## FUEL GAS CODE <u>Update to Model Code</u> FOR INCLUSION IN THE 2007 Edition of the FLORIDA BUILDING CODE

IPC '06	FBC '04	TAC Action
	Sections to be revised or added.	
GENERAL: Wherever the following references are used, they         shall be replaced with FL specific reference:         International Building Code         International Fuel Gas Code         International Fire Code         No overlap = language has NOT been changed         Overlap = Means I-06 language HAS been changed         NA       = Means language in a section is Not Applicable	Florida Building Code, Building Florida Building Code, Fuel Gas Florida Fire Prevention Code	
	CHAPTER 2 DEFINITIONS	
<ul> <li>201.4 Terms not defined. Where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the contest implies.</li> <li>202 DESIGN FLOOD ELEVATION. FLOOD HAZARD AREA. REGULATOR.</li> </ul>	<ul> <li>201.4 Terms not defined. Where terms are not defined through the methods authorized by this section, such terms shall have the meanings as defined in Webster's <i>Third New International Dictionary of the English Language Unabridged</i>.</li> <li>202</li> <li>DESIGN FLOOD ELEVATION. Reserved.</li> <li>FLOOD HAZARD AREA. Reserved.</li> <li>REGULATOR. A device for controlling and maintaining a uniform gas supply pressure,</li> </ul>	No overlap. Move FL specific reqt
RISER, GAS.	either pounds to pounds, pounds-to-inches water column or inches-to-inches water column (appliance regulator). <b>RISER, GAS.</b> A vertical pipe supplying fuel gas to a meter assembly or a pressure regulator.	
NA	UTILITY GASES. Natural gas, manufactured gas, liquefied petroleum gas-air mixture or mixtures of any of these gases.	
CHAPTER 3 GENERAL REGULATION		

IPC '06	FBC '04	
	Sections to be revised or added.	
<ul> <li>301.1 Scope. This chapter shall govern the approval and installation of all equipment and appliances that comprise parts of the installations regulated by this code in accordance with Section 101.2.</li> <li>301.1.1 Other fuels. The requirements for combustion and dilution air for gas-fired appliances shall be governed by Section 304. The requirements for combustion and dilution air for appliances operating with fuels other than fuel gas shall be regulated by the <i>International Mechanical Code</i>.</li> <li>Plumbing TAC Base Code Modifications 2004</li> </ul>	<ul> <li>301.1 Scope. This chapter shall govern the approval and installation of all equipment and appliances that comprise parts of the installations regulated by this code in accordance with Section 301.1.1.</li> <li>301.1.1 This code shall apply to the installation of fuel gas piping systems, fuel gas utilization equipment, and related accessories as follows: <ol> <li>Coverage of piping systems shall extend from the point of delivery to the connections with gas utilization equipment (see "Point of delivery").</li> <li>Systems with an operating pressure of 125 psig (862 kPa gauge) or less.</li> <li>Piping systems for gas-air mixtures within the flammable range with an operating pressure of 10 psig (69 kPa gauge).</li> <li>LP-gas piping systems with an operating pressure of 20 psig (140 kPa) or less.</li> <li>Piping systems requirements shall include design, materials, components, fabrication, assembly, installation, testing, inspection, operation and maintenance.</li> <li>Requirements for gas utilization equipment and related accessories shall include installation, combustion and ventilation air and venting.</li> <li>This code shall not apply to the following:</li> <li>Portable LP-gas equipment of all types that are not connected to a fixed fuel piping system.</li> <li>Installation of farm equipment such as brooders, dehydrators, dryers and irrigation equipmet 3. Raw material (feedstock) applications except for piping to special atmosphere generators.</li> <li>Oxygen, ammonia, carbon monoxide, oxygen and nitrogen.</li> <li>Petroleum refineries, pipeline compressor or pumping stations, loading terminals, compounding plants, refinery tank farms and natural gas processing plants.</li> <li>They aga siphing in power and atomic energy plants.</li> <li>Pipag as spling in power and atomic energy plants.</li> <li>Pipage and altify as applications at utility gas plants.</li> <li>Lipuefied natural gas (LNG) installations.</li> <li>Fuergated chemical plants or portions of such plants where flammable or combustible liquid</li></ol></li></ul>	No overlap Move FL specific reqt

