

CHAPTER XVII COMFORT COOLING

1701.0—GENERAL

Every comfort cooling system and comfort cooling unit shall conform to the requirements of this Chapter and the the applicable requirements of Chapter XII, V, and VI.

1702.0—INSTALLATION

Location of comfort cooling equipment shall comply with the zoning ordinance.

Cooling coils installed as a portion of, or in connection with, any warm-air furnace shall be arranged to comply with the requirements of Section 626-0.502

No direct refrigerating system containing any Group 2 refrigerant shall serve any air cooling or air conditioning system used for human comfort.

An approved means shall be provided for the collection and disposal of condensate from every air cooling coil for any comfort cooling system to outside the building or to an approved drain.

When any comfort cooling equipment, other than ducts and piping is suspended from the underfloor construction, a minimum clearance of no less than six inches (6") shall be provided between the base of the equipment and the ground.

*methyl chloride
" formide
Ammonia
Sulphur dioxide*

1703—CIRCULATING AIR SUPPLY

(a) Source. Circulating air supply shall be taken from outside the building or from the conditioned area inside the building or from both sources.

For Ventilation, See Chapter XV.

(b) Prohibited Sources. No circulating air supply for any comfort cooling system or comfort cooling unit shall be taken from any of the following locations:

- (1) Closer than ten feet (10') from any appliance vent outlet, unless such vent outlet is three feet (3') above the circulating air supply inlet.
- (2) Where it will pick up objectionable odors, fumes, or flammable vapors.
- (3) A hazardous or insanitary location or a machinery room.
- (4) From an area the volume of which is less than 25 per cent of the entire volume served by such system, unless there is a permanent opening to an area the volume of which is equal to 25 percent of the entire volume served.
- (5) From a room or space having any direct-fired fuel-burning appliances therein.

Exception: This shall not apply to a comfort cooling system or a comfort cooling unit complying with all the following requirements:

- (a) Where the circulating air supply is taken from a room or space, having a volume exceeding one cubic foot for each 10 Btu fuel input rate of all fuel-burning appliances therein; and
- (b) At least 75 per cent of the conditioned air is discharged back into the same room or space; and

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- (c) No circulating air supply inlet is located within ten feet (10') of any appliance firebox or draft diverter in the same enclosed room or space.
- (6) Closer than ten feet (10') from any vent opening for a plumbing drainage system, unless the vent opening is at least three feet (3") above the circulating air supply inlet.
- (7) A closet.
- (c) Return Air Limitation. No comfort cooling system shall be so arranged that return air from one dwelling unit is discharged into another dwelling unit.
- (d) Air Velocity. Every comfort cooling system coupled with a direct fired furnace shall be so designed and constructed that air velocity (in feet per minute) through filters shall not exceed the filter manufacturer's recommendation. Filters shall be installed in other than portable comfort cooling units.
- (e) Screen. Every required circulating air supply inlet from outside the building shall be covered with screen having one fourth inch ($\frac{1}{4}$ ") openings. Exception: Any such circulating air supply inlet serving any nonresidential portion of any building may be covered with screen having openings not exceeding one inch (1") in width.

1704.0—Refrigerant Piping

Refrigerant piping, valves, fittings and related parts shall be in accordance with paragraph 1908.4 of this code.

All suction lines of systems shall be insulated to prevent sweating and heat gain. Liquid lines shall be insulated only when they are located in areas of very high temperatures to minimize heat gain. Hot gas lines shall be insulated where there is a possibility of people being burned by the pipe.

1705.0—Condensate Drains

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- (a) Condensate drains from air conditioning units shall be sized and installed in accordance with the unit manufacturer's recommendations. Condensate drains shall be piped to the outside of a building, natural drain, dry well, lavatory, service sink, roof drain or storm sewer, connected directly to the drainage piping between a lavatory, service sink or lab sink and its trap, or connected indirectly (air gap) to a properly trapped and vented connection to the sanitary drainage or vent systems. Dry wells shall be installed outside the building and condensate shall drain into the well by means of an air gap. If none of these solutions are possible, an automatic sump pump shall be used.
- (b) In attics, above ceilings or other areas where condensate damage may occur, an auxiliary drain pan shall be installed under the cooling and or heating equipment, with the equipment having a separate drain. In lieu of an auxiliary drain pan, a float switch may be added to the condensate pan and wired into the control or electrical circuit of the equipment in such a way that the equipment may be cut off when excessive condensate accumulates in the pan.
- (c) Condensate drainage may be connected directly into a storm sewer, or roof leader.
- (d) Condensate shall not be piped to ground under a building or crawl space or allowed to flow across a sidewalk or concrete floor to a floor drain.