

FIRE SAFETY TRAINING

Sedgwick CMS
on the behalf of the
OFFICE OF RISK MANAGEMENT



Revised 7/2015

COURSE OUTLINE

I. FIRE SCIENCE

II. FIRE SAFETY INSPECTIONS

III. EVACUATION PLAN

IV. FIRE EXTINGUISHERS

V. OTHER FEATURES OF FIRE PROTECTION

FIRE SCIENCE

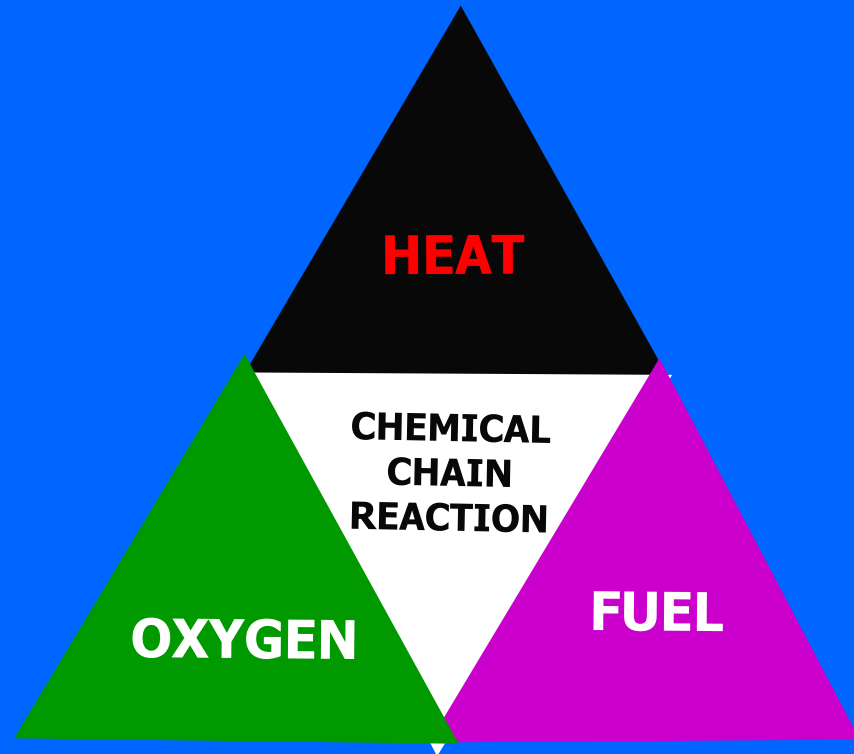


FIRE SCIENCE

What elements are needed
to start a fire?

