

2024 International Fuel Gas Code comparison to 2018 edition			
Code Sec (new)	Description	Existing Code Language	New Code Language
202 - Definitions	Peer review	(new)	An independent and objective technical review conducted by an approved third party.
202 - Definitions	Point of delivery	For natural gas systems, the point of delivery is the outlet of the service meter assembly or the outlet of the service regulator or service shutoff valve where a meter is not provided. Where a valve is provided at the outlet of the service meter assembly, such valve shall be considered to be downstream of the point of delivery. For undiluted liquefied petroleum gas systems, the point of delivery shall be considered to be the outlet of the service pressure regulator, exclusive of line gas regulators, in the system.	For natural gas systems, the point of delivery is the outlet of the service meter assembly or the outlet of the service regulator or service shutoff valve where a meter is not provided. Where a system shutoff valve is provided after the outlet of the service meter assembly, such valve shall be considered to be downstream of the point of delivery. For undiluted liquefied petroleum gas systems, the point of delivery shall be considered to be the outlet of the service pressure regulator, exclusive of line gas regulators, in the system.
202 - Definitions	Press-connect joint	(new)	A permanent mechanical joint incorporating an elastomeric seal or an elastomeric seal and corrosion-resistant grip or bite ring. The joint is made with a pressing tool and jaw or ring approved by the fitting manufacturer.
202 - Definitions	Regulator, monitoring	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.	A pressure regulator set in series with another pressure regulator for the purpose of preventing an overpressure in the downstream piping system.
202 - Definitions	Service meter assembly	(new)	The meter, valve, regulator, piping, fittings and equipment installed by the service gas supplier before the point of delivery.
202 - Definitions	System shutoff	(new)	A valve installed after the point of delivery to shut off the entire piping system.
303.3.1	Fireplaces and decorative appliances in Group I-2 occupancies	Gas fireplace appliances and decorative gas appliances shall be prohibited in Group I-2, Condition 2 occupancies except where such appliances are direct-vent appliances installed in public lobby and waiting areas that are not within smoke compartments containing patient sleeping areas. The appliance controls shall be located where they can be accessed only by facility staff. Such fireplaces shall comply with Sections 501.2 and 604.1 and Section 915 of the International Fire Code.	In Group I-2, Condition 2 occupancies, gas fireplace appliances and decorative gas appliances shall be prohibited except where such appliances are direct-vent appliances installed in public lobby and waiting areas that are not within smoke compartments containing patient sleeping areas. In Group I-2, Condition 1 occupancies, gas fireplace appliances and decorative gas appliances shall be prohibited in patient sleeping rooms. In Group I-2 occupancies, the appliance controls shall be located where they can be accessed only by facility staff. Such fireplaces shall comply with Sections 501.2 and 604.1 of this code and Section 915 of the International Fire Code.
304.1	Combustion, ventilation and dilution air - General	Air for combustion, ventilation and dilution of flue gases for appliances installed in buildings shall be provided by application of one of the methods prescribed in Sections 304.5 through 304.9. Where the requirements of Section 304.5 are not met, outdoor air shall be introduced in accordance with one of the methods prescribed in Sections 304.6 through 304.9. Direct-vent appliances, gas appliances of other than natural draft design, vented gas appliances not designated as Category I and appliances equipped with power burners shall be provided with combustion, ventilation and dilution air in accordance with the appliance manufacturer’s instructions. Exception: Type 1 clothes dryers that are provided with makeup air in accordance with Section 614.6.	Where chemicals that generate corrosive or flammable products such as aerosol sprays are routinely used, one of the following shall apply to fired appliances where these chemicals can enter combustion air: 1.Fired appliances shall be located in a mechanical room separate or partitioned off from other areas with provisions for combustion and dilution air from outdoors. 2.The appliances shall be direct vent and installed in accordance with the appliance manufacturer’s installation instructions.
304.8	Engineered installations	Engineered combustion air installations shall provide an adequate supply of combustion, ventilation and dilution air and shall be approved.	Engineered combustion air installations shall provide an adequate supply of combustion, ventilation and dilution air determined using engineering methods.

