a timer to remind you that you're cooking.

### 7.3 Keeping Things That Can Catch Fire Away from Heat Sources

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7.3.1 Keep anything that can catch fire — oven mitts, wooden utensils, food packaging, towels, or curtains — away from your stovetop.

7.3.2 Keep the stovetop, burners, and oven clean.

7.3.3 Wear short, close-fitting or tightly rolled sleeves when cooking. Loose clothing can dangle onto stove burners and can catch fire if it comes in contact with a gas flame or an electric burner.

### 7.4 What to Do If You Have a Cooking Fire

7.4.1 Always keep a lid nearby when you're cooking. If a small grease fire starts in a pan, smother the flames by carefully sliding the lid over the pan. Turn off the burner. Do not move the pan. To keep the fire from restarting, leave the lid on until the pan is completely cool. Never pour water on a grease fire. Never discharge a multipurpose fire extinguisher onto a pan fire — it can spray or shoot burning grease around the kitchen, actually spreading the fire.

7.4.2 In case of an oven fire, turn off the heat and keep the door closed. After a fire, the oven should be checked and/or serviced before being used again.

7.4.3 When in doubt, just get out! When you leave, close the door behind you to help contain the fire. Call 9-1-1 or the local emergency number after you leave.

7.4.4 If you are trained and decide to fight the fire, be sure others are already getting out and you have a clear path to the exit.

### 7.5 Keeping Kids and Pets Away from the Cooking Area

7.5.1 Have a "kid-free zone" of at least 3 feet (1 meter) around the stove and areas where hot food or drink is prepared or carried.

7.5.2 Never hold a child while you are cooking, drinking a hot liquid, or carrying hot foods or liquids.

7.5.3 Keep pets off cooking surfaces and nearby countertops to prevent them from knocking things onto the burner.

### 7.6 Choosing Safe Cooking Equipment

7.6.1 Always use cooking equipment that has the label of a recognized testing laboratory.

7.6.2 Follow the manufacturer's instructions and code requirements when installing cooking equipment. Follow the manufacturer's instructions when cleaning and operating cooking equipment.

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7.6.3 Plug microwave ovens or other cooking appliances directly into an outlet. Never use an extension cord for a cooking appliance — it can overload the circuit and cause a fire.

7.6.4 Check electrical cords for cracks, breaks, damage, or overheating. Have a professional repair the appliance or cord as needed, or replace the appliance.

#### 7.7 Microwave Ovens

7.7.1 Place or install the microwave oven at a safe height within easy reach of all users. If possible, the face of the person using the microwave oven should always be higher than the front of the microwave oven door.

7.7.2 Always supervise children when they are using the microwave oven.

7.7.3 Use only microwave-safe cookware (containers or dishes). Never use aluminum foil or metal objects in a microwave oven.

7.7.4 Open microwaved food slowly, away from the face. Hot steam escaping from a container of microwaved food or the food itself can cause burns.

7.7.5 Never heat a baby bottle in a microwave oven because it heats liquids unevenly. Heat baby bottles in warm water.

#### 7.8 Barbecue Grills

7.8.1 Propane and charcoal BBQ grills must only be used outdoors. Indoor use can kill occupants by causing either a fire or carbon monoxide poisoning.

7.8.2 Place the grill well away from siding and deck railings and out from under eaves and overhanging branches.

7.8.3 Place the grill a safe distance from lawn games, play areas, and foot traffic.

7.8.4 Keep children and pets away from the grill area. Have a 3-foot (1 meter) “kid-free zone” around the grill.

7.8.5 Use long-handled grilling tools to give the chef plenty of clearance from heat and flames.

7.8.6 Periodically remove grease or fat buildup in trays below the grill so it can't be ignited by a hot grill.

#### 7.9 Charcoal Grills

7.9.1 Use one of the following methods to start charcoal for cooking.

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- (A) If you use a "charcoal chimney" to start charcoal for cooking, use a long match to avoid burning your fingers when lighting the paper.
- (B) If you use an electrical charcoal starter, be sure to use a grounded extension cord.
- (C) If you choose to use lighter fluid, use only fluid intended for charcoal grills.

7.9.2 Never add charcoal starter fluid to coals or kindling that has already been ignited.

7.9.3 Never use gasoline or any other flammable liquid to get the fire going.

7.9.4 Store the charcoal starter fluid out of reach of children and away from heat sources.

#### **7.10 Propane Grills**

7.10.1 Check the gas tank hose for leaks before using it for the first time each year. A light soap-and-water solution applied to the hose will quickly reveal escaping propane by releasing bubbles. If you determine by smell or by the soapy bubble test that your grill has a gas leak and there is no flame, do the following:

- (1) Turn off the gas tank and grill.
- (2) If the leak stops, get the grill serviced by a professional before using it again.
- (3) If the leak does not stop, call the fire department.

7.10.2 Use only equipment with the label of a recognized testing laboratory. Follow the manufacturer's instructions on how to set up the grill and maintain it.

7.10.3 Never store propane gas tanks in buildings or garages. If you store a gas grill inside during the winter, disconnect the cylinder and leave it outside.

#### **7.11 Turkey Fryers**

7.11.1 NFPA discourages the use of outdoor gas-fueled turkey fryers that immerse the turkey in hot oil. These turkey fryers use a substantial quantity of cooking oil at high temperatures, and units currently available for home use pose a significant danger that hot oil will be released at some point during the cooking process. The use of turkey fryers by consumers can lead to devastating burns or other injuries and the destruction of property.

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#### **Christmas Tree Fire Hazards** (US Fire Administration)

Water That Tree! What's a holiday party or even the traditional Christmas morning scene itself without a beautifully decorated tree? If your household, as those of more than 33 million other American homes, includes a natural tree in its festivities, take to heart the sales person's suggestion—"Keep the tree watered." That's good advice and not just to create a fragrant indoor winter wonderland atmosphere. Christmas trees account for 250 fires annually, resulting in 14 deaths, 26 injuries and more than \$13.8 million in property damage. Typically shorts in electrical lights or open flames from candles, lighters or matches start tree fires. Well-watered trees are not a problem. Dry and neglected trees can be.

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## **JANUARY 2012**

### **EVENTS:**

- **New Year's Day Holiday**

### **THEMES:**

**SFMO Annual Theme: "It's Fire Safety Time in Tennessee"**

**SFMO Monthly Theme: "Winter Weather, CO, Heating and Manufactured Housing"**

### **January 2012 Topics**

Week 1 – Carbon Monoxide

Week 2 – Winter Weather

Week 3 – Heating Hazards

Week 4 – Manufactured Home Safety

### **New Year's Day Resolutions**

Promote "New Year Resolutions" to include fire prevention and safety activities.

### **Manufactured Housing Safety**

In Tennessee, more than 258,000 manufactured homes exist in Tennessee.

Promote Fire Safety in Manufactured Housing

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### **WINTER RESIDENTIAL BUILDING FIRES**

1. Winter residential building fires result in an estimated average of 945 deaths, 3,825 injuries, and \$1,708,000,000 in property loss each year.
  2. Fires in one- and two-family dwellings account for 67 percent of all winter residential building fires.
  3. Cooking is the leading cause of all winter residential building fires.
  4. Winter residential building fires occur mainly in the early evening hours, peaking from 5 to 8 p.m.
  5. Although at its highest in December, residential building fire incidence is collectively highest in the 3 winter months of January, February, and March.
- Source: Winter Residential Building Fires (PDF, 1.0 Mb)

### **National Fire Service History**

- January 7, 1950 - Iowa Mercy Hospital Fire (41 deaths)
- January 11, 1820 - GA Fire Damages 463 houses
- January 13, 1908 - Rhodes Opera House Fire (170 deaths)
- January 21, 1924 - PA Refinery Explodes (7 FF's Killed)
- January 28, 1961 Wall Collapse (9 FF deaths)

### **Tennessee Specific History**

- January 26, 2007 - Hwy 58 FF Died in Residential Collapse

## **NFPA PUBLIC EDUCATION RESOURCES – JANUARY 2012**

### **Chapter 3 Carbon Monoxide**

#### **3.1 Dangers of Carbon Monoxide**

3.1.1 Carbon monoxide (CO), often called “the silent killer,” is an invisible, odorless, colorless gas created when fuels (such as kerosene, gasoline, wood, coal, natural gas, propane, oil, and methane) burn incompletely.

3.1.2 Carbon monoxide can result from faulty furnaces or other heating appliances, portable generators, water heaters, clothes dryers, or cars left running in garages.

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3.1.3 Symptoms of carbon monoxide poisoning may include headache, nausea, and drowsiness.

3.1.4 Extremely high levels of poisoning can be fatal, causing death within minutes.

### 3.2 Installation

3.2.1 Install and maintain CO alarms inside your home to provide early warning of carbon monoxide.

3.2.2 CO alarms should be installed in a central location outside each separate sleeping area, 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.

3.2.3 Follow the manufacturer's instructions for placement and mounting height.

3.2.4 Combination smoke and CO alarms must be installed in accordance with requirements for smoke alarms.

3.2.5 Choose a CO alarm that has the label of a recognized testing laboratory.

3.2.6 CO alarms are not substitutes for smoke alarms. Know the difference between the sound of smoke alarms and the sound of CO alarms.

### 3.3 Testing and Replacement

3.3.1 Test CO alarms at least once a month and replace CO alarms according to the manufacturer's instructions.

3.3.2 Know the difference between the sound of the CO alarm and the low-battery signal. If the audible low-battery signal sounds, replace the batteries or replace the device. If it still sounds, get to a fresh air location and call 9-1-1 or the fire department.

3.3.3 Dust or vacuum CO alarms annually and/or whenever the battery is changed.

### 3.4 Carbon Monoxide Precautions – Inside the Home

3.4.1 Have fuel-burning heating equipment (fireplaces, furnaces, water heaters, wood stoves, coal stoves, space heaters, and portable heaters) and chimneys inspected by a professional every year.

3.4.2 Open the damper for proper ventilation before using a fireplace.

3.4.3 Never use your oven or stovetop to heat your home.

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3.4.4 When purchasing new heating and cooking equipment, select products tested and labeled by a recognized testing laboratory.

### **3.5 Carbon Monoxide Precautions — Outside the Home**

3.5.1 If you need to warm a vehicle, remove it from the garage immediately after starting it. Never 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 blocked with snow, ice, or other materials.

3.5.2 During and after a snowstorm, make sure vents for the dryer, furnace, stove, and fireplace are clear of snow build-up.

3.5.3 Only use barbecue grills — which can produce carbon monoxide — outside. Never use them in the home, in the garage, or near building openings.

3.5.4 Use only battery-powered lights in tents, trailers, motor homes, and boats.

### **3.6 Portable Generators**

3.6.1 Use portable generators outdoors in well-ventilated areas away from all doors, windows, vents and other building openings to prevent exhaust fumes from entering the home.

3.6.2 When using portable generators, install battery-operated CO alarms or plug-in CO alarms with a battery backup in the home according to the manufacturer's installation instructions.

### **3.7 If Your CO Alarm Sounds**

3.7.1 Immediately move to a fresh air location (outdoors or by an open window or door). Make sure everyone inside the home is accounted for.

3.7.2 Call 9-1-1 or the fire department from a fresh air location (outdoors or by an open window). Remain at a fresh air location until emergency personnel arrive to assist you.

## **Chapter 9 Heating**

### **9.1 General Heating**

9.1.1 Have a 3-foot (1 meter) "kid-free zone" around open fires and space heaters.

9.1.2 Supervise children whenever a wood or oil stove or other space heater is being used. Use a sturdy metal screen to prevent contact burns, which are more common than flame burns.

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9.1.3 All heaters need space. Keep things that can burn, such as paper, bedding, or furniture, at least 3 feet (1 meter) away from heating equipment.

9.1.4 Use heating equipment that has the label of a recognized testing laboratory.

9.1.5 Never use your oven or stove for heating.

9.1.6 Install stationary space heating equipment, water heaters, or central heating equipment according to the local codes and manufacturers' instructions.

9.1.7 Have a qualified professional install the equipment.

9.1.8 Make sure all fuel-burning vented equipment is vented to the outside to avoid carbon monoxide (CO) poisoning. Carbon monoxide is created when fuels burn incompletely. Carbon monoxide poisoning can cause illness and even death. Make sure the venting for exhaust is kept clear and unobstructed. This includes removal of snow and ice around the outlet to the outside.