IPC '06	FBC '04	
	Sections to be revised or added.	
<ul> <li>301.7 Fuel types. Appliances shall be designed for use with the type of fuel gas that will be supplied to them.</li> <li>301.7.1 Appliance fuel conversion. Appliances shall not be converted to utilize a different fuel gas except where complete instructions for such conversion are provided in the installation instructions, by the serving gas supplier or by the appliance manufacturer.</li> </ul>	<b>301.7 Fuel types.</b> Fuel-fired appliances shall be designed for use with the type of fuel gas to which they will be connected and the altitude at which they are installed. Appliances that comprise parts of the installation shall not be converted for the usage of a different fuel, except where approved and converted in accordance with the manufacturer's instructions or the serving gas supplier. The fuel gas input rate shall not be increased or decreased beyond the limit rating for the altitude at which the appliance is installed.	Overlap exists. Needs resolution.
<b>304.10 Louvers and grilles.</b> The required size of openings for combustion, ventilation and dilution air shall be based on the net free area of each opening. Where the free area through a design of louver, grille or screen is known, it shall be used in calculating the size opening required to provide the free area specified. Where the design and free area of louvers and grilles are not known, it shall be assumed that wood louvers will have 25-percent free area and metal louvers and grilles will have 75-percent free area. Screens shall have a mesh size not smaller than 1/4 inch (6.4 mm). Nonmotorized louvers shall be fixed in the open position. Motorized louvers shall be interlocked with the appliance so that they are proven to be in the full open position prior to main burner ignition and during main burner operation. Means shall be provided to prevent the main burner from igniting if the louvers fail to open during burner start-up and to shut down the main burner if the louvers close during operation.	<b>304.10 Louvers and grilles.</b> The required size of openings for combustion, ventilation and dilution air shall be based on the net free area of each opening. Where the free area through a design of louver, grille or screen is known, it shall be used in calculating the size opening required to provide the free area specified. Where the design and free area of louvers and grilles are not known, it shall be assumed that wood louvers will have 25-percent free area and metal louvers and grilles will have 75-percent free area. Screens shall have a mesh size not smaller than <sup>1</sup> / <sub>4</sub> inch. Nonmotorized louvers and grilles shall be fixed in the open position. Motorized louvers shall be interlocked with the equipment so that they are proven to be in the full open position prior to main burner ignition and during main burner operation. Means shall be provided to shut down the main burner if the louvers close during operation.	No overlap. Move FL specific reqt
<b>305.4 Public garages.</b> Appliances located in public garages, motor fuel-dispensing facilities, repair garages or other areas frequented by motor vehicles shall be installed a minimum of 8 feet (2438 mm) above the floor. Where motor vehicles exceed 6 feet (1829 mm) in height and are capable of passing under an appliance, appliances shall be installed a minimum of 2 feet (610 mm) higher above the floor than the height of the tallest vehicle. <b>Exception:</b> The requirements of this section shall not apply where the appliances are protected from motor vehicle impact and installed in accordance with Section 305.3 and NFPA 30A.	<b>305.4 Public garages/parking structures.</b> Appliances shall be installed in accordance with the manufacturer's instructions and NFPA 88B.	Overlap exists. Needs resolution.
305.5 Private garages.	305.5 Private garages. Reserved	No overlap. Use FL specific reqt.

