

valve set at 50 percent above normal line pressure is installed in the main supply line.

1320.2.1 Pressure-relief valves shall close automatically when excess pressure has been released.

1320.2.2 Pressure-relief valves set at 50 percent shall be vented to the outside from gas systems, except medical air, or if the total capacity of the supply system is in excess of 85m³ (3,000 ft.³) of gas.

1320.2.3 Pressure-relief valves shall be of brass or bronze and specially designed for the gas service involved.

1320.2.4 A pressure-relief valve shall not be isolated from its intended use by any valve.

1320.3 Pressure Gauges. Pressure and vacuum indicators shall be readable from a standing position. Pressure/vacuum indicators shall be provided at the following locations, as a minimum:

- (1) Adjacent to the alarm-initiating device for source main-line pressure and vacuum alarms in the master alarm system.
- (2) At or in area alarm panels to indicate the pressure/vacuum at the alarm activating device for each system that is monitored by the panel.
- (3) On the station outlet/inlet side of zone valves. [NFPA 99:5.1.8.2.1, 5.1.8.2.2]

1321.0 Station Outlets/Inlets.

Station outlets and inlets shall be installed in strict accordance with the manufacturer's instructions.

1321.1 After installation of the piping, but before installation of the station outlets/inlets and other medical gas and medical gas system components (e.g., pressure-actuating switches for alarms, manifolds, pressure gauges, or pressure relief valves), the line shall be blown clear by means of oil-free, dry nitrogen.

1322.0 Labeling and Identification.

The gas content of medical gas piping systems shall be readily identifiable by appropriate labeling with the name and pressure contained. Such labeling shall be by means of metal tags, stenciling, stamping, or adhesive markers, in a manner that is not readily removable. Where supplementary color identification of piping is used, it shall be in accordance with the gases and colors indicated in CGA Pamphlet C-9, *Standard Color-Marking of Compressed Cylinders Intended for Medical Gas Use*, (See Table 13-1) or equivalent International Standard(s) approved by the Authority Having Jurisdiction.

1322.1 Piping shall be labeled by stenciling or adhesive markers that identify the medical gas, support gas, or vacuum system and include:

- (1) The name of the gas/vacuum system or the chemical symbol per Table 13-1.
- (2) The gas or vacuum system color code per Table 13-1.
- (3) Where positive-pressure gas piping systems operate at pressures other than the standard gauge, the pipe labeling shall include the operating pressure in addition to the name of the gas. [NFPA 99:5.1.11.1.1]

Pipe labels shall be located as follows:

- (1) At intervals of not more than 6m (20 ft.).
- (2) Not less than once in or above every room.
- (3) On both sides of walls or partitions penetrated by the piping.
- (4) Not less than once in every story height traversed by risers. [NFPA 99:5.1.11.1.2]

1322.2 Shutoff valves shall be identified as follows:

- (1) The name or chemical symbol for the specific medical gas or vacuum system.
- (2) The room or areas served.
- (3) A caution to not close or open valve except in emergency. [NFPA 99:5.1.11.2.1]

1322.3 Station outlets and inlets shall be identified as to the name or chemical symbol for the specific medical gas or vacuum provided. [NFPA 99:5.1.11.3.1]

1322.4 The shutoff valves described in Sections 1319.4, 1319.5, and 1319.6 shall be labeled to reflect the rooms that are controlled by such valves. Labeling shall be kept current from initial construction through acceptance. Valves shall be labeled in substance as follows:

In-line shutoff valves shall be labeled in substance as follows:

CAUTION

**(NAME OF MEDICAL GAS) VALVE
DO NOT CLOSE EXCEPT IN EMERGENCY
THIS VALVE CONTROLS SUPPLY TO...**

Source valves shall be labeled in substance as follows:

**SOURCE VALVE
FOR THE (SOURCE NAME).**

Main line valves shall be labeled in substance as follows:

**MAIN LINE VALVE FOR THE
(GAS/VACUUM NAME) SERVING THE
(NAME OF BUILDING).**