Board of Rules and Appeals FBC 7<sup>th</sup> Edition (2020) – Mechanical – Supplement No. 1 December 31, 2020

# Florida Building Code 7<sup>th</sup> Edition (2020) Mechanical

# **Broward County Edition**

Loose-Leaf Supplement

Insert and maintain this instruction sheet in front of the Florida Building Code, 7th Edition (2020) – Mechanical.

File removed pages for reference.

## Mechanical – Remove Old Pages

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Highlight of changes

- 1. Modification to Section 307.2.1.
- 2. Modification to Section 908.3.1.
- 3. Modification to Section 908.8.
- 4. Modification to Section 908.8.1.
- 5. Modification to Section 908.8.2.
- 6. Modification to Section 908.8.3
- 7. Modification to Chapter 15- Reference Standards ASHRAE.

### Mechanical - Insert New Pages

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upper edge of the roof hatch, roof or parapet, as applicable.

- 3. Ladders shall have a toe spacing not less than 6 inches (152 mm) deep.
- 4. There shall be not less than 18 inches (457 mm) between rails.
- 5. Rungs shall have a diameter not less than 0.75-inch (19 mm) and be capable of withstanding a 300-pound (136.1 kg) load.
- 6. Ladders over 30 feet (9144 mm) in height shall be provided with offset sections and landings capable of withstanding 100 pounds per square foot (488.2 kg/m<sup>2</sup>). Landing dimensions shall be not less than 18 inches (457 mm) and not less than the width of the ladder served. A guard rail shall be provided on all open sides of the landing.
- 7. Climbing clearance. The distance from the centerline of the rungs to the nearest permanent object on the climbing side of the ladder shall be not less than 30 inches (762 mm) measured perpendicular to the rungs. This distance shall be maintained from the point of ladder access to the bottom of the roof hatch. A minimum clear width of 15 inches (381 mm) shall be provided on both sides of the ladder measured from the midpoint of and parallel with the rungs except where cages or wells are installed.
- 8. Landing required. The ladder shall be provided with a clear and unobstructed bottom landing area having a minimum dimension of 30 inches (762 mm) by 30 inches (762 mm) centered in front of the ladder.
- 9. Ladders shall be protected against corrosion by *approved* means.
- 10. Access to ladders shall be provided at all times.

Catwalks installed to provide the required access shall be not less than 24 inches (610 mm) wide and shall have railings as required for service platforms.

**Exception:** This section shall not apply to Group R-3 occupancies.

**306.5.1 Sloped roofs.** Where appliances, *equipment*, fans or other components that require service are installed on a roof having a slope of three units vertical in 12 units horizontal (25-percent slope) or greater and having an edge more than 30 inches (762 mm) above grade at such edge, a level platform shall be provided on each side of the appliance or equipment to which access is required for service, repair or maintenance. The platform shall be not less than 30 inches (762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the Florida Building Code, Building. Access shall not require walking on roofs having a slope greater than four units vertical in 12 units

horizontal (33-percent slope). Where access involves obstructions greater than 30 inches (762 mm) in height, such obstructions shall be provided with ladders installed in accordance with Section 306.5 or stairways installed in accordance with the requirements specified in the *Florida Building Code, Building* in the path of travel to and from appliances, fans or *equipment* requiring service.

**306.5.2 Electrical requirements.** A receptacle outlet shall be provided at or near the *equipment* location in accordance with NFPA 70.

#### SECTION 307 CONDENSATE DISPOSAL

**307.1 Fuel-burning appliances.** Liquid *combustion* by-products of condensing appliances shall be collected and discharged to an *approved* plumbing fixture or disposal area in accordance with the manufacturer's installation instructions. Condensate piping shall be of *approved* corrosion-resistant material and shall not be smaller than the drain connection on the appliance. Such piping shall maintain a minimum horizontal slope in the direction of discharge of not less than one-eighth unit vertical in 12 units horizontal (1-percent slope).

**307.2 Evaporators and cooling coils.** Condensate drain systems shall be provided for *equipment* and appliances containing evaporators or cooling coils. Condensate drain systems shall be designed, constructed and installed in accordance with Sections 307.2.1 through 307.2.5.

**Exception:** Evaporators and cooling coils that are designed to operate in sensible cooling only and not support condensation shall not be required to meet the requirements of this section.

