



Pimpri Chinchwad Education Trust's
Pimpri Chinchwad College of Engineering &
Research Ravet, Pune

Record No:

Academic Year: 2022 – 23

Report of Fire Extinguisher Training

Date: 18/03/2023

Fire Extinguisher Training Organized by Disaster Management Cell

Participants/Audiences : Faculty and Students
Venue : Physical Mode
Date : 18/03/2023
Organizing Team : Disaster Management Cell

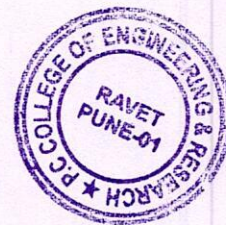


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3. Program outcome achieved
4. Target Audience and Number of Participants attended.
5. Appendix(This may vary depending on the event)
 - Event Photos



1. Objectives of the Event:

- Fire extinguisher training covers more than just how to use a fire extinguisher — it educates faculty members as well as students about existing workplace fire hazards, teaches them how to respond appropriately, and how to keep everyone around them as safe as possible.
- Understand the combustion process and different fire classes.
- Understand fire extinguisher types, operating procedures.
- Understand basic firefighting concepts.

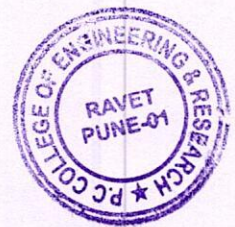
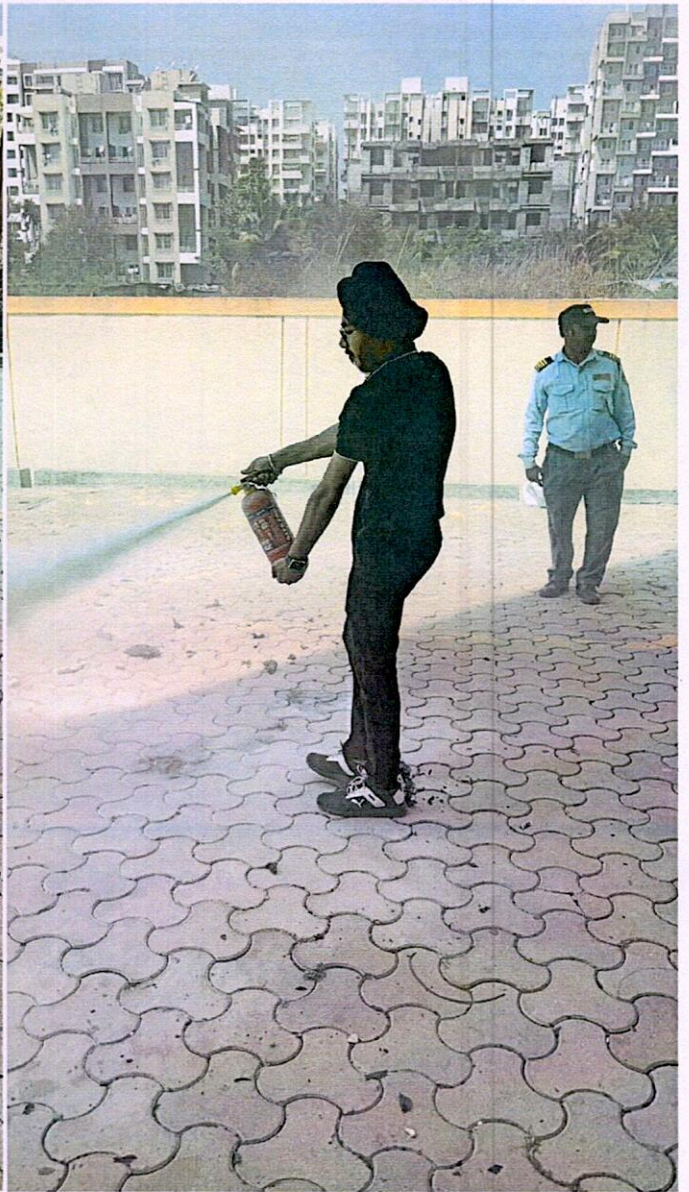
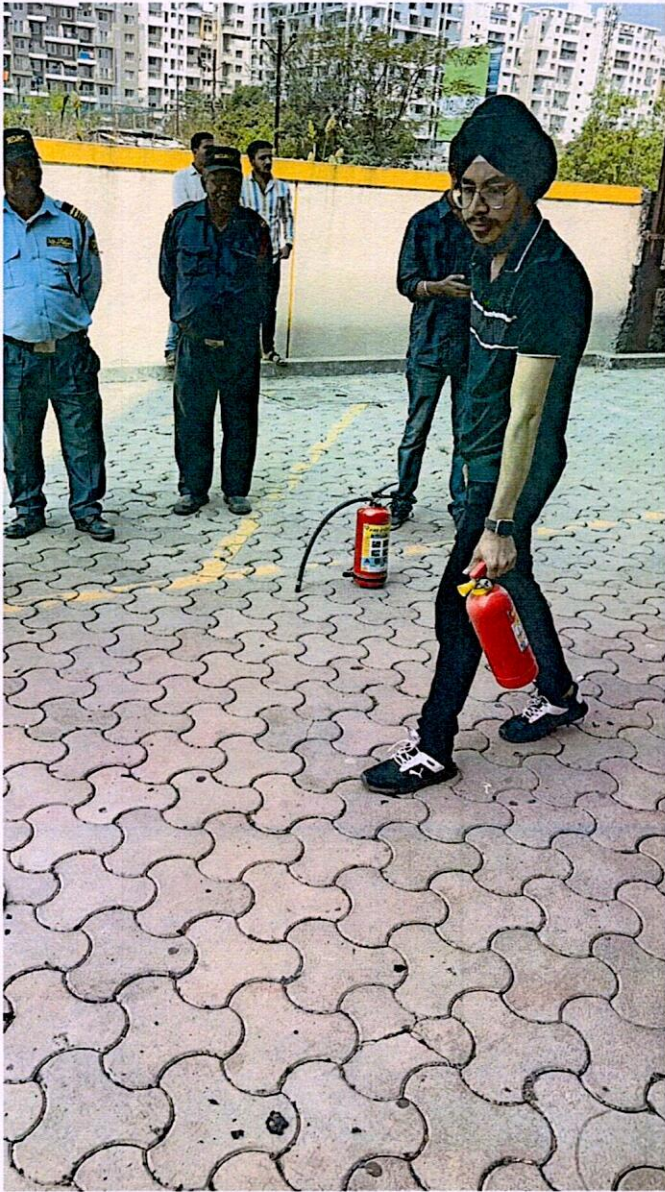
2. Program outcome achieved:

