

# What you need to know about FIRE SAFETY

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The tenant's first line of defense against fire hazards and dangers is provided by the building superintendent who is responsible for the maintenance and protection of the building and the safety of its residents. This chapter will discuss fire prevention and safety and what you as a manager or superintendent must know to protect your tenants.

According to the National Safety Council:

- Fire strikes in our nation more than one million times a year.
- About 7,500 people die annually as a result of fires, more than 5,000 of them at home.
- Most home fatalities occur during the sleeping hours between 10 p.m. and 6 a.m.

Most of the deaths occur before flames ever come close. The victims are completely unaware of the danger. They sleep soundly while smoke and poisonous gases silently take their lives. Since most fires are caused by human error (90 percent of all fires), they can be prevented. However, it is critical that you first be familiar with the nature of fire itself—its characteristics, how it spreads and why—in order to understand the principles behind fire prevention and fire fighting.

## The Elements of Fire

In order for fire to result, three elements must be present at the same time:

- heat (a source of ignition)
- fuel (something to burn)
- air of oxygen (to keep the fuel burning)

These elements form what is commonly known as the "fire triangle"



How does the triangle work?

Suppose fire fighters came to inspect your cellar and discovered that you had paper stored in close proximity to your heating apparatus. They would advise you to remove the fuel (paper) from the area of the heating apparatus, thus removing one of the elements from the triangle. If you had a grease fire burning in a pan on your stove, all you need to do is remove the air or oxygen. This is done by covering the pan with its top. You will be removing the air from the triangle, thus extinguishing the fire.

Fire prevention and fire fighting are based upon the elimination of one or more of these three (3) essential factors:

- **To remove the oxygen**, smother the fire by covering it or by closing doors and windows.
- **To remove the fuel**, take away the flammable material.
- **To remove the heat**, douse the fire with water to lower the temperature (but not on flammable liquids or electrical fire).

How are fires classified?

Fires are classified into three main categories. They are classified as follows:

- **Class A** – fires are those which consume wood, paper, cloth and similar materials.
- **Class B** – fires are caused by combustible or flammable materials such as gasoline, oil, painting fluids and turpentine.
- **Class C** – fires are caused by electrical wiring such as overloading, short circuits and loose connections.

Any class of fire in the home is a disaster!

In which direction does fire travel? Fire generally travels upward. Here we should keep in mind that fire looks for air. There are

cases where a fire started in the basement or cellar of a six story building, skipped the first through fifth floors, and spread to the sixth. The fire got into the space between the building and the outer brick where air circulated and extended to the top floor. An important thing to remember is that the worst place to be during any fire is above the fire

Fire spreads from one material to another and from one place to another in three different ways.

1. By direct transference of heat from one object to another such as an electric iron to an ironing board or an electric light bulb in contact with a lampshade or curtain.
2. Sparks or hot air: one example of this is fire passing from one house to another by sparks carried by the wind.
3. By radiation of heat from one material to another: an example is two houses close together where, although no flame passes between the two, the heat rises to a sufficient degree to ignite the second house. This type of heat is found in a strong form such as an atomic blast.

How to prevent fires: some simple rules

Thousands of people are killed every year in home fires; thousands of homes are destroyed. The unfortunate part is that by far the majority of these fires should never have happened. Many authorities estimate that 9 out of 10 of all home fires could be prevented if a few simple house rules were observed. A few of these simple rules are as follows:

1. **Proper storage** of matches where they can't be reached by children.

1. **Proper use** of electricity to avoid overloading or defective wiring.
2. **Regular checkups** of heating systems and chimneys.
3. **Use of** fire retardant roofing.
4. **Proper usage** and storage of gasoline, benzene, naphtha and similar volatile liquids. Gasoline should be stored only in the garage.
5. **Proper storage** of rubbish and other combustible materials.
6. **In the kitchen**, avoid wearing loose-fitting clothing that could catch fire when you cook. Turn pot handles inward so children can't reach them. If contents in pan catch fire, leave it on the stove, turn off the heat and cover the pan with a lid.

Besides being responsible for protecting the building and the tenants from fire, the superintendent is responsible for the general maintenance and cleanliness of the following areas: roof, hallway, stairs, cellar, standpipe, sprinkler and garage. Consult the Fire Department for assistance in complying with established guidelines for maintaining these areas. A copy of the Department's Apartment House and Multiple Dwelling Self-Inspection Form is provided for your use.

