

Analysis of Changes for the 7th Edition (2020) Florida Codes

Changes to the Florida Building Code, Fuel Gas

This *Analysis of Changes for the 7th Edition (2020) of the Florida Building Code* is intended to provide a comprehensive comparison of the provisions in the *6th Edition (2017) Florida Building Code, Fuel Gas (FBCFG)* and the *7th Edition (2020) Florida Building Code, Fuel Gas*. The *6th Edition (2017) FBCFG* is the base code for the *7th Edition (2020) FBCFG*. The model code used to update the *7th Edition (2020) FBCFG* is the *2018 International Fuel Gas Code (IFGC)*. However, not all changes in the 2018 IFGC are included in the *7th Edition (2020) FBCFG*. As a result of changes from the 2018 IFGC and Florida-specific amendments, certain provisions and criteria of the code have changed. This *Analysis* will serve as a useful tool to facilitate the transition to the new code.

This *Analysis* is arranged so that comparable provisions in the two codes can be easily located. The left two columns contain section numbers and a brief overview of the corresponding requirements from the *6th Edition (2017) FBCFG*. The next two columns contain section numbers and a brief overview of the corresponding requirements in the *7th Edition (2020) FBCFG*. The far-right column contains a brief analysis or comment on the differences between the provisions.

This *Analysis* is not intended to replace or interpret the provisions contained in either the *6th Edition (2017)* or the *7th Edition (2020) FBCFG*. This information simply points out the differences. The *Analysis* is not designed to be used without the aid of the representative code books, as all the details pertaining to a specific section may or may not be provided. However, this *Analysis* will provide an easy means for identifying differences in the two codes, as well as enabling the user to locate issue specific provisions in the *7th Edition (2020) FBCFG* by means of a numbered section cross reference.

This *Analysis* provides a cross-reference for most of the sections that changed in the *7th Edition (2020) FBCFG*. In some cases, sections were grouped together due to substantial differences. This grouping enables the extent of the differences to be more readily identified.

Notable changes deemed to be the most significant or to have the greatest impact have been highlighted in **yellow**.

Note: Seismic loading and snow loading provisions in the code are not reserved (deleted) in the *7th Edition (2020) FBCFG*, even though they do not apply in the State of Florida. While there are changes to some of these sections and provisions, they are not shown here in this *Analysis* because they do not apply to construction in the State of Florida.

6 th Edition (2017) FBCFG		7 th Edition (2020) FBCFG		Analysis
Section	Requirement	Section	Requirement	
Chapter 1: Scope and Administration				
<i>No changes.</i>				
Chapter 2: Definitions				
202	Definitions: Furnace, central	202	Definitions: Furnace, central	The sub definitions under central furnace have been deleted because the code does not differentiate between the various furnace types.
202	Definitions: Joint, Mechanical	202	Definitions: Joint, Mechanical	Definition editorially revised to change press joint to press-connect joint.
202	Definitions: Regulator, Gas Appliance	202	Definitions: Regulator, Gas Appliance	The sub definitions under gas appliance regulator have been deleted because the code does not differentiate between the various regulator types.
-	-	202	Definitions: Regulator, Monitoring	New definition for monitoring regulator added. Defined as a pressure regulator set in series with another pressure regulator for the purpose of automatically taking control of the pressure downstream of the monitored regulator when that pressure exceeds a set minimum.
-	-	202	Definitions: Regulator, Series	New definition for series regulator added. Defined as a pressure regulator in series with one or more other pressure regulators.
202	-	202	Definitions: Toilet, Gas-fired	New definition for gas-fire toilet added. Defined as a packaged and completely assembled appliance containing a toilet that incinerates refuse instead of flushing it away with water.
202	Definitions: Unit Heater	202	Definitions: Unit Heater	The sub definitions under unit heater have been deleted because the code does not differentiate between the high- and low-static heaters. New language added defining a unit heater as a self-contained, automatically controlled, vented, fuel-gas-burning space-heating appliance, intended for installation in the space to be heated

