

ORDINANCE NO. 5837

AN ORDINANCE TO AMEND FGC SECTIONS 10-425 AND 10-426, ADOPTING THE 2009 INTERNATIONAL FUEL GAS CODE WITH AMENDMENTS

WHEREAS, the Building Code Review and Appeals Commission has reviewed the 2009 International Fuel Gas Code, and the amendments thereto, and has recommended adoption with local amendments; and

WHEREAS, the City Council desires to accept the recommendations of the Building Code Review and Appeals Commission;

NOW, THEREFORE, BE IT ENACTED BY THE CITY COUNCIL OF THE CITY OF FAIRBANKS, ALASKA, AS FOLLOWS:

Section 1. Fairbanks General Code Sections 10-425 and 10-426 are hereby repealed and re-enacted as follows (substantive changes shown in bold font):

Sec. 10-425. Adoption.

The International Fuel Gas Code **2009** Edition, as published by the International Code Council, is hereby adopted by the City of Fairbanks.

Sec. 10-426. Amendments.

Section 101.3 Appendices. Add the following to this section.

Appendices A, B, C & D are hereby adopted.

Except for Sections 101, 102, and the following amendments, delete Chapter 1 in its entirety and refer to the City of Fairbanks Administrative Code.

Section 101.2 Scope. Add the following sentence after the first sentence.

The storage system for liquefied petroleum gas including tanks, containers, container valves, regulating equipment, meters, and/or appurtenances for the storage and supply of liquefied petroleum gas for any building, structure, or premises shall be designed and installed in accordance with the International Fire Code and NFPA 58.

Section 101.2 Scope. Exception Delete this exception in its entirety.

Section 101.2.4 Systems, appliances and equipment outside the scope. Delete Number 13, Temporary LP-gas piping.

Section 101.5 Severability. Add a sentence as follows:

The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law.

Section 102.8 Referenced codes and standards. Add two subsections at the end of this section as follows:

102.8.1 Plumbing. Where reference to any Plumbing Code is made in this Code it shall be taken to mean the *Uniform Plumbing Code* as adopted and amended by the City of Fairbanks.

102.8.2 Electrical. Where reference to any Electrical Code is made in this Code it shall be taken to mean the *National Electrical Code* as adopted and amended by the City of Fairbanks.

102.8.3 Administrative. The provisions of the City of Fairbanks Administrative Code shall apply to the administration and enforcement of this code. Where provisions of the Administrative Code and this code conflict, the most restrictive shall apply.

102.8.4 Energy. Where reference is made in this Code to the International Energy Conservation Code it shall be taken to mean the *IECC* as currently adopted by the City of Fairbanks.

Section 201.3 Terms defined in other codes. Delete this section and replace as follows.

Where terms are not defined in this code and are defined in the *International Building Code*, *National Electrical Code*, *International Fire Code*, *International Fuel Gas Code* and the *Uniform Plumbing Code*, such terms shall have meanings ascribed to them as in those codes.

Section 201.4 Terms not defined. Amend this section by adding the following sentence.

Webster's Third New International Dictionary of the English Language, Unabridged shall be considered as providing ordinarily accepted meanings.

Section 301.2 Energy utilization. Delete this section in its entirety.

Section 301.16 Penetration Weatherproofing. Add this section and the following after section 301.15.

Joints at roofs and exterior walls around pipes, ducts, appurtenances or equipment shall be made watertight by the use of approved materials.

Section 301.17 Meter Protection. Add this section and the following.

It shall be the responsibility of the Gas piping system permit-holder to provide physical damage protection and adverse weather protection as approved by the Building Department for the meter-set and piping connection to it.

Section 301.18 Carbon Monoxide Alarm. Add this section numbering, title, and the following after section 301.17.

Where a fuel-fired appliance is installed or replaced in an existing dwelling an approved carbon monoxide alarm shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms. A single station, battery-operated carbon monoxide alarm shall be listed as complying with UL 2034 and shall be installed according to the manufacturer's installation instructions.

Section 303.4 Protection from damage. Add the following at the end of Section 303.4.

Fuel-fired equipment and appliances located within the direct perpendicular path of a garage door opening of eight feet or less in height shall comply with Section 303.4.1

Section 303.4.1. Fuel-fired appliance protection. Fuel-fired appliances and equipment located in the direct path for vehicles as described in 303.4 shall be protected from impact with one of the following methods.

