Fire Extinguishers

When used properly, a portable fire extinguisher can save lives and property by putting out a small fire or controlling it until the fire department arrives. Portable extinguishers are intended to be used for those fires in the incipient stage when the fire has just started and is easily extinguishable, but are not designed to fight large or spreading fires. This fact sheet will cover how fire extinguishers are an excellent first line of defense in preventing fires, but are only useful under certain conditions, including the following:

- If the appropriate type and size of fire extinguisher is available;
- If the operator understands how to use the extinguisher;
- If the extinguisher is properly located within the building; and
- If the extinguisher is in good condition and fully charged.

Selecting the Appropriate Type and Size of Fire Extinguisher

There are basically four different types or classes of fire extinguishers, each of which extinguishes specific types of fire. Newer fire extinguishers use a picture/labeling system to designate which types of fires they are to be used on. Older fire extinguishers are labeled with colored geometrical shapes with letter designations. The following indicates the different types of extinguishers that are available:

- **Class A extinguishers** will put out fires in ordinary combustibles, such as wood and paper. The numerical rating for this class of fire extinguisher refers to the amount of water the fire extinguisher holds and the amount of fire it will extinguish.
- **Class B extinguishers** should be used on fires involving flammable liquids, such as grease, gasoline, oil, etc. The numerical rating for this class of fire extinguisher states the approximate number of square feet of a flammable liquid fire that a non-expert person can expect to extinguish.
- **Class C extinguishers** are suitable for use on electrically energized fires. This class of fire extinguisher does not have a numerical rating. The presence of the letter “C” indicates that the extinguishing agent is non-conductive.
- **Class D extinguishers** are designed for use on flammable metals and are often specific for the type of metal in question. There is no picture designator for Class D extinguishers. These extinguishers generally have no rating nor are they given a multi-purpose rating for use on other types of fires.
- **Class ABC multi-purpose extinguishers** are suitable for use on ordinary combustibles, flammable liquids, or electrical equipment and are designated with the letters ABC.
- **Class BC extinguishers** are carbon dioxide extinguishers for use on flammable liquids and electrical equipment.
- **Class K extinguishers** are designed for use on fires that involve vegetable oils, animal oils, or fats in cooking appliances. This is for commercial kitchens, including those found in restaurants, cafeterias and caterers.

This is an example of a Class ABC multi-purpose rated fire extinguisher.

This is an example of a Class K fire extinguisher. Note the warning to only use after suppression system has been activated.

Many people are unaware that the majority of portable extinguishers are best suited for fighting very small or confined fires (in wastebasket for example). Some completely discharge in as few as eight seconds. This does not necessarily mean “the bigger the better” philosophy should be used, as larger extinguishers can be heavy and difficult to operate. For most churches, an ABC-rated extinguisher is sufficient, but if your church has a commercial kitchen consider installing a K-rated extinguisher there.

Operating Fire Extinguishers

Employees and volunteers need to be trained on how to properly operate a fire extinguisher. This training should not only include how to use a fire extinguisher, but when to use a fire extinguisher.

- Fire extinguisher should only be used to fight those fires in the incipient stage when the fire has just started and is easily extinguishable.
- Fire extinguisher should never be used to fight large or spreading fires, as these fires should only be handled by professional fire fighters.
- Understand that most portable extinguishers discharge completely in as few as eight seconds, so they would be of little or no use in controlling a larger fire.
- Before you begin to fight the fire:
    - Make sure everyone has left, or is leaving, the building.
    - Call the fire department.
    - Determine if the fire is confined to a small area and is not spreading.
    - Know what is burning, as there may be something in the fire that could explode, produce highly toxic smoke. Using the wrong type of extinguisher also could potentially spread the fire.
    - Be sure you have an unobstructed escape route to which the fire will not spread.

- To operate a fire extinguisher, use the following P.A.S.S. technique:
    - **P**ull the pin at the top of the extinguisher. The pin releases a locking mechanism and will allow you to discharge the extinguisher.
    - **A**im at the base of the fire, not the flames. This is important – in order to put out the fire, you must extinguish the fuel.
    - **S**queeze the lever slowly. This will release the extinguishing agent in the extinguisher. If the handle is released, the discharge will stop.
    - **S**weep from side to side. Using a sweeping motion, move the fire extinguisher back and forth until the fire is completely out. Operate the extinguisher from a safe distance, several feet away, and then move toward the fire once it starts to diminish. Be sure to read the instructions on your fire extinguisher, as different fire extinguishers recommend operating them from different distances. Remember: Aim at the base of the fire, not at the flames!

Locating Your Fire Extinguishers

- At least one Underwriters' Laboratory listed portable fire extinguisher, with a minimum rating of 2A, should be provided for every 3,000 square feet of floor space. The extinguishers need to be placed so that they are readily accessible and the travel distance to any extinguisher is no more than 75 feet.
- Fire extinguishers need to be hung on brackets or placed on a shelf in an area where they will not be blocked or damaged. Use signs or other markings to alert personnel of the location of the extinguishers. Mark all fire extinguisher locations on the church's emergency evacuation diagram of the building.

The photo above is an example of a fire extinguisher properly mounted to the wall, easily identified and accessible.

Maintaining Your Fire Extinguishers

Fire extinguishers should be maintained at regular intervals (at least once a year), or when specifically indicated by a manufacturers recommendations. Servicing is intended to give maximum assurance that an extinguisher will operate effectively and safely. It includes a thorough examination and any necessary repair, recharging or replacement. It also will normally reveal the need for hydrostatic testing of an extinguisher. Fire extinguishers should be pressure tested (a process called hydrostatic testing) after a number of years to ensure that the cylinder is safe to use. Consult your owner's manual, extinguisher label or the manufacturer to see when yours may need such testing. A general inspection also should be conducted when extinguishers are initially placed in service and thereafter at approximately 30-day intervals. A service tag should be attached to every fire extinguisher indicating the date of the most recent annual servicing. Generally, the back of most service tags provide an area for the individual conducting the monthly general inspection to sign and date it indicating when the inspection was performed.

The monthly inspection should include the following:

- The extinguisher is not blocked by equipment, coats or other objects that could interfere with access in an emergency.
- The pressure is at the recommended level. On extinguishers equipped with a gauge, the needle should be in the green zone, not too high and not too low.
- The nozzle or other parts are not damaged.
- The pin and tamper seal (if it has one) are intact.
- There are no dents, leaks, rust, chemical deposits and/or other signs of abuse/wear. Wipe off any corrosive chemicals, oil, or other foreign material that may have deposited on the extinguisher.
- Consult the manufacturers recommendations, as brands and types of extinguishers may differ.
- Individuals conducting the monthly inspections should document in writing that the monthly inspection was performed.

The above photo is an example of a fire extinguisher inspection tag

Prevention is Key

Fire extinguishers can be a valuable tool in preventing fires at your church. By following the tips and recommendations in this fact sheet, your church will be better prepared to handle those small, but potentially hazardous fire situations that could lead to a larger disaster.

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