9.1.9 Install and maintain CO alarms inside your home to provide early warning of carbon monoxide.

9.1.10 Maintain heating equipment and chimneys by having them cleaned and inspected annually by a qualified professional.

#### **9.2 Portable Electric Space Heaters**

9.2.1 Turn heaters off when you go to bed or leave the room.

9.2.2 Use and purchase portable space heaters with an automatic shut-off so if they're tipped over they will shut off.

9.2.3 Place the space heater on a solid, flat surface.

9.2.4 Plug power cords directly into outlets and never into an extension cord.

9.2.5 Inspect for cracked or damaged cords, broken plugs, or loose connections. Replace before using the space heater.

#### **9.3 Fuel Burning Space Heaters**

9.3.1 Always use the proper fuel as specified by the manufacturer.

9.3.2 When refueling, allow the appliance to cool first and then refuel outside or in a well-ventilated area.

9.3.3 When using the heater, open a window to ensure proper ventilation.

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9.3.4 In portable kerosene or other liquid fueled space heaters, always use the proper grade of the proper fuel.

9.3.5 All new unvented gas-fired space heaters have an oxygen depletion sensor that detects a reduced level of oxygen in the area where the heater is operating and shuts off the heater before a hazardous level of carbon monoxide accumulates. If you have an older heater without this feature, replace it.

9.3.6 If the pilot light of your gas heater goes out, allow 5 minutes or more for the gas to go away before trying to relight the pilot. Do not allow gas to accumulate, and light the match before you turn on the gas to the pilot to avoid risk of flashback.

9.3.7 If you smell gas in your gas heater, do not light the appliance. Leave the building immediately and call 9-1-1, the fire department, or the gas company.

#### **9.4 Wood Burning Stoves**

9.4.1 Install the stove, chimney connectors, and chimneys following the manufacturer's instructions or have a professional do the installation.

9.4.2 Wood stoves should bear the label of a recognized testing laboratory.

9.4.3 In wood stoves, burn only dry, seasoned wood. In pellet stoves, burn only dry, seasoned wood pellets.

9.4.4 Start the fire with newspaper, kindling, or fire starters. Never use a flammable liquid, such as lighter fluid, kerosene, or gasoline, to start a fire.

9.4.5 Keep the doors of your wood stove closed unless loading or stoking the live fire.

9.4.6 Allow ashes to cool before disposing of them. Place ashes in a tightly covered metal container and keep the ash container at least 10 feet (3 meters) away from the home and any other nearby buildings. Douse and saturate the ashes with water.

9.4.7 Chimneys and vents need to be cleaned and inspected at least once a year.

#### **9.5 Fireplaces**

9.5.1 Have a sturdy metal screen on a fireplace.

9.5.2 Burn only dry, seasoned wood. Not only is it cleaner for the environment, it also creates less buildup in the chimney.

9.5.3 Use artificial logs according to manufacturer's recommendations. Never burn more than one log at a time.

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9.5.4 Use only newspaper and kindling wood or fire starters to start a fire. Never use flammable liquids, such as lighter fluid, kerosene, or gasoline, to start a fire.

9.5.5 Chimneys and vents need to be cleaned and inspected at least once a year.

9.5.6 Keep children and pets away from the outside vents.

9.5.7 Use chimineas, outdoor fireplaces, and fire pits outdoors only and at least 10 feet (3 meters) away from the home or anything that can burn.

#### **9.6 Central Heating**

9.6.1 Furnaces need to be cleaned and inspected at least once a year by a qualified professional.

9.6.2 Do not store things that can burn near the furnace. Keep the furnace area clean and uncluttered.

9.6.3 If you smell gas, do not light the appliance. Leave the building immediately and call 9-1-1, the fire department, or the gas company.

### **Winter Weather**

A wide range of natural disasters occurs within the United States every year. Natural disasters can have a devastating effect on you and your home.

The Federal Emergency Management Agency's U.S. Fire Administration encourages you to use the following safety tips to help protect yourself, your family and your home from the potential threat of fire during or after a winter storm. You can greatly reduce your chances of becoming a fire casualty by being able to identify potential hazards and following the outlined safety tips.

#### **SOME TYPES OF FIRE RELATED HAZARDS PRESENT DURING AND AFTER A WINTER STORM**

1. Alternative heating devices used incorrectly create fire hazards.
2. Damaged or downed utility lines can present a fire and life safety hazard.
3. Water damaged appliances and utilities can be electrically charged.
4. Frozen water pipes can burst and cause safety hazards.
5. Leaking gas lines, damaged or leaking gas propane containers, and leaking vehicle gas tanks may explode or ignite.
6. Generators are often used during power outages. Generators that are not properly used and maintained can be hazardous.

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7. Look for combustible liquids like gasoline, lighter fluid, and paint thinner that may have spilled. Thoroughly clean the spill and place containers in a well-ventilated area.
8. If your home has sustained flood or water damage, and you can safely get to the main breaker or fuse box, turn off the power.
9. Assume all wires on the ground are electrically charged. This includes cable TV feeds.
10. Exposed outlets and wiring could present a fire and life safety hazard.
11. Appliances that emit smoke or sparks should be repaired or replaced.
12. Have a licensed electrician check your home for damage.
13. Smell and listen for leaky gas connections. If you believe there is a gas leak, immediately leave the house and leave the door(s) open.
14. Never strike a match. Any size flame can spark an explosion.
15. Before turning the gas back on, have the gas system checked by a professional.
16. Some smoke alarms may be dependent on your home's electrical service and could be inoperative during a power outage.
17. Check to see if your smoke alarm uses a back-up battery and install a new battery at least once a year.
18. Smoke alarms should be installed on every level of your home.
19. All smoke alarms should be tested monthly. All batteries should be replaced with new ones at least once a year.
20. If there is a fire hydrant near your home, keep it clear of debris for easy access by the fire department.

#### **Winter Residential Fires Findings**

- Winter residential building fires result in an estimated average of approximately 945 deaths, 3,825 injuries, and \$1,708,000,000 in property loss each year.
- Approximately half of winter residential building fires are small, confined fires.
- Winter residential building fires occur mainly in the early evening hours, peaking from 5 to 8 p.m.
- Cooking is the leading cause of all winter residential building fires (36 percent) as well as confined winter residential building fires (61 percent). Electrical malfunction is the leading cause of nonconfined winter residential building fires (16 percent).
- Twenty-two percent of all winter residential building fires and 43 percent of nonconfined winter residential building fires extend beyond the room of origin.
- The kitchen or other cooking area is the most prevalent area of fire origin for nonconfined winter residential building fires (20 percent).
- "Heat from powered equipment" is the leading heat source category for nonconfined winter residential building fires (51 percent).

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- Thirty-three percent of items first ignited in nonconfined winter residential building fires fall under the “structural component, finish” category

### **Live Safely in Your Manufactured Home: Facts on Manufactured Home Safety**

Fires in manufactured homes claim the lives of 345 Americans each year and injure 765 more. Many of these fires are caused by heating and electrical system malfunctions and improper storage of combustibles. The United States Fire Administration (USFA) would like consumers to know that there are simple steps you can take to prevent the loss of life and property in home fires.

#### The Problem

During a typical year, manufactured homes account for 17,700 fires, hundreds of deaths and \$155 million in property losses. Manufactured homes have a fire death rate per 100,000 housing units 32-50 percent higher than the rate for other dwellings.

#### The Facts

Young children account for more than one-fifth of all fire deaths in manufactured homes. A recent study of rural fires showed that smoke alarms were less likely to be present or operating in manufactured homes.

#### The Cause

Electrical system malfunctions and heating fires are the leading causes of fire in manufactured homes. Together, they account for one-third of manufactured housing fires. Electrical distribution fires occur nearly twice as often in manufactured homes as in one- and two-family dwellings.

#### Safety Precautions

- Have a minimum of two smoke alarms installed in your home regardless of sleeping space arrangements.
- Install smoke alarms in accordance with smoke alarm manufacturer guidelines. Test your smoke alarms once a month and replace the batteries at least once a year.
- Maintain your home heating system by having it serviced at least once a year by a professional.
- Do not store combustibles or flammables near heat sources.
- Never overload outlets, extension cords or electrical circuits. If the circuit breaker trips or fuses blow, immediately call a licensed electrician to check your system.
- Have an escape plan and practice escape routes with your family.
- Space heaters need their space. Do not place portable space heaters close to drapes, clothing or other combustible materials.
- Install skirting material to keep leaves and other debris and combustible items from blowing under your manufactured home.

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- When considering a new home, ask if residential sprinklers are available as an option.
- If there is a fire - get out immediately, go to a neighbor's and notify the fire department using the 911 system or the proper local emergency number in your area.

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## **FEBRUARY 2012**

### **EVENTS:**

- **SFMO Poster Awards Banquet – Nashville**
- **Announce the Public Fire Educator of the Year Recipient**
- **National Burn Awareness Week (February 5-11, 2012)**

### **THEMES:**

**SFMO Annual Theme: “It’s Fire Safety Time in Tennessee”**

**SFMO Monthly Theme: “Burn Awareness Month”**

### **February 2012 Topics**

Week 1 – Matches & Lighters

Week 2 – Stop – Drop – Roll

Week 3 – How to Treat a Burn

Week 4 – Scalds

### **National Fire Service History**

- February 3, 1939 - NY Building Collapse 9 FF's Killed
- February 5, 1898 - Boston Building Collapse - 6 FF's Killed
- February 7, 1904 - Great Baltimore Fire
- February 13, 1909 - WI Wall Collapse kills 6 FF's
- February 14, 1958 - NY Building Collapse Kills 6 FF's
- February 16, 1955 - Baltimore Building Collapse Kills 6 FF's
- February 20, 2003 - RI Station Nightclub Fire (100 Deaths)
- February 26, 1993 - World Trade Center Bombing

### **Tennessee Specific History**

- February 9, 1892 - Memphis Conflagration
- February 22, 1978 - Waverly Train Derailment & Explosion

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**NFPA PUBLIC EDUCATION RESOURCES – FEBRUARY 2012**

**Chapter 14 - Matches and Lighters**

14.1.1 Keep matches and lighters high out of the reach of children, in a locked cabinet.

14.1.2 Purchase and use only child-resistant lighters.

14.1.3 Lighters that look like toys can confuse children and cause fires, injuries, and death. Do not buy or use them.

14.1.4 Teach young children to tell a grownup when they find matches or lighters, and to never touch them.

**Chapter 6 - Stop, Drop, and Roll**

6.1.1 If your clothes catch fire, stop, drop, and roll. Stop immediately, drop to the ground, and cover your face with your hands. Roll over and over or back and forth until the fire is out.

6.1.2 If you cannot stop, drops, and roll, keep a blanket or towel nearby to help you or others smother flames. Cover the person with a blanket to smother the fire. If you use a wheelchair, scooter, or other device and are able to get to the floor, lock the device first to stay in place before getting on the floor to roll until the flames are out.

6.1.3 Use cool water to treat the burn immediately for 3 to 5 minutes. Cover with a clean, dry cloth. Get medical help right away by calling 9-1-1 or the fire department.

**Chapter 8 - Burns**

**8.1 Preventing Scalds and Burns in the Kitchen**

8.1.1 Teach children that hot things burn.

8.1.2 Place objects so they cannot be pulled down or knocked over.

8.1.3 Turn pot handles away from the stove's edge.

8.1.4 Keep appliance cords coiled and away from counter edges.

8.1.5 Keep hot foods and liquids away from table and counter edges.

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8.1.6 Use dry oven mitts or potholders. Hot cookware or tableware can heat moisture in a pot holder or hot pad, resulting in a scald burn.

8.1.7 If you have young children in the home, cook on the stove's back burners.

8.1.8 When children are old enough, teach them to cook safely.

#### **8.2 Hot Tap Water and Scald Burns**

8.2.1 Set your water heater to 120 degrees Fahrenheit (49 degrees Celsius).

8.2.2 When bathing or taking a shower, the temperature of the water should not exceed 100 degrees Fahrenheit (38 degrees Celsius).

