

# ***Analysis of Changes for the 5<sup>th</sup> Edition (2014) of the Florida Codes***

## ***Changes to the Florida Building Code, Fuel-Gas***

This *Analysis of Changes for the 5<sup>th</sup> Edition (2014) of the Florida Codes* is intended to provide a comprehensive comparison of the provisions in the 2010 Florida Building Code, Fuel Gas (FBCFG) and the 5<sup>th</sup> Edition (2014) of the Florida Building Code, Fuel Gas. The 2009 International Fuel Gas Code was the base code for the 2010 FBCFG. The 2012 International Fuel Gas Code is the base code for the 5<sup>th</sup> Edition (2014) of the 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 2010 FBCFG. The next two columns contain section numbers and a brief overview of the corresponding requirements in the 5<sup>th</sup> Edition (2014) of the 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 2010 FBCFG or the 5<sup>th</sup> Edition (2014) of the 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 5<sup>th</sup> Edition (2014) of the 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 5<sup>th</sup> Edition (2014) of the 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 5<sup>th</sup> Edition (2014) of the FBCFG, even though they do not apply in the State of Florida. While they are technically new sections and provisions to the Florida Codes, they are not shown here in this *Analysis* because they do not apply to construction in the State of Florida.

2010 FBCFG		5 <sup>th</sup> Edition of the FBCFG		
Section	Requirement	Section	Requirement	Analysis
<b>Chapter 2 Definitions</b>				
202	Definitions: Appliance	202	Definitions: Appliance	Definition revised to remove reference to “gas” as many appliances use solid and oil fuels as permitted by the code.
202	Definitions: Design Flood Elevation	202	Definitions: Design Flood Elevation	New language added to clarify the determination of the design flood elevation for map areas designated as Zone AO. Where a depth is not specified on the map, the depth is required to be taken as 2 ft.
-	-	202	Definitions: Combustible Assembly	New definition added describing a combustible assembly as one that is constructed of materials that are not defined as noncombustible
-	-	202	Definitions: Combustible Material	New definition added describing combustible material as any material that is no defined as noncombustible
-	-	202	Definitions: Excess Flow Valve (EFV)	New definition added describing an EFV valve as one that is designed to activate when the fuel gas pass through it exceeds a prescribed rate.
-	-	202	Definitions: Flashback Arrestor Check Valve	New definition added for flashback arrestor check valves as referenced in Section 410.5.
202	Definitions: Fuel Bas Utilization Equipment	-	-	Definition has been deleted because it’s no longer used in the FBCFG
202	Definitions: Joint, Mechanical	202	Definitions: Joint, Mechanical	Press joints are added to the definition as appropriate mechanical joints.
-	-	202	Definitions: Noncombustible Materials	New definition added describing the testing and criteria for a material to meet to be defined as noncombustible.
202	Definitions: Point of Delivery	202	Definitions: Point of Delivery	New language added that eliminates a coverage gap for LP gas systems. Point of delivery for LP gas systems is now defined to be the outlet of the service pressure regulator, exclusive of line gas regulators, in the system.
202	Definitions: Regulator, Service Pressure	202	Definitions: Regulator, Service Pressure	Definition revised to provide two distinct definitions, one for natural gas and one for LP.
-	-	202	Definitions: Third-party certification	New definition intended to provide the means