				without the use of ducts, and having integral means for circulation of air.
Chapter 3: General Regulations				
303.3	Prohibited locations (appliance location)	303.3	Prohibited locations (appliance location)	Section revised to add a new item permitting a clothes dryer to be installed in a residential bathroom or toilet room having a permanent opening with an area not less than 100 square inches that communicates with a space outside of a sleeping room, bathroom, toilet room or storage closet.
-	-	303.3.1	Fireplaces and decorative appliances in Group I-2, Condition 2 occupancies	New section prohibiting the installation of gas fireplace appliances and decorative gas appliances in Group I-2, Condition 2 except direct-vent appliances installed in public lobby and waiting areas that are not within smoke compartments containing sleeping areas. Controls are required to be located where they can be accessed only by facility staff. Such appliances are required to comply with Sections 501.2 and 604.1 and the FFPC.
304.5.3.1	Combining spaces on the same story	304.5.3.1	Combining spaces on the same story	Section revised to clarify the scope. The required openings have been revised to clarify that they are required to be "permanent" openings.
304.5.3.2	Combining spaces in different stories	304.5.3.2	Combining spaces in different stories	Section revised to clarify that the openings specified are required to be permanent openings.
310.1.1	CSST (electrical bonding)	310.2	CSST (electrical bonding)	Section revised to clarify that this section applies to corrugated stainless steel tubing (CSST) that is not listed with an arc-resistant jacket or coating system in accordance with ANSI LC 1/CSA 6.26. CSST gas piping systems and gas piping systems containing one or more segment of CSST are required to be electrically continuous.
310.1.1.3	Bonding jumper length	310.2.3	Bonding jumper length	Section revised to editorially clarify that this section applies to additional grounding

				electrodes installed to meet the requirements of this section.
-	-	310.3	Arc-resistant CSST	New section added that applies to CSST that is listed with an arc-resistant jacket or coating system in accordance with ANSI LC 1/CSA 6.26. Arc-resistant-jacketed CSST is considered to be bonded where it is connected to an appliance that is connected to the appliance grounding conductor of the circuit that supplies the appliance.
Chapter 4: Ventilation				
402.4	Sizing tables and equations	402.4	Sizing tables and equations	Section revised to clarify that this section applies to piping materials other than noncorrugated stainless steel tubing.
Table 402.4(16)	Corrugated Stainless Steel Tubing (CSST) (sizing tables 3 in. w.c.)	Table 402.4(16)	Corrugated Stainless Steel Tubing (CSST) (sizing tables 3 in. w.c.)	Pipe capacities have been added for tube sizes of 39 EHD.
Table 402.4(17)	Corrugated Stainless Steel Tubing (CSST) (sizing tables 6 in. w.c.)	Table 402.4(16)	Corrugated Stainless Steel Tubing (CSST) (sizing tables 6 in. w.c.)	Pipe capacities have been added for tube sizes of 39 EHD.
-	-	402.5	Noncorrugated stainless steel tubing	New section requiring noncorrugated stainless steel tubing to be sized in accordance with Equation 4-1 and 4-2 of Section 402.4 in conjunction with Sections 402.4.1, 402.4.2, or 402.4.3.
402.6	Maximum design operating pressure	402.7	Maximum operating pressure	Section revised to change maximum design operating pressure to maximum operating pressure. Conditions for exceeding the maximum 5 psig pressure have been revised. Condition 1 clarifies that the piping joints are required to be welded or brazed. New condition 2 requires piping joints to be flanged and pipe-to-flange connections made by welding or brazing.
403.4.2	Steel pipe (piping materials)	403.4.2	Steel pipe (piping materials)	Section revised to also apply to stainless steel metallic pipe. Requires steel to not be lighter than Schedule 10. ASTM A312 has been added as a reference standard

				for steel pipe. Revised to required steel pipe to comply with the dimensional standards of ASME B36.10M and one of the other listed standards.
403.5	Metallic tubing	403.5	Metallic tubing	Section revised to also apply to stainless steel metallic pipe.
-	-	403.5.2	Stainless steel	New section added requiring stainless steel tubing to comply with ASTM A268 or ASTM A269.
403.6	Plastic pipe, tubing and fittings	403.6	Plastic pipe, tubing and fittings	The requirement that plastic pipe, tubing, and fittings, other than polyethylene, be identified and conform to the 2008 edition of ASTM D2513 has been deleted. New language added requiring polyamide pipe, tubing, and fittings to be identified and conform to ASTM F2945.
403.10.1	Pipe joints (metallic)	403.10.1	Pipe joints (metallic)	Section revised to require Schedule 40 and heavier pipe joints to be threaded, flanged, brazed, welded, or assembled with press-connect fittings listed in accordance with ANSI LC4/CSA 6.32. Pipe lighter than Schedule 40 is required to be connected using press-connect fittings, flanges, brazing, or welding.
403.10.2	Tubing joints	403.10.2	Copper tubing joints	Requirements for tubing joints have been separated into 2 new sections addressing copper tubing joints and stainless steel tubing joints.
		403.10.3	Stainless steel tubing joints	
404.11 through 404.11.2	Protection against corrosion	404.11 through 404.11.5	Protection against corrosion	The requirements for protecting pipe or tubing from corrosion have been revised and reorganized for clarity. Corrosion protection is now specifically required for steel piping exposed to corrosive action not all metallic pipe. All steel piping is required to be factory coated where exposed to corrosive action. An approved cathodic protective system is allowed. New section added requiring protection of risers.
404.14	Piping underground beneath buildings	404.14	Piping underground beneath buildings	A piping or encasement system listed for installation beneath buildings has been

