

CHAPTER 11

MECHANICAL

SECTION 1101 HEATING, VENTILATION AND AIR CONDITIONING EQUIPMENT (HVAC)

1101.1 Objective. To provide the safe installation of the equipment to condition the air for the health and comfort of the occupants.

1101.2 Functional statement. The installation of equipment shall safeguard maintenance personnel and building occupants from injury and deliver air at the appropriate temperature for health and comfort.

1101.3 Performance requirements.

1101.3.1 Protection from equipment. People and building elements shall be protected from contact with hot and live electrical parts.

1101.3.2 Service and replacement ability. The HVAC system shall allow safe isolation and access for service and replacement of equipment.

1101.3.3 Temperature controls. The HVAC system shall include devices to monitor and control the temperature.

1101.3.4 Securing of equipment. HVAC equipment and appliances shall be secured in place.

SECTION 1102 REFRIGERATION

1102.1 Objective. To provide the safe installation and operation of refrigeration equipment.

1102.2 Functional statement. The installation of equipment shall safeguard maintenance personnel and building occupants from injury.

1102.3 Performance requirements.

1102.3.1 Protection from equipment. People and building elements shall be protected from contact with hot or live electrical parts.

1102.3.2 Service and replacement ability. Refrigeration equipment shall allow safe isolation and access for service and replacement of equipment.

1102.3.3 Temperature controls. Refrigeration equipment shall include devices to monitor and control temperature.

1102.3.4 Toxic and flammable refrigerants. Refrigeration equipment shall have appropriate safeguards when utilizing toxic or flammable refrigeration agents.

SECTION 1103 PIPED SERVICES

1103.1 Objective. To safeguard people from injury or illness caused by extreme temperatures or hazardous substances associated with building services.

1103.2 Functional statement. In buildings with potentially hazardous services containing hot, cold, flammable, corrosive or toxic liquids or gases, the installations shall be constructed to provide adequate safety for people.

1103.3 Performance requirements.

1103.3.1 Construction. Piping systems shall be constructed to avoid the likelihood of:

1. Significant leakage or damage during normal or reasonably foreseeable abnormal conditions.
2. Detrimental contamination of the contents by other substances.
3. Adverse interaction between services or between piping and electrical systems.
4. People having contact with pipes that could cause them harm.

1103.3.2 Corrosion. Pipes shall be protected against corrosion in the environment of their use.

1103.3.3 Identification. Piping systems shall be identified with markings if the contents are not readily apparent from the location or associated equipment.

1103.3.4 Enclosed spaces. Enclosed spaces shall be constructed to avoid the likelihood of accumulating vented or leaking flammable gas.

1103.3.5 Isolation. A piped system shall have isolation devices that permit the complete system or components of the system to be isolated from the supply system for maintenance, testing, fault detection and repair.