FIRE SCIENCE

The Fire Tetrahedron



FIRE SCIENCE

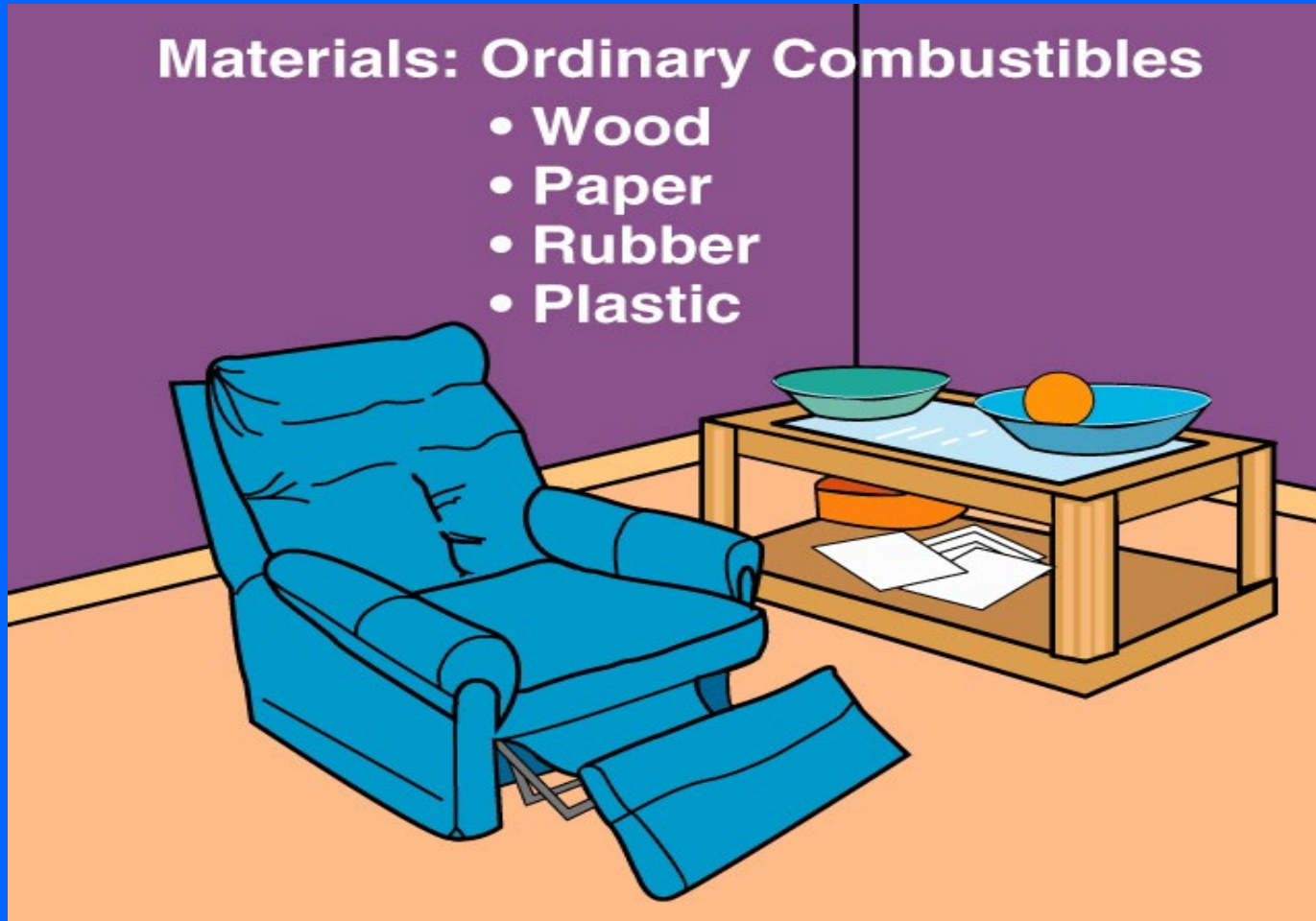
FUEL CAN BE

- ☐ LIQUID: Grease, Oil, Fuel;**
- ☐ SOLID: Wood, Paper, Metal;**
- ☐ GAS: Natural Gas, Propane, Acetylene.**

CLASS "A" FIRES - Ordinary combustibles such as wood, paper, cloth.

