

elements and switches at least eighteen (18) inches (457 mm) above the floor level.

Where such appliances installed within a garage are enclosed in a separate, approved compartment having access only from outside of the garage, such appliances may be installed at floor level, provided the required combustion air is taken from and discharged to the exterior of the garage.

Heating equipment located in rooms where cellulose nitrate plastic is stored or processed shall comply with the Fire Code.

309.0 Electrical Connections

Equipment regulated by this code requiring electrical connections of more than fifty (50) Volts shall have a positive means of disconnect adjacent to and in sight from the equipment served. A 120-Volt receptacle shall be located within twenty-five (25) feet (7620 mm) of the equipment for service and maintenance purposes. The receptacle need not be located on the same level as the equipment. Low voltage wiring of fifty (50) Volts or less within a structure shall be installed in a manner to prevent physical damage.

310.0 Condensate Wastes and Control

310.1 Condensate Disposal. Condensate from air washers, air cooling coils, fuel-burning condensing appliances, the overflow from evaporative coolers and similar water supplied equipment or similar air conditioning equipment shall be collected and discharged to an approved plumbing fixture or disposal area. If discharged into the drainage system equipment shall drain by means of an indirect waste pipe. The waste pipe shall have a slope of not less than 1/8 inch per foot (10.5 mm/m) or one percent slope and shall be of approved corrosion-resistant material not smaller than the outlet size as required in either Section 310.3 or 310.4 below for air-cooling coils or condensing fuel-burning appliances, respectively. Condensate or waste water shall not drain over a public way.

310.2 Condensate Control. When a cooling coil or cooling unit is located in an attic or furred space where damage may result from condensate overflow, an additional water-tight pan of corrosion-resistant metal shall be installed beneath the cooling coil or unit top to catch the overflow condensate due to a clogged primary condensate drain, or one pan with a standing overflow and a separate secondary drain may be provided in lieu of the secondary drain pan. The additional pan or the standing overflow shall be provided with a drain pipe, minimum 3/4 inch (19.1 mm) nominal pipe size, discharging at a point which can be readily observed.

This requirement is in addition to the requirements in Sections 310.3 and 310.4.

310.3 Condensate Waste Sizing. Condensate waste pipes from air-cooling coils shall be sized in accordance with equipment capacity as follows:

Equipment Capacity in Tons of Refrigeration (kW)	Minimum Condensate Pipe Diameter in Inches (mm)
Up to 20 (Up to 70.34)	3/4 (20)
21-40 (73.85-140.67)	1 (25)
41-90 (144.19-316.6)	1-1/4 (32)
91-125 (320.03-439.6)	1-1/2 (40)
126-250 (443.12-879.2)	2 (50)

The size of condensate waste pipes may be for one unit or a combination of units, or as recommended by the manufacturer. The capacity of waste pipes assumes a 1/8 inch per foot (10.5 mm/m) or one percent slope, with the pipe running three-quarters full:

Outside Air – 20%		Room Air – 80%	
DB	WB	DB	WB
90°F	73°F	75°F	62.5°F
(32°C)	(23°C)	(24°C)	(17°C)

Condensate drain sizing for other slopes or other conditions shall be approved by the Administrative Authority.

310.4 Fuel-Burning Appliance Condensate Drains. Condensate drain lines from individual fuel-burning condensing appliances shall be sized according to the manufacturers' recommendations. Condensate drain lines serving more than one appliance shall be approved by the Administrative Authority prior to installation.

310.5 Plastic Fittings. Female PVC screwed fittings shall be used with plastic male fittings and plastic male threads only.

311.0 Personnel Protection

A suitable and substantial metal guard shall be provided around exposed flywheels, fans, pulleys, belts and moving machinery which are portions of a heating, ventilating or refrigerating system.

312.0 Air Filters

312.1 Air filters shall be installed in a heating, cooling or make-up air system. Such filters shall comply with the standard, Air Filter Units, Test Performance of, which is referenced in Chapter 16, Part II, as Class I or II filters.

Exception: Systems serving single guest rooms or dwelling units shall not require a listed filter.