			agency	by which compliance with the code referenced product standards is demonstrated and verified.
-	-	202	Definitions: Third-party certified	New definition intended to provide the means by which compliance with the code referenced product standards is demonstrated and verified.
-	-	202	Definitions: Third-party tested	New definition intended to provide the means by which compliance with the code referenced product standards is demonstrated and verified.
<b>Chapter 3: General Regulations</b>				
301.1.1	Scope	-	-	Section has been deleted as requirements are covered by the base code.
;	;	305.5	Private garages	New section requiring appliances installed in private garages to have a minimum clearance of 6 feet above the floor. Exception for protection from motor vehicle impact.
306.3	Appliances in attics	306.3	Appliances in attics	Section has been revised to reduce the minimum passageway with from 6 feet to 22 inches. New exception permits passageway length to be no greater than 50 feet when passageway height is at least 6 feet for its entire length.
306.3.1	Electrical requirements	306.3	Appliances in attics	Section revised to remove the requirement for a receptacle outlet to be included with the required lighting fixture.
;	;	306.3.2	Air-handling units in residential attics	Florida-specific requirements for installing air-handling units in residential attics have been deleted. Instructions for the notice to the homeowner have also been deleted.
308.1	Scope of clearance reductions for combustible materials.	308.1	Scope of clearance reductions for combustible materials.	Adds gypsum board as one of the combustible materials regulated by this section for reduction in required clearances.
308.3.1	Appliances installed in rooms that are large in comparison with the size of the appliances	308.3.1	Appliances clearances	Revised to refer to the manufacturers instruction for clearances for air-conditioning appliances
308.3.2	Appliances installed in rooms that re not large in comparison with the size of the appliances			

308.3.3	Clearance reductions	308.3.2	Clearance reduction	Revised to clarify that reduced clearances have to be allowed by the manufacturer's instructions.
308.3.5	Clearance from supply ducts	308.3.4	Clearance from supply ducts	Revised for clarity
309.1	Grounding	309.1	Grounding	Section revised to simply state that gas piping shall not be used as a grounding electrode.
310.1.1	CSST	310.1.1	CSST	Revised to require the bonding jumper to connect to a metallic pipe or fitting between the point of delivery and first downstream CSST fitting. Requires gas piping systems that contain one or more segments of CSST to be bonded in accordance with this section.
<b>Chapter 4: Gas Piping Installations</b>				
401.2	Liquefied petroleum gas storage	401.2	Liquefied petroleum gas storage	Language describing the LP gas storage systems covered by this section (container, regulators, piping and all components upstream to the point of delivery) has been deleted.
§	§	401.9	Identification	New section requiring manufacturer identification on each length of pipe and tubing and each fitting, utilized in a fuel gas system. New exception added requiring the manufacturer identification for fitting and pipe nipples to be on each piece or on packaging
§	§	401.10	Third-party testing and certification	New section requiring piping, tubing and fittings to be tested by an approved third-party testing agency or certified by and approved third-party certification agency – was reserved.
§	§	404.1	Installation of materials	New section requiring installation compliance in accordance with the applicable referenced standards or the manufacturer's installation instructions where specific standards do not exist. Language added clarifying that the provisions of the code apply where they differ from the manufacturer's installation instructions.
402.2	Maximum gas demand	402.2	Maximum gas demand	Revised for clarity.
403.6	Plastic pipe, tubing and fittings	403.6	Plastic pipe, tubing and fittings	Requires Polyethylene plastic pipe, tubing and fittings for fuel gas to conform the 2009 edition of ASTM D 2513. Plastic other than

				polyethylene plastic pipe is required to conform to the 2008 edition of ASTM D 2513.
-	-	404.2	CSST	New section requiring CSST piping systems to be installed in accordance with the terms of their approval, conditions of the listing, manufacturer's installation instructions, and the code.
411.1.7	Outdoor appliance connectors	-	-	Section permitting outdoor gas hose connectors to be connected to portable outdoor gas-fired equipment has been deleted.
404.16	Prohibited devices	404.18	Prohibited devices	New exception added to clarify that approved EFV (excessive flow valves) are allowed where the gas piping system has been sized to accommodate its pressure drop.
-	-	406.1.6	Pipe clearing	New section requiring the interior of the pipe to be cleared of foreign material prior to testing.
406.6.4	Placing appliances and equipment in operation	406.6.4	Placing appliances and equipment in operation	Revised to clarify that the connections to the appliances also have to be checked for leakage.
406.7	Purging	406.7	Purging	Entire section on purging has been significantly revised and update.
408.4	Sediment trap	408.4	Sediment trap	New figure is added to provide a graphic illustration of how a sediment trap should be constructed. New language adds decorative vented appliances for installation in vented fireplaces and gas fire places to the exemption list of appliances that do not need to be equipped with a sediment trap
Table 409.1.1	Manual Gas Valve Standards	Table 409.1.1	Manual Gas Valve Standards	Standard CSA Requirement 3-88 has been removed as a recognized standard from the table in favor of the ASME B16.44 standard.
-	-	410.4	Excess flow valves	New section adds new installation and safety requirements for excess flow valves from the National Fuel Gas Code.
-	-	410.5	Flashback arrestor check valve	New section adds requirements for flashback arrestor valves to be installed where fuel gas is used with oxygen in an hot work operation.
<b>Chapter 5: Chimneys and Vents</b>				
503.1	General (venting of appliances)	503.1	General (venting of appliances)	Revised to simply state that the venting of appliances is to be in accordance with Section

