



Revised April 4, 2012

Fairhope Public Utilities Natural Gas
Jurisdiction
Two-Pound Pressure
Piping System
Codes

INSTALLATION STANDARDS FOR TWO-POUND NATURAL GAS PIPING SYSTEMS

Revised April 4, 2012

~ PREFACE ~

This information is intended to aid the user in the design, installation and testing of interior gas piping systems that shall use **ONLY** Copper Tubing, Galvanized Pipe or Black Iron pipe in conjunction with intermediate 2 PSIG gas pressure in the City of Fairhope Natural Gas Jurisdiction. These practices must be reviewed for compliance with all applicable local fuel gas and building codes. **Where conflict exists between the 2012 International Fuel Gas Code and local requirements, local requirements must take precedence unless a variance is obtained from the local authority having jurisdiction.**

~ SYSTEM DESIGN ~

GENERAL DESCRIPTION

Person or Persons doing any type of Natural Gas pipe fitting and or installing shall have in his or her possession a current annual certificate issued by the ALABAMA PLUMBERS AND GAS FITTERS EXAMINING BOARD.

*** All 2 PSIG systems shall be piped with schedule 40 galvanized or black iron pipe from the outside stub out (meter set) into an accessible attic location before the start of any copper pipe runs. The transition fitting must be accessible.**

All 2 PSIG piping systems must be designed and installed according to the requirements of the 2012 International Fuel Gas Code (IFGC) in addition to this Manual. **Where conflict exists between the 2012 International Fuel Gas Code and local requirements, local requirements must take precedence unless a variance is obtained from the local authority having jurisdiction.**

*****Only** Copper Tubing, Galvanized or Black Iron Pipe shall be allowed for Two-pound (high pressure) consumer Natural Gas systems in the Fairhope Public Utilities Natural Gas Jurisdiction.

*****Only** Galvanized or Black Iron Pipe shall be allowed for Four-ounce (low pressure) consumer Natural Gas systems in the Fairhope Public Utilities Natural Gas Jurisdiction.

Exceptions are:

Listed and labeled appliance connectors in compliance with ANSI Z21.24 and installed in accordance with the manufacturers instructions and located entirely in the same room as the Appliance.

All Gas piping in the 2-PSIG portion of the system shall be marked at the beginning, all ends and at not less than 6ft intervals along its length designating 2-PSI gas pressure Including under ground piping.

FLARE FITTINGS SHALL NOT BE CONCEALED

**ALABAMA PLUMBERS AND
GAS FITTERS EXAMINING BOARD**
11 West Oxmoor Road Suite 104

Birmingham, AL 35209
(205) 945-4857

State Law

Apprentice gas fitter or plumber. A person other than a master or journeyman gas fitter or plumber, who is engaged in learning and assisting in the installation of gas pipe, equipment, apparatus, and appliances, and shall work directly under the supervision of a journeyman or master gas fitter or plumber, and who has successfully fulfilled the registration requirements of the board and has been duly registered by the board as such for the current year.

720-x-11-.01 Work Permitted by Apprentice Plumber/Gas Fitters. It shall be unlawful and a violation of Act No. 89-406, as amended, for an Apprentice Plumber/Gas Fitter, certified in accordance with the rules and regulations of the Alabama Plumbers & Gas Fitters Examining Board to perform any plumbing/gas fitting work, as provided in Act No. 89-406, as amended, and as may be further defined by the Board in rules passed by the Board, unless said Apprentice Plumber/Gas Fitter performs said work under the direct supervision of a certified Journeyman Plumber, Journeyman Gas Fitter, Master Plumber or Master Gas Fitter who remains on the job/work site at all times while such work is being performed by the Apprentice Plumber/Gas Fitter. An Apprentice Plumber/Gas Fitter is a trainee, therefore it shall be unlawful, and a violation of Act No. 89-406, as amended, for any one Journeyman Plumber, Journeyman Gas Fitter, Master Plumber or Master Gas Fitter to directly supervise on any job site more than three Apprentice Plumbers/Gas Fitters.