307.2.1 Condensate drainage collection, use or disposal.

Condensate from all cooling coils and evaporators of equipment served by an onsite cooling tower in a building or structure wherein the aggregate cooling capacity of the equipment exceeds 65,000 Btu/hr shall be collected and conveyed from the drain pan outlet and discharged to the cooling tower. Where an onsite cooling tower is not installed the condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to an approved place of disposal. Such piping shall maintain a minimum horizontal slope in the direction of discharge of not less than oneeighth unit vertical in 12 units horizontal (1-percent slope). Condensate shall not discharge into a street, alley or other areas so as to cause a nuisance.

#### Exceptions:

1. Condensate from cooling coils and evaporators is not required to be collected and conveyed to an on-site cooling tower; provided 1.1 through 1.3 are met:

<u>1.1 The equipment comprises 10% or less of the total capacity of the cooling tower system.</u>

1.2 The equipment is located in an isolated or remote area. 1.3 The size of the equipment is 65,000 Btu/hr. or less.

2. In existing buildings condensate may be collected and conveyed to a cooling tower or discharged to an approved place of disposal.

307.2.2 Drain pipe materials and sizes. Components of the condensate disposal system shall be cast iron, galvanized steel, brass, copper and copper alloy, cross-linked polyethylene, polyethylene, ABS, CPVC, PVC, or polypropylene pipe or tubing. Components shall be selected for the pressure and temperature rating of the installation. Joints and connections shall be made in accordance with the applicable provisions of Chapter 7 of the Florida Building Code, Plumbing relative to the material type. Condensate waste and drain line size shall be not less than  $\frac{3}{4}$ -inch (19.1 mm) internal diameter and shall not decrease in size from the drain pan connection to the place of condensate disposal. Where the drain pipes from more than one unit are manifolded together for condensate drainage, the pipe or tubing shall be sized in accordance with Table 307.2.2.

TABLE 307.2.2 CONDENSATE DRAIN SIZING

EQUIPMENT CAPACITY	MINIMUM CONDENSATE PIPE DIAMETER
Up to 20 tons of refrigeration	<sup>3</sup> / <sub>4</sub> inch
Over 20 tons to 40 tons of refrigeration	1 inch
Over 40 tons to 90 tons of refrigeration	1 <sup>1</sup> / <sub>4</sub> inches
Over 90 tons to 125 tons of refrigeration	1 <sup>1</sup> / <sub>2</sub> inches
Over 125 tons to 250 tons of refrigeration	2 inches

For SI: 1 inch = 25.4 mm, 1 ton = 3.517 kW.

**307.2.3 Auxiliary and secondary drain systems.** In addition to the requirements of Section 307.2.1, where damage to any building components could occur as a result of overflow from the *equipment* primary condensate removal system, one of the following auxiliary protection methods shall be provided for each cooling coil or fuel-fired *appliance* that produces condensate:

- 1. An auxiliary drain pan with a separate drain shall be provided under the coils on which condensation will occur. The auxiliary pan drain shall discharge to a conspicuous point of disposal to alert occupants in the event of a stoppage of the primary drain. The pan shall have a minimum depth of  $1^{1}/_{2}$  inches (38 mm), shall be not less than 3 inches (76 mm) larger than the unit, or the coil dimensions in width and length and shall be constructed of corrosion-resistant material. Galvanized sheet steel pans shall have a minimum thickness of not less than 0.0236 inch (0.6010 mm) (No. 24 gage). Nonmetallic pans shall have a minimum thickness of not less than 0.0625 inch (1.6 mm).
- 2. A separate overflow drain line shall be connected to the drain pan provided with the *equipment*. Such overflow drain shall discharge to a conspicuous point of disposal to alert occupants in the event of a stoppage of the primary drain. The overflow drain line shall connect to the drain pan at a higher level than the primary drain connection.
- 3. An auxiliary drain pan without a separate drain line shall be provided under the coils on which condensate will occur. Such pan shall be equipped with a water-level detection device conforming to UL 508 that will shut off the *equipment* served prior to overflow of the pan. The auxiliary drain pan shall be constructed in accordance with Item 1 of this section.
- 4. A water-level detection device conforming to UL 508 shall be provided that will shut off the *equipment* served in the event that the primary drain is blocked. The device shall be installed in the primary drain line, the overflow drain line, or in the equipment-supplied drain pan, located at a point higher than the primary drain line connection and below the overflow rim of such pan.

