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and flange or other approved fitting by use of a gasket, sealing compound, or listed connector device.

(3) * * *

(iii) Shower doors and tub and shower enclosures shall be constructed so as to be waterproof and, if glazed, glazing shall comply with the Standard for Safety Glazing Materials used in Buildings—Safety Performance Specifications and Methods of Test, ANSI Z97.1–2004 (incorporated by reference, see \$3280.4).

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(v) Shower, bathtub, and tub-shower combination valves must be balanced pressure, thermostatic, or combination mixing valves that conform to the requirements of ASSE 1016-2005, Performance Requirements for Automatic Compensating Values for Individual Shower and Tub/Shower Combinations (incorporated by reference, see §3280.4). Such valves must be equipped with handle position stops that are adjustable in accordance with the valve manufacturer's instructions to a maximum setting of 120 °F.

(4) * * *

(i) A dishwashing machine must discharge its waste through a fixed air gap installed above the machine, through a high loop as specified by the dishwashing machine manufacturer, or into an open standpipe receptor with a height greater than the washing compartment of the machine. When a standpipe is used, it must be at least 18 inches, but not more than 30 inches, above the trap weir. The drain connections from the air gap or high loop are permitted to connect to an individual trap to a directional fitting installed in the sink tailpiece or to an opening provided on the inlet side of a food waste disposal unit.

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(5) * * *

(ii) Standpipes must be either 1½ inch diameter minimum nominal iron pipe size, 11/2 inch diameter nominal brass tubing of not less than No. 20 Brown and Sharp gauge, or 1½ inch diameter approved plastic materials. Receptors must discharge into a vented trap or must be connected to a laundry tub appliance by means of an approved or listed directional fitting. Each standpipe must extend not less than 18 inches or more than 42 inches above its trap and must terminate in an accessible location no lower than the top of the clothes washing machine. A removable, tight-fitting cap or plug must be installed on the standpipe when the clothes washer is not provided.

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- (6) Hydromassage bathtub—(i) Access panel. A door or panel of sufficient size must be installed to provide access to the pump for repair or replacement.
- (ii) Piping drainage. The circulation pump must be accessibly located above the crown weir of the trap. The pump drain line must be properly sloped to drain the volute after fixture use.
- (iii) *Piping*. Hydromassage bathtub circulation piping must be installed to be self-draining.

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§ 3280.608 Hangers and supports.

- (a) Strains and stresses. Piping in a plumbing system shall be installed without undue strains and stresses, and provision shall be made for expansion, contraction, and structural settlement.
- (b) Piping supports. Piping shall be secured at sufficiently close intervals to keep the pipe in alignment and carry the weight of the pipe and contents. Unless otherwise stated in the standards for specific materials shown in the table in §3280.604(a), or unless specified by the pipe manufacturer, plastic drainage piping shall be supported at intervals not to exceed 4 feet and plastic water piping shall be supported at intervals not to exceed 3 feet.
- (c) Hangers and anchors. (1) Hangers and anchors shall be of sufficient strength to support their proportional share of the pipe alignments and prevent rattling.
- (2) Piping shall be securely attached to the structure by hangers, clamps, or brackets which provide protection against motion, vibration, road shock, or torque in the chassis.
- (3) Hangers and straps supporting plastic pipe shall not compress, distort, cut or abrade the piping and shall allow free movement of the pipe.

§ 3280.609 Water distribution systems.

(a) Water supply—(1) Supply piping. Piping systems shall be sized to provide an adequate quantity of water to each plumbing fixture at a flow rate sufficient to keep the fixture in a clean and sanitary condition without any danger of backflow or siphonage. (See table in §3280.609(f)(1)). The manufacturer shall include in his written installation instructions that the manufactured home has been designed for an