304.12	Protection from fumes and gases	<p>Where corrosive or flammable process fumes or gases, other than products of combustion, are present, means for the disposal of such fumes or gases shall be provided. Such fumes or gases include carbon monoxide, hydrogen sulfide, ammonia, chlorine and halogenated hydrocarbons.</p> <p>In barbershops, beauty shops and other facilities where chemicals that generate corrosive or flammable products, such as aerosol sprays, are routinely used, nondirect vent-type appliances shall be located in a mechanical room separated or partitioned off from other areas with provisions for combustion air and dilution air from the outdoors. Direct-vent appliances shall be installed in accordance with the appliance manufacturer's instructions.</p>	<p>Where chemicals that generate corrosive or flammable products such as aerosol sprays are routinely used, one of the following shall apply to fired appliances where these chemicals can enter combustion air:</p> <p>1.Fired appliances shall be located in a mechanical room separate or partitioned off from other areas with provisions for combustion and dilution air from outdoors.</p> <p>2.The appliances shall be direct vent and installed in accordance with the appliance manufacturer's installation instructions.</p>
306.5	Equipment and appliances on roofs or elevated structures	<p>Permanent ladders installed to provide the required access shall comply with the following minimum design criteria:</p> <p>1.The side railing shall extend above the parapet or roof edge not less than 30 inches (762 mm).</p> <p>2.Ladders shall have rung spacing not to exceed 14 inches (356 mm) on center. The upper-most rung shall be not more than 24 inches (610 mm) below the upper edge of the roof hatch, roof or parapet, as applicable.</p> <p>3.Ladders shall have a toe spacing not less than 6 inches (152 mm) deep.</p> <p>4.There shall be not less than 18 inches (457 mm) between rails.</p> <p>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.</p> <p>6....</p> <p>7....</p> <p>8.Landing required. The ladder shall be provided with a clear and unobstructed bottom landing area having a minimum dimension of 30 inches by 30 inches (762 mm by 762 mm) centered in front of the ladder.</p> <p>9.Ladders shall be protected against corrosion by approved means.</p> <p>10.Access to ladders shall be provided at all times.</p> <p>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.</p> <p>Exception: This section shall not apply to Group R-3 occupancies.</p>	<p>Permanent ladders installed to provide the required access shall comply with the following minimum design criteria:</p> <p>1.The side railing shall extend above the parapet, roof edge or landing platform not less than 42 inches (1067 mm).</p> <p>2.Ladders shall have rung spacing not less than 10 inches (254 mm) and not to exceed 14 inches (356 mm) on center. The upper-most rung shall be not more than 24 inches (610 mm) below the upper edge of the roof hatch, roof or parapet, as applicable.</p> <p>3.Ladders shall have a toe spacing not less than 7 inches (178 mm) and not more than 12 inches (305 mm) deep.</p> <p>4.There shall be not less than 16 inches (406 mm) between rails.</p> <p>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.</p> <p>6...</p> <p>7....</p> <p>8.Landing required. The ladder shall be provided with a clear and unobstructed bottom landing area having a minimum dimension of 30 inches by 30 inches (762 mm by 762 mm) centered in front of the ladder.</p> <p>9.Ladders shall be protected against corrosion by approved means.</p> <p>10.Access to ladders shall be provided at all times.</p> <p>11.Top landing required. The ladder shall be provided with a clear and unobstructed landing on the exit side of the roof hatch having a minimum space of 30 inches (762 mm) deep and be of the same width as the hatch.</p> <p>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.</p> <p>Exception: This section shall not apply to Group R-3 occupancies.</p>
306.6	Guards	<p>Guards shall be provided where various components that require service and roof hatch openings are located within 10 feet (3048 mm) of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches (762 mm) above the floor, roof, or grade below. The guard shall extend not less than 30 inches (762 mm) beyond each end of components that require service. The top of the guard shall be located not less than 42 inches (1067 mm) above the elevated surface adjacent to the guard. The guard 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 International Building Code.</p>	<p>Guards shall be provided where various components that require service and roof hatch openings are located within 10 feet (3048 mm) of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches (762 mm) above the floor, roof, or grade below. The guard shall extend not less than 30 inches (762 mm) beyond each end of components that require service and each end of the roof hatch parallel to the roof edge. The top of the guard shall be located not less than 42 inches (1067 mm) above the elevated surface adjacent to the guard. The guard 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 International Building Code.</p>

307.2	Concealed Condensate Piping	Liquid combustion byproducts of condensing appliances shall be collected and discharged to an approved plumbing fixture or disposal area in accordance with the manufacturer's instructions. Condensate piping shall be of approved corrosion-resistant material and shall be not smaller than the drain connection on the appliance. Such piping shall maintain a minimum slope in the direction of discharge of not less than one-eighth unit vertical in 12 units horizontal (1-percent slope).	Liquid combustion byproducts of condensing appliances shall be collected and discharged to an approved plumbing fixture or disposal area in accordance with the manufacturer's instructions. Condensate piping shall be of approved corrosion-resistant material and shall be not smaller than the drain connection on the appliance. Such piping shall maintain a minimum slope in the direction of discharge of not less than 1/8 unit vertical in 12 units horizontal (1-percent slope). The termination of concealed condensate piping shall be marked to indicate whether the piping is connected to the primary drain or to the secondary drain.