**Exception:** Fuel-fired appliances that automatically shut down operation in the event of a stoppage in the condensate drainage system.

**307.2.3.1 Water-level monitoring devices.** On downflow units and all other coils that do not have a secondary drain or provisions to install a secondary or auxiliary drain pan, a water-level monitoring device shall be installed inside the primary drain pan. This device shall shut off the *equipment* served in the event that the primary drain becomes restricted. Devices installed in the drain line shall not be permitted.

**307.2.3.2** Appliance, equipment and insulation in pans. Where appliances, *equipment* or insulation are subject to water damage when auxiliary drain pans fill, that portion of the *appliance*, *equipment* and insulation shall be installed above the rim of the pan. Supports located inside of the pan to support the *appliance* or *equipment* shall be water resistant and *approved*.

**307.2.4 Traps.** Condensate drains shall be trapped as required by the *equipment* or *appliance* manufacturer.

**307.2.4.1 Ductless mini-split system traps.** Ductless mini-split equipment that produces condensate shall be provided with an inline check valve located in the drain line, or a trap.

**307.2.5 Drain line maintenance.** Condensate drain lines shall be configured to permit the clearing of blockages and performance of maintenance without requiring the drain line to be cut.

**307.3** Condensate pumps. Condensate pumps located in uninhabitable spaces, such as attics and crawl spaces, shall be connected to the appliance or equipment served such that when the pump fails, the appliance or equipment will be prevented from operating. Pumps shall be installed in accordance with the manufacturers' instructions.

### SECTION 308 CLEARANCE REDUCTION

**308.1 Scope.** This section shall govern the reduction in required *clearances* to combustible materials and combustible assemblies for *chimneys*, vents, kitchen exhaust equipment, mechanical appliances, and mechanical devices and *equipment*.

**308.2 Listed appliances and equipment.** The reduction of the required *clearances* to combustibles for *listed* and *labeled* appliances and *equipment* shall be in accordance with the requirements of this section except that such clearances shall not be reduced where reduction is specifically prohibited by the terms of the *appliance* or *equipment* listing.

**308.3 Protective assembly construction and installation.** Reduced *clearance* protective assemblies, including structural and support elements, shall be constructed of noncombustible materials. Spacers utilized to maintain an airspace between the protective assembly and the protected material or assembly shall be noncombustible. Where a space between the protective assembly and protected combustible material or assembly is specified, the same space shall be provided around the edges of the protective assembly and the spacers shall be placed so as to allow air circulation by convection in such space. Protective assemblies shall not be placed less

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### **CHAPTER 9**

## SPECIFIC APPLIANCES, FIREPLACES AND SOLID FUEL-BURNING EQUIPMENT

#### SECTION 901 GENERAL

**901.1 Scope.** This chapter shall govern the approval, design, installation, construction, maintenance, *alteration* and repair of the appliances and *equipment* specifically identified herein and factory-built fireplaces. The approval, design, installation, construction, maintenance, *alteration* and repair of gasfired appliances shall be regulated by the *Florida Building Code, Fuel Gas*.

**901.2 General.** The requirements of this chapter shall apply to the mechanical *equipment* and appliances regulated by this chapter, in addition to the other requirements of this code.

**901.3 Hazardous locations.** Fireplaces and solid fuel-burning appliances shall not be installed in hazardous locations.

#### SECTION 902 MASONRY FIREPLACES

**902.1 General.** Masonry fireplaces shall be constructed in accordance with the *Florida Building Code, Building*.

**902.2 Fireplace accessories.** Listed and labeled fireplace accessories shall be installed in accordance with the conditions of the listing and the manufacturer's instructions. Fireplace accessories shall comply with UL 907.

#### SECTION 903 FACTORY-BUILT FIREPLACES

**903.1 General.** Factory-built fireplaces shall be *listed* and *labeled* and shall be installed in accordance with the conditions of the listing. Factory-built fireplaces shall be tested in accordance with UL 127.

**903.2 Hearth extensions.** Hearth extensions of approved factory-built fireplaces shall be installed in accordance with the listing of the fireplace. The hearth extension shall be readily distinguishable from the surrounding floor area. Listed and labeled hearth extensions shall comply with UL 1618.