Journeyman gas fitter. A person who engages in or works at the actual installation, repair, or replacement of gas work, who has successfully fulfilled the examination requirements of the board, has been issued a journeyman gas fitter certificate by the board, and possesses a valid and current annual certificate issued by the board. The certificate shall be available for inspection on request.

720-x-6-.01 Work Permitted by Journeyman Gas Fitters. It shall be unlawful and a violation of Act No. 89-406 as amended for a journeyman gas fitter, certified in accordance with the rules and regulations of the Alabama Plumbers & Gas Fitters Examining Board to perform any gas fitting work, as provided in Act No. 89-406 as amended or as may be further defined by the Board in rules passed by the Board, unless said journeyman gas fitter performs said work under the general supervision of a certified master gas fitter.

Master gas fitter. Any person engaged in or proposing to engage in the business of contracting to do, or of superintending the installation, maintenance, or repair of gas systems or gas work, either or both. The individual shall qualify to be a certified master gas fitter. If the business be a firm or corporation, at least one active employee of the firm or corporation shall be a duly registered and certified master gas fitter, actively and continuously connected with the conduct of said business. The master gas fitter shall have in his or her possession a current annual certificate issued by the board. The certificate shall be available for inspection on request.

720-x-13-.01 Responsibility of Master Gas Fitter. It shall be unlawful and a violation of Act No. 89-406, as amended, for a Master Gas Fitter, certified in accordance with the rules and regulations of the Alabama Plumbers & Gas Fitters Examining Board as provided in Act No. 89-406, as amended, or as may be further defined by the Board in rules passed by the Board, to supervise or direct any person in the performance of plumbing or gas fitting work as defined in Section 34-37-1 (Code of Alabama 1975, as amended) where the person performing such work does not hold current certification with the Alabama Plumbers & Gas Fitters Examining Board.

34-37-16. Restrictions: No person shall use nor allow their certificate to enable anyone other than the certificate holder and his employees directly supervised by the certificate holder to perform plumbing or gas fitting. Local officials may require the certificate holder to be present if any problems develop on the work site.

~ REGULATOR REQUIREMENTS ~

*House line regulators shall be included in all air tests and pass inspection before natural gas can be established into a system.

*House line regulators must conform to all 2012 IFGC rules listed under 410.2 MP Regulators.

*House line regulators, which are used to reduce pressure from 2 PSIG to inches water column for appliance use, must additionally conform to the following:

*Sized to supply the required appliance load(s).

*Equipped with a vent-limiting device, as specified by the manufacturer, or be capable of being vented to the outdoors.

*Installed in accordance with manufacturer's instructions.

*Installed on piping at a location where regulator is not concealed.

*Installed in the proper position.

*An accessible, lever handled shut off valve of a lubricated ball, or other approved type must be installed ahead of the "T" connection before the pounds to inches house line pressure reducing regulator and also at each appliance.

If the regulator serves only one appliance and the shutoff and regulator are near the appliance, it's usually unnecessary to install a second shut off valve.

*Refer to appliance rating plate for minimum/maximum supply pressure. The 2 PSIG regulators should be set at least 2" W.C. above the appliance manifold pressure. Typically the appliance operating pressure is 3.5" W. C., thus setting the Maxitrol regulator to six in. (6") W.C. is more than adequate.

THE USE OF A 2 PSIG SYSTEM HOUSE LINE REGULATOR DOES NOT MAKE THE APPLIANCE REGULATOR UNNECESSARY.

~ Gas meter placement ~

*The Gas meter stub-out/meter set shall not be installed behind the establishment or behind a Fence for access and safety reasons.

*The Gas meter stub-out/meter set shall have a minimum distance of 3' from a functional window, door, vent, electrical box, etc.