307.3	Drain pipe materials and sizes	Components of the condensate disposal system shall be cast iron, galvanized steel, copper, 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 International Plumbing Code relative to the material type. Condensate waste and drain line size shall be not less than 3/4-inch (19 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 an approved method.	Components of the condensate disposal system shall be ABS, cast iron, copper and copper alloy, CPVC, cross-linked polyethylene, galvanized steel, PE-RT, polyethylene, polypropylene, PVC or PVDF 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 International Plumbing Code relative to the material type. Condensate waste and drain line size shall be not less than 3/4-inch (19 mm) pipe size 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 an approved method.
310.3	Arc-resistant CSST	This section applies to corrugated stainless steel tubing (CSST) that is listed with an arcresistant jacket or coating system in accordance with ANSI LC 1/CSA 6.26. The CSST shall be electrically continuous and bonded to an effective ground fault current path. Where any CSST component of a piping system does not have an arc-resistant jacket or coating system, the bonding requirements of Section 310.2 shall apply. Arc-resistant-jacketed CSST shall be considered to be bonded where it is connected to an appliance that is connected to the appliance grounding conductor of the circuit that supplies that appliance.	Corrugated stainless steel tubing (CSST) with an arc-resistant jacket or coating system shall be listed as arc resistant in accordance with ANSI LC 1/CSA 6.26. Arc-resistant-jacketed CSST shall be electrically continuous and bonded to an effective ground fault current path. Where any CSST used in a piping system does not have an arc-resistant jacket or coating system, the bonding requirements of Section 310.2 shall apply. Arc-resistant-jacketed CSST shall be considered to be bonded where it is connected to one or more appliances that are connected to the equipment grounding conductor of the circuit that supplies that appliance(s).
402.6	Allowable pressure drop	The design pressure loss in any piping system under maximum probable flow conditions, from the point of delivery to the inlet connection of the appliance, shall be such that the supply pressure at the appliance is greater than or equal to the minimum pressure required by the appliance.	The design pressure loss in a piping system, from the point of delivery to the inlet connection of all appliances served, shall be such that the supply pressure at each appliance inlet is greater than or equal to the minimum pressure required by the appliance.
402.7	Maximum operating pressure	(new option for press-connect joints)	2.The piping is joined by fittings listed to ANSI LC-4/CSA6.32 and installed in accordance with the manufacturer's instructions.
403.6	Workmanship and defects	Pipe, tubing and fittings shall be clear and free from cutting burrs and defects in structure or threading, and shall be thoroughly brushed, and chip and scale blown. Defects in pipe, tubing and fittings shall not be repaired. Defective pipe, tubing and fittings shall be replaced.	Gas pipe, tubing and fittings at the time of installation shall meet the following requirements: 1.Gas pipe, tubing and fittings shall be clear and free from cutting burrs and visible defects in structure or threading. 2.Gas pipe, tubing and fittings shall be thoroughly cleaned to remove chip, scale and debris. 3.Visible defects in pipe, tubing and fittings shall not be repaired. 4.Pipe, tubing and fittings with visible defects shall be replaced.
403.8.3	Threaded Joint Sealing	Thread joint compounds shall be resistant to the action of liquefied petroleum gas or to any other chemical constituents of the gases to be conducted through the piping.	Threaded joints shall be made using a thread joint sealing material. Thread joint sealing materials shall be nonhardening and shall be resistant to the chemical constituents of the gases to be conducted through the piping. Thread joint sealing materials shall be compatible with the pipe and fitting materials on which the sealing materials are used.

403.12	Flanges	Flanges and flange gaskets shall comply with Sections 403.12.1 through 403.12.7.	When flanges are separated and before gaskets are replaced, the following shall be met: 1.Flange faces shall be cleaned. 2.Flange surfaces shall be inspected for pitting, corrosion and other surface defects. 3.Flanges that contain pitting, corrosion and other surface defects on faces shall be repaired or replaced.