**903.3 Unvented gas log heaters.** An unvented gas log heater shall not be installed in a factory-built fireplace unless the fireplace system has been specifically tested, *listed* and *labeled* for such use in accordance with UL 127.

**903.4 Gasketed fireplace doors.** A gasketed fireplace door shall not be installed on a factory-built fireplace except where

the fireplace system has been specifically tested, listed and labeled for such use in accordance with UL 127.

#### SECTION 904 PELLET FUEL-BURNING APPLIANCES

**904.1 General.** Pellet fuel-burning appliances shall be *listed* and *labeled* in accordance with ASTM E1509 and shall be installed in accordance with the terms of the listing.

#### SECTION 905 FIREPLACE STOVES AND ROOM HEATERS

**905.1 General.** Fireplace stoves and solid-fuel-type room heaters shall be *listed* and *labeled* and shall be installed in accordance with the conditions of the listing. Fireplace stoves shall be tested in accordance with UL 737. Solid-fuel-type room heaters shall be tested in accordance with UL 1482. Fireplace inserts intended for installation in fireplaces shall be *listed* and *labeled* in accordance with the requirements of UL 1482 and shall be installed in accordance with the manufacturer's instructions.

**905.2 Connection to fireplace.** The connection of solid fuel appliances to *chimney* flues serving fireplaces shall comply with Sections 801.7 and 801.10.

**905.3 Hearth extensions.** Hearth extensions for fireplace stoves shall be installed in accordance with the listing of the fireplace stove. The hearth extension shall be readily distinguishable from the surrounding floor area. Listed and labeled hearth extensions shall comply with UL 1618.

#### SECTION 906 FACTORY-BUILT BARBECUE APPLIANCES

**906.1 General.** Factory-built barbecue appliances shall be of an *approved* type and shall be installed in accordance with the manufacturer's instructions, this chapter and Chapters 3, 5, 7 and 8, and the *Florida Building Code, Fuel Gas.* 

#### SECTION 907 INCINERATORS AND CREMATORIES

**907.1 General.** Incinerators and crematories shall be *listed* and *labeled* in accordance with UL 791 and shall be installed in accordance with the manufacturer's instructions.

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#### SECTION 908 COOLING TOWERS, EVAPORATIVE CONDENSERS AND FLUID COOLERS

**908.1 General.** A cooling tower used in conjunction with an air-conditioning *appliance* shall be installed in accordance with the manufacturer's instructions. Factory-built cooling towers shall be listed in accordance with UL 1995 or UL/CSA 60335-2-40.

**908.2** Access. Cooling towers, evaporative condensers and fluid coolers shall be provided with ready access.

#### 908.3 Location.

Cooling towers, evaporative condensers and fluid coolers shall be located to prevent the discharge vapor plumes from entering occupied spaces. Plume discharges shall be not less than 5 feet (1524 mm) above or 20 feet (6096 mm) away from any ventilation inlet to a building. Location on the property shall be as required for buildings in accordance with the *Florida Building Code, Building.* 

# **908.3.1** Sitting of cooling towers shall comply with Section 7.2.1 of ASHRAE 188-2018.

**Exception**: The replacement of existing cooling towers on previously permitted and approved locations.

**908.4 Support and anchorage.** Supports for cooling towers, evaporative condensers and fluid coolers shall be designed in accordance with the *Florida Building Code, Building.* Seismic restraints shall be as required by the *Florida Building Code, Building.* 

**908.5 Water supply.** Cooling towers, evaporative coolers and fluid coolers shall be provided with an approved water supply, sized for peak demand. The quality of water shall be provided in accordance with the equipment manufacturer's recommendations. The piping system and protection of the potable water supply system shall be installed as required by the *Florida Building Code, Plumbing*.

**908.6 Drainage.** Drains, overflows and blowdown provisions shall be indirectly connected to an *approved* disposal location. Discharge of chemical waste shall be *approved* by the appropriate regulatory authority.

**908.7 Refrigerants and hazardous fluids.** Heat exchange *equipment* that contains a refrigerant and that is part of a closed refrigeration system shall comply with Chapter 11. Heat exhange *equipment* containing heat transfer fluids which are flammable, combustible or hazardous shall comply with the *Florida Fire Prevention Code*.

