By, Vince Palandri, Fire Fighter, Payson Fire Department

Fire Extinguishers: Selection, Location and Use

Armed with the right type of fire extinguisher, a small fire can often be extinguished or contained before it becomes a major blaze. But to effectively fight fire, an individual must be prepared with the right type of extinguisher, have it readily available, and know how to use it properly. Failure to be properly prepared to extinguish a fire not only reduces the chances of containing the blaze, but may also place the individual in an extremely hazardous situation.

If you lack the tools or knowledge to fight a fire, no matter how small, get out of the building, call your local fire department and wait for them to arrive.

FIRE EXTINGUISHERS

There are several types of fire extinguishers available, but the best type for home use is a multipurpose "ABC" type extinguisher. ABC type extinguishers generally use a dry powder called ammonium phosphate as the active chemical to extinguish a fire and are capable of putting out most common fires. Other extinguishers may use CO2 or water as an agent.

Extinguishers are rated for the type of fire they are made to extinguish.

Class A - Fires are ordinary materials like burning paper, lumber, cardboard, plastics etc.

Class B - Fires involve flammable or combustible liquids such as gasoline, kerosene, and common organic solvents used in the laboratory.

Class C - Fires involve electrically energized fixtures or equipment.

Other types of extinguishers are available for the following type of fires and conditions:

Class D - Fires involve combustible metals, such as magnesium, titanium, potassium and sodium as well as <u>pyrophoric organometallic</u> reagents such as alkyllithiums, Grignards and diethylzinc. These materials burn at high temperatures and will react violently with water, air, and/or other chemicals. **Class K** - Fires are kitchen fires. This class was added to the NFPA portable extinguishers Standard 10 in 1998. Kitchen extinguishers installed before June 30, 1998 are "grand fathered" into the standard.

As this listing shows, an ABC multipurpose type extinguisher is capable of extinguishing most fires. The larger the extinguisher the longer it takes to completely discharge. Because the discharge time for various sizes ranges from 8 to 25 seconds, a five-pound extinguisher is the minimum size that should be purchased. When purchasing an extinguisher, make sure it is U.L. (Underwriters Laboratories) approved. With larger extinguishers annual maintenance is important but always follow maintenance instructions that your extinguisher manufacture recommends.

PURPOSES AND LOCATIONS FOR FIRE EXTINGUISHERS

The main reasons for having fire extinguishers readily available are to:

- 1. Suppress fire along an escape route so trapped persons can exit a burning structure.
- 2. To extinguish or contain a fire from the time it is discovered until the arrival of fire department Personnel.

HOME PROTECTION

Historically, most home fires occur between 8 p.m. and 8 a.m., a time when most individuals are either relaxing or sleeping. Extinguishers stored in the bedroom or bedroom closet will be readily available. Extinguishers should be placed along escape routes from the house. Areas that are prone to fires, such as the kitchen, furnace area, garage and workshop, should also have a fire extinguisher readily available. The best policy is to have several fire extinguishers located throughout the home where they are readily available. Since many home fires occur during the night or in out of the way areas such as a furnace room or garage, smoke detectors are essential to alerting the family of a fire. Smoke detectors should be placed on all levels of the house and should be tested monthly. Batteries should be replaced at least once a year. A standard practice is to replace the batteries at the first of every year, or on a special date that is easy for you to remember.

FIRE EXTINGUISHER OPERATING PROCEDURES

When a fire occurs, follow these general rules:

- 1. Make sure everyone gets out of the building.
- 2. Call the fire department immediately. Fires can spread quickly -- if you are unsuccessful in putting out a fire, the time you spent trying to extinguish a blaze may allow it to spread.
- 3. After calling the fire department, if the fire is still small, decide if you or someone else should risk trying to control the fire. Smoke and gases released from a fire can be toxic, so never attempt to put out a fire if you have any doubts about your ability to extinguish it. Wait for fire department personnel who have the proper equipment and are trained in fire fighting procedures. If you elect to put out a fire and it grows too large to control, back out of the building. Always have your exit in site and don't let the fire get between you and the exit. Never move through fire or smoke to get to your fire extinguisher.

Close the door behind you to limit oxygen in the building and wait until help arrives.

To Operate a Fire Extinguisher: Remember PASS

- 1. *Pull* the locking pin from the extinguisher handle.
- 2. Aim the extinguisher nozzle at the base of the fire.
- 3. *Squeeze* the lever or handle.
- 4. Sweep the spray from side to side at the base of the fire.

Families, especially those with young children, should have a fire escape plan and practice it regularly. Make sure everyone has planned escape routes out of the building and knows to meet in a defined safe meeting area such as a tree, mailbox, fence corner, etc. Never reenter a burning house.

Having fire extinguishers in your home does not relieve you and family members from the responsibilities of taking precautions to prevent fires, nor do fire extinguishers take the place of trained fire department personnel.

A fire extinguisher is designed to reduce the chances of injury and death to you and family members during the time it takes to leave the structure and for trained help to arrive in the event of an accidental fire. Always report the fire no matter how small, so department personnel can assess the situation and check for extension throughout the fire area.

Smoke detectors are essential to early detection of a fire. Install and maintain them according to manufacturers instructions. If you think your detectors are ten years old or older, replace them.

Still not real comfortable with the idea of operating a fire extinguisher, contact and stop by your local fire department to give you some hands on training.

Until next time be " Fired Up" about fire safety in your home.

Choosing a Fire Extinguisher Class Symbol Type of Fire Examples				ABC DRY CHEMICAL	BC DRY CHEMICAL	DRY POWDER	WATER	FOAM	WET CHEMICAL	HALOGENATED	CARBON DIOXIDE
A		Common combustibles	Wood, p aper, cloth etc.								
В	₩	Flammable liquids and gases	Gasoline, prop ane and solvent s								
C	15%	Live electrical equipment	Computers, fax machines (see note)								
D		Combustible metals	Magnesium, lithium, tit anium								
K	**	Cooking media	Cooking oils and fat s								

NOTE: Although ABC and BC Dry Chemical extinguishers can control a fire involving electronic equipment, the National Fire Code (NFPA 75-1999 edition), Section 6-3-2, specifically advises against dry-chemical extinguishers for fires involving computers or other delicate electronic equipment due to the potential damage from residues.