

**SECTION 607  
HOT WATER SUPPLY SYSTEM**

**607.1 Where required.** In occupied structures, hot water shall be supplied to all plumbing fixtures and equipment utilized for bathing, washing, culinary purposes, cleansing, laundry or building maintenance.

**Exception:** In nonresidential occupancies, hot water or tempered water shall be supplied for bathing and washing purposes. The delivery of cold water only shall be permitted to be delivered from all handwashing facilities except where hot water is required by law.

**607.1.1 Handwashing Lavatories.** In public food service establishments, food establishments or where otherwise required by law, lavatories intended for the purpose of employee handwashing shall be equipped with hot or tempered water.

**607.2 Hot water supply temperature maintenance.** Where the developed length of hot water piping from the source of hot water supply to the farthest fixture exceeds 100 feet (30 480 mm), the hot water supply system shall be provided with a method of maintaining the temperature of hot water to within 100 feet (30 480 mm) of the fixtures. The methods of maintaining the temperatures shall not expend more energy than required by a recirculation system.

**607.2.1 Circulating Systems.** Piping insulation shall conform to the requirements of Table 607.1

**607.2.2 Pump operation.** Where a circulating pump is installed on a return circulation hot water system, the pump shall be arranged to shut off automatically or to allow manual shut off when the hot water system is not in operation.

**607.3 Thermal expansion control.** A means of controlling increased pressure caused by thermal expansion shall be provided where required in accordance with Sections 607.3.1 and 607.3.2.

**607.3.1 Pressure reducing valve.** For water service system sizes up to and including 2 inches (51 mm), a device for controlling pressure shall be installed where, because of thermal expansion, the pressure on the downstream side of a pressure reducing valve exceeds the main supply pressure. A pressure reducing valve with an integral bypass check valve or other device shall be installed to satisfy this requirement.

**607.3.2 Backflow prevention device or check valve.** Where a backflow prevention device, check valve or other device is installed on a water supply system utilizing storage water heating equipment such that thermal expansion causes an increase in pressure, a device for controlling pressure shall be installed.

**607.4 Hot water supply to fixtures.** The hot water supply to any fixture requiring hot water shall be installed on the left side of the fixture.

**TABLE 607.1  
MINIMUM PIPE INSULATION (in)  
Domestic and Service Hot Water Circulating Systems<sup>1</sup>**

Fluid Design Operating Temperature	Insulation Conductivity		Nominal Pipe Diameter		
	Conductivity Range <sup>2</sup> Btu•in/(h•ft <sup>3</sup> • °F)	Mean Temperature Rating	Run-outs <sup>3</sup> Up to 2"	Up to 2"	2 1/2" and up
105 and greater	0.24 - 0.28	100	0.5	1.0	1.5

<sup>1</sup> Applies to circulating sections of service or domestic hot water systems and first 8' from storage tank for commercial non-circulating systems. For residential, see Section 612.1.ABC.5 of Chapter 13 of the *Florida Building Code, Building*.  
<sup>2</sup> For insulation outside the stated conductivity range, the minimum thickness shall be determined in accordance with Equation 4-2 in Section 411.1ABCD.2.1 of Chapter 13 of the *Florida Building Code, Building*.  
<sup>3</sup> Runouts to individual terminal units not exceeding 12' in length.