**908.8 Cooling towers.** Cooling towers, both open circuit and closed circuit type, and evaporative condensers shall comply with Sections 908.8.1 and 908.8.2 thru 908.8.3.

908.8.1 Conductivity or <u>and</u> flow-based control of cycles of concentration. Cooling towers and evaporative condensers shall include controls that automate system bleed based on

conductivity, fraction of metered makeup volume, metered bleed volume, recirculating pump run time or bleed time. New cooling towers, and evaporative condensers, including replacements shall be operated with conductivity controllers, as well as make-up and blowdown (bleed off) meters and shall achieve a minimum of 8 cycles of concentration.

**908.8.2 Drift eliminators.** Cooling towers and evaporative condensers shall be equipped with drift eliminators that have a maximum drift rate of 0.002% of the recirculated water volume for counterflow towers and 0.005% of the recirculated water flow for crossflow towers as established in the equipment's design specifications.

#### **908.8.3** An affidavit of compliance demonstrating compliance with section 908.5 Florida Building Code shall be submitted by the property manager/owner to the local water provider every 12 months following system installation. The affidavit shall be signed by the service provider and include all dates of service within the reporting period and verified system operation at a minimum of 8 cycles of concentration.

**Exception**: Cooling water tower systems utilizing reclaimed water for the total amount of makeup water are exempt from the provisions of section 908.8.1 thru 908.8.3 Florida Building Code.

#### SECTION 909 VENTED WALL FURNACES

**909.1 General.** Vented wall furnaces shall be installed in accordance with their listing and the manufacturer's instructions. Oil-fired furnaces shall be tested in accordance with UL 730.

**909.2 Location.** Vented wall furnaces shall be located so as not to cause a fire hazard to walls, floors, combustible furnishings or doors. Vented wall furnaces installed between bathrooms and adjoining rooms shall not circulate air from bathrooms to other parts of the building.

**909.3 Door swing.** Vented wall furnaces shall be located so that a door cannot swing within 12 inches (305 mm) of an air inlet or air outlet of such furnace measured at right angles to the opening. Doorstops or door closers shall not be installed to obtain this *clearance*.

**909.4 Ducts prohibited.** Ducts shall not be attached to wall furnaces. Casing extension boots shall not be installed unless *listed* as part of the *appliance*.

**909.5 Manual shutoff valve.** A manual shutoff valve shall be installed ahead of all controls.

**909.6** Access. Vented wall furnaces shall be provided with access for cleaning of heating surfaces, removal of burners, replacement of sections, motors, controls, filters and other working parts, and for adjustments and lubrication of parts requiring such attention. Panels, grilles and access doors that must be removed for normal servicing operations shall not be attached to the building construction.

#### SECTION 910 FLOOR FURNACES

**910.1 General.** Floor furnaces shall be installed in accordance with their listing and the manufacturer's instructions. Oil-fired furnaces shall be tested in accordance with UL 729.

**910.2 Placement.** Floor furnaces shall not be installed in the floor of any aisle or passageway of any auditorium, public hall, place of assembly, or in any egress element from any such room or space.

With the exception of wall register models, a floor furnace shall not be placed closer than 6 inches (152 mm) to the nearest wall, and wall register models shall not be placed closer than 6 inches (152 mm) to a corner.

The furnace shall be placed such that a drapery or similar combustible object will not be nearer than 12 inches (305 mm) to any portion of the register of the furnace. Floor furnaces shall not be installed in concrete floor construction built on grade. The controlling thermostat for a floor furnace shall be located within the same room or space as the floor furnace or shall be located in an adjacent room or space that is permanently open to the room or space containing the floor furnace.

**910.3 Bracing.** The floor around the furnace shall be braced and headed with a support framework design in accordance with the *Florida Building Code, Building.* 

# **CHAPTER 15 REFERENCED STANDARDS**

This chapter lists the standards that are referenced in various sections of this document. The standards are listed herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the section or sections of this document that reference the standard. The application of the referenced standards shall be as specified in Section 102.4 of the Florida Building Code, Building.

