



### **Proposed Amendments to the 2015 International Fuel Gas Code**

The following document contains the proposed modifications to the 2015 IFGC and has been revised from the previous document. The revisions include removal of some residential requirements, as the current, proposed adoption of the 2015 IRC includes adoption of Fuel Gas provisions. Fuel Gas provisions for One and Two-Family dwelling are no longer located in the IFGC.

Historically, RBD has not adopted the Mechanical, Fuel Gas, and Plumbing provisions from the IRC and has relied upon the International Mechanical Code (IMC), International Fuel Gas Code (IFGC), and the International Plumbing Code (IPC) for One and Two-Family Dwellings.

The requirements in the IRC are very similar to those found in the IMC, IFGC, and IPC but have been “stripped down” to only apply to residential construction. This makes the path to code compliance easier to achieve for the user as all requirements can be found in one book.

## SECTION RBC305 - FUEL GAS CODE

**RBC305.1 SHORT TITLE.** This section will be known and cited as the Fuel Gas Code.

**RBC305.2 SCOPE.** The Fuel Gas Code shall apply to the installation of fuel-gas piping systems, fuel-gas utilization equipment and related accessories in accordance with Sections RBC305.2.1 through RBC305.2.3 of this Code.

**RBC305.2.1 Piping systems.** These regulations cover piping systems for natural gas with an operating pressure of 125 pounds per square inch gauge (psig) (862 kPa gauge) or less, and for LP-gas with an operating pressure of 20 pounds per square inch (psig) (140 kPa gauge) or less, except as provided in Section 402.6.1 of the International Fuel Gas Code, 2015 Edition. Coverage shall extend from the point of delivery to the outlet of the equipment shutoff valves. Piping systems requirements shall include design, materials, components, fabrication, assembly, installation, testing, inspection, operation and maintenance.

**RBC305.2.2 Gas Utilization Equipment.** Requirements for gas utilization equipment and related accessories shall include installation, combustion and ventilation air and venting and connections to piping systems.

**RBC305.2.3 Systems and Equipment outside the Scope.** This Code shall not apply to the following:

1. Portable LP-gas appliances and equipment of all types that is not connected to a fixed fuel piping system.
2. Installation of farm appliances and 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, or used in, chemical reactions.
8. LP-gas installations at utility gas plants.
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. Installation of LP-gas systems for railroad switch heating.
14. Installation of hydrogen gas, LP-gas and compressed natural gas (CNG) systems on vehicles.
15. Except as provided in Section 401.1, 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.
16. Building design and construction, except as specified herein.
17. Piping systems for mixtures of gas and air within the flammable range with an operating pressure greater than 10 psig (69 kPa gauge).
18. Portable fuel cell appliances that are neither connected to a fixed piping system nor interconnected to a power grid.

### **RBC305.3 CODE ADOPTED BY REFERENCE.**

There is hereby adopted by reference the International Fuel Gas Code of the International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478-5795, 2015 Edition. Three (3) copies of the Code are now filed in the office of the Clerk of the Jurisdiction and may be inspected during regular business hours. The Code is being adopted as if set out at length, to include the International Fuel Gas Code Appendices, save and except the following, which are declared to be non-applicable to the Jurisdiction and are therefore expressly deleted:

1. Chapter 1, Administration

**RBC305.4 ADDITIONS AND MODIFICATIONS.** The adopted Code is subject to the following additions and modifications:

**RBC305.4.1 Section 303.3 Prohibited locations.** Delete items 3 and 4.

Item 5, add the following after the end of the second sentence:

"or other adjacent spaces meeting indoor combustion air requirements of Section 305.4"

**RBC305.4.2 Section 304.7.3 Outdoor opening(s) size.** Add item 4 as follows:

- The outdoor opening may connect to the cold air return plenum if it is located within 12 feet (3,657.6 mm) of the furnace blower when sized at 1 square inch per 5,000 BTU/hr (1 cm<sup>2</sup> per 227 W) of the total input rating of all gas utilization equipment.

**RBC305.4.3 Section 401.5.1** Insert a new section as follows:

**401.5.1 Elevated gas pressure pipe identification.** Gas piping systems on the discharge side of the Gas Purveyors regulator/meter with pressures exceeding 1/2 (psi) shall be identified with labels marked Medium Pressure. Pressures exceeding 5 (psi) shall be identified with labels marked High Pressure. Piping shall be labeled every 10 feet.

**RBC305.4.4 Section 403.4.3 Copper and copper alloy.** Delete and replace with the following:

**403.4.3 Copper and copper alloy.** Copper and copper alloy piping shall not be used on natural gas systems.

**RBC305.4.5 Section 403.5.2 Copper and copper alloy tubing.** Delete and replace with the following:

**403.5.2 Copper and copper alloy tubing.** Copper and copper alloy tubing shall not be used on natural gas systems.

**RBC305.4.6 Section 403.11 Plastic pipe, joints and fittings.** Delete item 3 and replace with the following:

- Compression type mechanical joints are prohibited.