8.2.3 If you do not install "anti-scald" devices on tub faucets and shower heads, adjust the thermostat setting on your water heater to 120 degrees Fahrenheit (49 degrees Celsius). The lower temperature lowers the risk of scalds and burns, but it also increases the risk of Legionnaire's disease.

8.2.4 If you lower the temperature setting on your water heater, you will need to test the temperature at the faucet. Allow water to run 3 to 5 minutes. Test the water with a meat, candy, or cooking thermometer. If the water is hotter than 120 degrees Fahrenheit (49 degrees Celsius), adjust the temperature of the water heater and wait a full day to allow the temperature in the tank to adjust. Retest and readjust as needed.

8.2.5 If children are in the home, don't leave the bathroom while the tub is filling.

8.2.6 Before placing a child in the bath or getting into the tub yourself, test the water.

8.2.7 Fill the tub or sink by running cool water first and then adding hot water. Turn the hot water off first. Mix the water thoroughly and check the temperature by moving your hand, wrist, and forearm through the water. The water should feel warm, not hot, to the touch.

8.2.8 When bathing a young child, seat the child facing away from the faucets so the child cannot reach the faucet. Turn the faucet to the "COLD" position.

8.2.9 Consider installing anti-scald devices on tub faucets and shower heads to prevent scalds. These devices reduce the water flow to a trickle as the water temperature nears 120 degrees Fahrenheit (49). Anti-scald devices are available online and in some hardware stores.

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### 8.3 Treatment of Burns

8.3.1 Treat a burn right away by putting it in cool water. Cool the burn for 3 to 5 minutes. Cover with a clean, dry cloth. Do not apply creams, ointments, sprays, or other home remedies.

8.3.2 Remove all clothing, diapers, jewelry, and metal from the burned area. These can hide underlying burns and retain heat, thereby increasing skin damage.

8.3.3 Call 9-1-1 right away or see your doctor if the burn is:

- (A) On the face, hands, feet, major joints, or genital area, and/or bigger than the injured person's palm
- (B) White, tight, dry (leathery), or painless
- (C) Caused by chemicals or electricity
- (D) Causing difficulty breathing

8.3.4 See your doctor as soon as possible if the burn:

- (A) Does not heal in 2 to 3 days
- (B) Becomes foul smelling
- (C) Develops thick drainage, redness, or swelling
- (D) Causes a fever

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## **MARCH 2012**

### **EVENTS:**

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### **THEMES:**

**SFMO Annual Theme: "It's Fire Safety Time in Tennessee"**

**SFMO Monthly Theme: "Change your Clock / Change your Batteries"**

### **March 2012 Topics**

Week 1 – Smoke Alarms

Week 2 – Fire Safety

Week 3 – Medical Oxygen and Fire

Week 4 – Smoking

### **National Fire Service History**

- March 4, 1908 - School Fire - Ohio (174 deaths)
- March 5, 1949 - Floor Collapse, WV (7 FF's Killed)
- March 10, 1946 - Strand Theater Fire, MA (13 FF's killed)
- March 17, 1890 - Bldg Collapse, IL (13 FF's Killed)
- March 18, 1937 - School Explosion, TX (296 Deaths)
- March 25, 1911 - Triangle Shirtwaist Fire, NY (145 deaths)

### **Tennessee Specific History**

- March 1, 2002 - Jefferson City FF dies in House Fire
- March 14, 2008 - Major Downtown Fire in Baxter, TN
- March 22, 1916 - Great Nashville Fire

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**NFPA PUBLIC EDUCATION RESOURCES – MARCH 2012**

**CHAPTER 1 - Home Smoke Alarms**

1.1 Fire Deaths — Smoke Alarms Save Lives

1.1.1 Working smoke alarms save lives, cutting the risk of dying in a home fire in half. Smoke alarms should be installed and maintained in every home.

1.2 Installation

1.2.1 Smoke alarms should be installed in every sleeping room, outside each separate sleeping area, and on every level of the home, including the basement. Larger homes may require additional smoke alarms to provide a minimum level of protection.

1.2.2 For the best protection, interconnect all smoke alarms throughout the home. When one sounds, they all sound.

1.2.3 Wireless battery-operated interconnected smoke alarms are now available.

1.2.4 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 or where extra time is needed to awaken or assist others, both types of alarms or combination ionization and photoelectric alarms, also known as dual sensor smoke alarms, are recommended.

1.2.5 Choose a smoke alarm that has the label of a recognized testing laboratory.

1.2.6 Smoke alarms should be installed away from the kitchen to prevent false alarms. Generally, they should be at least 10 feet (3 meters) from a cooking appliance.

1.2.7 A smoke alarm installed between 10 and 20 feet (3 and 6 meters) of a cooking appliance must be a photoelectric type or have a hush feature, which temporarily reduces the sensitivity of the alarm.

1.3 Testing and Maintenance

1.3.1 Test smoke alarms at least once a month using the test button.

1.3.2 Make sure everyone in the home understands the warning of the smoke alarm and knows how to respond.

1.3.3 To keep smoke alarms working well, follow the manufacturer's instructions for cleaning. The instructions are included in the package, or can be found on the internet.

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### 1.4 People Who Are Deaf or Hard of Hearing

1.4.1 Smoke alarms and alert devices, called accessories, are available for people who are deaf. Strobe lights throughout the home are activated by smoke alarms and alert people who are deaf to fire conditions. When people who are deaf are asleep, a high intensity strobe light is required along with a pillow or bed shaker to wake them up and alert them to fire conditions so they can escape. Currently this equipment is activated by the sound of a standard smoke alarm.

1.4.2 Smoke alarm alert devices, called accessories, are available for people who are hard of hearing. These accessories produce a loud, mixed low-pitched sound. This equipment is activated by the sound of the smoke alarm and is usually installed next to the bed. People who are deaf may find that a pillow or bed shaker is also helpful to wake them up.

1.4.3 Recent research has shown that a loud, mixed low-pitched sound is more effective for waking people of all ages than the loud high-pitched sound of a traditional smoke alarm. As people age, their ability to hear high-pitched sounds decreases.

1.4.4 Choose smoke alarms and accessories for people who are deaf that have the label of a recognized testing laboratory. Research the available products and select one that best meets your individual needs.

### 1.5 Battery Replacement

1.5.1 Smoke alarms with non-replaceable (long-life) 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. NEW! 1.5.2 For smoke alarms with any other type of battery, replace batteries at least once a year. If that alarm chirps, replace only the battery.

### 1.6 Smoke Alarm Replacement

1.6.1 Replace all smoke alarms when they are 10 years old.

1.6.2 Immediately replace any smoke alarm that does not respond properly when tested.

1.6.3 Combination sensor smoke/carbon monoxide alarms should be replaced per manufacturer's recommendations.

### 1.7 Rental Units

1.7.1 All rental units need working smoke alarms.

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1.7.2 Check with your local fire or building department for information about state and local ordinances on smoke alarm installation and maintenance in rental units.

1.7.3 If you rent and do not have working smoke alarms, contact your landlord or property manager immediately to have them installed.

1.7.3.1 If, after you have contacted your landlord or property manager, smoke alarms remain uninstalled, contact your local fire or building department. Some fire departments may install smoke alarms for you.

1.7.4 Advise your landlord or property manager if the smoke alarms are not working. The battery or the entire unit must be replaced.

1.7.5 Test smoke alarms at least once a month using the test button.

1.7.6 Make sure everyone in the home knows the sound and understands the warning of the smoke alarm and knows how to respond.

1.7.7 Dust or vacuum smoke alarms annually and/or whenever the battery is changed. Follow the manufacturer's instructions for cleaning.

## **CHAPTER 16 - Medical Oxygen**

16.1.1 When using medical oxygen, be aware that when more oxygen is present, any fire that starts will burn hotter and faster than usual.

16.1.2 Never smoke in a home where medical oxygen is used. Medical oxygen can cause material to ignite more easily and make fires burn at a faster rate than normal. It can make an existing fire burn faster and hotter.

16.1.3 Post "No Smoking" signs inside and outside the home to remind residents and guests not to smoke.

16.1.4 If medical oxygen or an oxygen tank is used in the home, the amount of oxygen in the air, furniture, clothing, hair, and bedding can increase, making it easier for a fire to start and spread. This means that there is a higher risk of both fires and burns.

16.1.5 Never use a candle, match, lighter, or other open flame; a fireplace, stove or other device fueled by gas, kerosene, wood, or coal; or a sparking toy when medical oxygen is in use. Medical oxygen can cause material to ignite more easily and make fires burn at a faster rate than normal. It can make an existing fire burn faster and hotter.

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### **CHAPTER 17 - Portable Fire Extinguishers**

17.1.1 As a general rule, firefighting should be left to the fire department. Get everyone out of the home and have someone call the fire department.

17.1.2 Only adults who are trained should use fire extinguishers. Learn to use them before a fire occurs. Fire extinguishers should be used only on small fires. If you buy one for your home, choose an ABC rated fire extinguisher.

17.1.3 If you have a fire extinguisher, inspect it monthly and have it serviced annually.

### **CHAPTER 10 - Smoking**

10.1.1 If you smoke, use only fire-safe cigarettes.

10.1.2 To prevent a deadly cigarette fire, you must be alert. You won't be alert if you are sleepy, have taken medicine or drugs that make you drowsy, or have consumed alcohol.

10.1.3 If you smoke, smoke outside.

10.1.4 Never smoke in bed.

10.1.5 Never smoke where medical oxygen is used. Medical oxygen can cause materials to ignite more easily and make fires burn at a faster rate than normal. It can make an existing fire burn faster and hotter.

10.1.6 Wherever you smoke, use deep, sturdy ashtrays. If ashtrays are not available, use a metal can or pail. Never empty smoking material directly into a trash can. Place away from anything that can burn.

10.1.7 Do not discard cigarettes in vegetation, potted plants or landscaping, peat moss, dried grasses, mulch, leaves, and other similar items which can easily catch fire.

10.1.8 Before you throw out butts and ashes, make sure they are out. Put them out in water or sand.

10.1.9 Before going to bed, check under furniture cushions and around places where people smoke for cigarette butts that may have fallen out of sight.

10.1.10 Keep cigarettes, lighters, matches, and other smoking materials up high out of the reach of children, in a locked cabinet

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## APRIL 2012

### EVENTS:

- Wildfire Safety Awareness Month
- National Safe Digging Month

### THEMES:

**SFMO Annual Theme: "It's Fire Safety Time in Tennessee"**

**SFMO Monthly Theme: "Get your Smoky On"**

### April 2012 Topics

Week 1 – Outdoor Burning

Week 2 – Lightening

Week 3 – Electrical

Week 4 – Spring Cleaning Both Inside and Out!

### **National Fire Service History**

- April 4, 1956 - Wall Collapse, NY (6 FF's Killed)
- April 9, 1894 - Bldg Collapse, WI (6 FF's Killed)
- April 12, 1908 - 2,800 Bldgs Burn, MA (17,000 homeless)
- April 16, 1947 - Texas Ship & Plant Explosion (27 FF& 39 civilians killed)
- April 18, 1924 - Chicago Wall Collapse (8 FF's Killed)
- April 19, 1995 - Oklahoma City Bombing (168 Killed)
- April 20, 1926 - Milwaukee Sawdust Explosion (6 FF's Killed)
- April 21, 1930 - Ohio Penitentiary fire (322 deaths)
- April 22, 1940 - MS Rhythm Nightclub Fire (200+ deaths)
- April 25, 1854 - NY Bldg Collapse (11 FF's killed)

### **Tennessee Specific History**

- April 11, 1994 - Memphis Highrise Fire (2 FF's Killed)
- April 11, 2007 - Johnny Cash's Home Burns
- April 13, 1878 Fire Conflagration in Clarksville, TN

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- April 27, 1930 - Airplane Crashes into Crowd (7 killed)
- April 27, 1865 - Memphis Ship Explosion

### **NFPA PUBLIC EDUCATION RESOURCES – APRIL 2012**

#### **CHAPTER 15 - Outdoor Burning**

15.1.1 Check with your local fire department or municipality for any restrictions before starting an open air, recreational, or outdoor cooking fire. Obtain proper permits, if required. You might not be permitted to do outdoor burning in some municipalities and during some seasons.