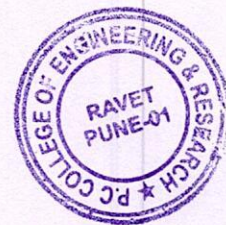
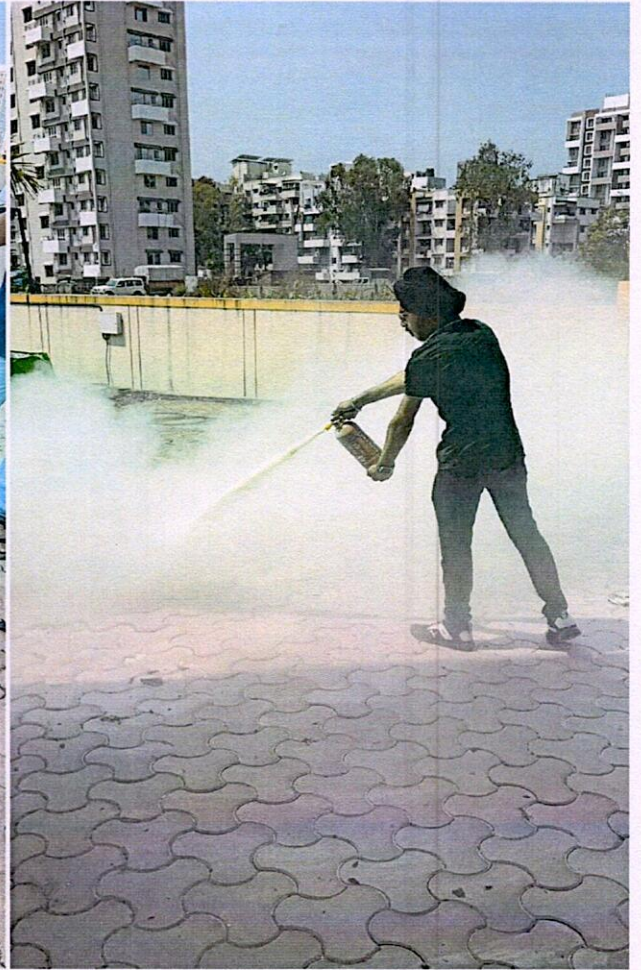
After completing the hands-on session of this course, faculty members and students will be able to identify the elements of a fire, fire classifications, types of fire extinguishers, when to fight a fire and will demonstrate the PASS method used to operate a fire extinguisher.

