

# **NFPA Educational Messages**

*2010 Edition*



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## **PURPOSE OF EDUCATIONAL MESSAGES ADVISORY COMMITTEE**

The Educational Messages Advisory Committee meets annually to review NFPA's fire safety education messages and to provide recommendations to NFPA public education staff for updating and revising the messages. The messages are used throughout NFPA's educational programs, curricula, and handouts and provide fire and life safety educators with accurate and consistent language for use when offering safety information to the public. Each topic area is self-contained, written so that all the information needed on a certain subject is provided within that category. As a result, some messaging may be repeated throughout topic areas.

## **Educational Messages Advisory Committee Members**

Bev Gilbert, Chair  
*Office of the Ontario Fire Marshal*

Marty Ahrens, *NFPA*

Brett Brenner, *Electrical Safety Foundation International*

Richard Bukowski, *RJA Group*

Gary Carter, *Bessemer, AL Fire Department*

Lorraine Carli, *NFPA*

Judy Comoletti, *NFPA*

Kwame Cooper, *LA City Fire Department*

Steve Dornbusch, *NFPA*

Antiliano Estrella, *Providence Fire Department*

Sharon Gamache, *NFPA*

Kathy Gerstner, *United States Fire Administration*

Ernest Grant, *North Carolina Jaycee Burn Center*

Mark Jackson, *Centers for Disease Control and Prevention*

Janet Cusick Jost, *Jost Consulting*

Amy LeBeau, *NFPA*

James McMullen, *The McMullen Company*

Jorge Mederos, *Fort Lauderdale Fire/Rescue Department*

Patricia Mieszala, *Burn Concerns*

Paul Myers, *American Red Cross*

Gerri Penney, *Palm Beach County Fire/Rescue*

Lynne Winnett, *NFPA*

Lisa Braxton, *Staff Liaison*

# Regulations Governing Education Messages Document Project

## Purpose

The purpose of the Education Messages Advisory Committee is to produce NFPA's Education Messages Document (EMD).

## Scope

The intent of the EMD is to provide NFPA, fire department public educators, and other fire safety advocates with a guide for the presenting of standardized fire and burn safety messages to the general public.

## Goals

- To prepare proposed fire and burn safety educational messages
- To prepare and/or process comments to amend existing or add new educational messages
- To recommend reconfirmation, withdrawal, or addition of messages
- To maintain NFPA philosophy of clear, simple, accurate, technically sound, and positive messaging
- To use messages that support the most recent edition of the applicable NFPA code, standard, recommended practice or guide
- To produce an Education Messages Document to be made available on the NFPA website

## Membership

The NFPA division manager for public education shall be responsible for determining the size and membership of EMAC. NFPA voting staff members shall not exceed 30 percent of the Committee.

## Structure

EMAC shall have a Chair serving a 3-year term. An NFPA public education staff person shall be assigned as the liaison to EMAC. The liaison holds a non-voting position.

## Appointments of Members and Their Tenure

The Chair shall be appointed by the NFPA division manager for public education. All members of EMAC are subject to annual review and reappointment by the NFPA. Those Members who miss two meetings, or otherwise exhibit lack of interest, knowledge, or responsibility, shall not be reappointed and may be removed for the stated causes at any time.

## Change of Status

When the status of a Member changes, including employment, organization represented, or funding source, the individual's membership automatically terminates.

## Role of the Staff Liaison

- To serve in an advisory capacity and assist EMAC to achieve compliance with these regulations
- On instruction and guidance from EMAC, to process and edit text for the EMAC messages
- Be responsible for the editorial treatment of messages to ensure compliance with the *Manual of Style for NFPA Technical Committee Documents*
- To attend EMAC meetings
- To plan meetings, including meeting notification, agenda, and incidentals
- To prepare detailed minutes of EMAC meetings
- To prepare Comments received in a format suitable for EMAC consideration
- To prepare the final EMD and post it on NFPA's website

## **Calling Meetings**

The Chair shall call meetings at such times as may be necessary and convenient for the transaction of business.

## **Quorum**

There shall be no quorum requirement for EMAC meetings.

## **Participation**

- Participation shall be limited to Committee Members and NFPA staff, except that the request of a guest to address the committee on a subject relevant to a specific item under consideration shall be honored. Guests wishing to address the EMAC shall notify the staff liaison in writing at least 7 days before the meeting. When a guest addresses the committee, equal opportunity shall be afforded those with opposing views. The Chair shall designate the time allotted for any such addresses.
- Videos, slides, overheads, and similar visual aids shall be allowed during meeting of EMAC. The presenters of the information shall be responsible for all equipment arrangements and associated fees pertaining to their presentations.
- Physical demonstrations, experiments or simulations shall not be allowed during EMAC meetings.

## **Minutes of Meetings**

Minutes of each meeting shall be recorded and issued without undue delay to Members by the public education staff liaison. Minutes shall, at a minimum, include the time and place of the meeting, names and affiliations of all persons attending, and the actions taken.

## **Voting Procedures and Privileges**

Each voting Member, including the Chair, shall have one vote in the affairs of EMAC.

## **Voting by Proxy**

Voting by proxy shall not be permitted.