**IPC '06 FBC '04 TAC** Action Sections to be revised or added. [M] 306.3 Appliances in attics. Attics containing appliances 306.3 Appliances in attics. [Same as IFGC '06. Should be same as FBC-M:] Overlap should exist. requiring access shall be provided with an opening and M306.3 Appliances in attics. Attics containing appliances requiring access shall be unobstructed passageway large enough to allow removal of the provided with an opening and unobstructed passageway large enough to allow removal of FL specific largest component of the appliance. The passageway shall not be the largest appliance. The passageway shall not be less than 30 inches (762 mm) high and criteria for less than 30 inches (762 mm) high and 22 inches (559 mm) wide 22 inches (559 mm) wide and not more than 6 feet (1829 mm) in length measured along the appliances and not more than 20 feet (6096 mm) in length when measured centerline of the passageway from the attic access opening to the appliance's service panel. in attics along the centerline of the passageway from the opening to the The passageway shall have continuous solid flooring not less than 24 inches (610 mm) wide. should be equipment. The passageway shall have continuous solid flooring A level service space not less than 30 inches (762 mm) deep and 30 inches (762 mm) wide replicated not less than 24 inches (610 mm) wide. A level service space not shall be present at the front or service side of the appliance. The clear access opening here from less than 30 inches (762 mm)deep and 30 inches (762 mm) wide dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), where such the mechdimensions are large enough to allow removal of the largest appliance. shall be present at the front or service side of the equipment. The anical code. clear access opening dimensions shall be a minimum of 20 inches **Exception:** The passageway and level service space are not required where the appliance This issue is capable of being serviced and removed through the required opening. by 30 inches (508 mm by 762 mm), where such dimensions are was large enough to allow removal of the largest component of the **306.3.1 Electrical requirements.** A lighting fixture with receptacle outlet, controlled by a determined appliance. switch located at the passageway opening, shall be provided so as to light the passageway bv an **Exceptions:** and service area and installed in accordance with Chapter 27 of the Florida Building Code. administrat 1. The passageway and level service space are not required Building. ive legal where the appliance is capable of being serviced and removed **306.3.2 Air-handling units.** Air-handling units shall be allowed in residential attics if the challenge in through the required opening. following conditions are met: 2001. Staff 2. Where the passageway is not less than 6 feet (1829 mm) 1. The service panel of the equipment is located within 6 feet (1829 mm) feet of an attic will submit high for its entire length, the passageway shall be not greater access. a code than 50 feet (15 250 mm) in length. 2. A device is installed to alert the owner or shut the unit down when the condensation drain change to **306.3.1 Electrical requirements.** A luminaire controlled by a is not working properly. address this 3. The attic access opening is of sufficient size to replace the air handler. switch located at the required passageway opening and a issue. receptacle outlet shall be provided at or near the equipment 4. A notice is posted on the electric service panel indicating to the homeowner that the air location in accordance with the ICC *Electrical Code*. handler is located in the attic. Said notice shall be in all capitals, in 16-point type, with the title and first paragraph in bold: NOTICE TO HOMEOWNER A PART OF YOUR AIR-CONDITIONING SYSTEM, THE AIR HANDLER, IS LOCATED IN THE ATTIC. FOR PROPER, EFFICIENT, AND ECONOMIC **OPERATION OF THE AIR-CONDITIONING SYSTEM, YOU MUST ENSURE THAT** REGULAR MAINTENANCE IS PERFORMED. YOUR AIR-CONDITIONING SYSTEM IS EQUIPPED WITH ONE OR BOTH OF THE FOLLOWING: 1) A DEVICE THAT WILL ALERT YOU WHEN THE CONDENSATION DRAIN IS NOT WORKING PROPERLY, OR 2) A DEVICE THAT WILL SHUT THE SYSTEM DOWN WHEN THE CONDENSATION DRAIN IS NOT WORKING. TO LIMIT POTENTIAL DAMAGE TO YOUR HOME, AND TO AVOID DISRUPTION OF SERVICE, IT IS RECOMMENDED THAT YOU ENSURE PROPER WORKING ORDER OF THESE DEVICES BEFORE EACH SEASON OF PEAK OPERATION.

