Exception No. 1: Laboratory equipment installed in accordance with 1211.3(A) shall be permitted.

Exception No. 2: The use of a listed quick-disconnect device with an integral shutoff or listed gas convenience outlet shall be permitted.

(B) Appliance shutoff valves installed in fireplaces shall be removed and the piping capped gas-tight where the fireplace is used for solid-fuel burning. [NFPA 54:7.7.2.2]

1210.10 Branch Pipe Connection. When a branch outlet is placed on a main supply line before it is known what size pipe will be connected to it, the outlet shall be of the same size as the line that supplies it. [NFPA 54:7.8]

1210.11 Manual Gas Shutoff Valves. (Also see Section 1211.5)

1210.11.1 Valves at Regulators. An accessible gas shutoff valve shall be provided upstream of each gas pressure regulator. Where two gas pressure regulators are installed in series in a single gas line, a manual valve shall not be required at the second regulator. [NFPA 54:7.9.1]

1210.11.2 Valves Controlling Multiple Systems.

- (A) Accessibility of Gas Valves. Main gas shutoff valves controlling several gas piping systems shall be readily accessible for operation and installed so as to be protected from physical damage. They shall be marked with a metal tag or other permanent means attached by the installing agency so that the gas piping systems supplied through them can be readily identified. [NFPA 54:7.9.2.1]
- (B) Shutoff Valves for Multiple House Lines. In multiple-tenant buildings supplied through a master meter, or through one service regulator where a meter is not provided, or where meters or service regulators are not readily accessible from the equipment location; an individual shutoff valve for each apartment or tenant line shall be provided at a convenient point of general accessibility.

In a common system serving a number of individual buildings, shutoff valves shall be installed at each building. [NFPA 54:7.9.2.2]

1210.11.3 Emergency Shutoff Valves. An exterior shutoff valve to permit turning off the gas supply to each building in an emergency shall be provided. The emergency shutoff valves shall be plainly marked as such and their locations posted as required by the Authority Having Jurisdiction. [NFPA 54:7.9.2.3]

Each laboratory space containing two or more gas outlets installed on tables, benches, or in hoods in educational, research, commercial and industrial occupancies shall have a single shutoff valve through which such gas outlets are

1210.11.4 Shutoff Valve For Laboratories.

supplied. The shutoff valve shall be accessible and shall be located within the laboratory or located adjacent to the laboratory's egress door and shall be identified.

1210.12 Prohibited Devices. No device shall be placed inside the gas piping or fittings that will reduce the cross-sectional area or otherwise obstruct the free flow of gas, except where proper allowance in the piping system design has been made for such a device and where approved by the Authority Having Jurisdiction. [NFPA 54:7.10]

1210.13 Systems Containing Gas-Air Mixtures Outside the Flammable Range. Where gas-air mixing machines are employed to produce mixtures above or below the flammable range, they shall be provided with stops to prevent adjustment of the mixture to within or approaching the flammable range. [NFPA 54:7.11]

1210.14 Systems Containing Flammable Gas-Air Mixtures. Systems containing flammable gas-air mixtures shall be in accordance with NFPA 54.

1210.15 Electrical Bonding and Grounding.

that appliance. [NFPA 54-09:7.13.1]

1210.15.1 Pipe and Tubing Other Than CSST. Each above ground portion of a gas piping system other than CSST that is likely to become energized shall be electrically continuous and bonded to an effective ground-fault current path. Gas piping other than CSST shall be considered to be bonded when it is connected to appliances that are connected to the appliance grounding conductor of the circuit supplying

1210.15.2 CSST gas piping systems shall be bonded to the electrical service grounding electrode system at the point where the gas service enters the building. The bonding jumper shall be not smaller than 6 AWG copper wire. [NFPA 54-09:7.13.2]

1210.15.3 Gas piping shall not be used as a grounding conductor or electrode. This does not preclude the bonding of metallic piping to a grounding system. [NFPA 54-09:7.13.2]

1210.15.4 Where lightning protection is installed, the bonding of the gas piping system shall be in accordance with NFPA 780 or equivalent International Standard(s) approved by the Authority Having Jurisdiction. [NFPA 54-09:7.13.4]