**RBC305.4.7 Section 404.9 Protection against corrosion.** Add the following at the end of the first paragraph:

Underground piping systems shall be installed using only listed Polyethylene Plastic or Corrugated Stainless Steel.

**Exceptions:**

- Metallic tubing (type L copper) may be used in underground LP gas systems
- Metallic piping may be used in underground systems with prior approval.

**RBC305.4.8 Section 404.10 Minimum burial depth.** Delete "12 inches (304.8 mm)" and replace with "18 inches (457.2 mm)".

**RBC305.4.9 Section 404.10.1 Individual outside appliances.** Delete.

**RBC305.4.10 Section 406.1.2 Repairs and additions.** Delete the second paragraph and replace with the following:

Minor repairs and additions are not required to be pressure tested provided that the piping is accessible, limited to a maximum of eight joints and has a total developed length no greater than 10 feet (3,048 mm).

**RBC305.4.11 Section 406.4.1 Test pressure.** Delete and replace with the following:

**406.4.1 Test pressure.** Test pressure shall be observed by the code official. Necessary apparatus for conducting tests shall be furnished by the permit holder. Mechanical gauges used to measure test pressure shall have a range such that the highest end of the scale is not greater than three times the test pressure and shall be in accordance with the following:

Pipe Type	Test pressure	Duration of test in minutes	Testing method
Threaded Pipe	10 psi (69 kPa)	15	Air, CO <sub>2</sub> , Nitrogen
Welded Pipe	60 psi (414 kPa)	30	Air, CO <sub>2</sub> , Nitrogen
Corrugated Stainless Steel Pipe	10 psi (69 kPa)	15	Air, CO <sub>2</sub> , Nitrogen

**RBC305.4.12 Section 406.4.2 Test duration.** Delete.

**RBC305.4.13 Section 406.6.5** Insert a new section as follows:

**406.6.5 Interruption of service.** In the event that existing service is shut off or the meter is removed for more than six (6) months, the piping shall be retested in accordance Section 406.4 of the International Fuel Gas Code, 2015 Edition.

**RBC305.4.14 Section 408 Drips and Sloped Piping.** Delete.

**RBC305.4.15 Section 410.3.1 Vent piping.** Add the following:

Vent piping located inside a structure, shall be rigid metallic pipe complying with Section 403.4 of the International Fuel Gas Code, 2015 Edition.

**RBC305.4.16 Section 416 Overpressure Protection Devices.** Delete.

**RBC305.4.17 Table 503.4 Type of venting system to be used.** Delete "single wall metal pipe" throughout the Table.

**RBC305.4.18 Section 503.5.3 Masonry chimneys.** After the first sentence add the following:

Masonry chimney flues serving listed gas appliances with drafts hoods, Category I appliances, and other gas appliances listed for use with Type B vent shall be lined with a chimney lining system specifically listed for use only with such appliances. The liner shall be installed in accordance with the liner manufacturer's instructions and the terms of the listing. A permanent identifying label shall be attached at the point where the connection is to be made to the liner. The label shall read: "This chimney liner is for appliances that burn gas only. Do not connect to solid or liquid fuel-burning appliances or incinerators."

Delete the exception and replace with the following:

**Exception:** When replacing an existing draft hood appliance, a chimney lining system is not required to be installed in an existing approved masonry chimney that serves two or more draft hood appliances provided that the existing chimney flue is

inspected and deemed safe for the intended appliance.

**RBC305.4.19 Section 503.5.6.1 Chimney lining.** Delete the exception.

**RBC305.4.20 Section 503.7 Single-wall metal pipe.** Delete and replace with the following:

**503.7 Single-wall metal pipe.** Single-wall metal pipe vents are prohibited.

**RBC305.4.21 Section 503.10.2.2 Vent connectors located in unconditioned areas.** Delete the exception.

**RBC305.4.22 Section 504.2.9 Chimney and vent locations.** Delete the second paragraph and items 1 through 6.

**RBC305.4.23 Section 504.3.20 Chimney and vent locations.** Delete the second paragraph and items 1 through 5.

**RBC305.4.24 Section 602.4.** Insert a new section as follows:

**602.4 Fireplace Doors.** Fireplace openings containing decorative gas appliances shall be equipped with glass doors or automatic dampers.

**RBC305.4.25 Section 603 LOG LIGHTERS.** Delete and replace with the following:

**603 Log lighters.** Log lighters are prohibited.

**RBC305.4.26 Section 609 FLOOR FURNACES.** Delete and replace with the following:

**609 Floor furnaces.** Floor furnaces are prohibited.

**RBC305.4.27 Section 621.2 Prohibited use.** Delete and replace with the following:

**621.2 Prohibited use.** Unvented room heaters shall be prohibited within a dwelling unit.