

4660.8000 PLUMBING, NEW CONSTRUCTION.

Subpart 1. **Installation.** All plumbing systems shall be installed and tested in accordance with the requirements of chapter 4714, the Minnesota Plumbing Code, 1969 edition, and with these rules.

Subp. 2. **Area drainage.** Roofs, basements, tunnels, pits, shafts, areaways, courts, yards, and drives shall be properly drained to eliminate intrusion of rain water or ground water into the building. Floor drains in exterior areaways and similar installations shall be provided with a running trap located inside the building to prevent freeze-up in the winter.

Subp. 3. **Sanitary fixtures.** The numbers and special types of sanitary fixtures required in the various areas are covered under parts 4660.3400 to 4660.5600. The material used for sanitary fixtures shall be smooth and nonabsorbent with a nonslip bottom surface in bathtubs and showers. Flush valves in living areas shall be of a quiet operating type.

Subp. 4. **Waste line interceptors.** Interceptors for sand, plaster, rags, buttons, and other solids shall be provided on the waste line for sinks used for ceramics in activity areas and for washers in the laundry. Grease interceptors are not recommended.

Subp. 5. **Valves.** Each water service main, branch main, riser, and branch to a group of fixtures shall be valved. Stop valves shall be provided at each fixture. There shall be easy access to all valves, and if concealed, their location shall be marked.

Subp. 6. **Booster heater.** If the water system provides only 110 degrees Fahrenheit hot water, a booster heater shall be provided for the dishwasher and for the washer(s) in the laundry. It shall be located and sized to maintain the required temperature at the point of use. A pressure and temperature relief valve and a conductor pipe which discharges within ten inches off the floor shall be provided. It is recommended that separate hot water heaters for 110 degrees Fahrenheit and 180 degrees Fahrenheit be provided.

Subp. 7. **Pipe insulation.** Sufficient insulation shall be provided for all water and steam piping to assure proper functioning of the systems, provide safety against burns, and to prevent undesirable condensation or heat transfer in areas for patients or residents.

Subp. 8. **Hot water supply.** Circulating hot water shall be provided in all hot water mains and in risers more than three stories high to assure hot water at the fixtures. The hot water heating equipment shall have sufficient capacity and recovery to supply water at temperatures at the point of use as follows:

- A. patient and resident areas, 110 degrees Fahrenheit;
- B. mechanical dishwashing, 180 degrees Fahrenheit; and
- C. washers in the laundry, 180 degrees Fahrenheit.

If a thermostatically controlled mixing valve is used, it shall be of the "fail safe" type, which prevents flow of hot water in case the cold water supply fails. Heaters shall be insulated and provided with a thermometer.

Subp. 9. **Dishwashing machine.** The dishwashing machine shall be of a commercial type equal to the standards established by Standard No. 3 of the National Sanitation Foundation (NSF), April, 1965 and shall be of a size that can accommodate food trays. The water supply line at the machine shall be provided with a pressure reducing valve, a pressure gauge, and a vacuum breaker. The rinse water flow pressure shall be maintained between 15 and 25 pounds per square inch (psi) at the machine by the use of a pressure reducing valve. A pressure gauge shall be installed following the reducing valve. A recirculation system and pump shall be provided if the final rinse water heater is located more than five feet from the dishwasher. The drain shall be an indirect waste connection to a trapped floor drain, or it shall be a trapped connection to a branch with a floor drain without a backwater valve in the horizontal branch.

Subp. 10. **Waste and vent piping restrictions.** Waste lines over food preparation areas, food storage areas, clean storage areas, and electrical panels shall be avoided. Precautions shall be taken to protect these areas from possible leakage or condensation from overhead lines. Plumbing waste lines and vents shall not be located within ventilation plenums.

Subp. 11. **Floor drains.** Floor drains shall not be installed in areas for food storage nor shall they be directly connected to ventilation equipment or air supply plenums.

Statutory Authority: *MS s 144.56; 144A.02 to 144A.08*

History: *21 SR 196; 40 SR 71*

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