Fire Safety

Toolbox Talk
Fire

Fire is a chemical reaction called combustion.

COMBUSTION → fast oxidation that consumes oxygen and produces heat
Conditions for the development of a fire

- **HEAT**
  - High amounts
  - Concentrated amount

- **FUEL**
  - Gas
  - Fine dispersion (droplets, dust etc.)
  - Properties (flammability)

- **OXYGEN**
  - Suitable percentage (>14%)
CAUSES OF FIRES

- Electrical installations/ electrical appliances
- Careless smoking
- Hot work
- Improper cleaning
- Flammable materials management
Combustion Products

FUEL + AIR

Combustion

FLAMES

(+ πηγή θερμότητας)

HEAT

Combustion gases (CO2, CO, steam, NOx, SOx, other gases)

+ Plume

+ Smoke
IN CASE YOU DETECT A FIRE

- Stay calm
- Fight the fire with portable means if it is limited and can be put out immediately
- If not, move to a safe location
- Sound the alarm
- Call 112 or the reception to inform it on the details
USING AN EXTINGUISHER

(ONLY if safe to do so)

- Stay between the fire and the fire exit
- Select the appropriate fire extinguisher
- Pull the pin
- Aim at the base of the fire
- Release the entire charge by sweeping from your position outwards or from bottom upwards,
- Be sure for the result to avoid fire revival
- Never turn your back to the fire even if it seems you extinguished it
FIRE SUPPRESSION

First Steps

- Walk toward the emergency exits if the fire is out of control
- Shut down all equipment if it is safe to do
- Close the door behind you
- Do not attempt heroic actions
- Discourage any curious bystanders
Do not attempt to extinguish a fire

- When there is risk of explosion
- When you are not sure if you can put the fire under control (big quantities of burning material, unknown burning material, lack of training)
- When there is intense fume
- When there is limited visibility
- When there are adverse weather conditions
- When there is panic among the evacuees
PERSON IN FLAMES
• Stop the person in panic
• Throw the person down
• Roll/Wrap the person with a non-combustible cloth, blanket or other equivalent material
• Seek medical advice

FIRST AID FOR BURNS
• Do not use self-made compresses or spreads with self-made ointments
• Rinse with plenty of clean, cool water
• Cover loosely with a clean cloth
• Seek medical advice
AREA SIGNS

FIRE EQUIPMENT

ELECTRIC PANELS
• *Healthy Working Lives* NHS Health Scotland fire

• *A Guide to Fire Safety Engineering* Dr S D Christian

• *FUNDAMENTALS OF FIRE PROTECTION FOR THE SAFETY PROFESSIONAL  SECOND EDITION*, LON H.PERGUSON CHRISTOPHER A.JANIAC
ANY QUESTIONS?

THANKS FOR YOUR PARTICIPATION!!!