				added as an option for encasing piping installed underground beneath buildings.
404.17.3	Tracer	404.17.3	Tracer	A product specifically designed for that purpose has been added as an alternate to a yellow insulated copper tracer wire or approved conductor.
406.2	Test medium	406.2	Test medium	Section editorially revised to clarify that oxygen is not permitted to be used as a test medium.
409.5.1	Located within same room (appliance shutoff valve)	409.5.1	Located within same room (appliance shutoff valve)	New language added recognizing shutoff valves serving movable appliances such as cooking appliances and clothes dryers as being provided with access where the valves are installed behind such appliances.
-	-	409.7	Shutoff valves in tubing systems	New section requiring shutoff valves installed in tubing systems to be rigidly and securely supported independently of the tubing.
410.2	MP regulators	410.2	MP regulators	New language has been added to Item 6 regarding MP regulators clarifying that the tee fitting is not required where the MP regulator serves an appliance that has a pressure test port on the gas control inlet side and the appliance is located in the same room as the MP regulator.
410.4	Excess flow valves	410.4	Excess flow valves	Section revised to require automatic excess flow valves to be listed in accordance with ANSI Z21.93/CSA 6.30.
411.1	Connecting appliances (appliance and manufactured home connections)	411.1	Connecting appliances (appliance and manufactured home connections)	New item added requiring gas hose connectors for use in laboratories and educational facilities to be connect to the piping system in accordance with Section 411.4.
-	-	411.4	Injection Bunsen-type burners	New section added requiring injection Bunsen-type burners used in laboratories and educational facilities to be connected to the gas supply system by either a listed or unlisted hose.

413.2.3	General (CNG storage)	413.2.3	General (CNG storage)	The requirement that the capacity of a residential fueling appliance not exceed 5 standard cubic feet per minute of natural gas has been relocated to Section 413.4.3.
413.3	Location of dispensing operations and equipment	413.3	Location of dispensing operations and equipment	The requirements for residential fueling appliances and equipment installed indoors has been relocated to Section 413.4.3
-	-	413.4.1	Listing and installation (residential fuel appliance installation)	New section requiring residential fueling appliances to be listed in accordance with ANSI NGV 5.1 and installed in accordance with the appliance manufacturer's installation instructions.
413.4.2	Outdoor installation	-	-	Section deleted and the criteria has been relocated to Item 4 of Section 413.4.3.
413.4.3	Indoor installation	413.4.3	Indoor installation	Provisions for residential fueling appliances installed indoors or used for indoor fueling have been consolidated and reorganized. The required gas detector is now specifically required to be a methane gas detector. The requirement that the capacity of a residential fueling appliance not exceed 5 standard cubic feet per minute of natural gas has been relocated to this section from Section 413.2.3. The requirement that residential fueling appliances located outdoors be installed on a firm, noncombustible base has been relocated to this section from Section 413.4.2.
416.3	Devices	416.3	Overpressure protection device	Section revised to change the terms pressure-relieving and pressure-limiting devices to overpressure protection devices.
416.3.1	Construction and installation	416.3.1	Construction and installation	Section revised to change the terms pressure-relieving and pressure-limiting devices to overpressure protection devices.

416.3.3	Setting	416.3.3	Setting	Section revised to change the terms pressure-relieving and pressure-limiting devices to overpressure protection devices.
416.3.4	Unauthorized operation	416.3.4	Unauthorized operation	Section revised to change the terms pressure-relieving and pressure-limiting devices to overpressure protection devices.
416.3.5	Vents	416.3.5	Vents	Section revised to change the terms pressure-relieving and pressure-limiting devices to overpressure protection devices.
Chapter 5: Chimneys and Vents				
503.2.1	Ventilating hoods	503.2.1	Ventilating hoods	Section revised to limit the use of ventilating hoods and exhaust systems to vent appliances to industrial appliances and appliances installed in commercial applications.
503.2.2	Well-ventilated spaces	503.2.2	Well-ventilated spaces	Section revised for clarity. Clarifies that flue gases from industrial-type appliances are not required to be vented to the outdoors where such gases are discharged into a large and well-ventilated industrial space.
503.3.3	Mechanical draft systems	503.3.3	Mechanical draft systems	Section revised to require mechanical draft systems to be listed in accordance with UL 378 and installed in accordance with the manufacturer's instructions.
503.3.4	Ventilating hoods and exhaust systems	503.3.4	Ventilating hoods and exhaust systems	Section revised for clarity.
503.4.1	Plastic piping (venting)	503.4.1	Plastic piping (venting)	New language added requiring plastic pipe venting materials to be labeled in accordance with the product standards specified by the appliance manufacturer or listed and labeled in accordance with UL 1738.
503.4.1.1	Plastic vent joints	503.4.1.1	Plastic vent joints	New language added requiring plastic <i>pipe</i> venting materials to <i>listed and labeled</i> in accordance with UL 1738 to be installed in accordance with the vent manufacturer's instructions.
503.4.2	Special gas vent	503.4.2	Special gas vent	Section revised to require special gas vents to be listed in accordance with UL