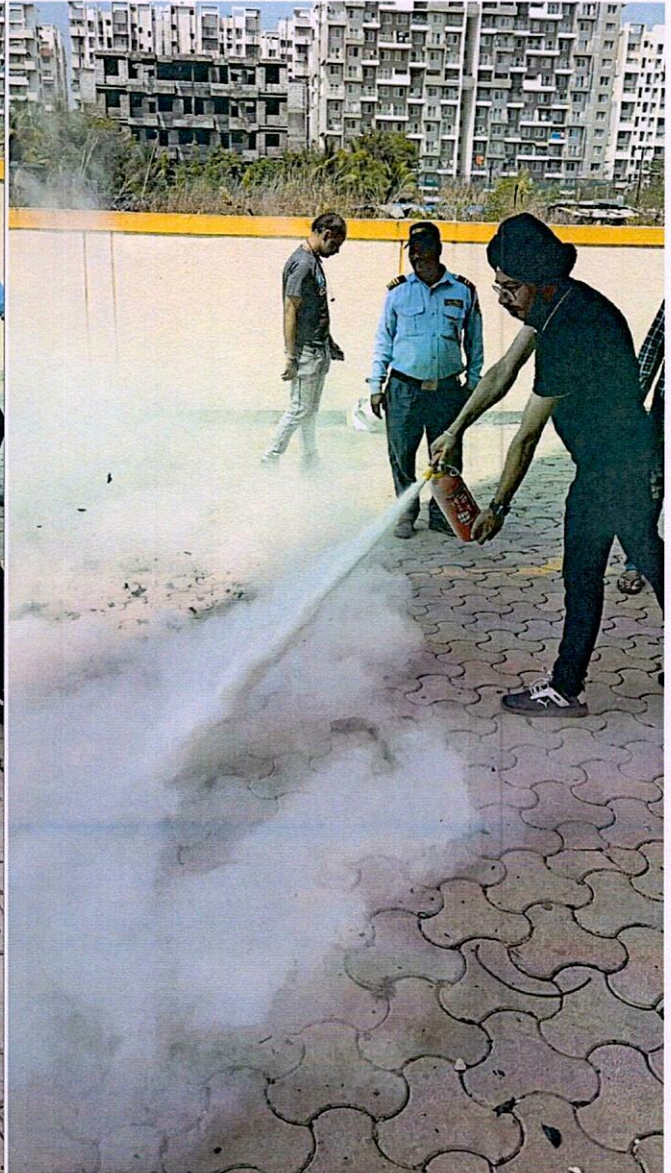
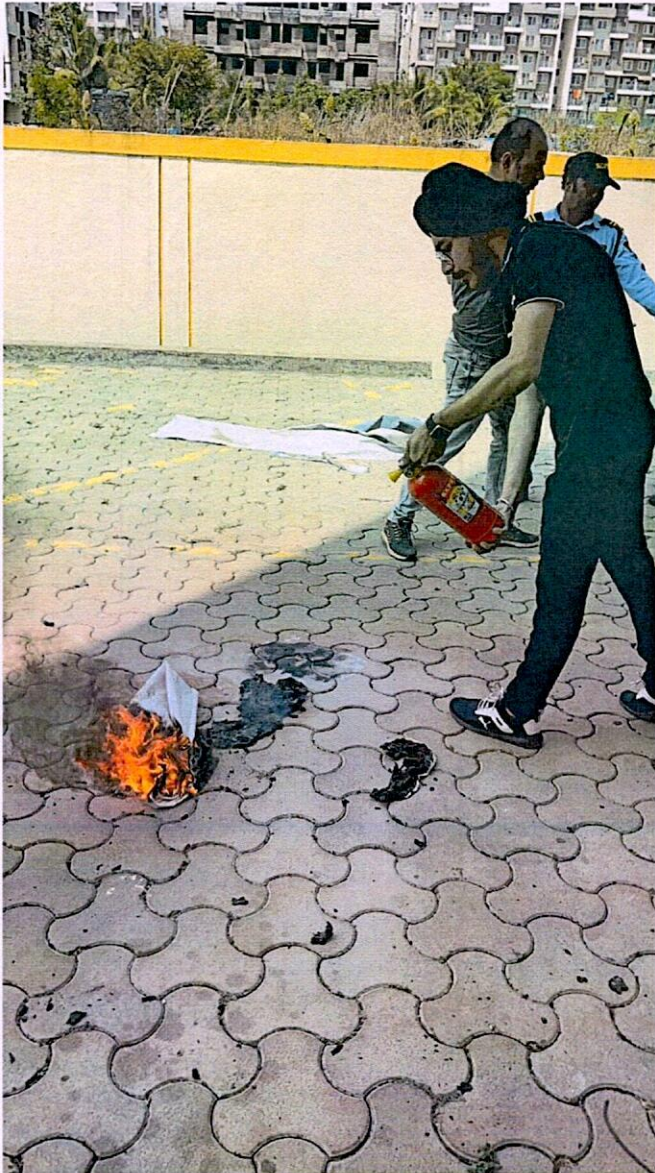
3. Target Audience and Number of Participants attended:

Faculty and Students (30 Numbers)

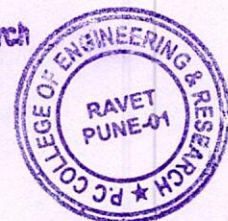


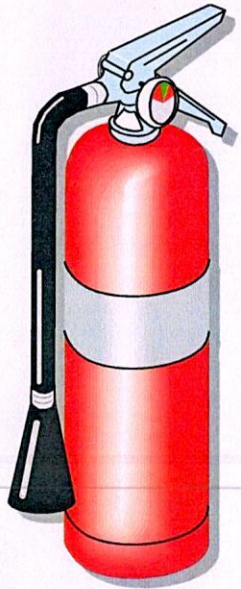




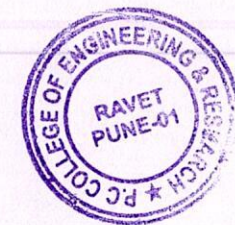


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Fire Safety & Fire Extinguisher Use