Further information may be secured by contacting:

**New York City Fire Department**

**9 METRO TECH, 4th Floor**

**Brooklyn, NY 11201**

**(718) 999 – 2000 ext 2343 or 1474**

Remember your fuse box was put in your house to protect you from fire. The smaller the amperage rating of your fuse, the better protection you get. If the fuse blows out you know

your line is overloaded. Don't merely strengthen the fuse. By so doing you only expose your home to danger of fire. One application serves from six to twelve months.

Heating systems, in order to be safe, should be cleaned and inspected by a competent workman at least once a year. The beginning of a heating season is a logical time to do this. You should make sure that there are no leaks or holes in your chimney pipes or smoke pipes. A small investment in having your heating unit checked may save you from costly and dangerous fire.

There is a common saying amount firemen that the only fire-proof house is under the sea. You can, however, protect your house to some extent by using fire retardant roofing and by dipping such materials as drapes, rugs, curtains, and other fabrics in a solution of nine ounces of borax; four ounces of boric acid to one gallon of water.

The proper storage of fluids such as gasoline, naphtha, and benzine is a basic fire prevention problem. Always see that they are stored in metal containers where they will not be upset. Oily rags should always be kept in closed metal containers in a cool place.

You cannot put out class B fires by sprinkling them with water. They can only be killed by smothering them with a rag or blanket or by using the proper type of fire extinguisher. Rubbish, hot ashes, etc. are always potential sources of fire. Never allow them to accumulate in the home. They should always be kept in metal containers and removed as quickly as possible. Remember, clean houses seldom burn.

**Fire Emergencies: Some Tips On How To Be Prepared For Fire Emergencies:**

**Reporting a Fire:** You, as the person responsible for the safety of all tenants in your building, should know where the fire alarm box is located; you should also know how the alarm box operates. You should

post this information in a prominent place, a place where all the building's tenants can see it, the elevator, the bulletin board, where the mail boxes are located, etc. To locate a fire alarm box is simple. Look for the amber (orange) globes affixed atop lamp posts or utility poles. At these intersections, you will find a fire alarm box. All boxes have instructions for operation clearly printed on them. In addition to knowing where the fire alarm box is located, you and your tenants should know how to report a fire, some of the major causes of fire, and how to evacuate the building in the event of fire.

**How to Report a Fire:** There are several ways to report a fire: street alarm box, telephone, and direct reporting to a firehouse. We have already discussed the street alarm box. The only addition is that in communities where the Guarded Spade Handle type alarm box is located, you must remain at the box after transmitting the alarm, in order to direct fire fighters to the fire\*. At the front of your telephone directory is located the telephone number for reporting a fire. The number is different for each borough. You should know the number for your borough. When reporting by telephone, it would be helpful for you to know that you will be asked several questions by the dispatcher: What is your name? The address of the fire? What's burning, etc. The reason for this is that people are sometimes so panic-stricken that they give the wrong address, the wrong telephone number and inaccurate information. This delays

response and extinguishment of the fire. When reporting a fire directly you simply enter the firehouse and give the fire fighter at the front desk all the particulars you know.

\*The ERS or Emergency Reporting System, of "talking box", is currently located throughout the City of New York. To report a fire you press a button and speak into a microphone to report a fire. After doing so, it's not necessary to remain at the box. The children in your building should be cautioned against abusing the alarm boxes by sending false alarms.

To call the Fire Department in case of fire:

- Manhattan** (212) 999-2222
- Bronx** (718) 999-3333
- Brooklyn** (718) 999-4444
- Queens** (718) 999-5555
- Staten Island** (718) 999-6666

Remember in Case of a Fire:

1. Call the Fire Department
2. Sound building fire alarm
3. Evacuate and follow fire emergency drill procedures

In Case of a Fire... Every Minute Counts.

Do

1. **CALL** the Fire Department if you smell smoke or see a fire.
2. **SOUND** the building's Fire Alarm
3. **FOLLOW** the instructions of those in charge.
4. **CLOSE** all doors behind you
5. **FEEL** the door – if it is hot, **DON'T OPEN IT**
6. **STAY LOW** in heavy smoke or heat conditions- if possible near an open window

5. **WALK** quickly **DON'T RUN** to your nearest smoke free stairway and travel downward

Don't

1. **DON'T USE** elevators as an exit
2. **DON'T STAND** in hallways
3. **DON'T USE** dead-end corridors
4. **DON'T PANIC** – be aware of potential crowd panic
5. **DON'T JUMP** – rescue may be only minutes away
6. **DON'T FIGHT** a fire alone
7. **DON'T TURN BACK** for personal belongings you may not get a second chance to leave