				1738 and installed in accordance with the manufacturer's instructions.
503.5.1	Factory-built chimneys	503.5.1	Factory-built chimneys	Section revised to require factory-built chimneys to be listed in accordance with UL 103 and installed in accordance with the manufacturer's instructions.
503.5.3	Masonry chimneys	503.5.3	Masonry chimneys	Section revised to require chimney lining systems to be listed and labeled in accordance with UL 1777.
503.5.6.2	Cleanouts	503.5.6.2	Cleanouts	Section revised to require cleanouts to be repaired or replaced where they do not remain tightly closed when not in use.
503.5.7.4	Combination gas- and oil-fuel-burning appliances	503.5.7.4	Combination gas- and oil-fuel-burning appliances	Section revised to clarify that a single chimney flue serving a listed combination gas- and oil-fuel-burning appliance is required to be sized in accordance with the appliance manufacturer's instructions.
-	-	503.5.11	Insulation shield	New section requiring an insulation shield where a factory-built chimney passes through insulated assemblies to provide clearance between the chimney and the insulation material. Installation requirements for the shield are also specified. Requirements are consistent with existing Section 502.4.
-	-	503.6.1	Materials (gas vents)	New section added requiring Type B and BW gas vents to be listed in accordance with UL 441. Vents for listed combination gas- and oil-fuel-burning appliances are required to be listed in accordance with UL 641.
503.8	Venting system termination location	503.8	Venting system termination location	The required through-the-wall direct vent termination clearances in Item 3 have been relocated to a new table. A new category requires where the direct-vent appliance input rating exceeds 150,000 Btu/hr., the clearance from an air opening in the building is required to be in accordance with the appliance manufacturer's instructions but not less than the
		Table 503.8	Through-the-Wall, Direct-Vent Termination Clearances	

				clearances specified in Section 503.8, Item 2.
Chapter 6: Specific Appliances				
614.4	Exhaust installation (clothes dryer exhaust)	614.4	Exhaust installation (clothes dryer exhaust)	Section revised to require clothes dryer exhaust ducts to be sealed in accordance with Section 603.9 of the FBCM.
-	-	614.4.1	Exhaust termination outlet and passageway	New section requiring the passageway of dryer exhaust duct terminals to be undiminished in size and provide an open area of not less than 12.5 square inches.
614.8.2	Duct installation	614.8.2	Duct installation	New language added requiring where dryer ducts are enclosed in wall or ceiling cavities, the cavities are required to allow the installation of the ducts without deformation.
614.10	Common exhaust systems for clothes dryers located in multistory structures	614.10	Common exhaust systems for clothes dryers located in multistory structures	Section revised to clarify that the required standby power source is to be in accordance with Section 2702 of the FBCB.
618.2	Forced-air furnaces	-	-	Section deleted in its entirety.
623.2	Prohibited location (cooking appliances)	623.2	Prohibited location (cooking appliances)	New exception added permitting commercial cooking appliances to be installed in dwelling units when designed by a licensed professional engineer.
Chapter 7: Gaseous Hydrogen Systems				
703.1	Hydrogen-generating and refueling operations	703.1	Hydrogen-generating and refueling operations	Section revised to delete the reference to Section 703.1.1, 703.1.2, and 703.1.3 for exhaust ventilation. Exhaust ventilation is now required to be in accordance with NFPA 2.
703.1.1	Natural ventilation	-	-	Section deleted.
703.1.1.1	Two openings	-	-	Section deleted.
703.1.1.2	Louvers and grills	-	-	Section deleted.
703.1.2	Mechanical ventilation	-	-	Section deleted.
703.1.3	Specially engineered installations	-	-	Section deleted.