

ARTICLE 25. FUEL GAS CODE

Rule 1. Indiana Fuel Gas Code, 2003 Edition (Repealed)

(Repealed by Fire Prevention and Building Safety Commission; filed Mar 18, 2008, 2:32 p.m.: 20080423-IR-675070479FRA, eff 90 days after filing with the Publisher)

Rule 2. Indiana Fuel Gas Code, 2008 Edition

675 IAC 25-2-1 Adoption by reference

Authority: IC 22-13-2-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 1. (a) That certain document being titled the International Fuel Gas Code, 2006 Edition, first printing, as published by the International Code Council, Inc., 4051 West Flossmoor Road, Country Club Hills, Illinois 60478-5795, is hereby adopted by reference as if fully set out in this rule save and except those revisions made in this rule.

(b) This rule and incorporated documents therein are available to review and as reference at the Department of Homeland Security, Code Services Section, Indiana Government Center-South, 302 West Washington Street, Room W246, Indianapolis, Indiana 46204. *(Fire Prevention and Building Safety Commission; 675 IAC 25-2-1; filed Mar 18, 2008, 2:32 p.m.: 20080423-IR-675070479FRA, eff 90 days after filing with the Publisher)*

675 IAC 25-2-2 Chapter 1; administration

Authority: IC 22-13-2-2

Affected: IC 4-21.5; IC 4-22-7-7; IC 22-12-7; IC 22-13-2-7; IC 22-13-5; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 2. Amend Chapter 1 by deleting it in its entirety and substituting to read as follows:

Section 101 Application

101.1 Title

This rule shall be known as the Indiana Fuel Gas Code, 2008 Edition and shall be published, except incorporated documents, by the fire and building services department, for general distribution and use under that title. Wherever the term "this code" is used throughout this rule, it shall mean the Indiana Fuel Gas Code, 2007 Edition.

101.2 Scope

This code shall apply to the installation of fuel gas piping systems, fuel gas utilization equipment, and related accessories as follows:

1. Coverage of piping systems shall extend from the point of delivery to the connections with gas utilization equipment. (See "point of delivery.")

2. Systems with an operating pressure of one hundred twenty-five (125) psig (eight hundred sixty-two (862) kPa gauge) or less.

Piping systems for gas-air mixtures within the flammable range with an operating pressure of ten (10) psig (sixty-nine (69) kPa gauge).

LP-Gas piping systems with an operating pressure of twenty (20) psig (one hundred forty (140) kPa gauge) or less. For undiluted liquefied petroleum gas systems, the point of delivery shall be considered to be the outlet of the final pressure regulator, exclusive of the line gas regulators, in the system.

3. Piping systems requirements shall include design, materials, components, fabrication, assembly, installation, testing, inspection, operation, and maintenance.

4. Requirements for gas utilization equipment and related accessories shall include installation, combustion, and ventilation air and venting.

This code shall not apply to the following:

1. Portable LP-Gas equipment of all types that are not connected to a fixed fuel piping system.

2. Installation of farm equipment such as brooders, dehydrators, dryers, and irrigation equipment.

3. Raw material (feedstock) applications except for piping to special atmosphere generators.

4. Oxygen-fuel gas cutting and welding systems.

5. Industrial gas applications using gases, such as acetylene and acetylenic compounds, hydrogen, ammonia, carbon monoxide, oxygen, and nitrogen.

6. Petroleum refineries, pipeline compressor or pumping stations, loading terminals, compounding plants, refinery tank farms, and natural gas processing plants.
7. Integrated chemical plants or portions of such plants where flammable or combustible liquids or gases are produced by chemical reactions or used in chemical reactions.
8. LP-Gas installations.
9. Liquefied natural gas (LNG) installations.
10. Fuel gas piping in power and atomic energy plants.
11. Proprietary items of equipment, apparatus, or instruments such as gas generating sets, compressors, and calorimeters.
12. LP-Gas equipment for vaporization, gas mixing, and gas manufacturing.
13. Temporary LP-Gas piping for buildings under construction or renovation that is not to become part of the permanent piping system.
14. Installation of LP-Gas systems for railroad switch heating.
15. Installation of LP-Gas and compressed natural gas (CCNG) systems on vehicles.
16. Except as provided in Section 401.1.1, gas piping, meters, gas pressure regulators, and other appurtenances used by the serving gas supplier in the distribution of gas, other than undiluted LP-Gas.
17. Building design and construction, except as specified herein.

