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REGULATIONS GOVERNING

# RESIDENTIAL GAS PIPE INSTALLATION

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INFORMATION BULLETIN

**009**

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This bulletin is a guideline which should be helpful when repairing an existing or installing a new gas line. If you are not familiar with the terms used in these requirements, we suggest you use a licensed contractor to install your piping. This bulletin **is not** intended to be a complete list of requirements. The International Plumbing Code (IPC) and the International Mechanical Code (IMC) have many pages covering this subject and the International Fuel Gas Code (IFGC) deals exclusively with gas installations. Chapter 24 of the International Residential Code also contains requirements for one and two family dwellings. **This bulletin is only a guideline**. If you have questions after reading this bulletin, please do not hesitate to call us.

The following information must be shown, or provided to Building Safety, before the permit can be issued.

**LENGTH OF PIPING:** The distance from the furthest appliance to the meter must be determined. That length in conjunction with the kind of appliance served determines the size of the pipe required.

**APPLIANCE BTU INPUT:** The BTU input rating of each appliance must be provided. That information is available from a name plate attached to each appliance. The IFGC Table 402.2 has standard input requirements for most appliances, but not for furnaces. If the IFGC tables are used, the pipe size may be larger than actual BTU input requires. Please be sure to provide the **input,** not the output BTU rating, especially for furnaces.

**SIZE OF PIPING:** For gas piping, one size does not fit all. The size of the pipe you install is determined by the above information. It may be advisable to consult a plumber or call the Building Department when planning your job.

**INSPECTIONS:** All work must be left uncovered for inspection. Inspections will be performed on the entire gas system, including appliances, venting, ducting and combustion air. It is the permit holders responsibility to ensure that when the inspector arrives, the system is open for inspection and under test pressure.

**TESTING:** With few exceptions, the entire gas system piping must be tested. Test by disconnecting the piping from the meter. Appliances need not be disconnected and the flex lines need not be disconnected from the piping, but close the valves. Install an air gauge at one end of the system (usually at the meter piping which was disconnected above) and apply not less than 3 psi of air into the pipes. The pressure must hold and be observed by the inspector for not less than 10 minutes. (See Section 406 of the IFGC) The gauge should be no larger than a 30 pound maximum.

**BURIED PIPE:** Metal gas piping on residential property must be buried a minimum of 12". Underground pipes must be factory coated. PE piping must be buried a minimum of 18" with only approved transition fittings installed. A minimum 18 gauge copper tracer wire must be laid in the trench with the PE piping and shall terminate above grade at each end. An isolation fitting may be required.

**SHUTOFF VALVES:** All appliances must have a shutoff valve installed within 3' of the appliance, except for a barbecue, which may have a shutoff valve not further than 4' from the appliance. Gas fireplaces must have a shutoff valve outside the box, in the same room and no further than 4' away.

**ABOVE GROUND PIPING:** Above ground, noncoated gas piping must be supported by metal straps, at intervals not to exceed 6' for 1/2" steel pipe, 8' for 3/4" to 1", and every 10' for 1 1/4" and larger and the piping must be located no closer than 6" to earth.

**UNIONS:** Unions, when use is necessary, shall not be installed underground or in concealed spaces.

**UNDER SLAB PIPING:** Gas piping shall not be located under concrete slabs or buildings. (Unless specifically approved by the Building Safety Department) Details showing vented sleeve must be approved and on site for inspection.

**JOINTS:** Threaded joints on underground piping must be wrapped with 40 mil pipe wrap tape to prevent rusting. (4 wraps of 10 mil pipe wrap)

**UTILITY COMPANY:** Don't forget the serving utility. They have separate rules from the County. The utility may also save you money by meter location and provide you with other helpful information.