IPC '06		
	FBC '04	
	Sections to be revised or added.	
309.1 Grounding.	<b>309.1 Grounding.</b> Each above-ground portion of a gas piping system upstream from the	No overlap.
	equipment shutoff valve shall be electrically continuous and bonded to any grounding	Move FL
	electrode, as defined by Chapter 27 of the Florida Building Code, Building.	specific reqt
401.2 Liquefied petroleum gas storage.	401.2 Liquefied petroleum gas storage. The storage system (container, regulators, piping	No overlap.
	and all components upstream to the point of delivery) for liquefied petroleum gas shall be	Move FL
	designed and installed in accordance with the <i>Florida Fire Prevention Code</i> and NFPA 58.	specific reqt
401.5 Identification. For other than steel pipe, exposed piping	401.5 Identification.	Overlap
shall be identified by a yellow label marked "Gas" in black letters.	For other than black steel pipe, exposed gas piping shall be identified by a yellow label	exists.
The marking shall be spaced at intervals not exceeding 5 feet	marked "Gas" in black letters. The marking shall be spaced at intervals not exceeding 5 feet	Needs
(1524 mm). The marking shall not be required on pipe located in	(1524 mm). The marking shall not be required on pipe located in the same room as the	resolution.
the same room as the equipment served.	equipment served.	
	<b>Exception:</b> This section shall only apply where other similar piping or tubing in the	
	same general area as the gas lines, containing a different medium, could be confused	
	with the gas lines.	
404.14.3 Tracer.	<b>404.14.3 Tracer.</b> An insulated copper tracer wire or other approved conductor shall be	No overlap.
	installed adjacent to underground nonmetallic gas piping. Access shall be provided to the	Move FL
	tracer wire or the tracer wire shall terminate above ground at each end of the nonmetallic gas	specific reqt
	piping. The tracer wire size shall not be less than 18 AWG and the insulation type shall be	
	suitable for direct burial.	
406.3.4 Valve isolation.	406.3.4 Valve isolation.	Overlap
Where the piping system is connected to appliances or equipment	Where the piping system is connected to equipment or components designed for operating	exists.
designed for operating pressures equal to or greater than the test	pressures of less than the test pressure, such equipment or components shall be isolated from	Needs
pressure, such appliances or equipment shall be isolated from the	the piping system by disconnecting them and plugging or capping the outlet(s).	resolution
piping system by closing the individual appliance or equipment		
snuton valve(s).		N 1.
400.7.4 Flacing appliances and equipment in operation.	400.7.4 Placing equipment in operation.	No overlap.
	After the piping has been placed in operation, all equipment shall be placed in operation per	MOVE FL
	its listing and the manufacturer's instructions.	specific reqt

411.1.3 Connector installation. Appliance fuel connectors shall	411.1.4 Outdoor appliance connectors.	Overlap
be installed in accordance with the manufacturer's instructions and	Outdoor gas hose connectors are permitted to connect portable outdoor gas-fired equipment.	exists.
Sections 411.1.3.1 through 411.1.3.4.	An equipment shutoff valve, a listed quick-disconnect device, or a listed gas convenience	Major
411.1.3.1 Maximum length. Connectors shall have an overall	outlet shall be installed where the connector is attached to the supply piping and in such a	changes
length not to exceed 3 feet (914 mm), except for range and	manner as to prevent the accumulation of foreign matter. Lengths shall not exceed 12 feet	made to
domestic clothes dryer connectors, which shall not exceed 6 feet	(3658 mm) and the connection shall only be made in the outdoor area where the equipment	sec. 411.1.
(1829 mm) in overall length. Measurement shall be made along	is to be used.	Needs
the centerline of the connector. Only one connector shall be used		resolution
for each appliance.		
<b>Exception:</b> Rigid metallic piping used to connect an appliance to		
the piping system shall be permitted to have a total length greater		
than 3 feet (914 mm), provided that the connecting pipe is sized as		
part of the piping system in accordance with Section 402 and the		
location of the equipment shutoff valve complies with Section		
<mark>409.5.</mark>		
411.1.3.2 Minimum size. Connectors shall have the capacity for		
the total demand of the connected appliance.		
411.1.3.3 Prohibited locations and penetrations. Connectors		
shall not be concealed within, or extended through, walls, floors,		
partitions, ceilings or appliance housings.		
Exception: Fireplace inserts that are factory equipped with		
grommets, sleeves or other means of protection in accordance with		
the listing of the appliance.		
<b>411.1.3.4 Shutoff valve.</b> A shutoff valve not less than the nominal		
size of the connector shall be installed ahead of the connector in		
accordance with Section 409.5.		
<b>411.1.4 Movable appliances.</b> Where appliances are equipped with		
casters or are otherwise subject to periodic movement or relocation		
for purposes such as routine cleaning and maintenance, such		
appliances shall be connected to the supply system piping by		
means of an approved flexible connector designed and labeled for		
the application. Such flexible connectors shall be installed and		
protected against physical damage in accordance with the		
manufacturer's installation instructions.		
<b>503.8 Venting system termination location.</b> The location of	<b>503.8 Venting system termination location.</b> The location of venting system terminations	No overlap.
venting system terminations shall comply with the following (see	shall comply with the following:	Use FL
Appendix C):	[1. – 4. No change]	specific reqt.
SECTION 615 (IFGC) SAUNA HEATERS	SECTION 615. RESERVED	No overlap
		Move FL
		specific reqt