A good rule of thumb for action to take when a fire is discovered is to remember the word RACE:

- R** Remove, or get out
- A** Alarm, alert tenants in building. Then notify the Fire Department
- C** Confine, to keep fire from spreading
- E** Extinguish, if a fire cannot be extinguished in less than a minute, get out of the area

If trapped on a floor:

1. **Stay low** near an open window
2. **Close all doors** between you and the fire
3. **Keep out smoke** by using wet sheets and towels around doors.
4. **Signal for help** by using the telephone to communicate your situation and location.
5. **Use judgment** in opening windows.....Close if smoke enters

Local Law 5 specifies certain requirements for buildings based upon whether they are over or under 100 square feet. High rise usually means anything over eight or ten stories in height. High rises require more safety features such as elevator availability and re-entry from stairs. But those under 100 feet, if they are office buildings, require the following: a fire safety plan, a fire safety director, a deputy fire safety director, building evacuation safety director, fire brigade, fire wardens and deputy fire wardens, fire drills, signs, fire command station and they must have the capability of transmitting the alarm to a central station from the fire command station.

Evacuation Plan: Despite the fact your building is not an office building or high rise you must have a plan in case of fire for evacuation of tenants. Planning is critical to effective fire fighting systems. You should consider the handicapped tenants in your building when devising a plan – the elderly, the infants – and the plan should include an escape route for these individuals.

Escape Routes: When fire breaks out, your first inclination is to escape through the exit you normally use. This could easily be a death trap for you and your tenants. By planning ahead, you can help to reduce fear and panic when fire strikes. Here are some tips to help you prepare an escape route and take other precautions:

1. **Hold a meeting** with your tenants to discuss fire escape plans.
2. **Plan a way to alert tenants** if there is a fire in the building, and encourage them to plan, in the event there is a fire in their apartments. A whistle or a bell could serve as an alarm for fire.

3. **Arrange for two different escape routes** in case your usual exit is blocked by smoke or fire.
4. **Hold periodic fire drill**, using both routes, until everyone in the building is familiar with them. Be sure to make provisions for small children, the handicapped and the aged. Your Fire Department will be happy to assist you.
5. **If fire occurs**, remember these points:
  - Use escape plans, feel doors before exiting, if hot, do not open.
  - Close door behind you. This will slow the spread of fire. Walk quickly and **DON'T PANIC. KEEP CALM.**
  - Use the stairs, not the elevator. It could stop between floors and trap you or your tenants.
  - To travel through smoke – keep close to the floor. The air is cooler and smoke is thinner.
  - If trapped, open window at top to let out smoke and heat, and at the bottom to breathe.
  - Remember: **DON'T GO BACK FOR ANYTHING!**

- User answers operator upon voice contact like speaking over telephone
- User informs the operator about the emergency
- Necessary emergency apparatus can be dispatched to the scene.

**You *must* answer the operator to get help.**

What about Smoke Detectors: Smoke detectors are life savers and are the most important investment your tenants can make to protect themselves and their families from fire. These electronic “seeing” or “sniffing” devices monitor the air and sound an alarm at the first sign of trouble, giving occupants a chance to escape unharmed.

The National Safety Council recommends that every home, apartment, and mobile home have at least one of them. They range in price from less than \$15 to more than \$100 depending on the type and installation cost. Two types of smoke detectors have been developed to warn families of fire in the early stages. One utilizes a small amount of radioactive material and the other operates on the principal of an electric eye. However, both will provide sufficient warning. A smoke detector warns you of the first trace of smoke from a fire that may not even be in the immediate area, but is already producing smoke and gases. Regardless of the type selected, always look for the UL (Underwriter's Laboratories) or FM (Factory Mutual) label. For the type of detection protection you require for your building, consult the Fire Department.

Remember, you have an important role to play as a Building Superintendent or Building Manager. It is your responsibility to keep your tenants informed. The Fire Department will gladly assist you in this endeavor.

Emergency Reporting System Alarm Box:

The Emergency Reporting System (ERS) Alarm Box can be used for calling the Fire or Police Department to an emergency. This system is an improvement over the pull type fire alarm box for the following reasons:

- Summons Fire or Police as needed
- Simple to operate

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**Editors Note:** To attend a seminar on Fire Safety, please log onto [www.nyarm.com/NYARM\\_seminar.pdf](http://www.nyarm.com/NYARM_seminar.pdf) and FAX registration form to **(212) 216-0680**