1. A minimum schedule 40 nominal 3" diameter steel pipe 30" high, with a vertical face at least 6" in the direction of vehicle approach and:
 - 1.1 Buried a minimum 2'0" deep in compacted soil and imbedded in at least 4" nominal concrete slab.
 - 1.2 Set in a minimum 1'0" x1'0"x1'0" block of concrete (slab included).
2. A platform on which the equipment sits, at least 24" high, extended at least 6" greater than the equipment footprint (including attachments such as burners and controls) in the direction of vehicle approach and in contact with the structure opposite the direction of vehicle approach.
3. An approved system of equivalent resistance to vehicle impact extending at least 6" ahead of the equipment's footprint in the direction of vehicle approach, including attachments such as burners and controls.

303.7 Pit locations. Add the following sentence at the end of this Section.

Liquefied petroleum gas piping shall not serve appliances located in a pit or basement where heavier-than-air gas might collect to form a flammable mixture.

Section 304.6 Outdoor combustion air. Delete this section in its entirety and replace as follows.

Combustion air for gas-fired appliances shall be provided on a basis of 1 square inch per 4000 Btu per hour of the total input rating of all equipment. In lieu of this requirement, combustion air may be provided in accordance with Table 304.6, **but shall not be less than the sum of the areas of all vent connectors in the space.** Combustion air may be provided from one opening **directly communicating with the outdoors or through a vertical or horizontal duct from the outdoors or spaces that freely communicate with the outdoors.** The opening into the enclosure containing the appliances shall be located no lower in elevation than **2/3 the distance from the top of the finished floor to the bottom of the finished ceiling in the enclosure.**

TABLE 304.6

COMBUSTION AIR - CATEGORY I GAS APPLIANCES ONLY*

Appliance Size Btuh Input Rating	C/A Duct Minimum Free Area (square inches)	Minimum Round Duct Size (inches)
Up to 120,000	28	6
120,000 to 155,000	38	7
155,000 to 175,000	50	8

*Note: Category II, III and IV gas appliances may use Table 7-1 as amended for oil-fired appliances per Chapter 7 of the **2009** International Mechanical Code.

Section 304.10 Louvers and grilles. Amend the fourth sentence as follows.

Screens shall have a mesh size not smaller than ½”.

Section 304.11 Combustion Air Ducts. Delete #4, #5, and #6 and refer to section 304.6 as amended.

Section 304.11 Combustion air ducts. Delete # 8 and replace with the following.

8. Combustion air intake openings located on the exterior of a building shall have the lowest side of such openings located not less than 18 inches vertically from the adjoining finished ground level or an approved alternative means provided to prevent snow blockage.

Section 305.1.1 Fuel-fired equipment startup report. Add this subsection and the following.

A startup report is required for all fan-assisted or power-burner fuel-fired equipment indicating the following conditions and others which the manufacturer recommends in their installation instructions. A non-returnable copy must be provided to the inspector for insertion in the Building Department project files.

Company, Name, address, & Phone Number of Startup Technician

Manufacturer and Model No. of Equipment

Date and Time of Startup and Noted Readings

Net Stack Temperature

Overfire Draft

Breech Draft

Stack Draft

CO

CO2 or O2

Actual Rate of fuel input

Section 305.13 Area served. Add this section and the following.

Appliances serving different areas of a building other than where they are installed shall be permanently marked in an approved manner that uniquely identifies the appliance and the area it serves.

Section 310 Electrical Bonding Add subsection 310.2 and the following at the end of this section.

310.2 Prohibited connection. The required gas piping system bonding connection to the electrical service grounding system shall not be made to any part of the gas service meter set equipment owned and operated by the GasUtility Company. Bonding shall be on the customer side of the meter and regulator set. A direct bonding connection to Corrugated Stainless Steel Tubing is prohibited and bonding connections to Corrugated Stainless Steel Tubing systems shall be completed according to the specific tubing manufacturer's instructions.

Section 401.9 Prohibited future piping. Add this section and the following.

Installation of piping for future use beyond a capped or plugged tee outlet is prohibited without the extension of the installation through the gas piping outlet(s) for specified equipment and appliances.

Section 403.10.4 Metallic fittings. Revise this section by deleting the words "cast iron" in #2 and deleting #5.

Section 406.4.1 Test pressure. Amend the first sentence of this section as follows.

Test pressure to be used shall be no less than 1 ½ times the proposed maximum working pressure, but not less than 10 psig.

Section 406.8. Add a new section as follows.

Section 406.8 Temporary Gas Installations. The installation of temporary gas shall comply with this section.

406.8.1 Temporary gas approval may be given to provide heating prior to the completion of the building's primary heating system.

406.8.2 The heating appliance must be listed and labeled for its use to provide space heating and installed according to the manufacturer's installation instructions, including all the manufacturer's required clearances to combustibles.

406.8.3 The return air for furnaces used for temporary heat shall ducted from a minimum of 10 feet from the appliance.

406.8.4 Portable space heaters shall be provided with one hundred percent (100%) outside air to the back end of the heater and the regulator vented to outside the space being heated.

