

4715.1941 HEAT EXCHANGERS.

Subpart 1. **Construction requirement.** Devices utilizing any heat transfer medium to exchange thermal energy with potable water must be constructed so that a single failure of any wall in the system will not cause a cross-connection with or permit back siphonage of heat transfer medium into the potable water system.

Subp. 2. **Double-wall heat exchanger.** A double-wall heat exchanger must be designed in a way that any failure of a wall must allow the discharge to the atmosphere of the heat transfer medium or the potable water contained by the wall. The discharge location must be visible to the operator or owner of the system and be located so that no hazards are created by the discharge.

Subp. 3. **Single-wall heat exchanger.** A single-wall heat exchanger may be used if it satisfies all of the following conditions:

A. The heat transfer medium contains only substances which are recognized as safe or approved by the United States Food and Drug Administration for food contact as listed in Code of Federal Regulations, title 21, part 182 of the Food Additive Regulations.

B. Except where steam is used as the heat transfer medium, the pressure of the heat transfer medium must be less than the normal minimum operating pressure of the potable water system, and the system must be fitted with devices arranged to function automatically to maintain the pressure of the heat transfer medium entering the exchanger at a level below that of the potable water leaving the exchanger.

C. The equipment is permanently labeled to specify all constituents of the heat transfer medium, to indicate that only additives recognized as safe by the United States Food and Drug Administration may be used, and to show the hazards and reasons for not using another type of medium.

Statutory Authority: *MS s 16B.61; 326.37 to 326.45; 326B.106; 326B.43 to 326B.49*

History: *9 SR 1557; 15 SR 76; L 2007 c 140 art 4 s 61; art 6 s 15; art 13 s 4*

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