Materials: Ordinary Combustibles

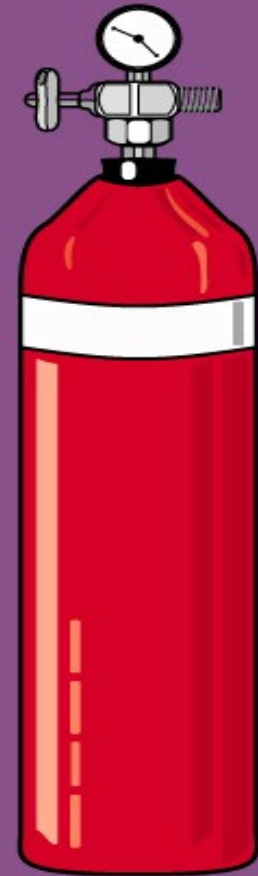
- Wood
- Paper
- Rubber
- Plastic



CLASS "B" FIRES - Flammable liquids such as oil, grease

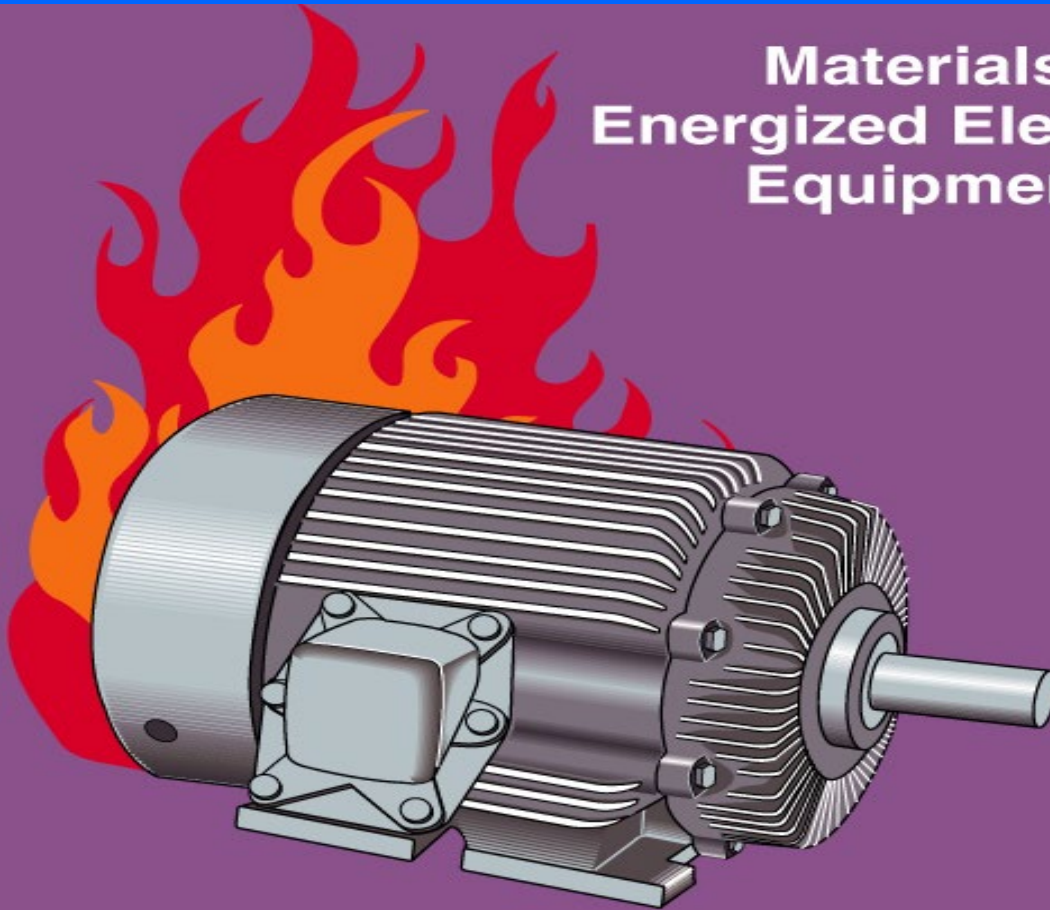
Materials:

- Liquids
- Greases
- Gases



CLASS “C” FIRES - Energized electrical equipment

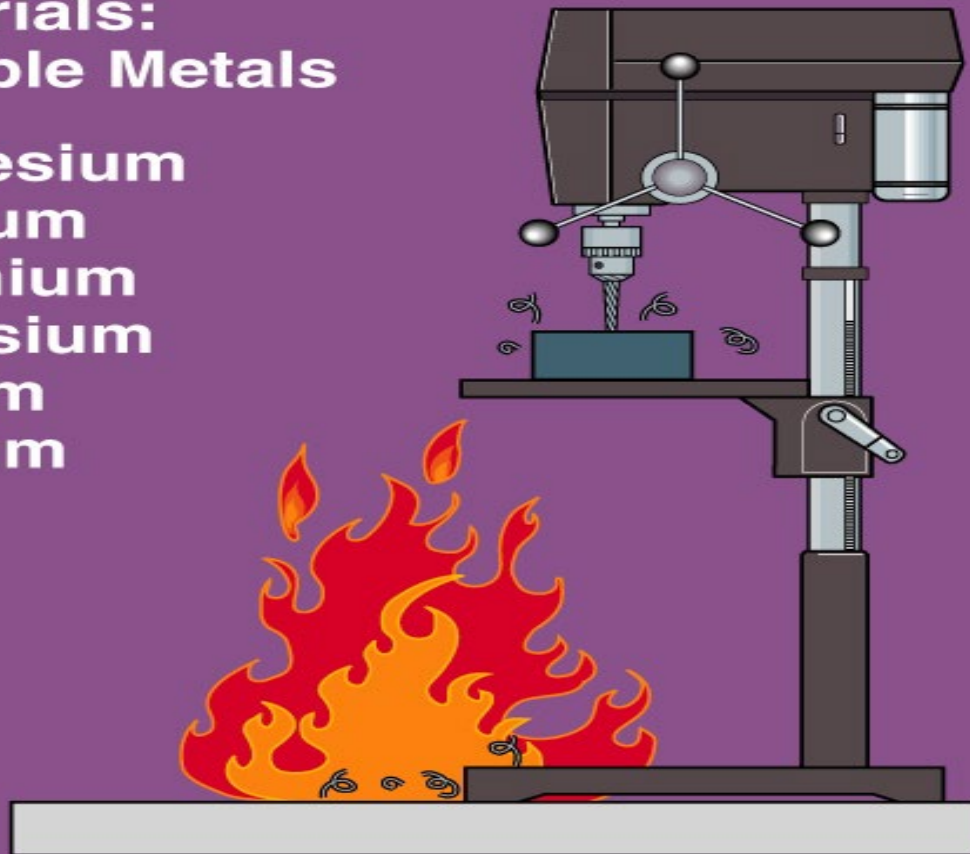
**Materials:
Energized Electrical
Equipment**



