

Equipment Capacity in		Minimum Condensate Pipe Diameter	
Tons of Refrigeration	(kW)	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 1 percent slope, with the pipe running three-quarters full at the following conditions:

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 Authority Having Jurisdiction.

310.4 Fuel-Burning Appliance Condensate Drains. Condensate drain lines from individual fuel-burning condensing appliances shall be sized according to the manufacturer's recommendations. Condensate drain lines serving more than one appliance shall be approved by the Authority Having Jurisdiction 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 that 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 makeup air system. Such filters shall comply with the standard, Air Filter Units, Test Performance of, that is referenced in Chapter 17, as Class I or II filters.

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

313.0 Scope

313.1 Applicability. This part is applicable to health

facilities regulated by OSHPD. (See Adoption Tables for application for specific sections.)

Note: This section has no corresponding provisions in the UMC. For the scope and authority of each state agency, refer to Chapter 1.

313.2 Services/Systems and Utilities. Refer to Section 1224.4.1 California Building Code.

314.0 Steam and Hot-Water Systems

314.1 Requirements for Hospitals and Optional Services Provided in Correctional Treatment Centers. [For OSHPD 1 & 4]

314.1.1 Boilers shall have the capacity, based upon the rest ratings published by the Hydronics Institute or another acceptable national standard to supply the normal operating requirements of all connected systems and equipment.

314.1.2 A minimum of two boilers shall be provided. The arrangement of boilers shall be based on the capacity and capability of a boiler or boilers to operate all systems during periods of breakdown or maintenance of any one boiler.

314.1.3 Boiler systems providing space heating shall be designed to maintain a minimum temperature of 60°F (15.6°C) in general patient areas and the temperatures specified in Table 315 for sensitive areas during periods of breakdown or maintenance of any one boiler. Winter design temperature shall be based on the Median of Extremes shown by the 1982 ASHRAE Climactic Data for Region X.

314.1.4 Boiler feed pumps, condensate return pumps, fuel oil pumps and heating circulating pumps shall be connected and installed to provide standby service in the event of pump failure. Installation of duplex pumps or provision of a spare pump will meet this requirement.

314.1.5 At least two sources of heat (e.g. two pieces of equipment) shall be provided for supplying essential services such as sterilizers, hot water for dishwashing, and domestic hot water for minimum patient service, such as handwashing and baths. Booster heaters for dishwashing providing 125°F to 180°F (52°C to 82°C) water may be counted as the second source of heat for that service.

314.2 Requirements for Skilled Nursing, Intermediate Care Facilities and Basic Services Provided in Correctional Treatment Centers. [For OSHPD 2 & 4]

314.2.1 Boilers, if provided, shall accommodate Section 314.1.

314.2.2 Two or more interconnected water heaters are an acceptable means to provide two sources of heat for hot water. See Section 314.1.5.