Fire Safety & Fire Extinguisher Use

Objectives

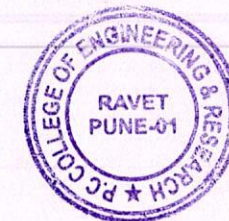
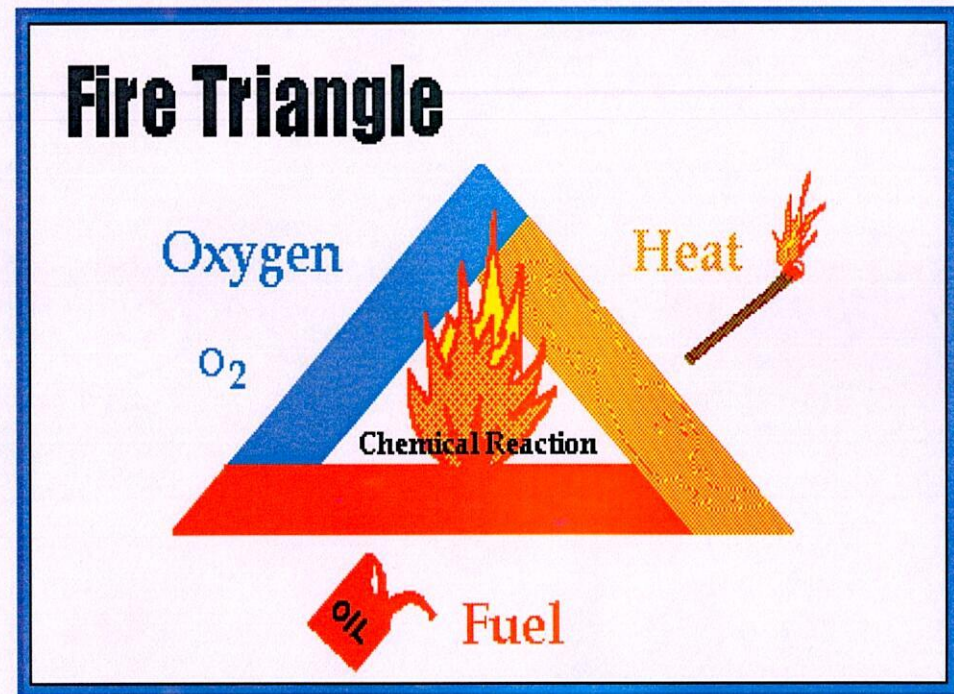
- Understand the combustion process and different fire classes
- Understand fire extinguisher types, operating procedures
- Understand basic firefighting concepts:



Fire Safety & Fire Extinguisher Use

The Combustion Process

- Three components
- Need all three components to start a fire
- Fire extinguishers remove one or more of the components.





Fire Classes



A Trash Wood Paper

A



- wood
- paper
- cloth
- etc.

B Liquids Grease

B



- gasoline
- oil
- grease
- other solvents

C Electrical Equipment

C



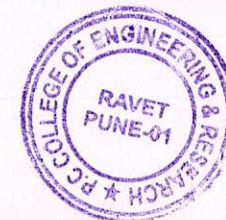
- computers
- fax machine
- other energized electrical equip.

COMBUSTIBLE



METALS

- magnesium
- sodium
- potassium
- titanium
- other flammable metals





Fire Classes (cont.)