## **Voting at Meetings**

Actions decided during EMAC meetings shall be supported by at least a simple majority of the voting members at the meeting. In calculating the vote, those who abstain shall be omitted from the calculations.

## **Who May Submit a Comment**

Anyone may submit a Comment, and the submitter need not be a member of EMAC or NFPA. Except for Comments submitted by EMAC, all Comments must be submitted in the name of an individual with the individual's relevant organizational affiliation or representation noted separately. The individual shall be considered the submitter for purposes of these Regulations.

## **Content of Comments**

Each Comment shall be submitted to the assigned NFPA public education staff liaison and shall include the following:

- Identification of the submitter and his or her affiliation where appropriate
- Identification of the educational message to which the Comment is directed
- Proposed text of the Comment, including the wording to be added, revised (and how revised), or deleted
- Statement of the problem and substantiation for the Comment
- The signature of the submitter
- Two copies of any document(s) being proposed as a reference standard or publication.

## **Time for Submission**

A Comment to revise or amend an existing or proposed message shall be submitted up to the published Comment closing date. A Comment received after that date shall be returned to the submitter.

## **EMAC Action on Comments**

The EMAC shall act on all current Comments. The EMAC shall act on each Comment by taking one of the following actions:

- Accepting the Comment
- Rejecting the Comment
- Accepting the Comment in principle but with changes in the proposed wording
- Accepting the Comment in part
- Accepting the Comment in principle in part by the changes in the proposed wording of the part

The EMAC action on a Comment “accepted in principle,” “accepted in part,” “accepted in principle in part” and “rejected” shall include a statement, preferably technical in nature, on the reason for the EMAC action. Such statement shall be sufficiently detailed so as to convey the EMAC rationale for its action. A Comment that does not include all of the information listed in “Content of Comments” may be rejected by the Committee for that reason.

# Chapter 1 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.

**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.

**NEW!** **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.

## 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

**NEW!** **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.

**2.1.4** Accidental sprinkler discharges are extremely rare.

**NEW!** **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.

# **Chapter 2 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.

# **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.

**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.

**NEW!** **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.

**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 4 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.

**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.

**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 it is, evaluate and discuss your home fire drill.

- 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.

## Chapter 5 Hotels/Motels

- 5.1.1 Choose a hotel that is protected by both smoke alarms and fire sprinklers.
- NEW!** 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 portable smoke alarm made specifically for people who are deaf or hard of hearing to place in your room, or bring 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.

## 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, drop, and roll, keep a fire-retardant blanket 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.

## Chapter 7 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**

**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.

**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.

- (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.

## 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.
- 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 Consider installing "anti-scald" devices on tub faucets and shower heads to prevent scalds. The temperature at the faucet should not exceed 100 degrees Fahrenheit (38 degrees Celsius).
- 8.2.2 If you do not install "anti-scald" devices on tub faucets and shower heads, consider adjusting the thermostat setting on your water heater to no higher than 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.
- 8.2.3 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.

- 8.2.4 If children are in the home, don't leave the bathroom while the tub is filling.
- 8.2.5 Before placing a child in the bath or getting into the tub yourself, test the water.
- 8.2.6 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.
- 8.2.7 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.

### 8.3 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 or see your doctor if the burn is:
  - (A) bigger than the injured person's palm — on the face, hands, feet, major joints, or genital area
  - (B) white, tight, dry (leathery), or painless
  - (C) caused by chemicals or electricity
  - (D) not healing in 2 to 3 days, becomes foul smelling, develops thick drainage, redness or swelling around the burn, or causes a fever

- 8.3.4** Seek non-emergency medical treatment 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

**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.

## 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.
- 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.

### 9.2 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.

**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.

**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.

## **Chapter 10 Smoking**

**10.1.1** 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.

**10.1.2** If you smoke, smoke outside.

**10.1.3** Never smoke in bed.

**10.1.4** Never smoke where medical oxygen is used.

**10.1.5** Wherever you smoke, use deep, sturdy ashtrays.

**10.1.6** Do not extinguish cigarettes in potted plants or landscaping, which often contain a mixture of peat moss, shredded wood, and bark, which can easily ignite.

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

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

**NEW!** **10.1.9** Keep smoking materials up high out of the reach of children.

**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.

**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

## 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.

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 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.

### 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.

**NEW** **12.2.3** Use only battery-powered lights in tents, trailers, motor homes, and boats.

## 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** Use sturdy, safe candleholders.

**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. Avoid using candles in bedrooms and sleeping areas. Extinguish candles when you leave a room. Keep children and pets away from burning candles.

**13.1.6** Be careful not to splatter wax when extinguishing a candle.

**13.1.7** Never use a candle where medical oxygen is being used.

**13.1.8** Always use a flashlight — not a candle — for emergency lighting.

### **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.

## **Chapter 14 Matches and Lighters**

**14.1.1** Keep matches and lighters up high out of the reach of children, preferably 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. Do not buy or use them.

**14.1.4** Teach young children to tell a grown-up if they find matches or lighters.

## **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.

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

**NEW!** **15.1.4** Permitted open fires need to be at least 50 feet (15 meters) from anything that can burn.

**NEW!** **15.1.5** Permitted recreational fires 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 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.

## **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.



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