15.1.2 Closely supervise all outdoor fires. Make sure the fire is out before leaving.

15.1.3 Supervise children around any fire outdoors, including campfires, fire pits, chimineas, and outdoor fireplaces.

15.1.4 Permitted open fires (such as bonfires or trash fires) need to be at least 50 feet (15 meters) from anything that can burn.

15.1.5 Permitted recreational fires (such as campfires or fire pits) need to be at least 25 feet (8 meters) away from anything that can burn.

15.1.6 Avoid burning on windy, dry days. When conditions are windy or dry, it is easy for open burning to spread out of control.

15.1.7 Where outdoor burning is allowed, never use gasoline or other flammable or combustible liquids.

15.1.8 When burning, have a hose, bucket of water, or shovel and dirt or sand nearby to extinguish the fire.

#### **CHAPTER 12 - Lightning**

##### **12.1 Indoor Safety**

12.1.1 During a lightning storm, follow these guidelines:

(A) Stay off corded phones, computers, and other electronic equipment that put you in direct contact with electricity or plumbing.

(B) Avoid washing your hands, showering, bathing, doing laundry, or washing dishes.

(C) Stay away from windows and doors.

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### 12.2 Outdoor safety

12.2.1 When lightning is present, follow these guidelines:

(A) Seek shelter immediately in a building or a hard-topped vehicle.

(B) If you are in or on open water, go to land and seek shelter immediately.

(C) If you can't get to shelter and you feel your hair stand on end, indicating that lightning is about to strike, squat low to the ground on the balls of your feet. Place your hands over your ears and put your head between your knees. Make yourself the smallest target possible and minimize your contact with the ground. This is a last resort when a building or hard-topped vehicle is not available.

12.2.2 If a person is struck by lightning, call 9-1-1 and get medical care immediately. Victims of lightning strikes carry no electrical charge, so attend to them immediately. Administer CPR if needed.

## **CHAPTER 11 - Electrical**

### 11.1 Inside the Home

11.1.1 Electrical work should be done only by a qualified electrician. Some communities require that a person doing electrical work have a license. Find out about the laws in your area.

11.1.2 Have your home electrical system inspected by a qualified professional when buying, selling, or renovating a home.

11.1.3 Keep lamps, light fixtures, and light bulbs away from anything that can burn, including furniture, bedding, curtains, clothing, and flammable or combustible gases and liquids.

11.1.4 Use light bulbs that match the recommended wattage on the lamp or fixture.

11.1.5 If a fuse blows or a circuit breaker trips often, find out why and correct the problem. Have a qualified electrician inspect and fix it.

11.1.6 Always replace blown fuses with ones of the proper rating. If the problem continues, call an electrician.

11.1.7 Major appliances (refrigerators, stoves, washers, dryers, etc.) should be plugged directly into a wall outlet. Never use an extension cord with a major appliance. It can be easily overloaded.

11.1.7.1 Small appliances should be plugged directly into a wall outlet. Unplug small appliances when not in use.

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11.1.8 Window air conditioners should be plugged directly into a wall outlet. Many manufacturers of room air conditioners prohibit the use of extension cords. If the manufacturer's instructions allow extension cords, follow the instructions for the proper type.

11.1.9 Buy only appliances that have the label of a recognized testing laboratory.

11.1.10 Check electrical cords often. Replace cracked, damaged, and loose electrical or extension cords. Do not try to repair them.

11.1.11 Avoid putting cords where they can be damaged or pinched by furniture, under rugs and carpets, or across doorways.

11.1.12 Use only surge protectors or power strips that have internal overload protection. Use surge protectors or power strips that have the label of a recognized testing laboratory.

11.1.13 Extension cords are for temporary use only. Have a qualified electrician determine if additional circuits or outlets are needed.

11.1.14 Replace outlets if plugs do not fit snugly or the outlet does not accept plugs with one blade larger than the other.

11.1.15 Cover outlets and switches with wall plates to prevent shocks.

11.1.16 If you have young children, install tamper-resistant electrical outlets. Where replacement is not possible, install new protective outlet covers, which do not allow a child to insert an object into the outlet.

11.1.17 Call a qualified electrician if you have any of the following:

- (A) recurring problems with blowing fuses or tripping circuit breakers
- (B) a tingling feeling when you touch an electrical appliance
- (C) discolored or warm wall outlets or switches
- (D) a burning smell or rubbery odor coming from an appliance
- (E) flickering lights
- (F) sparks from an outlet
- (G) cracked or broken outlets

11.1.18 Arc fault circuit interrupters (AFCIs) shut off electricity when a dangerous condition occurs. Have a qualified electrician install AFCIs in your home.

11.1.19 Ground fault circuit interrupters (GFCIs) reduce the risk of shock. GFCIs shut off electricity when it becomes a shock hazard. Make sure GFCIs are installed in bathrooms, basements, garages, outdoors, at kitchen counters and in other locations in the home where electricity is near water.

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11.1.20 Test AFCIs and GFCIs once a month by pushing the test button to make sure they are working properly.

### 11.2 Outside the Home

11.2.1 Electrical work should be done by a qualified electrician.

11.2.2 Keep ladders at least 10 feet away from overhead power lines. Use wooden or fiberglass ladders outdoors.

11.2.3 Never touch a power line; you could be injured or electrocuted. Assume that all power lines are live. Stay at a safe distance.

11.2.4 Never touch anyone or anything in contact with a downed wire. You could be injured or electrocuted.

11.2.5 Report downed power lines to authorities.

11.2.6 Some power lines are underground. Call your local authority to have lines identified and marked before digging. You can also call the national 8-1-1 "Call before you dig" number.

### **Wildfire - Are You Prepared?**

More and more people are making their homes in woodland settings - in or near forests, rural areas, or remote mountain sites. There, homeowners enjoy the beauty of the environment but face the very real danger of wildfire.

Every year across our Nation, some homes survive - while many others do not - after a major wildfire. Those that survive almost always do so because their owners had prepared for the eventuality of fire, which is an inescapable force of nature in fire-prone wildland areas. Said in another way - if it's predictable, it's preventable!

Wildfires often begin unnoticed. They spread quickly, igniting brush, trees, and homes. Reduce your risk by preparing now - before wildfire strikes. Meet with your family to decide what to do and where to go if wildfires threaten your area. Follow the steps listed below to protect your family, home, and property.

### Practice Wildfire Safety

People start most wildfires - find out how you can promote and practice wildfire safety.

- Contact your local fire department, health department, or forestry office for information on fire laws.
- Make sure that fire vehicles can get to your home. Clearly mark all driveway entrances and display your name and address.
- Report hazardous conditions that could cause a wildfire.
- Teach children about fire safety. Keep matches out of their reach.

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- Post fire emergency telephone numbers.
- Ensure adequate accessibility by large fire vehicles to your property.
- Plan several escape routes away from your home - by car and by foot.
- Talk to your neighbors about wildfire safety. Plan how the neighborhood could work together after a wildfire. Make a list of your neighbors' skills such as medical or technical. Consider how you could help neighbors who have special needs such as elderly or disabled persons. Make plans to take care of children who may be on their own if parents can't get home.

#### Before Wildfire Threatens

Design and landscape your home with wildfire safety in mind. Select materials and plants that can help contain fire rather than fuel it. Use fire-resistant or noncombustible materials on the roof and exterior structure of the dwelling, or treat wood or combustible material used in roofs, siding, decking, or trim with fire-retardant chemicals evaluated by a nationally recognized laboratory, such as Underwriters Laboratories (UL). Plant fire-resistant shrubs and trees. For example, hardwood trees are less flammable than pine, evergreen, eucalyptus or fir trees.

Your best resource for proper planning is [www.firewise.org](http://www.firewise.org) which has outstanding information used daily by residents, property owners, fire departments, community planners, builders, public policy officials, water authorities, architects and others to assure safety from fire - it really works. Firewise workshops are offered for free all across the Nation in communities large and small and free Firewise materials can be obtained easily by anyone interested.

#### Create a 30- to 100-foot safety zone around your home

Within this area, you can take steps to reduce potential exposure to flames and radiant heat. Homes built in pine forests should have a minimum safety zone of 100 feet. If your home sits on a steep slope, standard protective measures may not suffice. Contact your local fire department or forestry office for additional information.

- Rake leaves, dead limbs and twigs. Clear all flammable vegetation.
- Remove leaves and rubbish from under structures.
- Thin a 15-foot space between tree crowns, and remove limbs within 15 feet of the ground.
- Remove dead branches that extend over the roof.
- Prune tree branches and shrubs within 15 feet of a stovepipe or chimney outlet.
- Ask the power company to clear branches from power lines.
- Remove vines from the walls of the home.
- Mow grass regularly.
- Clear a 10-foot area around propane tanks and the barbecue. Place a screen over the grill - use nonflammable material with mesh no coarser than one-quarter inch.
- Regularly dispose of newspapers and rubbish at an approved site. Follow local burning regulations.

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- Place stove, fireplace and grill ashes in a metal bucket, soak in water for 2 days; then bury the cold ashes in mineral soil.
- Store gasoline, oily rags and other flammable materials in approved safety cans. Place cans in a safe location away from the base of buildings.
- Stack firewood at least 100 feet away and uphill from your home. Clear combustible material within 20 feet. Use only wood-burning devices evaluated by a nationally recognized laboratory, such as Underwriters Laboratories (UL).
- Review your homeowner's insurance policy and also prepare/update a list of your home's contents.

#### Protect your home

- Regularly clean roof and gutters.
- Inspect chimneys at least twice a year. Clean them at least once a year. Keep the dampers in good working order. Equip chimneys and stovepipes with a spark arrester that meets the requirements of National Fire Protection Association Standard 211. (Contact your local fire department for exact specifications.)
- Use 1/8-inch mesh screen beneath porches, decks, floor areas, and the home itself. Also, screen openings to floors, roof and attic.
- Install a dual-sensor smoke alarm on each level of your home, especially near bedrooms; test monthly and change the batteries at least once each year.
- Teach each family member how to use a fire extinguisher (ABC type) and show them where it's kept.
- Keep handy household items that can be used as fire tools: a rake, axe, handsaw or chain saw, bucket and shovel.
- Keep a ladder that will reach the roof.
- Consider installing protective shutters or heavy fire-resistant drapes.

#### Plan your water needs

- Identify and maintain an adequate outside water source such as a small pond, cistern, well, swimming pool, or hydrant.
- Have a garden hose that is long enough to reach any area of the home and other structures on the property.
- Install freeze-proof exterior water outlets on at least two sides of the home and near other structures on the property. Install additional outlets at least 50 feet from the home.
- Consider obtaining a portable gasoline powered pump in case electrical power is cut off.

#### When Wildfire Threatens

If you are warned that a wildfire is threatening your area, listen to your battery-operated radio for reports and evacuation information. Follow the instructions of local officials.

- Back your car into the garage or park it in an open space facing the direction of escape. Shut doors and roll up windows. Leave the key in the ignition. Close

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garage windows and doors, but leave them unlocked. Disconnect automatic garage door openers.

- Confine pets to one room. Make plans to care for your pets in case you must evacuate.
- Arrange temporary housing at a friend or relative's home outside the threatened area.

#### If advised to evacuate, do so immediately

- Wear protective clothing - sturdy shoes, cotton or woolen clothing, long pants, a long-sleeved shirt, gloves, and a handkerchief to protect your face.
- Take your Disaster Supplies Kit.
- Lock your home.
- Tell someone when you left and where you are going.
- Choose a route away from fire hazards. Watch for changes in the speed and direction of fire and smoke.

#### If you're sure you have time, take steps to protect your home

Inside:

- Close windows, vents, doors, blinds, or noncombustible window coverings and heavy drapes. Remove lightweight curtains.
- Shut off all utilities if possible, including bottled gas.
- Open fireplace damper. Close fireplace screens.
- Move flammable furniture into the center of the home away from windows and sliding glass doors.
- Turn on a light in each room to increase the visibility of your home in heavy smoke.

Outside:

- Seal attic and ground vents with precut noncombustible coverings.
- Turn off propane tanks.
- Place combustible patio furniture inside.
- Connect the garden hose to outside taps.
- Set up a portable gasoline-powered pump.
- Place lawn sprinklers on the roof and near aboveground fuel tanks. Wetting the roof may help if it is shake-shingled.
- Wet or remove shrubs within 15 feet of the home.
- Gather fire tools.