CLASS K FIRES

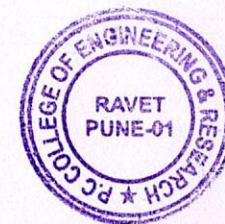
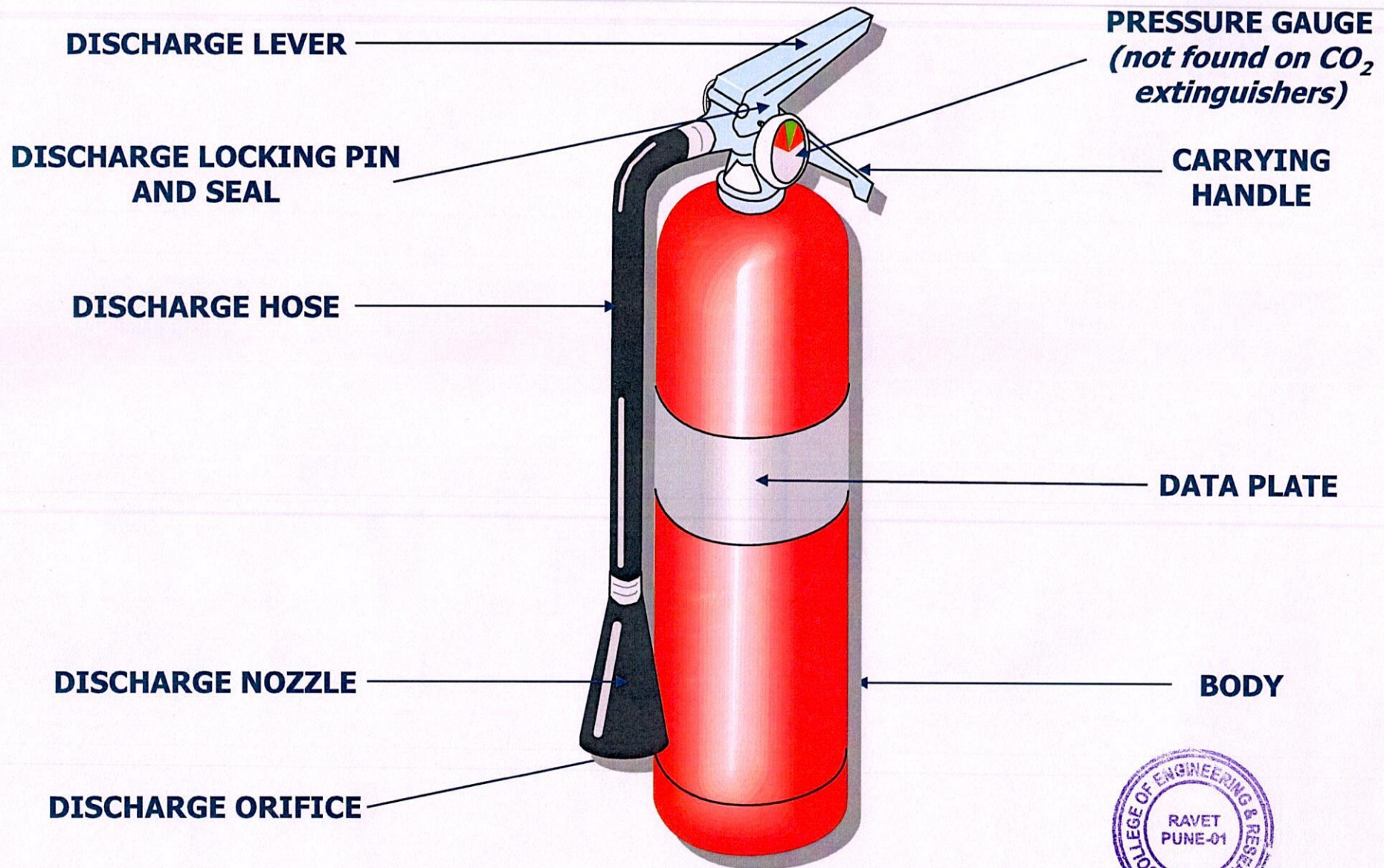


K Cooking Media

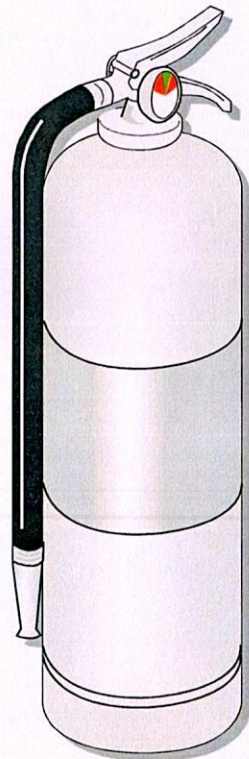
- Recently recognized by NFPA 10
- Fires involving combustible oils, lards and fats in commercial cooking.