101.3 Appendices and Standards

Provisions in the appendices are not enforceable unless specifically adopted. The codes and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

Exception: Where enforcement of a code provision would violate the conditions of the listing, labeling, or manufacturer's installation instructions of the equipment or appliance, the conditions of the listing, labeling, or manufacturer's instructions shall apply.

101.4 Appeals and Interpretations

Appeals from orders issued by the Fire Prevention and Building Safety Commission, or the Division of Fire and Building Safety are governed by IC 4-21.5 and IC 22-12-7. Appeals from orders by a local unit of government are governed by IC 22-13-2-7 and local ordinance. Upon the written request of an interested person who has a dispute with a county or municipal government concerning a building rule, the Building Law Compliance Officer may issue a written interpretation of a building law. The written interpretation as issued under IC 22-13-5 binds the interested person and the county or municipality with whom the interested person has the dispute until overruled in a proceeding under IC 4-21.5. A written interpretation of a building law binds all counties and municipalities if the office of the state building commissioner publishes the written interpretation of the building law in the Indiana Register under IC 4-22-7-7(b).

101.5 Plans

Plans shall be submitted for Class 1 structures as required by the General Administrative Rules (675 IAC 12) and the Industrialized Building Systems (675 IAC 15).

101.6 Existing Construction

For existing Class 1 structures, see the General Administrative Rules (675 IAC 12) and local ordinance.

101.7 Additions and Alterations

Additions and alterations to any Class 1 structure shall conform to that required of a new structure without requiring the existing structure to comply with all the requirements of this code. Additions or alterations shall not cause an existing structure to become unsafe (see the General Administrative Rules (675 IAC 12-4)).

101.8 Alternate Materials, Methods, and Equipment

Alternate materials, methods, equipment, and design shall be as required by the General Administrative Rules (675 IAC 12-6-11) and the rules for Industrialized Building Systems (675 IAC 15). (*Fire Prevention and Building Safety Commission; 675 IAC 25-2-2; filed Mar 18, 2008, 2:32 p.m.: 20080423-IR-675070479FRA, eff 90 days after filing with the Publisher*)

675 IAC 25-2-3 Chapter 2; definitions

Authority: IC 22-13-2-2

Affected: IC 22-12; IC 22-13; IC 22-14-2-10; IC 22-15-2-7; IC 25-4; IC 25-31; IC 36-7-2-9; IC 36-8-17-9

Sec. 3. Amend Chapter 2 by making the following changes:

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- (1) Insert Section 201.3.1 to read as follows: 201.3.1. Terms defined in other codes.
ICC ELECTRICAL CODE refers to the INDIANA ELECTRICAL CODE (675 IAC 17).
INTERNATIONAL BUILDING CODE refers to the INDIANA BUILDING CODE (675 IAC 13).
INTERNATIONAL ENERGY CONSERVATION CODE refers to the INDIANA ENERGY CONSERVATION CODE (675 IAC 19).
INTERNATIONAL FIRE CODE refers to the INDIANA FIRE CODE (675 IAC 22).
INTERNATIONAL FUEL GAS CODE refers to the INDIANA FUEL GAS CODE (675 IAC 25).
INTERNATIONAL PLUMBING CODE refers to the INDIANA PLUMBING CODE (675 IAC 16).
INTERNATIONAL CODES refers to the rules of the Fire Prevention and Building Safety Commission (675 IAC).
INTERNATIONAL MECHANICAL CODE refers to the INDIANA MECHANICAL CODE (675 IAC 18).
INTERNATIONAL RESIDENTIAL CODE refers to the INDIANA RESIDENTIAL CODE (675 IAC 14).
NFPA 51 refers to 675 IAC 28-1-18.
NFPA 58 refers to 675 IAC 22-2.2-14.