404.5	Fittings in Concealed Locations	Fittings installed in concealed locations shall be limited to the following types: 1.Threaded elbows, tees and couplings. 2.Brazed fittings. 3.Welded fittings. 4.Fittings listed to ANSI LC-1/CSA 6.26 or ANSI LC-4/CSA 6.32.	Fittings installed in concealed locations shall be limited to the following types: 1.Threaded elbows, tees, couplings, plugs and caps . 2.Brazed fittings. 3.Welded fittings. 4.Fittings listed to ANSI LC-1/CSA 6.26 or ANSI LC-4/CSA 6.32.
404.18	Pipe debris removal	The use of a flammable or combustible gas to clean or remove debris from a piping system shall be prohibited.	The interior of piping shall be clear of debris. The use of a flammable or combustible gas to clean or remove debris from a piping system shall be prohibited.
406.3.1	Abandoned fuel gas piping	(new)	Where fuel gas piping is removed from service for an indefinite time period, it shall be purged.
413.2.3	Residential fueling appliances	Residential fueling appliances shall be in accordance with Section 413.4.	Residential fueling appliances shall be listed to CSA/ANSI NGV 5.1. The capacity of a residential fueling appliance (RFA) shall not exceed 5 standard cubic feet per minute (0.14 standard cubic meter/min) of natural gas.
413.2.4	Nonresidential fueling appliances	(new)	Nonresidential fueling appliances shall be listed to CSA/ANSI NGV 5.2. The capacity of a nonresidential fueling appliance, listed to that standard as a vehicle fueling appliance (VFA), shall not exceed 10 standard cubic feet per minute (0.28 standard cubic meter/min of natural gas.
413.4	Residential fueling appliance installation	Residential fueling appliances shall be installed in accordance with Sections 413.4.1 through 413.4.3.	Residential fueling appliances shall be installed in accordance with the requirements of CSA/ANSI NGV 5.1, manufacturer installation instructions, and Section 2308 of the International Fire Code for RFAs.
413.5	Nonresidential fueling appliance installation	(new)	Nonresidential fueling appliances shall be installed in accordance with requirements for vehicle fueling appliances (VFA) in CSA/ANSI NGV 5.2, manufacturer installation instructions, and Section 2308 of the International Fire Code for VFAs.
503.2.3	Direct-vent appliances	Listed direct-vent appliances shall be installed in accordance with the manufacturer's instructions and Section 503.8, Item 3.	Listeddirect-vent appliances shall be installed in accordance with the manufacturer's instructions. Through-the-wall vent terminations for listed direct-vent appliancesshall be in accordance with Section 503.8.
503.2.5	Incinerators	Commercial-industrial-type incinerators shall be vented in accordance with NFPA 82.	Incinerators shall be vented in accordance with NFPA 82.
503.3.3	Mechanical draft systems	6. The exit terminals of mechanical draft systems shall be not less than 7 feet (2134 mm) above finished ground level where located adjacent to public walkways and shall be located as specified in Section 503.8, Items 1 and 2.	(deleted)

503.5.5	Size of chimneys	<p>The effective area of a chimney venting system serving listed appliances with draft hoods, Category I appliances and other appliances listed for use with Type B vents shall be determined in accordance with one of the following methods:</p> <ol style="list-style-type: none"> 1.The provisions of Section 504. 2.For sizing an individual chimney venting system for a single appliance with a draft hood, the effective areas of the vent connector and chimney flue shall be not less than the area of the appliance flue collar or draft hood outlet, nor greater than seven times the draft hood outlet area. 3.For sizing a chimney venting system connected to two appliances with draft hoods, the effective area of the chimney flue shall be not less than the area of the larger draft hood outlet plus 50 percent of the area of the smaller draft hood outlet, nor greater than seven times the smallest draft hood outlet area. 4.Chimney venting systems using mechanical draft shall be sized in accordance with approved engineering methods. 5.Other approved engineering methods. 	<p>The effective area of a chimney venting system serving listed appliances with draft hoods, Category I appliances and other appliances listed for use with Type B vents shall be determined in accordance with one of the following methods:</p> <ol style="list-style-type: none"> 1.The provisions of Section 504. 2.The effective areas of the vent connector and chimney flue of a venting system serving a single appliance with a draft hood shall be not less than the area of the appliance flue collar or draft hood outlet, nor greater than seven times the draft hood outlet area. 3.The effective area of the chimney flue or a venting system serving two appliances with draft hoods shall be not less than the area of the larger draft hood outlet plus 50 percent of the area of the smaller draft hood outlet, nor greater than seven times the smallest draft hood outlet area. 4.Chimney venting systems using mechanical draft shall be sized in accordance with engineering methods. 5.Other engineering methods.