#### Emergency Supplies

When wildfire threatens, you won't have time to shop or search for supplies. Assemble a Disaster Supplies Kit with items you may need if advised to evacuate. Store these supplies in sturdy, easy-to-carry containers such as backpacks, duffle bags, or trash containers.

Include:

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- A three-day supply of water (one gallon per person per day) and food that won't spoil.
- One change of clothing and footwear per person and one blanket or sleeping bag per person.
- A first aid kit that includes your family's prescription medications.
- Emergency tools including a battery-powered radio, flashlight, and plenty of extra batteries.
- An extra set of car keys and a credit card, cash, or traveler's checks.
- Sanitation supplies.
- Special items for infant, elderly, or disabled family members.
- An extra pair of eye-glasses.
- Keep important family documents in a waterproof container. Assemble a smaller version of your kit to keep in the trunk of your car.

#### Create a Family Disaster Plan

Wildfire and other types of disasters - hurricane, flood, tornado, earthquake, hazardous materials spill, winter storm - can strike quickly and without warning. You can cope with disaster by preparing in advance and working together. Meet with your family to create a disaster plan. To get started:

#### Complete these steps

- Post emergency telephone numbers by every phone.
- Show responsible family members how and when to shut off water, gas, and electricity at main switches.
- Contact your local fire department to learn about home fire hazards.
- Learn first aid and CPR. Contact your local American Red Cross chapter for information and training.

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## **MAY 2012**

### **EVENTS:**

- National Building Safety Month
- National Arson Awareness Month

### **THEMES:**

**SFMO Annual Theme: "It's Fire Safety Time in Tennessee"**

**SFMO Monthly Theme: " "**

### **May 2012 Topics**

Week 1 – Arson Awareness

Week 2 – Sky Lanterns Information

Week 3 – Home Fire Sprinklers

Week 4 – Hotel / Motel Safety During Vacations

### **National Fire Service History**

- May 4, 1901 - Jacksonville FL Conflagration (1,700 bldgs burn)
- May 6, 1925 - Atlanta Floor Collapse (6 FF's Deaths)
- May 28, 1977 – KY Beverly Hills Supper Club Fire (165 deaths)

### **Tennessee Specific History**

- May 1-4, 2010 - Major Flood Disaster in Tennessee (Nashville Floods)
- May 19, 1902 - Coal Creek Mine Explosion
- May 24, 1807 - Tornadoes Hit East TN

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### NFPA PUBLIC EDUCATION RESOURCES – MAY 2012

#### Arson Awareness Month (May 6-12, 2012)

##### By the Numbers: Intentionally Set Fires

- 210,300 fires are intentionally set each year, representing 13 percent of all fires reported to fire departments.
- Intentionally set fires result in 375 deaths, 1,300 injuries, and \$1 billion in direct property loss annually.
- The incidence of intentionally set fires peaks in the spring (March and April) and again in mid-summer (July).
- Matches (30%) and lighters (15%) are the leading heat sources of intentionally set fires.
- 57% of intentionally set fires occur in outside areas.
- 22% of intentionally set fires occur in structures.
- Light vegetation including grass (26 percent) and rubbish, trash, and waste (11 percent) are the items most often first ignited in intentionally set fires.

*Source: U.S. Fire Administration, Intentionally Set Fires*

Arson can devastate a community, resulting in the decline of the neighborhood through increased insurance premiums, loss of business revenue, and a decline in property values.

Arson is difficult to prosecute, but the effects are felt throughout the community: workers lose jobs, towns and cities lose tax dollars, burned buildings create blighted areas, and innocent people are injured or killed.

Uncontrolled arson, along with other serious crime, creates rampant fear among residents, business customers, and potential visitors. If the community's streets seem out of control, people will be afraid to come into that area to visit or do business. These conditions can quickly lead to a second stage where residents who can afford to move out begin selling homes, even at a loss, to escape before the bottom drops out. Property tax collections plummet, giving the community less and less resources to fight back.

One of the best ways to protect yourself and your family is to have a working smoke alarm. A working smoke alarm greatly reduces your chances of dying in a fire. Make and practice a home fire escape plan and set a meeting place outside. Be sure everyone in your family knows at least two escape routes from their bedrooms.

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### **CHAPTER 2 - Home Fire Sprinklers**

#### 2.1 General Tips

2.1.1 Sprinklers protect lives and property by keeping fires small. Because the sprinkler system reacts so quickly, it can dramatically reduce the heat, flames, and smoke produced in a fire, allowing people more time to escape safely.

2.1.2 Sprinklers activate individually. Only the sprinkler closest to the fire will activate, spraying water directly on the fire and not the rest of the home.

2.1.3 A sprinkler will control or put out a fire with a tiny fraction of the water that would be used by fire department hoses.

2.1.4 Accidental sprinkler discharges are extremely rare.

2.1.5 Home fire sprinklers can be installed in new or existing homes. If you are remodeling or building your home, install a home fire sprinkler system.

2.1.6 It is especially important to install a home fire sprinkler system in homes with persons who may not be able to get out without help, such as people with disabilities, young children, or older adults.

#### 2.2 Installation

2.2.1 Have a qualified contractor install your home fire sprinkler system according to NFPA codes and standards and local fire safety regulations.

2.2.2 Home fire sprinklers work along with smoke alarms to save lives. NFPA data shows that home fire sprinklers reduce the risk of dying in a home fire by 80%.

#### 2.3 Maintenance

2.3.1 The fire sprinkler installer must provide instructions on inspecting, testing, and maintaining the system, a simple process that can be performed by the home occupant. A simple visual inspection should be done monthly to ensure that the water valve on the sprinkler is open.

2.3.2 Periodic visual inspection of all sprinklers should be done monthly to make sure nothing is blocking them and nothing is hung or attached to them.

2.3.3 Do a water flow test on the sprinkler system every six months or have a fire sprinkler contractor do the test to ensure all water flow devices are working.

2.3.4 Keep sprinklers clear and free of objects that can interfere with their proper use.

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2.3.5 Inspect tanks, if present, monthly to make sure they are full.

2.3.6 Inspect pumps, if present, monthly to make sure they operate properly and do not trip the circuit breakers when starting.

2.3.7 Whenever painting, make sure sprinklers are not painted by covering them with a bag, which should be removed immediately after the work is done.

#### **CHAPTER 5 - Hotels/Motels**

5.1.1 Choose a hotel that is protected by both smoke alarms and fire sprinklers.

5.1.2 When you check in, ask the desk clerk what the fire alarm sounds like. If you are deaf or hard of hearing, ask for a room equipped with a smoke alarm and accessories that will awaken you, or a portable smoke alarm made specifically for people who are deaf or hard of hearing to place in your room. You may want to consider bringing one with you.

5.1.3 Read the escape plan posted in your room.

5.1.4 Count the number of doors between your room and the nearest two fire exits. Open the exit doors to be sure they are unlocked.

5.1.5 Keep your room key by your bed and take it with you if there's a fire. If you cannot escape, you may have to return to your room.

5.1.6 If you hear an alarm, leave immediately, closing all doors behind you.

5.1.7 Use the stairs—never use elevators during a fire.

5.1.8 If you must escape through smoke, get low and go under the smoke to your exit.

5.1.9 If all escape routes are blocked, return to your room. Shut off fans and air conditioners. Stuff wet towels or bedding in the cracks around the doors and vents. Call the fire department to let them know your location. Wait at a window and signal for help with a flashlight or light-colored cloth.

5.1.10 Bring a flashlight; keep it near your bed.

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## JUNE 2012

### EVENTS:

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### THEMES:

**SFMO Annual Theme: "It's Fire Safety Time in Tennessee"**

**SFMO Monthly Theme: "Fireworks Safety Month"**

### June 2012 Topics

Week 1 – Outdoor Cooking

Week 2 – Vehicle Fires

Week 3 – Disabilities and Fire

Week 4 – Fireworks Safety

### **National Fire Service History**

- June 5, 1853 - Oswego, NY Great Fire
- June 5, 1946 - Chicago LaSalle Hotel Fire (61 deaths)
- June 7, 1997 - Chelsea, MA Conflagration (8 Alarms)
- June 11, 1805 - Detroit, MI Destroyed by Conflagration
- June 16, 2003 - Memphis Family Dollar Fire (2 FF's Killed)
- June 17, 1972 - Boston Hotel Fire (9 FF's Killed)
- June 18, 2007 - Charleston Super Sofa Fire (9 FF's Killed)
- June 19, 1867 - Philadelphia Wall Collapse (9 FF deaths)

### **Tennessee Specific History**

- June 20, 2006 - Sweetwater Train Derailment
- June 26, 1977 - Maury Co Jail Fire

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**NFPA PUBLIC EDUCATION RESOURCES – JUNE 2012**

**Outdoor Cooking**

7.8 Barbecue Grills

7.8.1 Propane, charcoal, and wood pellet barbecue grills must only be used outdoors. Indoor use can kill occupants by causing either a fire or carbon monoxide poisoning.

7.8.2 Place the grill well away from siding and deck railings and out from under eaves and overhanging branches. Do not store or use a grill on a porch or balcony, including any porch or balcony on an upper level of the building.

7.8.3 Place the grill a safe distance from lawn games, play areas, and foot traffic.

7.8.4 Keep children and pets away from the grill area. Have a 3-foot (1 meter) “kid-free zone” around the grill.

7.8.5 Use long-handled grilling tools to give the chef plenty of clearance from heat and flames.

7.8.6 Periodically remove grease or fat buildup in trays below the grill so it can't be ignited by a hot grill.

7.8.7 Never leave a barbecue grill unattended.

7.9 Charcoal Grills

7.9.1 Use one of the following methods to start charcoal for cooking.

(A) If you use a “charcoal chimney” to start charcoal for cooking, use a long match to avoid burning your fingers when lighting the paper.

(B) If you use an electrical charcoal starter, be sure to use a grounded extension cord.

(C) If you choose to use lighter fluid, use only fluid intended for charcoal grills.

7.9.2 Never add charcoal starter fluid to coals or kindling that has already been ignited.

7.9.3 Never use gasoline or any other flammable liquid except charcoal starter or lighter fluid to start a charcoal fire.

7.9.4 Store the charcoal starter fluid out of reach of children and away from heat sources.

7.9.5 Dispose of charcoal coals only after they are cool. Empty the coals into a metal container with a tight-fitting lid that is only used to collect coals. Never empty coals directly into a trash can. Place away from anything that can burn.

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### 7.10 Propane Grills

7.10.1 Check the gas tank hose for leaks before using it for the first time each year. A light soap-and-water solution applied to the hose will quickly reveal escaping propane by releasing bubbles. If you determine by smell or by the soapy bubble test that your grill has a gas leak and there is no flame, do the following:

- (1) Turn off the gas tank and grill.
- (2) If the leak stops, get the grill serviced by a professional before using it again.
- (3) If the leak does not stop, call the fire department.

7.10.2 Use only equipment that has the label of a recognized testing laboratory. Follow the manufacturer's instructions on how to set up the grill and maintain it.

7.10.3 Always store propane gas tanks outside of buildings or garages. Vapors leaked indoors can be easily ignited by pilot lights or electrical equipment, causing an explosion. If you store a gas grill inside during the winter, disconnect the tank or cylinder and leave it outside.

7.10.4 Only light a propane grill with the cover open.

### Camping and Outdoor Social Events

#### Fire Pits

In recent years, there has been a new concern for the Fire Service - fire pits. Fire pits are known to be a great source of warmth and ambience. But, with the popularity of fire pits increasing, fire safety has become even more important. There are many things you should consider while setting up and using a fire pit.

- Keep away from flammable material and fluids such as gasoline, diesel fuel, kerosene, and charcoal lighter fluid or vehicles while in use.
- Do not use flammable fluids such as gasoline, alcohol, diesel fuel, kerosene, and charcoal lighter fluid to light or relight fires.
- Exercise the same precautions you would with an open fire.
- Do not allow children to use the fire pit. Keep children and pets away.
- Do not wear flammable or loose fitting clothing such as nylon.
- Do not burn trash, leaves, paper, cardboard, or plywood. Avoid using soft wood such as pine or cedar that likely pop and throw sparks. Use of seasoned hardwood is suggested.
- Before starting the fire, make sure that the lid will still close to extinguish the fire in case of emergency. Do not overload.
- Before you light the fire, check the wind direction.
- Keep a fire extinguisher or garden hose nearby.