CLASS “D” FIRES - Flammable Metals

Materials: Combustible Metals

- Magnesium
- Titanium
- Zirconium
- Potassium
- Lithium
- Calcium
- Zinc



FIRE SCIENCE

What is smoke?

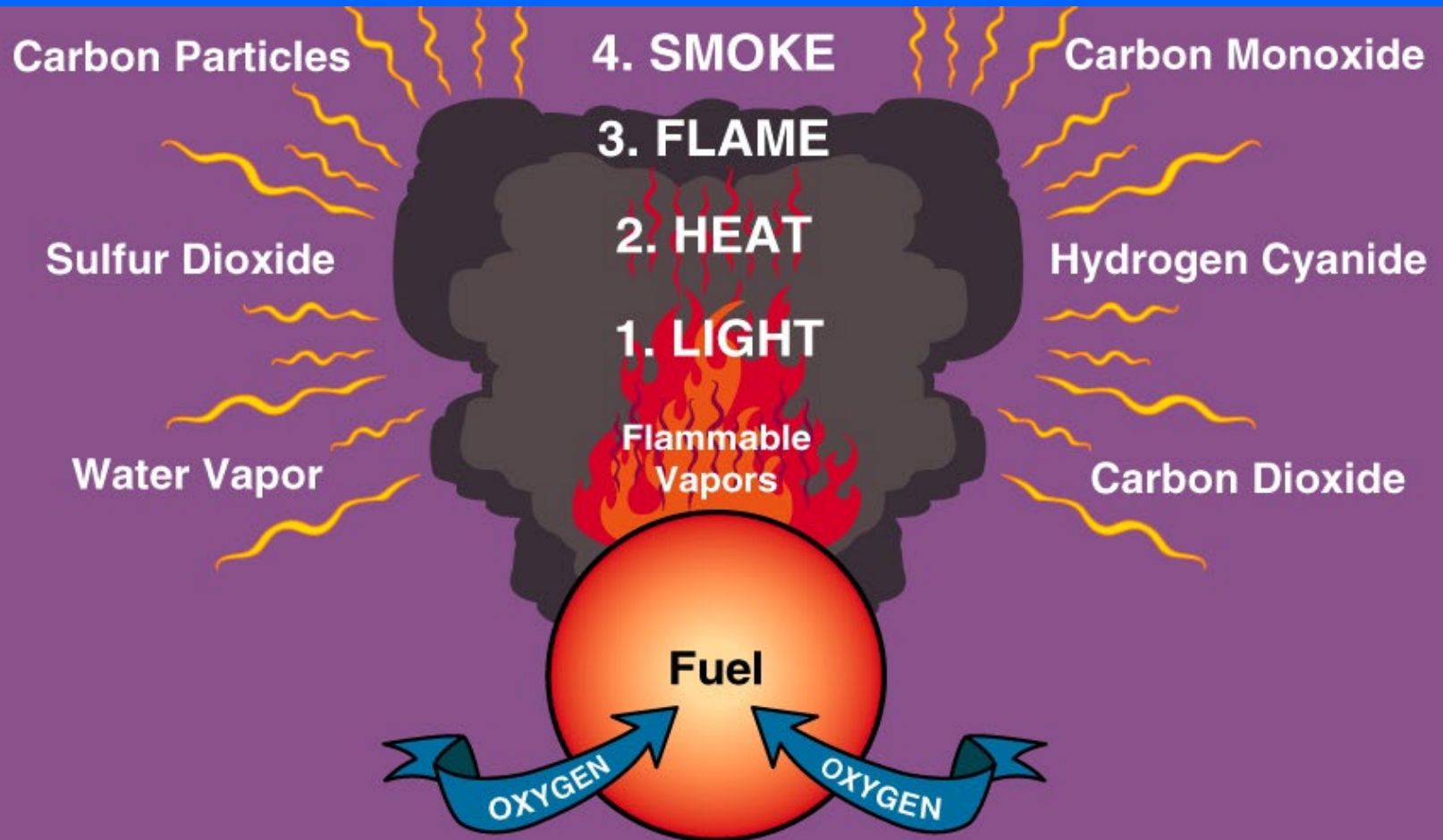
FIRE SCIENCE

**WHAT IS THE DIFFERENCE BETWEEN
COMBUSTIBLE AND *FLAMMABLE*
MATERIAL?**

*Combustible material has a flashpoint of 100 F
or above*

*Flammable material has a flashpoint below
100 F [Ref. NFPA 96]*

FIRE SCIENCE



FIRE SCIENCE



**F. F. CHRIS E. MICKAL
NEW ORLEANS FIRE DEPARTMENT
PHOTO UNIT**

**143 40th. Street
New Orleans, LA. 70124
(504) 482-9616**

*REGARDING FIREFIGHTING,
MSDSs TELL YOU IMPORTANT
FACTS ABOUT THE CHEMICALS OR
PRODUCTS YOU STORE!*



FIRE SAFETY INSPECTIONS

Your Sedgwick CMS
Risk Services Consultant Is
Available To Assist You

FIRE SAFETY INSPECTIONS

SOME HAZARDS TO LOOK FOR
IN YOUR WORKPLACE

EXAMPLES

- **Locked or blocked exits (common hazard)**
- **Trash or debris**
- **Electrical hazards**
- **Cooking hazards**
- **Chemical, Gas Cylinders/ System, and Labs**
- **Smoking Areas**
- **Exit Signs Blocked exits/isles/hallways**
- **Fire extinguisher hazards**
- **Emergency lighting hazards**
- **Emergency stairway doors blocked or propped open**

FIRE SAFETY INSPECTIONS



FIRE SAFETY INSPECTIONS

REMEMBER

The best way to fight fire is to prevent it