AUUA	Air Conditioning Contractors of America 2800 Shirlington Road, Suite 300 Arlington, VA 22206
Standard	Referenced
number	Title section number
Manual D—2016	Residential Duct Systems
183—2007	Peak Cooling and Heating Load Calculations in Buildings
(reaffirmed 2011)	Except Low-rise Residential Buildings

AHRI	Air-Conditioning, Heating and Refrigeration Institute 4100 North Fairfax Drive, Suite 200 Arlington, VA 22203	
Standard reference number	Title	Referenced in code section number
700—2015	Specifications for Refrigerants	

AMCA	Air Movement and Control Association International 30 West University Drive Arlington Heights, IL 60004	
Standard		Referenced
reference		in code
number	Title	section number
ANSI/AMCA 210-ANSI/		
ASHRAE 51-07	Laboratory Methods of Testing Fans for Aerodynamic	
	Performance Rating	
ANSI/AMCA 230—15	Laboratory Methods of Testing Air Circulating Fans for Rating and	Certification
AMCA/ANSI 550—15 (Rev. 09/18)	Test Method for High Velocity Wind Driven Rain Resistant Louvers	s 401.5, 501.3.2

ANSI	American National Standards Institute 11 West 42nd Street New York, NY 10036	
Standard		Referenced
reference		in code
number	Title	section number
Z21.8—1994 (R2002)	Installation of Domestic Gas Conversion Burners	

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ASHRAE	ASHRAE 1791 Tullie Circle, NE Atlanta, GA 30329
Standard	Referenced
reference	in code
number	Title section number
ASHRAE—2017	ASHRAE Fundamentals Handbook
15—2019	Safety Standard for Refrigeration Systems
34—2019	Designation and Safety Classification of Refrigerants
62.1—2016	Ventilation for Acceptable Indoor Air Quality
170—2017	Ventilation of Health Care Facilities
ANSI/AMCA 210-	
ANSI/ASHRAE 51-07	Laboratory Methods of Testing Fans for Aerodynamic Performance Rating 403.3.2.4
188-2018	Legionellosis: Risk Management for Building Water Systems 908.3.1
ASME	American Society of Mechanical Engineers Three Park Avenue New York, NY 10016-5990
Standard	Referenced
reference	in code
number	Title section number
B1.20.1—2013	Pipe Threads, General Purpose (Inch)
B16.3—2016	Malleable Iron Threaded Fittings, Classes 150 & 300
B16.5—2015	Pipe Flanges and Flanged Fittings NPS <sup>1</sup> / <sub>2</sub> through NPS 24
B16.9—2012	Factory Made Wrought Steel Buttwelding Fittings
B16.11—2016	Forged Fittings, Socket-welding and Threaded
B16.15—2013	Cast Alloy Threaded Fittings Classes 125 and 250
B16.18—2012	Cast Copper Alloy Solder Joint Pressure Fittings 513.13.1, Table 1202.5
B16.22—2013	Wrought Copper and Copper Alloy Solder Joint Pressure Fittings 513.13.1, Table 1202.5
B16.24—2016	Cast Copper Alloy Pipe Flanges and Flanged Fittings: Class 150, 300, 400, 600, 900, 1500 and 2500 Table 1202.5
B16.26—2016	Cast Copper Alloy Fittings for Flared Copper Tubes
B16.28—1994	Wrought Steel Buttwelding Short Radius Elbows and Returns

B10.28—	Wrought Steel Buttwelding Short Radius Elbows and Returns	able 1202.5
B16.51—	Copper and Copper Alloy Press-Connect Pressure Fittings	able 1302.3
B31.5—2	Refrigeration Piping and Heat Transfer Components	1107.1
B31.9—2	Building Services Piping	1201.3
BPVC—2	ASME Boiler & Pressure Vessel Code–07 Edition	4.1, 1011.1
CSD-1	Controls and Safety Devices for Automatically Fired Boilers	1004.1

	ASSE	American Society of Safety Engineers 1800 East Oakton Street Des Plaines, IL 60018	
	Standard		Referenced
	number	Title	section number
I	ANSI/ASSE Z359.1—2016	Requirements for the ANSI/ASSE Z359 Fall Protection Code	

ASSE	American Society of Sanitary Engineering 901 Canterbury, Suite A Westlake, OH 44145	
Standard		Referenced
number	Title	section number
1017—2010	Performance Requirements for Temperature Actuated Mixing Values for Hot Water Distribution Systems	g 1002.2.2
1061—2015	Performance Requirements for Push Fit Fittings	Table 1202.5

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