				503.2 through 503.16.
503.8	Venting system termination location	503.8	Venting system termination location	New language refers to new Appendix C for information on exit terminals of mechanical draft and direct-vent venting systems.
503.10.6	Flow resistance	-	-	Section deleted.
503.10.14	Passage through ceilings, floors or walls	503.10.13	Passage through ceilings, floors or walls	Reference to Section 503.10.15 for passage or single-wall metal pipe connectors through partitions has been deleted.
504.2.9	Chimney and vent locations	504.2.9	Chimney and vent locations	New language requiring the vent to be enclosed for vents not considered to be exposed to the outdoor or engineered when the vent extends outdoors above the roof more 5 feet higher than required by Figure 503.6.4 and terminating in accordance with Section 503.6.4.
-	-	504.2.17	Height entries	New section allowing interpolation of height entries in Tables 504.2(1) and 504.2(2). If interpolation is not used, lower values are to be used for FAN MAX and NAT MAX and higher values are to be used for FAN MIN.
504.3.20	Chimney and vent locations	504.3.20	Chimney and vent locations	New language requiring the vent to be enclosed for vents not considered to be exposed to the outdoor or engineered when the vent extends outdoors above the roof more 5 feet higher than required by Figure 503.6.4 and terminating in accordance with Section 503.6.4.
-	-	504.3.24	Height entries	New section allowing interpolation of height entries in Tables 504.3(1) and 504.3(2). If interpolation is not used, lower values are to be used for FAN MAX and NAT MAX and higher values are to be used for FAN MIN.
<b>Chapter 6: Specific Appliances</b>				
-	-	615	Sauna heaters	New section providing installation criteria for sauna heaters.
618.4	Circulating air ducts for forced-air warm-air furnaces	-	-	Section 618.4 is deleted because it is already covered in Section 618.7. Section 618.7 is preferred because it provides a clearer description of the type of installation where ducts are required for safety and efficiency.

618.5	Prohibited sources	618.4	Prohibited sources	Section revised to allow mechanical rooms to be used as plenums. New language allows forced air systems serving only a garage to obtain return air from the garage.
630.1	General – infrared radiant heaters	630.1	General – infrared radiant heaters	The test standard for infrared radiant heaters has been changed from ANSI Z83.6 to ANSI Z83.19 or Z83.20 as requirements for infrared radiant are now covered in these new standards.
-	-	636	Outdoor decorative appliances	New section requiring permanently fixed-in-place outdoor decorative appliances to be tested in accordance with ANSI Z21.97 and installed in accordance with the manufacturer's installation instruction.
<b>Chapter 7: Gaseous Hydrogen Systems</b>				
703.1	Hydrogen-generating and refueling operations	703.1	Hydrogen-generating and refueling operations	New language added requiring hydrogen-generating and refueling appliances to be installed and located in accordance with their listing and the manufacturer's installation instructions.
<b>Appendix C</b>				
-	-	Appendix C	Exit Terminals of Mechanical Draft and Direct-Vent Venting Systems	New appendix provides an illustrative depiction of the code requirements for exit terminals of mechanical draft and direct-vent venting systems.
<b>Appendix D</b>				
-	-	Appendix D	Recommended Procedure for Safety Inspection of an Existing Appliance Installation	New appendix providing guidelines for determining that an appliance is properly installed and is in a safe condition for continuing use.