- (2) Amend the definition for APPROVED to read as follows: APPROVED as to materials, equipment, design, and types of construction, acceptance by the code official by one (1) of the following methods:
- (1) investigation or tests conducted by recognized authorities; or
 - (2) investigation or tests conducted by technical or scientific organizations; or
 - (3) accepted principles.

The investigation, tests, or principles shall establish that the materials, equipment, and types of construction are safe for the intended purpose.

- (3) Insert the definition for BUILDING CODE to read as follows: BUILDING CODE means the Indiana Building Code.
- (4) Amend the definition of CODE OFFICIAL to read as follows: CODE OFFICIAL means the Division of Fire and Building Safety; the local building official as authorized under IC 36-7-2-9 and local ordinance; or the fire department as authorized under IC 36-8-17-9.
- (5) Amend the definition of CONSTRUCTION DOCUMENTS to read as follows: CONSTRUCTION DOCUMENTS means the documents required to obtain a design release in accordance with the General Administrative Rules (675 IAC 12-6) and the rules for Industrialized Building Systems (675 IAC 15).
- (6) Insert the definition for FIRE CODE to read as follows: FIRE CODE means the Indiana Fire Code.
- (7) Insert the definition for INDIANA BUILDING CODE to read as follows: INDIANA BUILDING CODE means the rules adopted at 675 IAC 13 in effect in Indiana at the time of construction, remodeling, alteration, addition, or repair of the structure.
- (8) Insert the definition for INDIANA FIRE CODE to read as follows: INDIANA FIRE CODE means the rules adopted at 675 IAC 22 in effect in Indiana at the time of inspection by the code official or, with respect to construction required to be filed under 675 IAC 12-6, 675 IAC 22 in effect at the time of construction, remodeling, alteration, addition, or repair of the structure.
- (9) Amend the definition for LABELED to read as follows: LABELED. Equipment, devices, appliances, or materials to which has been attached a label, symbol, or other identifying mark of an organization engaged in product evaluation, that maintains periodic inspection or production of labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.
- (10) Amend the definition for LISTED to read as follows: LISTED. Equipment, appliances, devices, or materials included in a list published by an organization engaged in product evaluation, that maintains periodic inspection of production of listed equipment or materials, and whose listing states either that the equipment or material meets appropriate standards or has been tested and found suitable for use in a specified manner.
- (11) Amend the definition for REGISTERED DESIGN PROFESSIONAL to read as follows: REGISTERED DESIGN PROFESSIONAL. An architect who is registered under IC 25-4 or professional engineer who is registered under IC 25-31. If a registered design professional is not required by 675 IAC 12-6 or 675 IAC 15, then it means the owner.

(Fire Prevention and Building Safety Commission; 675 IAC 25-2-3; filed Mar 18, 2008, 2:32 p.m.: 20080423-IR-675070479FRA, eff 90 days after filing with the Publisher)

675 IAC 25-2-4 Chapter 3; general regulations

Authority: IC 22-13-2-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 4. In Chapter 3, make the following changes:

(1) Amend Section 301.3, Listed and labeled, to read as follows: Appliances regulated by this code shall be listed and labeled unless otherwise approved.

(2) Delete Sections 301.4 through 301.4.2.3 without substitution.

(3) Amend Section 305.1 by deleting, from the last line, "and the requirements determined by the code official" and inserting "or other approved methods".

(4) Amend Section 305.4 to read as follows: 305.4 Public garages. 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 (2,438 mm) above the floor. Where motor vehicles are capable of passing under an appliance, the appliance shall be installed at the clearances required by the appliance manufacturer and not less than 1 foot higher than the tallest vehicle garage door opening.

Exception: 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.

(Fire Prevention and Building Safety Commission; 675 IAC 25-2-4; filed Mar 18, 2008, 2:32 p.m.: 20080423-IR-675070479FRA, eff 90 days after filing with the Publisher)

675 IAC 25-2-5 Chapter 4; gas piping installations

Authority: IC 22-13-2-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 5. (a) Amend Section 404.1 to read as follows: Piping shall not be installed in or through a ducted supply, return or exhaust, or a clothes chute, chimney or gas vent, ventilating duct, dumbwaiter, or elevator shaft.