Source: Fire Pits Helper

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### Campfires

When building a campfire, follow these campfire safety tips from Smokey Bear:

#### How to Pick Your Spot

- DO NOT build a fire at a site in hazardous, dry conditions. DO NOT build a fire if the campground, area, or event rules prohibit campfires.
- FIND OUT if the campground has an existing fire ring or fire pit.
- If there is not an existing fire pit, and pits are allowed, look for a site that is at least fifteen feet away from tent walls, shrubs, trees or other flammable objects. Also beware of low-hanging branches overhead.

#### Extinguishing Your Campfire

When you're ready to put out your fire and call it a night, follow these guidelines:

- Allow the wood to burn completely to ash, if possible.
- Pour lots of water on the fire; drown all embers, not just the red ones.
- Pour until hissing sound stops.
- Stir the campfire ashes and embers with a shovel.
- Scrape the sticks and logs to remove any embers.
- Stir and make sure everything is wet and they are cold to the touch.
- If you do not have water, use dirt. Mix enough dirt or sand with the embers. Continue adding and stirring until all material is cool. REMEMBER: do NOT bury the fire as the fire will continue to smolder and could catch roots on fire that will eventually get to the surface and start a wildfire.

REMEMBER: If it is too hot to touch, it's too hot to leave!

### **Tips For Vehicle Fire Safety (State Farm)**

You've learned about preventing fires in the home. You know all about safe driving and the many dangers of accidents on the road. But you might not know much about what to do in the event of a surprisingly common driving hazard: vehicle fires.

Every day in the U.S., someone dies due to a vehicle fire. Most of these fires are caused by either mechanical or electrical failure. While there are many safety tips to remember, the most important might make the most sense of all: If your vehicle is on fire, get out of it immediately.

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## JULY 2012

### EVENTS:

- July 4<sup>th</sup> Fireworks Events

### THEMES:

**SFMO Annual Theme: "It's Fire Safety Time in Tennessee"**

**SFMO Monthly Theme: "BBQ Month"**

### July 2012 Topics

Week 1 – Fireworks

Week 2 – Carbon Monoxide – Generators around RV's and Tents

Week 3 – Residential Hazardous Materials including Gasoline Storage

Week 4 – Propane Tanks and Grilling

### **National Fire Service History**

- July 1, 1988 - Hackensack, NJ Collapse (5 FF's Killed)
- July 5, 1973 - Kingman, AZ Gas Fire (12 FF's Killed)
- July 6, 1944 - CT Circus Tent Fire (168 Deaths)
- July 6, 1994 - Storm King Mt Wildfire (14 FF's Died)
- July 12, 1919 - Philadelphia Bldg Collapse (6 FF Deaths)
- July 23, 1984 - IL Refinery Fire (10 FF's Killed)
- July 29, 1956 - TX Refinery Fire (19 FF's Killed)

### **Tennessee Specific History**

- July 9, 1964 - United Airlines Flight Crashed near Parrottsville, TN
- July 9, 1918 - Nashville Great Train Wreck
- July 14, 1992 - Gatlinburg Downtown Fire

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### NFPA PUBLIC EDUCATION RESOURCES – JULY 2012

#### **Focus on Fire Safety: Fireworks (US Fire Administration)**

##### By the Numbers: Fireworks

- 8,600 Number of injuries caused by fireworks in 2010
- 2 out of 5 People injured by fireworks in 2010 were under 15 years of age
- 18,000 Number of fires caused by fireworks in 2009
- \$38 million Amount of direct property loss caused by fireworks in 2009

Sources: Consumer Product Safety Commission and National Fire Protection Association

Every year in the United States, we celebrate the Fourth of July with community parades, picnics, barbecues, and fireworks - the things of which happy memories are made. But sadly, Independence Day also includes tragic events resulting from fireworks use. The safest way to enjoy them is through public displays conducted by professional pyrotechnicians hired by communities.

#### Who is at Most Risk?

In 2010, U.S. hospital emergency rooms treated an estimated 8,600 people for fireworks-related injuries. 73 percent of these injuries occurred between June 18 - July 18. Of these:

- 65 percent were to males and 35 percent were to females.
- Children under 15 years old accounted for 40 percent of the estimated injuries.
- Children and young adults under 20 years old had 53 percent of the estimated injuries.
- An estimated 900 injuries were associated with firecrackers. Of these, an estimated 30 percent were associated with small firecrackers, 17 percent with illegal firecrackers, and 53 percent where the type of firecracker was not specified.
- An estimated 1,200 injuries were associated with sparklers and 400 with bottle rockets.
- The parts of the body most often injured were hands and fingers (30 percent), legs (22 percent), eyes (21 percent), and head, face, and ears (16 percent).
- More than half of the injuries were burns. Burns were the most common injury to all parts of the body except the eyes, where contusions, lacerations, and foreign bodies in the eye occurred more frequently.
- Most patients were treated at the emergency department and then released. An estimated 7 percent of patients were treated and transferred to another hospital or admitted to the hospital.

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### Did You Know?

The tip of a sparkler burns at a temperature of about 2,000°F? This is hot enough to melt some metals and cause third degree burns.

Availability: In spite of federal regulations and varying state prohibitions, many types of fireworks are still accessible to the public. Distributors often sell fireworks near state borders, where laws prohibiting sales on either side of the border may differ.

Fireworks type: Among the various types of fireworks, some of which are sold legally in some states, bottle rockets can fly into peoples' faces and cause eye injuries; sparklers can ignite clothing (sparklers burn at about 2,000°F); and firecrackers can injure the hands or face if they explode at close range.

Being too close: Injuries may result from being too close to fireworks when they explode; for example, when someone leans over to look more closely at a firework that has been ignited, or when a misguided bottle rocket hits a nearby person.

Lack of physical coordination: Younger children often lack the physical coordination to handle fireworks safely.

Curiosity: Children are often excited and curious around fireworks, which can increase their chances of being injured (for example, when they re-examine a firecracker dud that initially fails to ignite).

Experimentation: Homemade fireworks (for example, ones made of the powder from several firecrackers) can lead to dangerous and unpredictable explosions. Every year in the United States, we celebrate the Fourth of July with community parades, picnics, barbecues, and fireworks - the things of which happy memories are made. But sadly, Independence Day also includes tragic events resulting from fireworks use. The safest way to enjoy them is through public displays conducted by professional pyrotechnicians hired by communities.

## **CHAPTER 3 - Carbon Monoxide**

### 3.1 Dangers of Carbon Monoxide

3.1.1 Carbon monoxide (CO), often called "the silent killer," is a gas you can't see, taste, or smell. It is created when fuels (such as kerosene, gasoline, wood, coal, natural gas, propane, oil, and methane) burn incompletely. This can be deadly.

3.1.2 Carbon monoxide poisoning can result from faulty furnaces or other heating appliances, portable generators, water heaters, clothes dryers, or cars left running in garages.

3.1.3 Symptoms of carbon monoxide poisoning may include headache, nausea, and drowsiness.

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3.1.4 Extremely high levels of poisoning can be fatal, causing death within minutes.

### 3.2 Installation

3.2.1 Install and maintain CO alarms inside your home to provide early warning of carbon monoxide.

3.2.2 CO alarms should be installed in a central location outside each separate sleeping area, 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.

3.2.3 Follow the manufacturer's instructions for placement and mounting height.

3.2.4 Smoke alarms have to be placed in specific locations on walls and ceilings, so combination smoke and CO alarms must be installed in accordance with requirements for smoke alarms.

3.2.5 Choose a CO alarm that has the label of a recognized testing laboratory.

3.2.6 CO alarms are not substitutes for smoke alarms. Know the difference between the sound of smoke alarms and the sound of CO alarms.

### 3.3 Testing and Replacement

3.3.1 Test CO alarms at least once a month and replace CO alarms if they fail to respond correctly when tested. The sensors in CO alarms have a limited life. Replace the CO alarm according to manufacturer's instructions, or when the end-of-life signal sounds.

3.3.2 Know the difference between the sound of the CO alarm and the smoke alarm, and their low-battery signals. If the audible low-battery signal sounds, replace the batteries or replace the device. If the CO alarm still sounds, get to a fresh air location and call 9-1-1 or the fire department.

3.3.3 To keep CO alarms working well, follow manufacturer's instructions for cleaning. The instructions are included in the package or can be found on the internet.

### 3.4 Carbon Monoxide Precautions – Inside the Home

3.4.1 Have fuel-burning heating equipment (fireplaces, furnaces, water heaters, wood stoves, coal stoves, space heaters, and portable heaters) and chimneys inspected by a professional every year.

3.4.2 Open the damper for proper ventilation before using a fireplace.

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3.4.3 Never use your oven or stovetop to heat your home. The carbon monoxide (CO) gas might kill people and pets.

3.4.4 When purchasing new heating and cooking equipment, select products tested and labeled by a recognized testing laboratory.

#### **3.5 Carbon Monoxide Precautions — Outside the Home**

3.5.1 If you need to warm a vehicle, remove it from the garage immediately after starting it. Never 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 blocked with snow, ice, or other materials. The carbon monoxide (CO) gas might kill people and pets.

3.5.2 During and after a snowstorm, make sure vents for the dryer, furnace, stove, and fireplace are clear of snow build-up.

3.5.3 Only use barbecue grills outside, away from all doors, windows, vents and other building openings. Some can produce carbon monoxide gas (CO). Never use them inside the home or the garage, even if the doors are open.

#### **3.6 Portable Generators**

3.6.1 Use portable generators outdoors in well-ventilated areas away from all doors, windows, vents and other building openings to prevent exhaust fumes from entering the home.

3.6.2 When using portable generators, install battery-operated CO alarms or plug-in CO alarms with a battery backup in the home according to the manufacturer's installation instructions.

#### **3.7 If Your CO Alarm Sounds**

3.7.1 Immediately move to a fresh air location (outdoors or by an open window or door). Make sure everyone inside the home is accounted for.

3.7.2 Call 9-1-1 or the fire department from a fresh air location (outdoors or by an open window). Remain at a fresh air location until emergency personnel arrive to assist you.

### **Residential Hazardous Materials Safety**

Residential hazardous materials (hazmat) safety is important in preventing fires in and around your home. Hazmat safety involves the proper handling and storage of combustibles and flammable liquids such as gasoline, kerosene, propane, oil, aerosols, certain household cleaning products, and painting supplies.

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### What Are Household Hazardous Materials?

Americans have about half a million different products containing chemicals available for use in our homes. The average household contains between 3 and 10 gallons of materials classified as hazardous. Most people use chemicals safely every day without incident, but as the number of chemical products increases, the rates of improper use and injury also increase.

When most people think of "hazardous materials," they picture trucks full of chemicals, factories, or dumps oozing slime. But, every home can be a warehouse of hazardous materials. Cleansers, bleach, oil, paints, thinners, batteries, medicines, and pesticides are common household items that are "hazardous."

### Chemical Forms

Chemicals come in three different forms: solids, liquids, and gases. Chemicals in the home are found in all three forms.

- Solids — typically keep their own shape. Solids can be as large chunks, crystals, or powder. Scented carpet powders and rat poison are examples of solids found in the home.
- Liquids — take on the shape of the container and when released or spilled will run everywhere. Bleach, antifreeze, and gasoline are examples of liquids found around the home.
- Gases — spread out to fill any container they occupy. Gases are all around us and constantly moving. Natural gas and propane are examples of gases used in the home.

### Hazardous Materials Classifications

There are four major classifications of hazardous materials:

- Corrosive materials are capable of dissolving or wearing away gradually. A few common corrosives include metal cleaners, drain cleaners, spot rust removers, and oven cleaners.
- Ignitable materials pose a fire hazard during routine handling. Items in the home that are ignitable include gasoline (or gas/oil mixture), kerosene, diesel fuel, propane tanks, home heating oil, lighter fluid, ammunition, matches, and any items containing alcohol.
- Reactive materials are those that during routine use tend to react spontaneously with air or water. They are unstable to shock or heat and can generate toxic gases or explode.
- Toxic materials are usually identified with a skull and crossbones. Toxic materials release poisons in sufficient enough quantities to pose a risk to humans.