406.8.5 Gas hose used for temporary heaters shall be an approved type and all manufacturers' listed clearances shall be maintained. The hose shall have an internal wire mesh or braid to render it "kink proof". This wire mesh or braid shall run the full length of the hose. Each time a section of hose is used it shall be tested at a minimum of sixty (60) psi air pressure and labeled with temporary approval by the Building Department. The absence of the temporary approval label any time after gas service is supplied shall be cause to discontinue temporary gas service.

406.8.6 Corrugated Stainless Steel Tubing used for temporary gas service must be installed and approved as a permanent installation. Unsupported, unprotected CSST is specifically prohibited.

406.8.7 Temporary gas valve outlets not connected to an appliance or equipment shall be plugged or capped leaktight.

Section 410.3.2 Regulator Vent Openings. Add the following subsection.

Regulator vent openings shall not be located closer than 10 feet horizontally to any mechanical outdoor air intake opening or 3 feet horizontally from any gravity outdoor air intake opening, including opening doors and windows, unless such vent opening is at least 2 feet above the air intake opening. Regulator vent openings must be at least 12 inches above the anticipated snow level of 18 inches. Regulator vent openings shall not be located closer than 5 feet to any electrical equipment including service disconnects, electrical meters, receptacles, etc., unless such electrical equipment meets the requirements of Article 500 and 501 of the National Electrical Code.

Section 501.3 Masonry chimneys. Add the following sentence at the end of this section.

Exterior masonry chimneys shall not be used to vent gas appliances.

Section 501.6 Positive pressure. Amend this section by adding the following paragraph and subsection at its end.

Vents taller than 15' in height serving positive pressure equipment must be provided with provisions for an atmospheric balanced draft per 501.6.1.

501.6.1.1.1 Positive pressure greater than 15 feet in height. For positive pressure equipment with venting system greater than 15 feet in height, provide an atmospheric balanced draft vent, i.e. provide a barometric draft regulator. The height of the vent shall be measured from the base of the appliance to the outlet of the chimney. Vent must be sized to prevent positive pressure. Multiple heating appliances connected to a vent greater than 15 feet in height shall be provided with separate draft or atmospheric controls for each appliance.

Section 502.5 Installation. Add the following sentence at the end of this section.

Vertical Vent terminations above a roof must extend at least 18 inches above the roof. Vent terminations through a wall must be at least above an anticipated snow depth of 18 inches.

Section 502.8 Location and support of venting systems other than masonry chimneys. Add this section with the following.

Vent terminations that penetrate a metal roof with a slope greater than 2:12 shall be protected by an ice dam or deflector of a type and design approved by the Code Official.

Section 502.9 Vent height limitations. Add this section with the following.

Vents which do not exceed 15 feet in height need not be provided with an atmospheric draft or control device unless required by Section 501.6. The height of the vent shall be measured from the base of the appliance to the outlet of the chimney. The entire length of the vent shall be factory sealable. The vent must be sized to avoid negative pressure.

Section 502.10 Vent Enclosure. Add this section with the following.

Venting systems installed with greater than 5 feet of developed length outside the building's thermal envelope shall be enclosed with at least an R-11 enclosure from the penetration of the thermal envelope to a point no greater than 5 feet from the vent's outlet.


Section 503.3.6 Above-ceiling air-handling spaces. Add the following sentence to Item No. 1:

The vent material shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 50 when tested in accordance with ASTM E84.

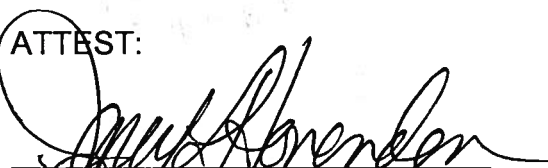
Section 614.2 Duct penetrations. Delete this section in its entirety and replace with the following.

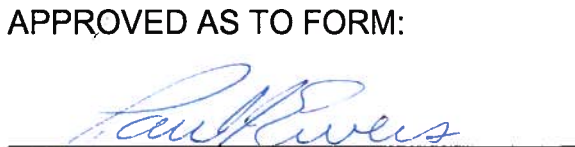
Ducts that exhaust clothes dryers shall not penetrate required fire-resistive assemblies unless enclosed in a fire-resistive shaft complying with the building code.

Section 2. That the effective date of this Ordinance shall be the 16th day of April, 2011.


Jerry Cleworth, Mayor

AYES: Adopted without Objection
NAYS: None
ABSENT: Eberhart
ADOPTED: April 11, 2011

ATTEST:

Janey Hovenden, CMC, City Clerk

APPROVED AS TO FORM:

Paul Ewers, City Attorney