

# Fire Safety At Home And On the Job

The New England Consortium

## *Fire Hazards and Risk*



Question :

What is the difference between a hazard and a risk ?

Answers :

A hazard is something with the potential to cause harm or loss.

A risk is the likelihood that the hazard will actually cause that harm or loss.

## In the Home

- People feel the safest in their homes, however residential properties are where most fires and fire deaths occur.
- 76% of all structure fires occurred in residential properties.
- 97% of structural fire deaths occurred in residential properties.



## Fire Causes

- The top fire causes include:
  - Cooking (49%)
  - Open Flame (10%)
  - Heating (9%)
  - Incendiary / Arson (8%)
  - Smoking (4%)

*\*leading cause of fire fatalities*

***Personal vigilance is the best way  
to avoid and survive fires!***



## Cooking Fires

- Pay attention to what you're cooking.
  - If you leave the room, turn off the stove.
- Don't cook if you're sleepy or if you're impaired.

*Nearly half of all home fires originate in the kitchen.*



## Reduce Your Chance of a Cooking Fire

- Keep flammable items away from heat sources.

*Curtains, potholders, towels, clothing, etc.*



- Clean your stovetop frequently to avoid grease build up.

- Keep flammable cleaners away from heat sources.



## Grease Fires

- Always have the matching lid nearby!
  - If you have a small grease fire you can smother it with the lid.
  - **NEVER PUT WATER ON A GREASE FIRE!**



## Candles

*Unattended candles are a leading fire cause.*



- **Candle safety tips:**

- Use flameless candles.
- When you leave the room, blow out the candle.
- Keep anything that could burn at least a foot away:
  - curtains, clothes, paper, etc.
- Don't set the candles on anything combustible.
  - Fires can start when the candle burns down to the base.





## Electrical Safety

- Do not overload electrical sockets.
- Do not run cords under rugs or furniture.  
*They can become worn, overheat, and cause a fire.*
- Avoid putting cords against walls or across doorways.
- Use power strips equipped with overload protection.



- Make sure all power strips and extension cords are tested and approved by a laboratory such as UL (*Underwriter's Laboratories*).

## Smoking Related Fires

- Cigarettes can smolder for hours.




- Tips to avoid smoking related fires:
  - Don't smoke inside.
  - Discard smoking materials in a fire safe container.
    - Use a proper, heavy ashtray which won't tip easily.
    - Don't improvise!



*Smoking is the leading cause of fire deaths.*

## *Classes of Fire*



- A - Free burning materials, paper, wood, plastics etc.
- B - Flammable liquids, petrol, meths, solvents etc.
- C - Flammable gases, methane, hydrogen etc.
- D - Metals, potassium, sodium, magnesium etc.
- K - Cooking fats
- Electricity can be involved in any class of fire

# Fire Safety In the Workplace

The New England Consortium

## APPLICABLE REGULATIONS

29CFR - SAFETY AND HEALTH STANDARDS

1910 - INDUSTRIAL SAFETY

157 - PORTABLE FIRE EXTINGUISHERS

NFPA 10 - PORTABLE FIRE EXTINGUISHERS

NFPA 101 - LIFE SAFETY CODE



## **GENERAL PROGRAM REQUIREMENTS**

### ***ALL EMPLOYERS MUST:***

- Assign Responsibility.**
- Establish a Written Program.**
- Conduct Fire Safety Training.**
- Develop Fire Safety Procedures.**
- Conduct Work Area Inspections.**
- Maintain a Safe Work Environment.**
- Conduct Regular Program Evaluations.**

## *Sources of Ignition*

- Smoking
- Electrical equipment
- Heaters
- Contractors tools and equipment
- Arson



# ***General Fire Safety***

- **Housekeeping**
  - **Storage & Disposal of Trash & Debris**
  - **Containers - selected by waste type**
    - general
    - smoking materials
    - oily rags
    - highly combustible materials



## ***Flammable Trash Cans***

- **Dispose of flammable waste in:**
  - non-combustible container
  - with self closing, tight fitting lid
- **Oily or Greasy Materials**
  - store in trash can with
    - airtight lids
    - supported by legs so the bottom is several inches off the floor