503.5.6.1	Chimney Lining	<p>Chimneys shall be lined in accordance with NFPA 211. Exception: Where an existing chimney complies with Sections 503.5.6 through 503.5.6.3 and its sizing is in accordance with Section 503.5.5, its continued use shall be allowed where the appliance vented by such chimney is replaced by an appliance of similar type, input rating and efficiency.</p>	<p>(deleted) The exception for existing unlined chimneys to served vented appliances has been deleted.</p>
503.6.11	Gas vents serving appliances on more than one floor	<p>A common vent shall be permitted in multistory installations to vent Category I appliances located on more than one floor level, provided that the venting system is designed and installed in accordance with approved engineering methods. For the purpose of this section, crawl spaces, basements and attics shall be considered to be floor levels.</p>	<p>Where a common vent is installed in a multistory installation to vent Category I appliances located on more than one floor level, the venting system shall be designed and installed in accordance with approved engineering methods. For the purpose of this section, crawl spaces, basements and attics shall be considered to be floor levels.</p>
503.8	Venting System Terminal Clearances	<p>(relocated and reformatted into a table - no change)</p>	<p>through-wall vent terminal clearance distances moved to table 503.8 for organization and ease (no changes)</p>
503.10.3.2	Multiple draft hood	<p>For a single appliance having more than one draft hood outlet or flue collar, the manifold shall be constructed according to the instructions of the appliance manufacturer. Where there are no instructions, the manifold shall be designed and constructed in accordance with approved engineering practices. As an alternate method, the effective area of the manifold shall equal the combined area of the flue collars or draft hood outlets and the vent connectors shall have a minimum 1-foot (305 mm) rise.</p>	<p>Where a single appliance having more than one draft hood outlet or flue collar is installed, the manifold shall be constructed according to the instructions of the appliance manufacturer. Where there are no instructions, the manifold shall be designed and constructed in accordance with engineering methods. As an alternate method, the effective area of the manifold shall equal the combined area of the flue collars or draft hood outlets and the vent connectors shall have a rise of not less than 12 inches (305 mm).</p>
503.10.7	Vent Connector Junctions	<p>(new)</p>	<p>Where vent connectors are joined together, the connection shall be made with a tee or wye fitting.</p>
503.13.1	Balancing baffles	<p>(new)</p>	<p>Balancing baffles shall be listed in accordance with UL 378 and shall be mechanically locked in the desired position before placing the appliance in operation.</p>
614.4.1	Termination location~	<p>(new)</p>	<p>Exhaust duct terminations shall be in accordance with the dryer manufacturer's installation instructions. Where the manufacturer's instructions do not specify a termination location, the exhaust duct shall terminate not less than 3 feet (914 mm) in any direction from openings into buildings including openings in ventilated soffits.</p>
614.6	Booster fans prohibited	<p>(new)</p>	<p>Domestic booster fans shall not be installed in dryer exhaust systems.</p>

614.7	Clothes Dryer Makeup Air	Installations exhausting more than 200 cfm (0.09 m3/s) shall be provided with makeup air. Where a closet is designed for the installation of a clothes dryer, an opening having an area of not less than 100 square inches (645 mm2) for makeup air shall be provided in the closet enclosure, or makeup air shall be provided by other approved means.	Where a closet is designed for the installation of a clothes dryer, an opening having an area of not less than 100 square inches (645 mm2) for makeup air shall be provided in the closet enclosure, or makeup air shall be provided by other approved means.
618.6	Return Air from Mechanical Room	Where a furnace is installed so that supply ducts carry air circulated by the furnace to areas outside of the space containing the furnace, the return air shall be handled by a duct(s) sealed to the furnace casing and terminating outside of the space containing the furnace.	Where a furnace is installed so that supply ducts carry air circulated by the furnace to areas outside of the space containing the furnace, the return air shall be handled by a duct(s) sealed to the furnace casing and terminating outside of the space containing the furnace. Return air shall not be taken from the mechanical room containing the furnace.
623.2	Commercial Cooking Appliances	2.Where the installation is designed by a licensed Professional Engineer, in compliance with the manufacturer's installation instructions.	(exception deleted)