WAC 296-307-41027 How must indirect fired vaporizers be constructed and installed? Indirect fired vaporizers utilizing steam, water, or other heating medium must be constructed and installed according to the following:

(1) Vaporizers must be constructed according to the requirements of WAC 296-307-41011 and must be permanently marked as follows:

(a) With the code marking signifying the specifications to which the vaporizer is constructed;

(b) With the allowable working pressure and temperature for which the vaporizer is designed;

(c) With the sum of the outside surface area and the inside heat exchange surface area expressed in square feet; and

(d) With the name or symbol of the manufacturer.

(2) Vaporizers with an inside diameter of six inches or less exempted by the ASME Unfired Pressure Vessel Code, Section VIII of the ASME Boiler and Pressure Vessel Code, 1968, must have a design pressure of at least 250 psig and need not be permanently marked.

(3) Heating or cooling coils installed inside a storage container are prohibited.

(4) Vaporizers may be installed in buildings, rooms, sheds, or lean-tos used exclusively for gas manufacturing or distribution, or in other light, noncombustible structures that are well ventilated near the floor line and roof.

Exception: When vaporizing and/or mixing equipment is in a structure not used exclusively for gas manufacturing or distribution, the structure or room must be separated from the remainder of the building. The separation must be a wall designed to withstand a static pressure of at least 100 pounds per square foot. This wall must have no openings or pipe or conduit passing through it. Such structure or room must have adequate ventilation and must have a roof or at least one exterior wall of lightweight construction.

(5) All DOT vaporizers must have, at or near the discharge, a safety-relief valve providing an effective rate of discharge according to WAC 296-307-41025.

(6) The heating medium lines into and out of the vaporizer must have a mechanism to prevent the flow of gas into the heat systems in the event of tube rupture in the vaporizer. Vaporizers must have an automatic means to prevent liquid from passing through the vaporizers to the gas discharge piping.

(7) The device that supplies heat to produce steam, hot water, or other heat may be installed in a building, compartment, room, or lean-to ventilated near the floorline and roof to the outside. The device must be separated from all compartments or rooms containing LP-gas vaporizers, pumps, and central gas mixing devices by a wall designed to withstand a static pressure of at least 100 pounds per square foot. This wall must have no openings or pipes or conduit passing through it.

Exception: This requirement does not apply to the domestic water heaters that may supply heat for a vaporizer in a domestic system.

(8) Gas-fired heating systems supplying heat exclusively for vaporization must have automatic safety devices to shut off the flow of gas to main burners, if the pilot light should fail.

(9) Vaporizers may be an integral part of a fuel storage container directly connected to the liquid section or gas section or both.

(10) Fusible plugs are prohibited on vaporizers.

(11) Vaporizer houses must not have unprotected drains to sewers or sump pits.

[Statutory Authority: RCW 49.17.040. WSR 98-24-096, § 296-307-41027, filed 12/1/98, effective 3/1/99. WSR 97-09-013, recodified as § 296-307-41027, filed 4/7/97, effective 4/7/97. Statutory Authority:

RCW 49.17.040, [49.17.]050 and [49.17.]060. WSR 96-22-048, § 296-306A-41027, filed 10/31/96, effective 12/1/96.]