FIRE EVACUATION PLAN



EVACUATION PLAN

COMPONENTS OF AN EVACUATION PLAN

- **Emergency Control Committee - develops plan**
- **Emergency Crews - administer plan**
- **Escape routes - primary & secondary**
- **Maps - posted indicating escape routes, first aid kits and extinguishers**

FIRE EVACUATION PLAN

WHAT TO DO IN CASE OF FIRE

**FOLLOW YOUR AGENCY'S FIRE
EVACUATION PLAN**

FIRE EVACUATION PLAN

WHAT TO DO IF YOU SHOULD BECOME TRAPPED IN A BUILDING

- **Don't panic**
- **Try to find a secondary exit**
- **Feel doors for heat with your hand**
- **If the door is hot, don't open it!**
- **If you can't find another exit, stay where you are**

FIRE EVACUATION PLAN

- Seal doors and vents to prevent smoke penetration.
- If possible call “911” and report your exact location.
- Stay low to avoid smoke and heat.

EVACUATION PLAN

If assistance is needed with developing and/or reviewing your plan--- seek assistance from:

- **Fire officials (either State or Local officials)**
- **Agency's headquarter/safety coordinator that owns the building**
- **Sedgwick CMS Loss Prevention Officer**

EVACUATION PLAN

FIRE DRILLS...

...are conducted at least once each year, but some agencies may require them more frequently.

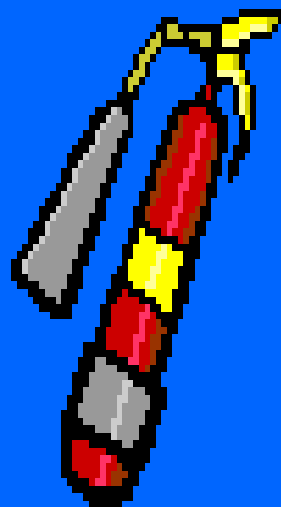
EVACUATION PLAN

FIRE DRILLS... cont.

