Analysis of Changes for the 6th Edition (2017) Florida Codes

Changes to the Florida Building Code, Fuel Gas

This *Analysis of Changes for the 6th Edition (2017) of the Florida Codes* is intended to provide a comprehensive comparison of the provisions in the *5th Edition (2014) Florida Building Code, Fuel Gas* (FBCFG) and the *6th Edition (2017) Florida Building Code, Fuel Gas*. The *2012 International Fuel Gas Code* was the base code for the *5th Edition (2014)* FBCFG. The *2015 International Fuel Gas Code* is the base code for the 6th Edition (2017) FBCFG. As a result of changing the base code and Florida-specific amendments, certain provisions and criteria of the code have changed. This *Analysis* will serve 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 *5th Edition (2014)* FBCFG. The next two columns contain section numbers and a brief overview of the corresponding requirements in the *6th Edition (2017)* 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 *5th Edition (2014)* or the *6th Edition (2017)* 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 *6th Edition (2017)* FBCFG by means of a numbered section cross reference.

This *Analysis* provides a cross-reference for the majority of the sections that changed in the *6th Edition (2017)* 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 no longer reserved (deleted) in the *6th Edition (2017)* 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.

5th Edition (2014) FBCFG		6th Edition (2017) FBCFG		Analysis
Section	**Requirement**	**Section**	**Requirement**	
Chapter 1: Scope and Administration				
101.2	Scope	101.2	Scope	Exception added permitting one- and two-family dwellings and multiple single-family dwellings not more than three stories high with separate means of egress to comply with the FBCR.
Chapter 2: Definitions				
202	Definitions: Air, Makeup	202	Definitions: Air, Makeup	Definition revised to clarify the origin and composition of makeup air for consistency with ASHRAE 62.1
202	Definitions: Appliance	202	Definitions: Appliance	Definition revised to include apparatus that compress fuel gases.
202	Definitions: Approved	202	Definitions: Approved	Revised to remove the language “authority having jurisdiction” within the meaning of approved.
202	Definitions: Registered Design Professional	202	Definitions: Registered Design Professional	Revised to include any registered design professional that is practicing within the scope of their license.
Chapter 3: General Regulations				
304.1	General (combustion, ventilation and dilution air)	304.1	General (combustion, ventilation and dilution air)	Section revised to add appliances equipped with power burners as appliances that are required to be provided with combustion ventilation and dilution air.
306.6	Guards (equipment and appliances on roofs)	306.6	Guards (equipment and appliances on roofs)	A new exception to providing guards has been added where permanent fall arrest/restraint anchorage connector devices complying with ANSI/ASSE Z 359.1 are installed for use during the entire lifetime of the roof covering.
-	-	307.6	Condensate pumps	New section requiring condensate pumps installed in uninhabitable spaces, such as attics and crawl spaces, to be connected to the appliance or equipment served such that when the pump fails, the appliance or equipment will be prevented from operating.
308.2	Reduction table	308.2	Reduction table	Section revised to require reduced clearance protective assemblies to be listed

				and labeled in accordance with UL 1618.
310.1.1	CSST	310.1.1	CSST	Section reorganized for clarity. Permits CSST to be bonded to the lightning protection grounding electrode system.
		310.1.1.1	Point of connection	Provision requiring the bonding jumper to connect to a metallic pipe, pipe fitting or CSST fitting has been relocated to a stand-alone section.
		310.1.1.2	Size and material of jumper	Provision requiring the bonding jumper to be no smaller than 6 AWG copper wire has been relocated to a stand-alone section.
-	-	310.1.1.3	Bonding jumper length	New section limiting the length of the bonding jumper between the connection to a gas piping system and the connection to a grounding electrode system to 75 feet.
-	-	310.1.1.4	Bonding connections	New section requiring bonding connections to be in accordance with NFPA 70.
-	-	310.1.1.5	Connection devices	New section requiring devices used for making the bonding connection to be list for the application in accordance with UL 467.
Chapter 4: Gas Piping Installations				
401.9	Identification	401.9	Identification	Exception to identifying pipe, tubing, and fittings has been revised to include steel pipe section 2 feet and less in length and cut from longer sections of pipe, steel pipe fittings 2 inches and less in size, where identification is provided on the packaging or crating, and where other approved documentation is provided.
-	-	401.10	Piping material standards	New section requiring piping, tubing and fittings to be manufactured to the applicable criteria specified in Section 403 and identified in accordance with Section 401.9.
402.2	Maximum gas demand	402.2	Maximum gas demand	Reference to Table 402.2 for estimating volumetric flow rate of gas when input ratings are not indicated has been deleted. Adjustment for altitude is now only required where the installation is above 2000 feet in elevation.
Table	Approximate Gas Input for	-	-	Table deleted.

