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SECTION VI

BUILDING PIPING AND APPLIANCES

601. Responsibility of Customer

The customer shall provide, install, operate, and maintain the piping, appliances, and devices necessary to receive and utilize the gas.

602. Piping

Gas piping in buildings shall be made, installed, and maintained in accordance with the requirements of the standards of the American National Standards Institute, Installation of Gas Appliances and Gas Piping ANSI Z21.30, Installation of Gas Piping and Gas Equipment on Industrial Premises and Certain Other Premises, ANSI Z83.1, and Fuel Gas Piping, B31.2.

Gas pipe shall be steel or wrought-iron pipe complying with the ANSI Standard for Wrought-Steel and Wrought-Iron Pipe, ANSI B36.10. All piping shall be new or shall have previously been used for no other purpose than the conveying of gas. All such pipe shall be free from internal obstructions, splits, and other imperfections which would render it unfit for the purpose intended, and the ends thereof shall be properly reamed.

Where gas piping must be concealed, it shall not be installed in floors of buildings; through heating, cooling, or ventilating ducts; or in elevator shafts. Gas piping should not be installed in tunnels if proper ventilation cannot be continuously provided and if the piping cannot be easily inspected at any time.

Gas piping, where installed underground under buildings, shall be encased in a gas tight conduit or casing. Such casing shall be steel pipe either welded or screwed, sealed at both ends, and vented above ground to the outside.

Threaded pipe fittings (except stop cocks or valves) shall be of malleable iron or steel.

The connecting of appropriate pipe by welding is permissible if welds are made according to best modern practice. All joints



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between pipe and fittings, unless welded, shall be screwed joints (ANSI Standard pipe thread). Such joints shall be made up with a suitable thread compound.

All unions used in house piping shall be ground joint types and shall not be installed in concealed locations.

Gas piping shall not be supported by other piping but shall be supported at proper intervals with pipe hooks, metal pipe straps, bands, or hangers suitable for the size of pipe and of proper strength and quality. No hangers made of nails or wood will be permitted. Fuel lines shall extend to within two feet of the outlet side of the meter. When the meter is to be located outside the building, the fuel line shall be brought by the installer through the building wall adjacent to the meter location.

#### 603. Size of Pipe

Customer's piping operating at low pressure shall be designed to deliver the estimated gas supply with a maximum pressure drop of 0.3 inch water column. Customer's piping operating in excess of low pressure shall be designed to deliver the estimated gas supply with a maximum pressure drop of 10% of the delivery pressure.

Gas piping shall not be smaller than the inlet connection to the appliance which it serves.

For information as to the correct size of piping, refer to the standards of the American National Standards Institute listed in Paragraph 602.

#### 604. Test of Piping for Tightness

Before the customer requests a Company inspection of any gas piping system prior to putting in service, it shall be the customer's responsibility to ascertain that the pipe has been carefully tested to assure that it is gas tight. To test for tightness, the piping may be filled with air or inert gas, but not with any other gas or liquid. In no case shall oxygen ever be used. The piping must stand a pressure of at least six inches of mercury (approximately three pounds per square inch) measured with a manometer or slope gauge, for a period of not less than ten minutes without showing any drop in pressure.



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605. Connecting of Customer Equipment to Building Piping

There may be either a single or multiple fuel line system from the gas meter to the customer's equipment. The requirements of the American National Standards Institute, National Fuel Gas Code, Z223.1 with respect to sizing the piping system and connecting the utilization equipment to it shall be met.

606. Use of Gas Hose

The connection of an appliance with any type of gas hose is prohibited except when used with laboratory, shop, ironing equipment, or outdoor appliances that require mobility during operation. Such connections shall have the shut-off or stop-cock installed at the connection to the building piping. Where gas hose is used, it shall be of the minimum practical length, but not to exceed six feet and shall not extend from one room to another nor pass through any walls, partitions, ceilings, or floors. Under no circumstances shall gas hose be concealed from view or used in a concealed location. Only American Gas Associated Incorporated, Underwriters Laboratories Incorporated, or other nationally recognized testing agencies' certified, listed or labeled hose shall be used. Listed gas hose shall be used only in accordance with the terms of its listing. Gas hose shall not be used where it is likely to be subjected to excessive temperatures (above 125 degrees F). On outdoor appliances up to 15 feet of gas hose may be used.

607. Service Connections Made Between Customer's and Company's Facilities

Only duly authorized employees of the Company or contractors retained by the Company are allowed to connect or disconnect the customer's gas piping to or from the Company's facilities.

608. Accessibility of Gas Valves

Main gas shut-off valves controlling several piping systems shall be adequately spaced so they will be easily accessible for operation and shall be installed so as to be protected from damage. It is required that they be plainly marked with a metal tag by the installer so that the piping systems supplied through them can be readily identified. It is advisable to place a shut-off valve at every point where safety, convenience of operation, and maintenance require.



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609. Shut-off Valves for Multiple House Piping

In multiple-tenant buildings supplied through a master meter or where meters are not readily accessible from the appliance location, an individual shut-off valve properly identified for each apartment or for each separate house line shall be provided at a convenient point of general accessibility.

610. Interconnection Not Permitted

Gas piping systems which are supplied by separate meters shall not be interconnected.