## ***Waste Containers***

- **Locate away from**
  - Heat sources
    - Space heaters; Furnaces; Steam pipes
  - Flammable & combustible liquids
  - Directly under combustible objects
- **Exterior cans**
  - Locate away from buildings so a trash fire will not spread to the building

## *Fire Prevention*

- Be mindful of Fire Safety
- Don't block fire exits, call points or extinguishers
- No smoking policy
- Take care when cooking
- Observe good security
- Don't wedge Fire Doors open



## *Fire Procedure - Fire Alarm*

- Leave the building immediately
- Use the nearest exit
- Walk quickly but don't run closing doors behind you
- Do not delay your exit to collect your belongings
- Attend the Fire Assembly Point and report to the Fire Warden
- Do not return until told to do so



## *Fire Procedure - Finding a Fire*

- Sound the fire alarm
- Fight the fire if you are competent and you consider it safe to do so
- Evacuate as per normal fire procedure
- Inform the Fire Warden



## Important Safety Elements

- Alarms
  - Smoke
  - Carbon Monoxide



- Fire extinguishers

- Residential Fire Sprinkler Systems



## Smoke Alarms



- Breathing smoke can kill you!
- Smoke is toxic.
- If you must escape through smoke, *get low and go* under the smoke.

## Carbon Monoxide Alarms

- Carbon monoxide (CO) is an invisible, odorless, colorless gas. There is no way to detect it without an alarm.

Law requires carbon monoxide alarms in all homes, within ten feet of all sleeping areas.

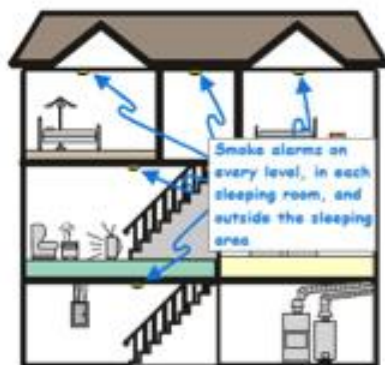
- Symptoms of CO poisoning mimic flu-like symptoms.
  - If you're feeling symptoms, immediately move to an open window or go outdoors.



**High levels of CO can be fatal,  
causing death within minutes.**



## Alarm Placement & Maintenance



- Make sure you can hear the alarm in every place in your home.
- They should be loud enough to wake you from sleep.

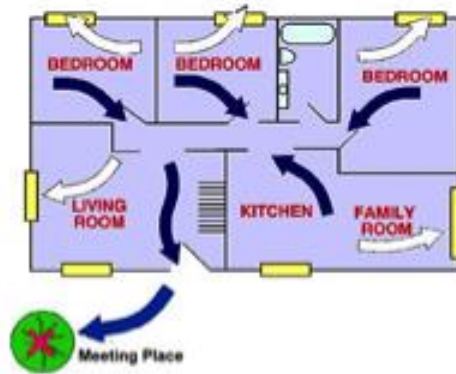
**Check them** once a month.

**Change the batteries** twice a year.

**Replace them** every 10 years.



## Escape Routes



*Know your escape routes  
and practice them.*

- When the smoke alarm sounds, you may only have seconds or minutes to escape safely.
- Have a meeting place for everyone to gather outside.
- Plan two ways out, in case one way is filled with smoke or fire.

## If you have a fire...

- Leave, close the door, and call 9-1-1 from outside.
- Report ALL fires to the fire department, even if you think you put them out!
- Don't ignore alarms!
  - Even if your building has frequent alarms, you need to leave when they go off.
- Once you're out, STAY OUT!
  - Don't go back inside for possessions or pets.
  - Notify the fire department if anyone is unaccounted for.



**You never know when it could be a real fire.**

## Summary

- There are many ways to reduce your risk of fire:
  - Stay focused when you're cooking.
  - Use candles responsibly, or not at all.
  - Don't overload electrical sockets or misuse extension cords.
  - If you must smoke, be responsible for your smoking materials.
  - If someone is smoking in or near your home, check to make sure that all smoking materials are properly disposed of.
  - Have a fire safety plan and practice it!
  - Have working smoke and CO alarms.
  - Be responsible.