402.2	Typical Appliances			
Table 402.4(3)	Schedule 40 Metallic Pipe Gas: Natural Inlet Pressure: less than 2 psi Pressure Drop: 3 in. w.c. Specific Gravity: 0.60	Table 402.4(3)	Schedule 40 Metallic Pipe Gas: Natural Inlet Pressure: less than 2 psi Pressure Drop: 3 in. w.c. Specific Gravity: 0.60	Gas sizing tables have been updated.
Table 402.4(4)	Schedule 40 Metallic Pipe Gas: Natural Inlet Pressure: less than 2 psi Pressure Drop: 6 in. w.c. Specific Gravity: 0.60	Table 402.4(4)	Schedule 40 Metallic Pipe Gas: Natural Inlet Pressure: less than 2 psi Pressure Drop: 6 in. w.c. Specific Gravity: 0.60	Gas sizing tables have been updated.
403.4.3	Copper and brass	403.4.3	Copper and copper alloy	Brass pipe has been removed from the scope of this section. Copper alloy pipe is now included within the scope of this sections.
403.6	Plastic pipe, tubing and fittings	403.6	Plastic pipe, tubing and fittings	New language prohibits the use of PVC and CPVC plastic pipe, tubing and fittings for supplying fuel gas.
403.10.4	Metallic fittings	403.10.4	Metallic fittings	Brass fittings removed from the scope of this section. New criteria added for pipe fittings that are drilled and tapped in the field.
403.12	Flanges	403.12	Flanges	Section revised to specify the applicable ASME standard for each listed flange material. New section prohibits raised face flanges from being joined to flat faced cast-iron, ductile-iron or nonferrous material flanges.
403.13	Flange gaskets	403.13	Flange gaskets	Section revised to specify the applicable ASME standard for each listed flange gasket material. Rubber-faced phenolic and elastomeric materials have been added as acceptable materials for gaskets. Full-face flanges are now required for all non-steel flanges.
404.5	Fittings in concealed locations	404.5	Fittings in concealed locations	Section revised to specify the applicable standards for fittings listed for use in concealed locations. The prohibition on right and left couplings has been removed.
404.6	Underground penetrations prohibited	404.6	Underground penetrations (NFPA 7.1.5) Piping through foundation wall	Section revised to permit underground piping, where installed through the outer

				foundation or basement wall of a building, provided the piping is encased in a protective sleeve or protected by an approved device or method.
404.7	Protection against physical damage	404.7	Protection against physical damage	Section reorganized into 4 new sections for clarity. New section added addressing protection for piping based on the proximity to the piping to the edge of the face of the framing member to which a membrane will be attached.
		404.7.1	Piping through holes or notches	
		404.7.2	Piping installed in other locations	
		404.7.3	Shield plates	
-	-	404.18	Pipe cleaning	New section prohibiting the use of a flammable or combustible gas to clean or remove debris from a piping system.
406.5.1	Leak detection methods	406.5.1	Leak detection methods	Language prohibiting the use of matches, candles, open flames or other methods that could provide a source of ignition has been deleted.
410.3	MP regulators	410.3	MP regulators	Section revised to require additional criteria for MP regulators. Where MP regulators are connected to rigid piping, a union is required to be installed within 1 foot of either side of the MP regulator.
411.1	Connecting appliances	411.1	Connecting appliances	Section revised to Add a requirement that a Z21.54 listed connector be used to connect portable outdoor appliances to the house piping system.
411.1.1	Commercial cooking appliances	411.1.1	Commercial cooking appliances	Section revised to Requires the use of a Z21.69 listed connector for all commercial cooking appliances on casters and for appliances that are moved for cleaning purposes. Requirements have been added for the proper installation of the connector and requires the installation of a restraining device to project the connector.
411.1.4	Movable appliances	411.1.4	Movable appliances	Section revised to address movable appliances that are not commercial cooking appliances that would be subject to periodic moving.
412.6	Location (liquefied petroleum gas motor fuel-dispensing facilities)	412.6	Location (liquefied petroleum gas motor fuel-dispensing facilities)	Section reorganized for clarity.

