equivalent International Standard(s) approved by the Authority Having Jurisdiction. [NFPA 54:5.8.2]

1208.7.3 Location. The gas pressure regulator shall be accessible for servicing. [NFPA 54:5.8.3]

1208.7.4 Regulator Protection. Pressure regulators shall be protected against physical damage. [NFPA 54:5.8.4]

1208.7.5 Venting.

(A) Line Gas Pressure Regulators. [NFPA 54:5.8.5.1]

(1) An independent vent to the outside of the building, sized in accordance with the regulator manufacturer's instructions, shall be provided where the location of a regulator is such that a ruptured diaphragm will cause a hazard. Where there is more than one regulator at a location, each regulator shall have a separate vent to the outside or, if approved by the Authority Having Jurisdiction, the vent lines shall be permitted to be manifolded in accordance with accepted engineering practices to minimize back-pressure in the event of diaphragm failure. Materials for vent piping shall be in accordance with Section 1208.5.

Exception: A regulator and vent limiting means combination listed as complying with CSA Z21.80, *Standard for Line Pressure Regulators* or equivalent International Standard(s) approved by the Authority Having Jurisdiction, shall be permitted to be used without a vent to the outdoors.

(2) The vent shall be designed to prevent the entry of water, insects, or other foreign materials that could cause blockage.

(3) At locations where regulators might be submerged during floods, a special anti-flood-type breather vent fitting shall be installed, or the vent line shall be extended above the height of the expected flood waters.

(4) A regulator shall not be vented to the gas appliance flue or exhaust system.

(B) Gas Appliance Pressure Regulators. Venting of gas appliance pressure regulators shall comply with the following requirements [NFPA 54:9.1.19]:

(1) Gas appliance pressure regulators requiring access to the atmosphere for successful operation shall be equipped with vent piping leading outdoors or, if the regulator vent is an integral part of the appliance, into the combustion chamber adjacent to a continuous pilot, unless constructed or equipped with a vent limiting means to limit the escape of gas from the vent opening in the event of diaphragm failure.

(2) Vent-limiting means shall be employed on listed gas appliance pressure regulators only.

(3) In the case of vents leading outdoors, means shall be employed to prevent water from entering this piping and also to prevent blockage of vents by insects and foreign matter.

(4) Under no circumstances shall a regulator be vented to the gas utilization appliance flue or exhaust system.

(5) In the case of vents entering the combustion chamber, the vent shall be located so the escaping gas will be readily ignited by the pilot and the heat liberated thereby will not adversely affect the normal operation of the safety shutoff system. The termination of the vent shall be securely held in a fixed position, relative to the pilot. For manufactured gas, the need for a flame arrester in the vent piping shall be determined.

(6) Vent lines from a gas appliance pressure regulator and bleed lines from a diaphragm-type valve shall not be connected to a common manifold terminating in a combustion chamber.

Vent lines shall not terminate in positive-pressure-type combustion chambers.

(C) Discharge of Vents. [NFPA 54:5.9.7]

(1) The discharge stacks, vents, or outlet parts of all pressure-relieving and pressure-limiting devices shall be located so that gas is safely discharged into the outside atmosphere.

(2) Discharge stacks or vents shall be designed to prevent the entry of water, insects, or any other foreign material that could cause blockage. The discharge stack or vent line shall be not less than the same size as the outlet of the pressure-relieving device.