(b) Amend Section 404.6 to read as follows: Piping in solid floors shall be laid in channels in the floor and covered in a manner that will allow access to the piping with a minimum amount of damage to the building. Where such piping is subject to exposure to excessive moisture or corrosive substances, the piping shall be protected in an approved manner. As an alternative to installation in channels, the piping shall be installed in a conduit of Schedule 40 steel, wrought iron, PVC, or ABS pipe in accordance with Section 404.6.1 or 404.6.2.

(c) Insert Section 404.6.1 to read as follows: 404.6.1 Conduit with one end terminating outdoors. The conduit shall extend into an occupiable portion of the building, and, at the point where the conduit terminates in the building, the space between the conduit and the gas piping shall be sealed to prevent the possible entrance of any gas leakage. The conduit shall extend not less than 2 inches (51 mm) beyond the point where the pipe emerges from the floor. If the end sealing is capable of withstanding the full pressure of the gas pipe, the conduit shall be designed for the same pressure as the pipe. Such conduit shall extend not less than 4 inches (102 mm) outside the building, shall be vented above grade to the outdoors, and shall be installed so as prevent the entrance of water and insects.

(d) Insert Section 404.6.2 to read as follows: 404.6.2 Conduit with both ends terminating indoors. Where the conduit originates and terminates within the same building, the conduit shall originate and terminate in an accessible portion of the building and shall not be sealed. The conduit shall extend not less than 2 inches (51 mm) beyond the point where the pipe emerges from the floor.

(e) Amend Section 404.8 by deleting the third sentence.

(f) Amend Section 404.11 to read as follows: Piping installed underground beneath buildings is prohibited except where the piping is encased in a conduit of wrought iron, plastic pipe, or steel pipe designed to withstand the superimposed loads. The conduit shall be protected from corrosion in accordance with Section 404.8 and shall be installed in accordance with Section 404.11.1 or 404.11.2.

(g) Insert Section 404.11.1 to read as follows: 404.11.1 Conduit with one end terminating outdoors. The conduit shall extend into an occupiable portion of the building, and, at the point where the conduit terminates in the building, the space between the conduit and the gas piping shall be sealed to prevent the possible entrance of any gas leakage. The conduit shall extend not less than 2 inches (51 mm) beyond the point where the pipe emerges from the floor. Where the end sealing is capable of withstanding the full pressure of the gas pipe, the conduit shall be designed for the same pressure as the pipe. Such conduit shall extend not less than 4 inches (102 mm) outside the building, shall be vented above grade to the outdoors, and shall be installed so as prevent the entrance

of water and insects.

(h) Insert Section 404.11.2 to read as follows: 404.11.2 Conduit with both ends terminating indoors. Where the conduit originates and terminates within the same building, the conduit shall originate and terminate in an accessible portion of the building and shall not be sealed. The conduit shall extend not less than 2 inches (51 mm) beyond the point where the pipe emerges from the floor.

(i) Amend Section 404.14.2 to read as follows: Connections made outdoors and underground between metallic and plastic piping shall be made only with transition fittings conforming with ASTM D 2513 Category I or ASTM F 1973.

(j) In Section 408.4, delete the text and substitute to read as follows: Where a sediment trap is not incorporated as part of the gas utilization equipment, a sediment trap shall be installed downstream of the equipment shutoff valve. The sediment trap shall be either a tee fitting having a capped nipple of any length installed in the bottommost opening of the tee or other device approved as an effective sediment trap. Illuminating appliances, ranges, clothes dryers, outdoor grills, and domestic appliances need not be so equipped.

(k) In Section 409.5.1, delete the text and substitute to read as follows: 409.5.1 Located within same room. The shutoff valve shall be located in the same room as the appliance. The shutoff valve shall be within 6 feet (1,829 mm) of the appliance and shall be installed upstream of the union, connector, or quick disconnect device it serves. Such shutoff valves shall be provided with access. Appliance shutoff valves located in the firebox of a fireplace shall be installed in accordance with the appliance manufacturer's instructions.