Fire Extinguisher Anatomy



Fire Extinguisher Types



A Trash Wood Paper



B Liquids Grease

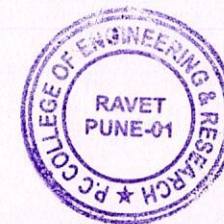


C Electrical Equipment

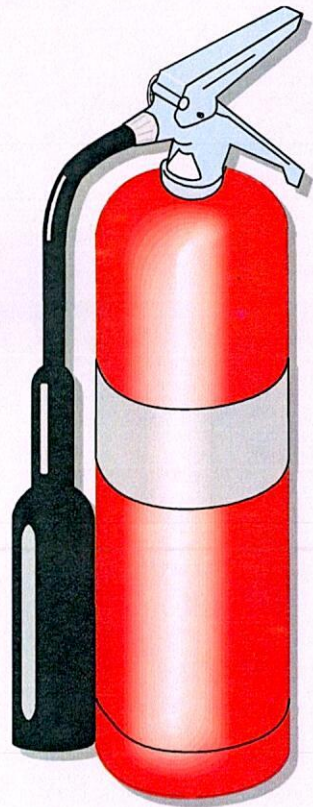


PRESSURIZED WATER

- Class "A" fires only
- 2.5 gal. water
(up to 1 minute discharge time)
- Has pressure gauge to allow visual capacity check
- 30-40 ft. maximum effective range
- Can be started and stopped as necessary
- Extinguishes by **cooling** burning material below the ignition point.



Fire Extinguisher Types (cont.)



A Trash Wood Paper



B Liquids Grease



C Electrical Equipment



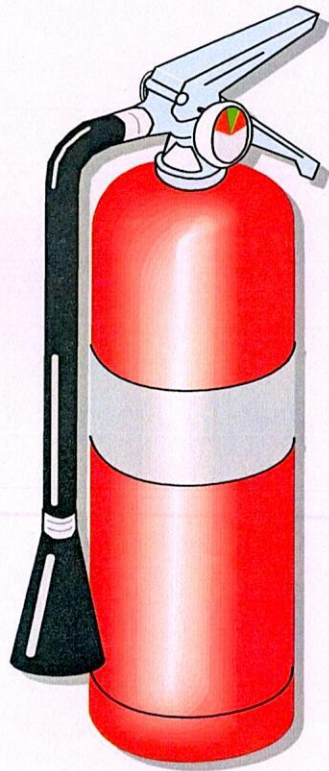
CARBON DIOXIDE (CO₂)

- Class "B" or "C" fires
- 2.5-100 lb. of CO₂
(8-30 seconds discharge time)
- Has NO pressure gauge--capacity verified by weight
- 3-8 ft. maximum effective range
- Extinguishes by smothering burning materials
- Effectiveness decreases as temperature of burning material increases.



Fire Extinguisher Types (cont.)

MULTIPURPOSE DRY CHEMICAL



A Trash Wood Paper



B Liquids Grease









C Electrical Equipment



- Class "A", "B", or "C" fires
- 2.5-20 lb. dry chemical
(*ammonium phosphate*)
8-25 seconds discharge time)
- Has pressure gauge to allow visual capacity check
- 5-20 ft. maximum effective range
- Extinguishes by *smothering* burning materials.



