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Security Spotlight

An Informational Guide for Securitas Clients

Vigilance and reporting

Individuals should be watchful for hazards that can help fires start and spread or which could hamper a quick, safe evacuation. These include, but are not limited to:

- frayed electrical cords
- coffee pots left on after working hours
- work lights left on near or in contact with combustible materials
- boxes stacked too close to the ceiling, which may lessen the effectiveness of sprinkler systems

Understanding Fire Safety

Fire is possibly mankind's most important tool. It provides heat and light; it cooks our food and fuels industry. Without fire, modern life as we know it would be impossible. Yet, as useful as controlled fire can be, uncontrolled fire can cause terrible tragedies. A 2022 National Fire Protection Association (NFPA) survey reported 1,338,500 fires that year, causing 3,500 civilian deaths, 15,200 civilian injuries, and $21.9 billion in property damage.

As demonstrated by these statistics, uncontrolled fires pose a serious threat to any community or business. In 2020, according to NFPA, a fire was reported every 23 seconds. The leading cause of both home fires and non-residential fires was related to cooking.

Fire departments do an excellent job fighting fires, but the best method of fighting fires is preventing them. Individuals can help do this by better understanding fire and fire prevention.

The fire tetrahedron

Fire requires four basic components to start and keep burning:

Fuel: A fire cannot exist without something to burn. Any combustible or flammable material—solid, liquid, or gas—will do.

- loose or missing ceiling tiles, which may allow fire to spread to other areas
- fire extinguishers that are missing, broken, or out of date
- exits that are blocked by anything that prevents people from getting out quickly and safely
- exit signs that are missing or, if illuminated, have burnt out bulbs

Individuals can help prevent fires by being vigilant and reporting fire hazards when they see them. They can also help by remaining alert for suspicious persons or other conditions that might put the site at risk for arson. Remember: **If you see something, say something.**

Heat: A fire needs a source of ignition to start burning. This could be anything from a lit match to a static electricity spark. There are substances that can auto-ignite. Some do so when the surrounding temperature gets high enough while others can do so at normal room temperatures.

Oxygen: A fire needs air to keep burning. Since oxygen is always present in the air around us, fire is possible whenever heat and fuel come together.

Chemical Chain Reaction: When a fire starts, an exothermic chain reaction results which sustains the fire and allows it to continue until one or more of the elements of the fire is removed.

Stop the burn

Basic fire prevention occurs by controlling the four components of the fire tetrahedron—and keeping them apart.

Oxygen can be removed by smothering the fire with foam or CO2 from a fire extinguisher.

The fire's temperature can be lowered by dousing it with water. If the temperature is lowered below the fire's ignition point, it will stop burning.

A fire can also be contained and allowed to self-extinguish by removing access to combustible material, for example when fire fighters dig a trench to block the path of a forest fire.

The fourth method to put out a fire is to interfere with the chemical chain reaction by removing the free radicals in the reaction using neutralizing chemicals such as FM-200, INERGEN, and FE-13 type extinguishers to create an inert gas barrier.

Reducing fire hazards

Fuel supply and heat source hazards can be controlled by good housekeeping and responsible habits. Ordinary combustible materials—like wood, paper, and cloth—are common fuel supplies. Fire risk increases when large volumes of materials are stored closely together. Be on the watch for overflowing trash bins, stockpiles of paper goods, and other combustibles in storage areas, and the accumulation of discarded boxes, newspapers, and wood scraps.

Other fuel sources include combustible gases like propane and natural gas. All fittings, hoses, and clamps on these containers should be tight and sealed. Flammable or combustible liquids such as gasoline, kerosene, and paint can be fuel for a fire. These liquids should be stored properly in a ventilated room, in approved, air-tight containers. Oily rags should be placed in designated metal containers and properly disposed of regularly. Spilled or leaking combustible liquids should be immediately reported.

Heat or ignition sources can be as varied as the sun shining on a container of flammable liquid or the spontaneous combustion of oily rags. Other sources include:

- open flames
- heat-producing machinery or equipment, especially cooking equipment (microwaves, toasters, ovens, coffee pots, etc.)
- damaged or flawed electrical wiring and circuits
- overloaded electrical outlets
- welding, cutting, and grinding operations that produce sparks—these can ignite ultra-fine dust particle accumulations

Extinguisher use

Every emergency is unique and requires the use good judgment in response. When dealing with fire, it is generally recommended to first call 911 and evacuate the building. If you must use an extinguisher, it is very important to use the right type. Type "A" is for ordinary combustible material fires (wood, paper, cloth, etc.), type "B" for flammable liquid fires (cooking oil, paint, gasoline, etc.), type "C" for electrical fires, and type "D" for fires involving flammable metals.