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	CHAPTER 8 REFERENCED STANDARDS			
ASME	ASME	American Society of Mechanical Engineers		
		Three Park Avenue		
		New York, NY 10016-5990		
	Standard		Referenced in code	
	reference num	ber Title	section number	
B31.3—99	B31.3— <mark>02</mark>	Process Piping	704.1.2, 705.2, 705.3	
CSD-1—02	CSD-1-02	Controls and Safety Devices for Automatically Fired Boilers	631.1	
ASTM	ASTM	ASTM International		
		100 Barr Harbor Drive		
		West Conshohocken, PA 19428		
	Standard		Referenced in code	
	reference num	ber Title	section number	
A 53/A 53M—02	A 53/A 53M—	-02 Specification for Pipe, Steel, Black and Hot Dipped Zinc-Coated Welded		
		and Seamless	403.4.2	
B 88— <mark>03</mark>	B 88—02	Specification for Seamless Copper Water Tube	403.5.2	
B 280- <mark>03</mark>	B 280—99el	Specification for Seamless Copper Tube for Air Conditioning and Refrigeration	on Field Service 403.5.2	
C 315—02	C 315—02	Specification for Clay Flue Linings	501.12	

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NA	Florida Codes	Florida Building Commission	No overlap.
		c/o Florida Department of Community Affairs	Move FL
		Building Codes and Standards	specific reqt
		2555 Shumard Oak Boulevard	
		Tallahassee, FL 32399-2100	
	Standard	Referenced in code	
	reference number	r Title section number	
	FBC-B-04	Florida Building Code, Building 101.1, 201.3, 301.14, 302.1, 302.2, 305.6, 306.6, 401.1.1,	
		412.6, 413.3, 413.3.1, 501.1, 501.3, 501.12, 501.15.4, 609.3, 614.2, 706.1, 706.3	
	Chapter 13	Florida Building Code, Building: Energy Efficiency	
	301.2		
	Chapter 27	Florida Building Code, Building: Electrical (NEC/NFPA 70) 201.3, 306.3.1, 306.4.1, 306.5.2,	
	-	309.1, 309.2, 413.8.2.4, 703.6, 706.3.6,	
	FBC-M-04	Elorida Building Code Mechanical 2013 301 10 301 13 304 11 501 1 614 2 618 5 621 1	
	TDC M 04	624.1, 631.2, 632.1, 703.1.2, 706.3.2	
	FBC-P—04	Florida Building Code, Plumbing 201.3, 301.6, 624.1.1, 624.2	
	FRC—04	Florida Residential Code 703.2.1	
	EEDC 04	Elected Fire Descention Code $2012,2024,4010,4101,4104,4107,4107,2,410,9,4121,4122$	
	FFPC—04	Fiorida Fire Prevention Code 201.5, 505.4, 401.2, 412.1, 412.0, 412.7, 412.7, 5, 412.8, 415.1, 415.5,	
		415.5.1, 415.4, 415.6.2.5, 701.1, 701.2, 705.2, 705.2.2, 705.5.6, 705.4, 703.5, 704.1, 2, 704.2, 704.4, 706.2, 706.3, 4, 706.2, 5, 707.1, 707.2, 708.1	
NEDA	NEDA Noti	705.5, 704.1.2, 704.5, 704.4, 700.2, 700.5.4, 700.5.5, 707.1, 707.2, 708.1	
NFFA	INFFA INAU	onal FIFE Fronceuon Association	
	Qui	Referenced in code	
	reference number	r Title section number	
37-02	37_02 Inst	allation and Use of Stationary Combustion Engines and Gas Turbines 616.1	
	57 02 Illst	anation and ese of building combustion Engines and Oas furbilies 010.1	
51—02	51—02 Des	ign and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting, and Allied Processes 414.1	
211-03	211—03 Chin	mneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances 503.5.2, 503.5.3, 503.5.6.1, 503.5.6.3	

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UL	UL Und	lerwriters Laboratories, Inc.		Overlap
	333	Pfingsten Road		exists.
	Nor	thbrook, IL 60062		Needs
	Standard		Referenced in code	resolution.
	reference num	ber Title	section number	
103-01	103—01	Factory-Built Chimneys, for Residential Type and Building Heating Appliance	ces 506.1	
441-96	441—96	Gas Vents—with Revisions through December 1999	502.1	
795-99	795—01	Commercial-Industrial Gas Heating Equipment	610.1, 618.1, 631.1	
1777- <mark>04</mark>	1777—98	Chimney Liners—with Revisions through August 1998	501.12, 501.15.4	