Remember to **DOCUMENT**:

- **Date & time**
- **Employees & visitors present**
- **Outside meeting location**
- **Headcount**
- **Time of entire drill**

FIRE EXTINGUISHERS



FIRE EXTINGUISHERS

**KNOW WHERE FIRE EXTINGUISHERS
ARE LOCATED IN YOUR WORKPLACE**

**LEARN HOW TO USE THEM
EFFECTIVELY**

**NEVER LEAVE AN EXTINGUISHED
FIRE UNATTENDED**

FIRE EXTINGUISHERS

INSPECTIONS

- The National Fire Protection Association (**NFPA**) defines an inspection as a “quick check” that the extinguisher is available and will function
 - NFPA requires extinguishers be inspected monthly, or more frequently if circumstances require it

FIRE EXTINGUISHERS

WHO CAN INSPECT A FIRE EXTINGUISHER

Anyone.

**NFPA says *"minimal knowledge
required"***

FIRE EXTINGUISHERS

INSPECTION PROCEDURES

- **Extinguisher located in designated place?**
- **Obstructions to access or visibility?**
- **Operating Instructions on nameplate legible & facing outward?**
- **Seals & tamper indicators in place & intact?**

FIRE EXTINGUISHERS

- **Determine fullness by weight or by "*hefting*." Invert & shake it will help ensure "*caking*" or hardening of powder has not occurred.**
- **Visually examine for obvious physical damage, corrosion, leakage, or a clogged nozzle.**
- **Check to see if the pressure gauge is in operable range.**

FIRE EXTINGUISHERS

MAINTENANCE

NFPA defines maintenance as a "*thorough check*" of the extinguisher.

FIRE EXTINGUISHERS

FIRE EXTINGUISHER INSPECTOR CONTRACTOR

In Louisiana, must be licensed & certified by the Office of the State Fire Marshal (OSFM) to perform such work.

FIRE EXTINGUISHERS

HOW OFTEN SHOULD MAINTENANCE BE PERFORMED

**The NFPA says that maintenance should
be performed at least annually**

FIRE EXTINGUISHERS

MAINTENANCE RECORDKEEPING

NFPA requires that a tag be attached to the extinguisher indicating:

- 1. The month & year the maintenance was performed, and**
- 2. Identification of the person & the company performing the work.**

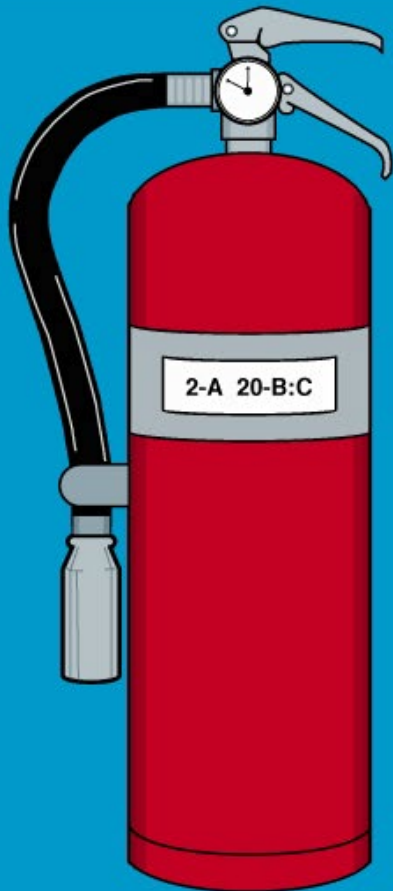
FIRE EXTINGUISHERS

MAINTENANCE TAGS



FIRE EXTINGUISHERS

Extinguisher Rating System



LETTERS indicate the fuel class on which the extinguisher will be effective.



Ordinary
Combustibles



Flammable
Liquids



Electrical
Equipment



Combustible
Metals

NUMBERS indicate the relative effectiveness of the extinguisher:

For example,

- A 2-A extinguisher extinguishes twice as much fuel as a 1-A extinguisher.
- A 20-B extinguisher extinguishes 20 times as much fuel as a 1-B extinguisher.

Numbers are used with letters on Class A and Class B extinguishers only.

FIRE EXTINGUISHERS

Extinguisher Rating System



CLASS K

FIRE EXTINGUISHERS

TYPES OF EXTINGUISHERS:



Carbon Dioxide
(CO₂)

FIRE EXTINGUISHERS

TYPES OF EXTINGUISHERS:



Stored pressure dry
powder (ABC)

FIRE EXTINGUISHERS

TYPES OF EXTINGUISHERS:



Clean agent type
extinguishers (Halon)

FIRE EXTINGUISHERS

SIZES:



Minimum size is 2A:10BC. The number indicates the number of square feet & the letter indicates the type of fire.