-	-	412.7	Additional requirements for LP-gas dispensers and equipment	New section addressing additional requirements for LP-gas dispensers. Requires pumps to be fixed in place, designed to allow control of flow and prevent leakage and accidental discharge, and to be securely fastened to their mounting surface in accordance with the dispenser manufacturer's instructions. Criteria is also added for dispensing devices installed within 10 feet of where vehicle traffic occurs.
412.7.1	Valves	412.8.1	Product control valves	Section revised to address uncontrolled discharge. A listed automatic-closing-type hose nozzle valve with or without a latch-open device is required on island-type dispensers.
412.7.3	Vehicle impact protection	412.8.3	Vehicle impact protection	Revised to only require protection in accordance with the FFPC where installed within 10 feet of vehicle traffic.
-	-	412.8.4	Breakaway protection	New section requiring dispenser hoses to be equipped with a listed emergency breakaway device designed to retain liquid on both sides of the breakaway point.
412.8	Private fueling of motor vehicles	412.9	Public fueling of motor vehicles	Section revised to add additional requirements for self-service LP-gas dispensing systems.
416	Overpressure protection devices	416	Overpressure protection devices	Section revised for correlation with the National Fuel Gas Code.
Chapter 5: Chimneys and Vents				
-	-	502.7.1	Door swing	New section prohibiting appliance and equipment vent terminals from being located such that doors swing within 12 inches (305 mm) horizontally of the vent terminal. Door stops or closures are not permitted to be used to obtain this clearance.
503.4.1	Plastic piping	503.4.1	Plastic piping	Section revised to require appliances that use plastic piping for venting to be listed for use with such venting material and for the installation instructions to identify the specific plastic piping material.
503.6.9.3	Category II, III, and IV appliances	503.6.9.3	Category II, III, and IV appliances	New language added requiring that the

				sizing of plastic pipe that is specified by the appliance manufacturer as a venting material for Category II, III, and IV appliances to be in accordance with the manufacturer's instructions.
503.8	Venting system termination location	503.8	Venting system termination location	New clearance provisions have been added for category IV appliance side wall vent terminations to adjacent building openings.
Chapter 6: Specific Appliances				
-	-	614.5	Dryer exhaust duct power ventilators	New section requiring domestic dryer exhaust duct power ventilators to be listed and labeled to UL 705 for use in dryer exhaust duct systems.
614.6.2	Duct installation	614.8.2	Duct installation	Section revised to permit ducts to be joined with screws or similar fasteners provided they do no protrude more than 1/8 inch into the inside of the duct.
614.6.3	Protection required	614.7	Protection required	Section relocated.
-	-	614.8.4.3	Dryer exhaust duct power ventilator length	New section permitting the maximum length of the exhaust duct to be determined by the dryer exhaust duct power ventilator manufacturer's installation instructions.
614.6.6	Length identification	614.8.5	Length identification	Section revised to require identification of the exhaust duct equivalent length where the equivalent length exceeds 35 feet.
623.2	Prohibited locations (cooking appliances)	623.2	Prohibited locations (cooking appliances)	New exception added for appliances that are also listed as domestic cooking appliances.
629.1	General (kilns)	629.1	General (kilns)	Scope of section revised to remove the limit of a maximum interior volume of 20 cubic feet for kilns.
Chapter 7: Gaseous Hydrogen Systems				
704.1.2	Piping systems	704.1.2	Piping systems	Section revised to change the reference standard from ASME B31.3 to ASME B31.12.
704.1.2.4	Joints	704.1.2.4	Joints	Section revised to change the reference standard from ASME B31.3 to ASME B31.12.
705.2	Inspections	705.2	Inspections	Section revised to change the reference standard from ASME B31.3 to ASME

				B31.12.
705.3	Pressure tests	705.3	Pressure tests	Section revised to change the reference standard from ASME B31.3 to ASME B31.12.