Fire Extinguisher Summary

| EXTINGUISHER TYPE | WORKS BY | EFFECTIVE AGAINST |
|---|--------------------------|---|
| <p>PRESSURIZED WATER</p> | <p>COOLING</p> | <p>A</p>  |
| <p>CARBON DIOXIDE</p> | <p>SMOTHERING</p> | <p>B</p>  <p>C</p>  |
| <p>MULTIPURPOSE DRY CHEMICAL</p> | <p>SMOTHERING</p> | <p>A</p>  <p>B</p>  <p>C</p>  |



Fire Emergency Response

R

Rescue

A

Alarm

C

Contain

E

Extinguish



Fighting the Fire

P

Pull the pin

A

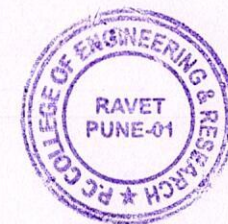
**Aim low at
the base of flames**

S

Squeeze the handle

S

Sweep side to side

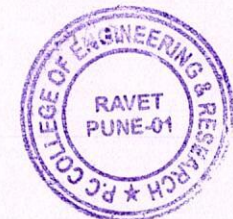


Firefighting Decision Criteria

- Know department emergency procedures and evacuation routes
- Know locations of extinguishers in your area and how to use them
- Always sound the alarm regardless of fire size
- Avoid smoky conditions
- Ensure area is evacuated
- Don't attempt to fight unless:
 - Alarm is sounded
 - Fire is small and contained
 - You have safe egress route (can be reached without exposure to fire)
 - Available extinguishers are rated for size and type of fire
- If in doubt, evacuate!



"DON'T ATTEMPT TO FIGHT UNLESS YOU ARE TRAINED"



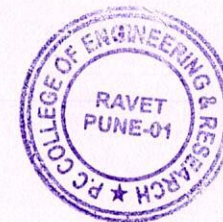
Fire Safety & Fire Extinguisher Use

Summary

- Combustion Process (*Fire Triangle*)
- Class A, B, C, D, K fires
- Types of portable fire extinguishers:



- Operating procedures
- Capabilities and limitations
- Basic firefighting concepts:



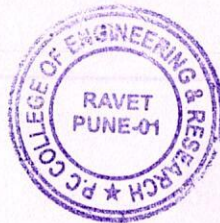
Quiz Question 1

- Fire extinguisher marked with an A is used on:
 - A) oil fires
 - B) Electrical fires
 - C) paper material fires
 - D) none of the above



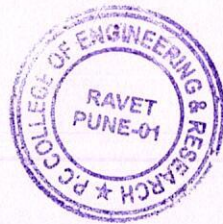
Quiz Question 2

- Fire extinguishers marked with a B can be used on:
 - A) Paper, trash
 - B) Oil or Grease
 - C) Electrical
 - D) Non of the above



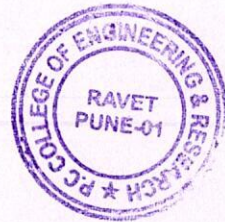
Quiz addendum

- How else you can kill a grease fire?
 - A) Smother
 - B) Baking Soda
 - C) A&B



Quiz Question 3

- Fire extinguisher marked ABC can be used on:
 - A) Wood, Paper
 - B) Electrical
 - C) Liquids and grease
 - D) All of the above



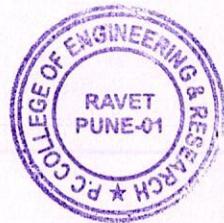
Quiz Question 4

- Fire Extinguishers marked with D are used for
 - A) Combustible chemicals
 - B) Magnesium
 - C) Potassium
 - D) other flammable metals
 - E) all of the above



Quiz Question 5

- For what fires is a Halon Fire Extinguisher being used?
- Guess 1
- Guess 2
- Guess 3
- Guess 4



Halon

- Halon fire extinguisher is important device to have, especially for emergency situations. It contains a gas that interrupts the chemical reaction that takes place when fuels burn. Halon fire extinguisher is often used to protect valuable electrical equipment since they leave no residue.
- Such on expensive computers, server rooms, etc.
- Since Halon manufacturing was banned, a hunt has been on for something that works as well. According to the Halon Alternatives Research Corp., more than 20 different kinds of alternatives exist as direct replacements.
- Halon Replacement
 - Those categories are inert gases and halocarbon compounds.