409.5.2 Vented decorative appliances and room heaters. Shutoff valves for vented decorative appliances, room heaters, and decorative appliances for installation in vented fireplaces shall be permitted to be installed in an area remote from the appliances where such valves are provided with ready access. Such valves shall be permanently identified and shall serve no other appliance. The piping from the shutoff valve to within 6 feet (1,829 mm) of the appliance shall be designed, sized, and installed in accordance with Sections 401 through 408.

(l) Insert Section 409.6 to read as follows: 409.6 Shutoff valve for educational, research, commercial, and industrial laboratories. Where provided with two or more fuel gas outlets, including table, bench, and hood mounted outlets, each laboratory space in educational, research, commercial, and industrial occupancies shall be provided with a single dedicated shutoff valve through which all such gas outlets shall be supplied. The dedicated shutoff valves shall be readily accessible, located within the laboratory space served, and located adjacent to the egress door from the space and shall be identified by approved signage stating "gas shutoff".

(m) In Section 410.3.1, insert "Vent piping for relief vents and breather vents shall be constructed of materials allowed for gas piping in accordance with Section 403." before the first sentence. Insert "Regulator vent piping shall not exceed the length specified in the regulator manufacturer's installation instructions." after the last sentence.

(n) Insert Section 411.1.5 to read as follows: 411.1.5 Unions. A union fitting shall be provided for appliance connected by rigid metallic pipe. Such unions shall be accessible and located within 6 feet (1,829 mm) of the appliance.

(o) In Section 412, Liquefied petroleum gas motor vehicle fuel-dispensing station, delete the entire text and insert "See the Indiana Fire Code (675 IAC 22)".

(p) In Section 413, Compressed natural gas motor vehicle fuel-dispensing stations, delete the entire text and insert "See the Indiana Fire Code (675 IAC 22)". *(Fire Prevention and Building Safety Commission; 675 IAC 25-2-5; filed Mar 18, 2008, 2:32 p.m.: 20080423-IR-675070479FRA, eff 90 days after filing with the Publisher)*

675 IAC 25-2-6 Chapter 5; chimneys and vents

Authority: IC 22-13-2-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 6. (a) In Section 501.4, Minimum size of chimney or vent, delete "Section" and insert "Sections 503 and".

(b) Amend Section 501.15.4 by deleting the second sentence. Delete the text of the exception and insert "Masonry chimneys without the required air-space clearances shall be permitted to be used if lined or relined with a chimney lining system listed for use in chimneys with reduced clearances in accordance with UL 1777. The chimney clearance shall be not less than permitted by the terms of the chimney liner listing and the manufacturer's instructions."

(c) Insert Section 501.15.4.1 to read as follows: 501.15.4.1 Fireblocking. Noncombustible fireblocking shall be provided in accordance with the International Building Code. *(Fire Prevention and Building Safety Commission; 675 IAC 25-2-6; filed Mar 18, 2008, 2:32 p.m.: 20080423-IR-675070479FRA, eff 90 days after filing with the Publisher)*

675 IAC 25-2-7 Chapter 7; gaseous hydrogen systems

Authority: IC 22-13-2-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 7. In Section 704.1.2.3.5, Protection against physical damage, delete "In concealed locations, where" and insert "Where".
(*Fire Prevention and Building Safety Commission; 675 IAC 25-2-7; filed Mar 18, 2008, 2:32 p.m.: 20080423-IR-675070479FRA, eff 90 days after filing with the Publisher*)

675 IAC 25-2-8 Chapter 8; referenced standards

Authority: IC 22-13-2-2

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7-2-9

Sec. 8. Amend the last sentence of the first paragraph to read as follows: "The application of the reference standards shall be as specified in Section 101.3". (*Fire Prevention and Building Safety Commission; 675 IAC 25-2-8; filed Mar 18, 2008, 2:32 p.m.: 20080423-IR-675070479FRA, eff 90 days after filing with the Publisher*)

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