All of us have many products in our homes and garages that may be hazardous if used, stored or disposed of improperly. They may pose serious fire, health, or environmental hazards. If they are used, stored, and disposed of properly, however, they can be relatively safe.

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Familiarize yourself with each product, its location, and purpose. More products are hazardous than you may think. Here are a few of the common ones:

- Automotive fluids
- Household cleaners & Laundry products
- Health and beauty products
- Lawn and garden products
- Barbecue products
- Home maintenance products

#### Home Hazardous Materials Storage

Proper storage and disposal of hazardous materials at home is extremely important. Due to increased public awareness of the dangers of hazardous materials, many communities in the United States now have designated household hazardous waste collection days or permanent collection facilities. Read the product's label to see if specific storage and disposal instructions are listed. If not, or if you are unsure about the proper storage or disposal of a product, contact the manufacturer or call your local government office.

- To reduce the amount of hazardous materials in storage, buy only the amount that you need for the job at hand.
- Store hazardous materials in their original containers. If the label is peeling off, reattach it with transparent tape.
- Use proper storage containers for flammables and combustibles; buy products with safety closures whenever possible.
- Store flammable products, such as gasoline, kerosene, propane gas, and paint thinner in containers away from the house.
- Never store flammables in direct sunlight or near an open flame.
- Because of flammability, store liquid pesticides containing a petroleum-based carrier or solvent in a garage in a locked cabinet.
- Inspect storage areas regularly and be on the lookout for leaky containers, poor ventilation, and the smell of fumes.
- Store hazardous materials out of the reach of children and pets.
- Aerosol containers are pressurized products that sometimes contain flammable or poisonous chemicals. If you dispose of these pressurized containers in the trash, they can be punctured and explode. The can also start a fire. A can is empty and safe for disposal if you no longer hear air being released from the container.
- If a household cleaner contains a solvent, do not dump it down the drain or put in the trash. It contains solvents if the label includes the words flammable, combustible, caution, warning, and danger or contains petroleum distillates or aromatic hydrocarbons.
- Don't store chemicals near food.

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### **Outdoor Cooking**

#### **7.8 Barbecue Grills**

7.8.1 Propane, charcoal, and wood pellet barbecue grills must only be used outdoors. Indoor use can kill occupants by causing either a fire or carbon monoxide poisoning.

7.8.2 Place the grill well away from siding and deck railings and out from under eaves and overhanging branches. Do not store or use a grill on a porch or balcony, including any porch or balcony on an upper level of the building.

7.8.3 Place the grill a safe distance from lawn games, play areas, and foot traffic.

7.8.4 Keep children and pets away from the grill area. Have a 3-foot (1 meter) "kid-free zone" around the grill.

7.8.5 Use long-handled grilling tools to give the chef plenty of clearance from heat and flames.

7.8.6 Periodically remove grease or fat buildup in trays below the grill so it can't be ignited by a hot grill.

7.8.7 Never leave a barbecue grill unattended.

#### **7.9 Charcoal Grills**

7.9.1 Use one of the following methods to start charcoal for cooking.

(A) If you use a "charcoal chimney" to start charcoal for cooking, use a long match to avoid burning your fingers when lighting the paper.

(B) If you use an electrical charcoal starter, be sure to use a grounded extension cord.

(C) If you choose to use lighter fluid, use only fluid intended for charcoal grills.

7.9.2 Never add charcoal starter fluid to coals or kindling that has already been ignited.

7.9.3 Never use gasoline or any other flammable liquid except charcoal starter or lighter fluid to start a charcoal fire.

7.9.4 Store the charcoal starter fluid out of reach of children and away from heat sources.

7.9.5 Dispose of charcoal coals only after they are cool. Empty the coals into a metal container with a tight-fitting lid that is only used to collect coals. Never empty coals directly into a trash can. Place away from anything that can burn.

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#### 7.10 Propane Grills

7.10.1 Check the gas tank hose for leaks before using it for the first time each year. A light soap-and-water solution applied to the hose will quickly reveal escaping propane by releasing bubbles. If you determine by smell or by the soapy bubble test that your grill has a gas leak and there is no flame, do the following:

- (1) Turn off the gas tank and grill.
- (2) If the leak stops, get the grill serviced by a professional before using it again.
- (3) If the leak does not stop, call the fire department.

7.10.2 Use only equipment that has the label of a recognized testing laboratory. Follow the manufacturer's instructions on how to set up the grill and maintain it.

7.10.3 Always store propane gas tanks outside of buildings or garages. Vapors leaked indoors can be easily ignited by pilot lights or electrical equipment, causing an explosion. If you store a gas grill inside during the winter, disconnect the tank or cylinder and leave it outside.

7.10.4 Only light a propane grill with the cover open.

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## **AUGUST 2012**

### **EVENTS:**

- **School Fire Drills All Over the State**
- **Campus Fire Safety**

### **THEMES:**

**SFMO Annual Theme: "It's Fire Safety Time in Tennessee"**

**SFMO Monthly Theme: "Back to School with Fire Safety"**

### **August 2012 Topics**

Week 1 – Stop – Drop – Roll

Week 2 – EDITH – Exit Drills in the Home

Week 3 – Matches / Lighters / Novelty Lighters

Week 4 – Back to School Safety / Campus Safety

### **National Fire Service History**

- August 1, 1932 - NY Basement Explosion (8 FF's Killed)
- August 2, 1978 - NY Roof Collapse (6 FF's Killed)
- August 5, 1897 - Chicago Gain Elevator Explosion (6 FF Deaths)
- August 5, 1949 - MT Wildland Fire (13 FF's Killed)
- August 17, 1975 - PA Refinery Flashover Fire (8 FF deaths)
- August 29, 2005 - Hurricane Katrina (1,700+ deaths)

### **Tennessee Specific History**

- August 1, 2004 - Carthage Church Collapse (Fire Chief Killed)

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**NFPA PUBLIC EDUCATION RESOURCES – AUGUST 2012**

**Chapter 14 - Matches and Lighters**

14.1.1 Keep matches and lighters high out of the reach of children, in a locked cabinet.

14.1.2 Purchase and use only child-resistant lighters.

14.1.3 Lighters that look like toys can confuse children and cause fires, injuries, and death. Do not buy or use them.

14.1.4 Teach young children to tell a grownup when they find matches or lighters, and to never touch them.

**Chapter 6 - Stop, Drop, and Roll**

6.1.1 If your clothes catch fire, stop, drop, and roll. Stop immediately, drop to the ground, and cover your face with your hands. Roll over and over or back and forth until the fire is out.

6.1.2 If you cannot stop, drops, and roll, keep a blanket or towel nearby to help you or others smother flames. Cover the person with a blanket to smother the fire. If you use a wheelchair, scooter, or other device and are able to get to the floor, lock the device first to stay in place before getting on the floor to roll until the flames are out.

6.1.3 Use cool water to treat the burn immediately for 3 to 5 minutes. Cover with a clean, dry cloth. Get medical help right away by calling 9-1-1 or the fire department.

**EDITH - Home Fire Escape**

**4.1 Planning**

4.1.1 Make a home escape plan. Draw a map of each level of the home. Show all doors and windows. Discuss the plan with everyone in your household.

4.1.2 Children, older adults, and people with disabilities may need assistance to wake up and get out. Ensure that someone will help them.

4.1.3 Know at least two ways out of every room, if possible. Make sure all doors and windows that lead outside open easily.

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4.1.4 Windows with security bars, grilles, and window guards should have emergency release devices.

4.1.5 Make sure everyone in your home knows how to call 9-1-1 or your local Emergency number from a cell phone or from a neighbor's phone.

4.1.6 Make sure everyone in your home understands the warning of the smoke alarm and knows how to respond.

4.1.7 Have an outside meeting place (something permanent, like a tree, light pole, or mailbox) a safe distance in front of the home.

4.1.8 Make sure your house number can be seen day or night from the street.

4.1.9 If you have escape ladders for escaping from the second and third floors, make sure they are listed by a recognized testing laboratory. Make sure the escape ladder fits the window. Use only if all other exits are blocked. To prevent injury from a fall, use the ladder only in a real emergency.

4.1.10 Teach your children how to escape on their own in case you cannot help them.

4.1.11 Have a plan for everyone in your home who has a disability.

4.1.12 Practice your home fire drill with overnight guests.

#### **4.2 If There Is a Fire**

4.2.1 When the smoke alarm sounds, get out fast. You may have only seconds to escape safely.

4.2.2 If there is smoke blocking your door or first way out, use your second way out.

4.2.3 Smoke is toxic. If you must escape through smoke, get low and go under the smoke to your way out.

4.2.4 Before opening a door, feel the doorknob and door. If either is hot, leave the door closed and use your second way out.

4.2.5 If there is smoke coming around the door, leave the door closed and use your second way out.

4.2.6 If you open a door, open it slowly. Be ready to shut it quickly if heavy smoke or fire is present.

4.2.7 If you can't get to someone needing assistance, leave the home and call the fire department. Tell the fire department where the person is located.

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4.2.8 If pets are trapped inside your home, tell firefighters right away.

4.2.9 If you can't get out, close the door and cover vents and cracks around doors with cloth or tape to keep smoke out. Call 9-1-1 or your local emergency number. Say where you are and signal for help at the window with a light-colored cloth or a flashlight.

#### **4.3 Safe Escape**

4.3.1 Push the smoke alarm button to start the drill.

4.3.2 Practice what to do in case there is smoke. Get low and go. Get out fast.

4.3.3 Practice using different ways out.

4.3.4 Close doors behind you as you leave.

4.3.5 Get out and stay out. Never go back inside for people, pets, or things.

4.3.6 Go to your outside meeting place.

4.3.7 Practice your home fire drill twice a year with everyone in your home. Practice at night and during the day time.

4.3.8 After the drills, evaluate and discuss your home fire drill with the family.

## **CHAPTER 14 - Matches and Lighters**

14.1.1 Keep matches and lighters high out of the reach of children, in a locked cabinet.

14.1.2 Purchase and use only child-resistant lighters.

14.1.3 Lighters that look like toys can confuse children and cause fires, injuries, and death. Do not buy or use them.

14.1.4 Teach young children to tell a grownup when they find matches or lighters, and to never touch them.

### **Toylike Lighters - Playing with Fire**

Toylike or novelty lighters have been responsible for injuries, deaths, and accidents across the Nation. Children are attracted to novelty lighters because they look like toys. Many of these lighters look like animals, miniature cars, mobile phones, cameras, fishing lures, stacks of coins, markers, and doll accessories. One lighter is nearly identical to the popular rubber ducky bath toy - it even quacks! There are also toylike

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and novelty lighters that look like tools such as tape measures, drills, hammers, and paint brushes. Ironically, there are even lighters that mimic a Dalmatian donning a fire helmet, a red fire truck, or fire extinguishers.

#### Children Killed and Injured

Mistaking lighters for toys has proved to be deadly: on September 25, 2007, 15-month-old Peyton Edwards and 2-year-old Breydon Edwards of Russellville, Arkansas, died after setting fire to their apartment with a motorcycle-shaped lighter.

Shane St. Pierre was in a grocery store in Livermore, Maine, last June with his mother buying sandwiches. Thinking it might be a flashlight, the 6-year-old picked up a miniature baseball bat and flicked the switch. A flame shot out, singeing his eyebrow and burning part of his face. His father, Norm St. Pierre, a fire chief in nearby West Paris, became an advocate for a ban on toylike and novelty lighters. Maine passed a ban on toylike lighters on March 14, 2008.

Children are not the only ones fooled by novelty lighters. Beaverton, Michigan, resident Laura Fowler purchased a novelty lighter for her 4-year-old child after mistaking it for a toy. In 2006, a South Carolina woman shot herself in the hand while attempting to light a cigarette with what she thought was a pistol-shaped novelty lighter.

A fire marshal in Wisconsin was making a purchase at a local home improvement store when his 12-year-old daughter picked up what she believed was a tape measure. When she clicked the button on the tape measure, a flame came out. Fortunately, the child was not hurt, and the store owner voluntarily stopped selling the lighters.

In North Carolina, a 6-year-old boy sustained second-degree burns after playing with a lighter that looked like a toy cell phone. In Maryland, playground equipment was set on fire by three 5-year-old girls using a gun-shaped lighter. In Oregon, one child died and another was permanently brain damaged after a 6-year-old, playing with a lighter that looked like a toy dolphin, started a fire. In another incident, a mother was severely burned after her child, playing with a lighter that resembled a Christmas tree, ignited the mother's bed.

