The Safety and Buildings Division suggests you make safety an ingredient in your holiday cooking

Most cooking equipment fires start with the ignition of common household items - food or grease, cabinets, wall coverings, paper or plastic bags, curtains - the National Fire Protection Association (NFPA) reports as we enter the holiday cooking season.

- Between 1999-2002, there were 114,000 reported home fires associated with cooking equipment every year, resulting in an annual 290 deaths and 4,380 injuries.
- Unattended cooking is the leading cause of home cooking fires.
- Three in 10 reported home fires start in the kitchen — more than any other place in the home.
- Two out of three reported home cooking fires start with the range or stove.
- Electric ranges or stoves have a higher risk of fires, injuries and property damage, compared to gas ranges or stoves, but gas ranges or stoves have a higher risk of fire deaths.

Microwave ovens can be the source of non-fire cooking injuries.

Microwave ovens were involved in an estimated average of 2,100 home structure fires per year during 1999-2002, resulting in 10 deaths, 50 injuries and an estimated $6 million per year in associated direct property damage, said the NFPA.

- Microwave ovens involve more emergency room injuries than any other cooking device.
- Nearly half of the microwave oven injuries seen at emergency rooms in 2001 were scalds.

Read the manufacturer's instructions before using a microwave oven. Plug the oven directly into an outlet; never use an extension cord because it may overload the circuit and cause a fire.

Heat food in containers only intended for microwave use. Allow food to cool for a minute or more before removing from the oven using oven gloves. Containers may only feel "warm," but the contents may be very hot. Open food slowly, hot steam escaping from the container can cause painful burns. Let food cool before eating.

Never use aluminum foil or metal objects in a microwave oven, they can cause an arcing, fire or burn hazard and damage the oven.

If you have a fire in your microwave, turn it off immediately and keep the door closed. Never open the door until the fire is completely out. In doubt, get out and call the fire department.

Cooking oil - Overheated cooking oil will start to bubble or froth excessively and/or smoke. The frothing action might cause the oil to overflow the pan and ignite. The fire is intense and could surge up and out of the pan almost instantly.

- NFPA says a study published by the U.S. Consumer Product Safety Commission found that 75 percent of

range or stove fires started with food ignitions. Forty-three percent began with cooking oil; 33 percent started with fish or meat. Sixty-three percent of the range or stove fires beginning with food occurred when someone was frying.
- Fifty-five percent of the people who were injured in non-fatal reported home cooking fires during 1999-2001 were injured when they tried to fight the fire themselves.
- One of every seven home fires reported in 1994-1998 started with fat or grease. One of every six reported fire injuries resulted from these fires

When you cook, wear clothing with tight-fitting sleeves. Loose-fitting clothing is more likely to catch fire from a stove burner.

Make sure pans and utensils are dry – oil and water don't mix. Never use water to extinguish a cooking oil fire.

If the oil starts to boil (bubbling), remove it from the heat source. Just lowering the temperature of the burner will not reduce the heat quickly enough, especially on an electric stove top. Be careful not to over-fill your pan or pot with oil. You need enough room in the pan to allow for the food to be added. If you have too much oil in the pan, oil is likely to overflow the pan and contact the burner, where it can catch fire.
If the oil catches fire, use an oven mitt to but carefully slide a lid over the pan to smother the fire. Turn off the burner and slide the pan off the heat source. Keep the pan covered until the oil cools to prevent it from starting again.

Turkey Fryers

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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, according to the NFPA. The use of turkey fryers by consumers can lead to devastating burns, other injuries and the destruction of property. NFPA urges those who prefer fried turkey to seek out professional establishments, such as grocery stores, specialty food retailers, and restaurants for the preparation of the dish, or consider a new type of "oil less" turkey fryer.

- Hot oil may splash or spill at any point during the cooking process, when the fryer is jarred or tipped over, the turkey is placed in the fryer or removed, or the turkey is moved from the fryer to the table. Any contact between hot oil and skin could result in serious injury. Any contact between hot oil and nonmetallic materials could lead to serious damage.
- A major spill of hot oil can occur with fryers designed for outdoor use and using a stand, as these units are particularly vulnerable to upset or collapse, followed by a major spill of hot oil. Newer countertop units using a solid base appear to reduce this particular risk. NFPA does not believe that consumer

education alone can make the risks of either type of turkey fryer acceptably low because of the large quantities of hot oil involved and the speed and severity of burn likely to occur with contact.
- In deep frying, oil is heated to temperatures of 350 degrees Fahrenheit or more. Cooking oil is combustible, and if it is heated beyond its cooking temperature, its vapors can ignite. This is a fire danger separate from the burn danger inherent in the hot oil. Overheating can occur if temperature controls, which are designed to shut off the fryer if the oil overheats, are defective, or if the appliance has no temperature controls.
- Propane-fired turkey fryers are designed for outdoor use. During the holiday season in Wisconsin both rain and snow are common. If rain or snow strikes exposed hot cooking oil, the result can be a splattering of the hot oil or a conversion of the rain or snow to steam, either of which can lead to burns. Using a propane-fired turkey fryers indoors to avoid bad weather is contrary to their design and dangerous in its own right. Also, moving an operating turkey fryer indoors to escape bad weather is extremely risky. Fires have occurred when turkey fryers were used in a garage or barn or under eaves to keep the appliance out of the rain.
- The gallons of oil in these devices introduce an additional level of hazard to deep fryer cooking, as does the size and weight of the turkey, which must be safely lowered into and raised out of the large quantity of hot oil. Many turkeys are purchased frozen, and they may not be fully thawed when cooking begins. As with a rainy day, a defrosting turkey creates the risk of contact between hot cooking oil.
- There is a new outdoor turkey cooking appliance that does not use oil. NFPA believes these should be considered as an alternative.

- NFPA says it believes that turkey fryers which use oil, as currently designed, are not suitable for acceptably safe use by even a well-informed and careful consumer. Consumers may find packaging of turkey fryers displaying independent product safety testing labels. NFPA states it does not believe that the testing is “sufficiently comprehensive regarding the different ways in which serious harm can occur, and, in some cases, regarding the different parts of the turkey fryer that need to be tested.”

Source of this information: NFPA's "Home Cooking Fire Patterns and Trends" report, by John R. Hall, Jr., July 2006.