*The Gas meter stub-out/meter set shall be located on the same side of establishment as the main power supply.

~ PROTECTION ~

*Copper tubing for 2-PSIG shall be ran underground only to outdoor Appliances as long as all exposed copper tubing is protected with an approved casing.

*The copper tubing shall be installed in casing where it comes in contact with sharp building material.

*The copper tubing shall be isolated from concrete and masonry.

~ PRESSURE TESTING AND INSPECTION
PROCEDURE ~

The Licensed Gas Fitter is responsible for contacting the Fairhope Public Utilities Gas Department upon completion of all gas piping with an air test. All piping in the consumer's gas system shall be exposed for inspection by a Fairhope Public Utilities Gas Department Inspector. Construction material of any type that conceals the consumer's gas piping will be removed before a gas inspection will be performed and or passed. This includes outside underground piping. The removal of all construction material that conceals gas piping will be at contractors and or Gas fitters expense.

The Rough In and Final piping installation shall be inspected and tested for leaks at 20 PSIG, This includes all fittings including but not limited to house regulators, using procedures specified in Part 406 "Inspection, Testing and Purging" of the 2012 National Fuel Gas Code,

Inspection cards will be placed on stub outs after each inspection. This card explains whether or not the inspection passed or failed. Fairhope Public Utilities Gas Department is not responsible for lost or damaged inspection cards. If inspection cards are not placed on stub outs please call Fairhope Public Utilities. We recommend all Plumbers or Contractors keep these Inspection cards for their records.

34-37-8. Renewals; acceptance and inspection of certificate

(c) Any current registration or annual certificate issued to any person by the board shall be in possession of the person at any time he or she engages in or proposes to engage as a master, journeyman, or apprentice plumber, gas fitter, or medical gas piping fitter, as the case may be, and upon request he or she shall make the certificate or registration available for inspection and identification by any person or persons for whom he or she engages or proposes to engage as such, and for identification by plumbing, gas, or other authorized enforcement personnel of any governmental entity, board, or agency when requested.

There shall be Two Inspections for all Two Pound (high pressure) Systems

~ ROUGH IN ~

Pressure testing and inspection should be performed after all rough in piping of the facility is complete and before any part of the gas system is concealed, interior walls closed in or exterior piping buried.

In addition, the Two Pound system should be inspected to ensure:

- *Presence of striker plates and other protective devices at all required locations.
- *Physical condition of the tubing/piping including depth of exterior piping.
- *Presence and location of fittings and labels.
- *Correct regulator/manifold arrangement.

~ FINAL ~

This pressure test and Inspection Shall Be For The Meter Set **Fairhope Public Utilities Inspectors shall have access to the** **establishment**

The final inspection is performed after all construction is complete and finished interior walls, cabinets, etc. are present.

*This test is performed to assure no damage was done to the piping during the final construction process

Natural gas Meters will not be set until this final inspection has been passed.

*The final connection on the customer side of gas meter is the certified gas fitters/installers responsibility. When the Appliances are ready to be turned on, the certified gas fitter/installer will bubble test flex lines and connections for leaks and light the pilot lights.

Fairhope Public Utilities
Gas Department
April 4, 2012

This is acknowledging that the person who has signed below is a certified Master Gas Fitter by the State of Alabama and has received the Fairhope Public Utilities Natural Gas Jurisdiction Two-pound pressure piping system codebook.

Name: _____

Alabama Gas Fitters Title: _____ Certification Number: _____

Contact Number with Area Code: _____

Mailing Address: _____

City, State and Zip code: _____

Business Name: _____

Business Address: _____

Business Phone Number: _____

Employees Names and Certification that will be performing gas piping for this Business:

#1. Name: _____ Certification: _____

#2. Name: _____ Certification: _____

#3. Name: _____ Certification: _____

#4. Name: _____ Certification: _____

#5. Name: _____ Certification: _____

#6. Name: _____ Certification: _____

Date: _____

Signature: _____