FIRE EXTINGUISHERS

IMPORTANT TO REMEMBER

Ensure that each area has the proper type fire extinguisher!

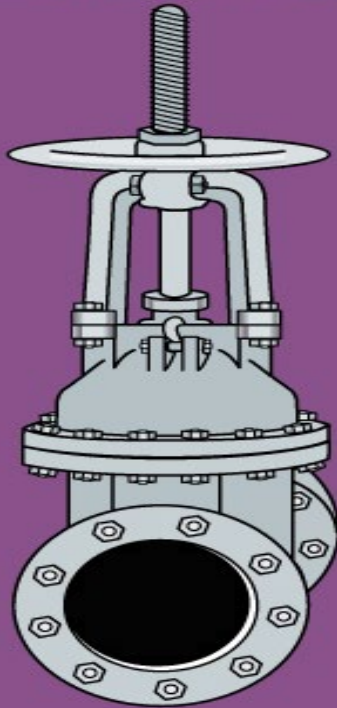
OTHER FEATURES OF FIRE PROTECTION

SPRINKLERS



TYPES OF CONTROL VALVES

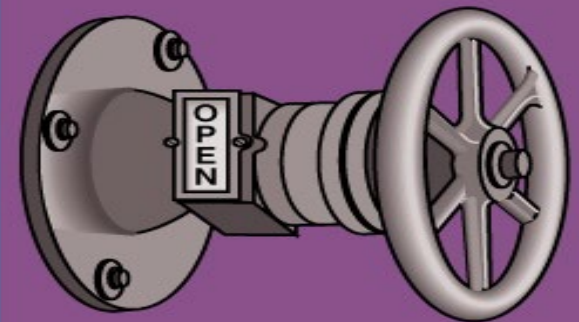
**OS&Y
(Outside
Screw and Yoke)**



**PIV
(Post Indicator
Valve)**



**WPIV
(Wall Post
Indicator Valve)**



OTHER FEATURES OF FIRE PROTECTION

ALARMS



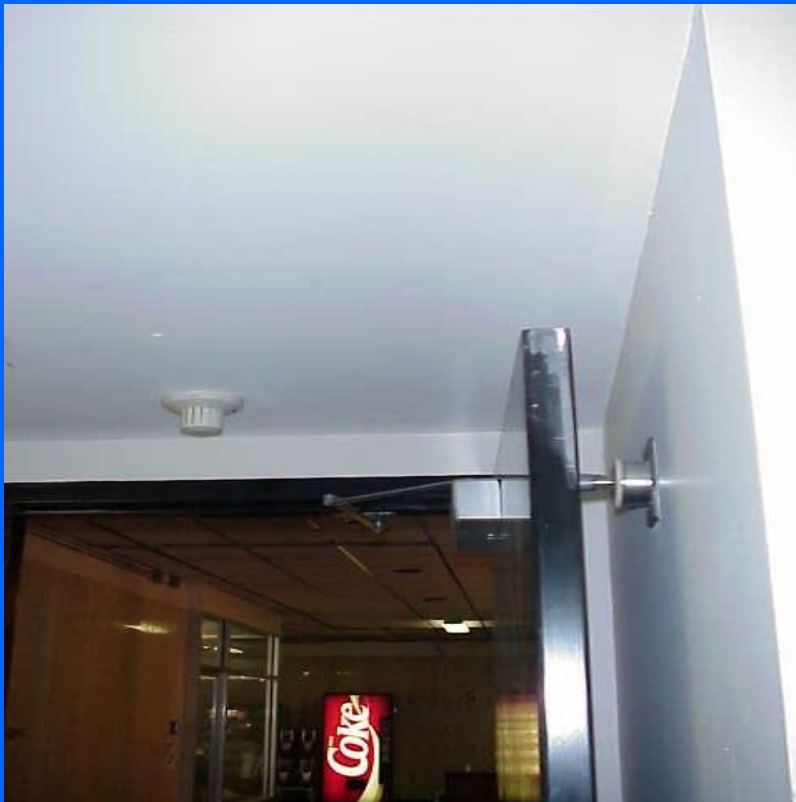
OTHER FEATURES OF FIRE PROTECTION

DETECTORS & STOBES



OTHER FEATURES OF FIRE PROTECTION

FIRE DOORS



OTHER FEATURES OF FIRE PROTECTION

PROTECTION

SUPPRESSION SYSTEMS



THE END!



THANK YOU FOR ATTENDING!