#### Toylike and Novelty Lighter Legislation

Some local and State governments have taken action by banning the sale of toylike and novelty lighters, and limiting their distribution. Maine was the first State to pass a ban on toylike and novelty lighters, passing the legislation on March 14, 2008. Tennessee also passed a ban, in April 2008.

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### Campus Fire Safety

Each year college and university students, on- and off-campus, experience hundreds of fire-related emergencies nationwide. There are several specific causes for fires on college campuses, including cooking, intentionally set fires, and open flame. Overall, most college-related fires are due to a general lack of knowledge about fire safety and prevention. According to information compiled by Campus Firewatch, the great majority of student fire deaths occur in off-campus housing that lacks insufficient exits, missing or inoperative smoke alarms, and automatic fire sprinklers. Also, use of candles, careless smoking habits, and the misuse of alcohol—which impairs judgment and hampers evacuation efforts—contribute to off-campus housing fire deaths.

As the Fall semester approaches, colleges and universities are busy preparing for the arrival of new residents to their campus communities. Some will be first year students moving into the residence halls. Other arriving students will be moving off-campus and living on their own, some for the first time. For most of these students, the last fire safety training they received was in grade school; but with new independence comes new responsibilities. It is important that both off-campus and on-campus students understand fire risks and know the preventative measures that could save their lives. Learn the facts about campus fire safety and be fire-wise!

### Safety Tips for Students

#### Candles

- Avoid using lighted candles!
- Do not leave candles unattended.
- Keep candles away from draperies and linens.
- [Learn About Candle Safety »](#)

#### Cooking

- Cook only where it is permitted.
- Keep your cooking area clean and uncluttered.
- If you use electric appliances, don't overload circuits.
- Never leave cooking unattended.
- If a fire starts in a microwave, keep the door closed and unplug the unit.
- [Learn About Cooking Fire Safety »](#)

#### Smoking

- If you smoke, smoke outside.
- Make sure cigarettes and ashes are out. Never toss hot cigarette butts or ashes in the trash can.
- After a party, check for cigarette butts, especially under cushions. Chairs and sofas catch on fire fast and burn fast.
- Be alert - don't smoke in bed! If you are sleepy or have been drinking, put your cigarette out first.
- [Learn About Smoking Safety »](#)

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### Escape Planning

- If you have to escape through smoke, get low and go under the smoke to your exit.
- Before opening a door, feel the door. If it's hot, use your second way out.
- Use the stairs; never use an elevator during a fire.
- If you're trapped, call the fire department and tell them where you are. Seal your door with rags and signal from your window. Open windows slightly at the top and bottom; shut them if smoke rushes in from any direction.
- If you have a disability, alert others of the type of assistance you need to leave the building.
- [Learn About Escape Planning »](#)

### Off-Campus Fire Safety

#### Good Questions to Ask Before Moving in or Signing a Lease

1. Are working smoke alarms installed? (Preferably in each bedroom, interconnected to sound all if any one detects smoke)
2. Are there at least two ways to exit your bedroom and your building?
3. Do the upper floors of the building have at least two interior stairs, or a fire escape?
4. Is a sprinkler system installed and maintained?
5. Are the existing electrical outlets adequate for all of the appliances and equipment that you are bringing – without the need for extension cords?
6. Are there EXIT signs in the building hallways to indicate accessible escape routes?
7. Does the building have a fire alarm system installed and maintained?
8. Has the building's heating system been inspected recently (in the last year)?
9. Is the building address clearly posted to allow emergency services to find you quickly in the event of an emergency?
10. Does the sprinkler system or fire alarm system send a signal to the local fire department or campus security?

According to the U.S. Department of Education, there are approximately 18,000,000 students enrolled in 4,100 colleges and universities across the country. Approximately two-thirds of the students live in off-campus housing.

There are four common factors in a number of these fires:

- Lack of automatic fire sprinklers
- Missing or disabled smoke alarms
- Careless disposal of smoking materials
- Impaired judgment from alcohol consumption

### On-Campus Fire Safety

In cases where fire fatalities have occurred on college campuses, alcohol was a factor. There is a strong link between alcohol and fire deaths. Alcohol abuse often impairs judgment and hampers evacuation efforts.

Many other factors contribute to the problem of dormitory housing fires including:

- Improper use of 911 notification systems delays emergency response.

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- Student apathy is prevalent. Many are unaware that fire is a risk or threat in the environment.
- Evacuation efforts are hindered since fire alarms are often ignored.
- Building evacuations are delayed due to lack of preparation and preplanning.
- Vandalized and improperly maintained smoke alarms and fire alarm systems inhibit early detection of fires.
- Misuse of cooking appliances, overloaded electrical circuits, and extension cords increase the risk of fires.

#### Safety Precautions for Colleges and Universities

- Provide students with a program for fire safety and prevention.
- Teach students how to properly notify the fire department using the 911 system.
- Install smoke alarms in every dormitory room and every level of housing facilities.
- Maintain and regularly test smoke alarms and fire alarm systems. Replace smoke alarm batteries every semester.
- Regularly inspect rooms and buildings for fire hazards. Ask your local fire department for assistance.
- Inspect exit doors and windows and make sure they are working properly.
- Create and update detailed floor plans of buildings, and make them available to emergency personnel, resident advisors and students.
- Conduct fire drills and practice escape routes and evacuation plans. Urge students to take each alarm seriously.
- Make sure electrical outlets are not overloaded and extension cords are used properly.
- Learn to properly use and maintain heating and cooking appliances.

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## **SEPTEMBER 2012**

### **EVENTS:**

- **Firefighter Safety Month**
- **National Campus Safety Month**

### **THEMES:**

**SFMO Annual Theme: "It's Fire Safety Time in Tennessee"**

**SFMO Monthly Theme: " "**

### **September 2012 Topics**

Week 1 – Portable Fire Extinguishers

Week 2 – Medical Oxygen and Fire

Week 3 – Call 911 for Emergencies

Week 4 – Disaster Preparedness

### **National Fire Service History**

- September 2, 1888 Baltimore Bldg Collapse (7 FF Deaths)
- September 6, 1896 - MI Opera House Collapse (5 FF Deaths)
- September 11, 2001 - Terrorist Attacks (3000+ killed including 343 FF's)
- September 20, 1902 - Birmingham Church Fire (115 Deaths)

### **Tennessee Specific History**

- September 20, 1965 - Tennessee Fairgrounds Fire
- September 24, 1904 - New Market, Tennessee Train Wreck

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### **NFPA PUBLIC EDUCATION RESOURCES – SEPTEMBER 2012**

#### **Chapter 17 Portable Fire Extinguishers**

17.1.1 As a general rule, firefighting should be left to the fire department. Get everyone out of the home and have someone call the fire department.

17.1.2 Only adults who are trained should use fire extinguishers. Learn to use them before a fire occurs. Fire extinguishers should be used only on small fires.

17.1.3 If you have a fire extinguisher, inspect it monthly and have it serviced annually.

#### **Chapter 16 Medical Oxygen**

16.1.1 When using medical oxygen, be aware that when more oxygen is present, any fire that starts will burn hotter and faster than usual.

16.1.2 Never smoke in a home where medical oxygen is used.

16.1.3 Post “No Smoking” signs in and outside the home to remind residents and guests not to smoke.

16.1.4 If medical oxygen or an oxygen tank is used in the home, the amount of oxygen in the air, furniture, clothing, hair, and bedding can increase, making it easier for a fire to start and spread. This means that there is a higher risk of both fires and burns.

16.1.5 Never use a candle, match, lighter, or other open flame; a stove or other device fueled by gas, kerosene, wood, or coal; or a sparking toy when medical oxygen is in use.

#### **Emergency Preparedness**

Disaster preparedness became a renewed priority for our Nation as a direct response to the devastation of the terrorist attacks of September 11, 2001. Following the tragedies of that day, government at all levels has worked more closely with civic and private sector organizations and the public to prepare for emergencies. Americans need to become fully aware, trained, and practiced on how to respond to potential threats and hazards.

Preparedness starts with YOU! Everyone should:

1. Have an emergency supply kit.
2. Make a family escape plan.

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3. Be informed about the types of emergencies that can happen in your community and how your family will respond.

Each person's needs and abilities are unique but every individual can take important steps to prepare for all kinds of emergencies – including fire emergencies - and put plans in place.

#### Prepare for a Fire Emergency

In less than 30 seconds, a small flame can get completely out of control and turn into a major fire. It only takes minutes for a house to fill with thick black smoke and become engulfed in flames. By preparing for a fire emergency, you can greatly reduce your chances of becoming a fire casualty.

- Install smoke alarms on every level of your home, including the basement. For extra safety, install smoke alarms both inside and outside sleeping areas.
- Test your smoke alarms once a month and change the batteries at least once a year.
- Replace smoke alarms every 8-10 years or as the manufacturer guidelines recommend.
- Plan your escape from fire. The best plans have two ways to get out of each room.
- Practice fire escape plans several times a year. Practice feeling your way out of the house in the dark or with your eyes closed.
- Purchase only collapsible escape ladders evaluated by a nationally recognized laboratory such as Underwriters Laboratory (UL).
- Check that windows are not stuck, screens can be taken out quickly, and that security bars can be properly opened.
- Make sure everyone in your family understands and practices how to properly operate and open locked or barred doors and windows.
- Consider installing residential fire sprinklers in your home.

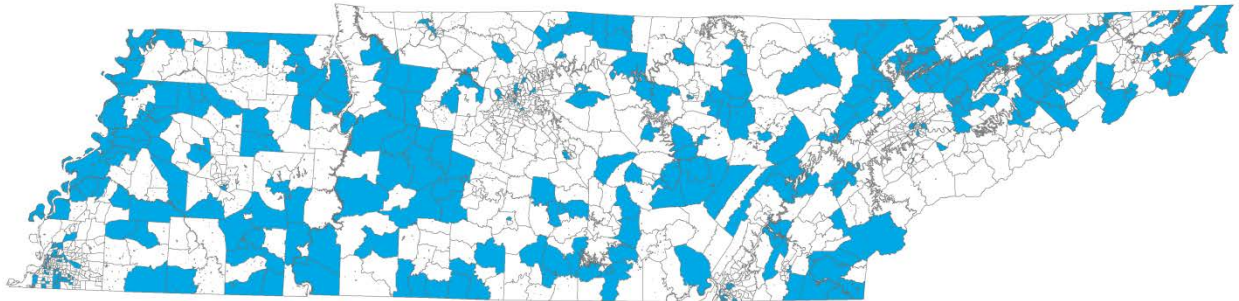
Contact your local fire department on a non-emergency phone number if you need help or have questions about fire safety in your home.

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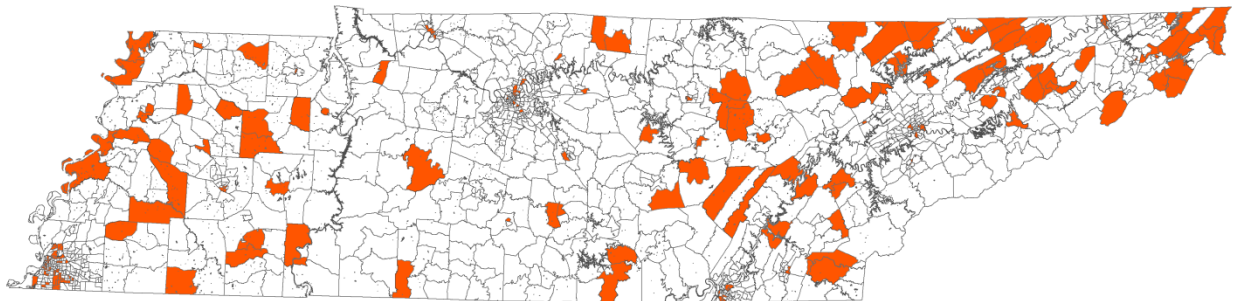
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**STATEWIDE FIRE MORTALITY RISK MAPS**

Census Tracts with "Above Average" Risk for Fire Mortalities (N=358)



Census Tracts with "High" Risk for Fire Mortalities (N=199)



Census Tracts with "Highest" Risk for Fire Mortalities (N=78)

