2.6 PROTECTION AGAINST FIRE TO BE CAUSED BY A.C. SYSTEMS

Fire safety is the set of practices intended to reduce the destruction caused by fire. Fire safety measures include those that are intended to prevent ignition of an uncontrolled fire, and those that are used to limit the development and effects of a fire after it starts.Threats of fire safety are commonly referred to as fire hazards. A fire hazard may include a situation that increases the likelihood of a fire .

- **Failing to keep it cleaned properly**
  - When the air conditioner is not regularly maintained, it runs the risk of becoming faulty and catching fire. This could be as a result of worn out filters that accumulate with dirt and dust particles resulting in the malfunctioning of the system.
  - Air conditioning maintenance and servicing by professionals will save our system from fires. A professional air conditioner installer may inspect our AC every once or twice a year.
- **Storing flammable materials near the A.C systems**
  - Allowing combustible materials such as paper, an accumulation of leaves and other debris, or gasoline too close to the air conditioning system puts it at a risk of catching fire.
  - Keep the space around the unit free and clear with any materials or debris at- least 3 feet away.
- **Faulty parts & equipment**
  - When we neglect our air conditioning system, we fail to notice that there are faulty parts and equipment in it.
  - For example, if the air conditioning fan has been slowly degrading and it finally stops functioning, large heat may

accumulate within the AC causing temperatures to rise excessively.

- Fire extinguishers are effective in extinguishing fires when they are small in size, but they are not suitable in fighting large or spreading fires. Such fires should be extinguished by the building's fire extinguishing systems or firefighters.

Regulated fire protection systems

- **Alarm system**

  A fire alarm system detects and alerts people when smoke or fire is present. The devices include smoke detectors, heat detectors, strobes, manual fire alarm station, fire alarm control panel, etc

- **Sprinkler system**

  A sprinkler system is a fire extinguishing system that most times uses water as the extinguishing agent. Sprinkler systems will help to control the fire

- **Stand pipe system**

  A standpipe system is piping installed in a building that assists to transfer water to house connections located within the building for fire fighting purposes.

Stand pipe systems provide a reliable water source to extinguish or control an interior fire in the building.

An **External Water Spray System** (EWSS) is a domestic external fire sprinkler system designed to protect homes from bushfires and wildfires.

In dwellings, smoke detectors are often stand-alone devices. In non-domestic buildings, fire alarm system, incorporating one or more of the following automatic devices.

- Heat detector

- Smoke detector
- Flame detector
- Fire gas detector

➢ Smoke detector

A smoke detector is a device that senses smoke,typically as an indicator of fire. Commercial security devices issue a signal to a fire alarm control panel as part of a fire alarm system. The household smoke detectors are also known as smoke alarms, generally issue a local audible or visual alarm from the detector itself.

Smoke can be detected either optically (photoelectric) or by physical process (ionization), detectors may use either, or both, methods.