systems shall not be interconnected on the outlet side of the meters or service regulators. [NFPA 54:5.3.1]

1208.3.2 Interconnections for Standby Fuels. Where a supplementary gas for standby use is connected downstream from a meter or a service regulator where a meter is not provided, a device to prevent backflow shall be installed. A three-way valve installed to admit the standby supply and, at the same time, shut off the regular supply, shall be permitted to be used for this purpose. [NFPA 54:5.3.2]

1208.4 Sizing of Gas-Piping Systems. [NFPA 54:5.4]

1208.4.1 General Considerations. Gas-piping systems shall be of such size and so installed as to provide a supply of gas sufficient to meet the maximum demand and supply gas to each appliance inlet at not less than the minimum supply pressure required by the appliance. [NFPA 54:5.4.1]

1208.4.2 Maximum Gas Demand. The volume of gas to be provided (cubic metre per hour) shall be determined directly from the manufacturer's input ratings of the gas utilization appliance served. Where the input rating is not indicated, the gas supplier, appliance manufacturer, or a qualified agency shall be contacted or the rating from Table 12-1 shall be used for estimating the volume of gas to be supplied. The total connected hourly load shall be used as the basis for piping sizing, assuming the appliance is operating at full capacity, simultaneously.

Exception: Sizing shall be permitted to be based upon established load diversity factors. [NFPA 54:5.4.2]

1208.4.3 Sizing Methods. Gas piping shall be sized in accordance with one of the following [NFPA 54:5.4.3]:

(1) Pipe sizing tables or sizing equations in this chapter.

(2) Other approved engineering methods acceptable to the Authority Having Jurisdiction.

(3) Sizing tables included in a listed piping system manufacturer's installation instructions.

1208.4.4 Allowable Pressure Drop. The design pressure loss in any piping system under maximum probable flow conditions, from the point of delivery to the inlet connection of the appliance, shall be such that the supply pressure at the appliance exceeds or is equal to the minimum pressure required by the appliance. [NFPA 54:5.4.4]

1208.5 Acceptable Piping Materials and Joining Methods.

1208.5.1 General.

1208.5.1.1 Acceptable Materials. Materials used for piping systems shall comply with the requirements of this chapter or shall be acceptable to the Authority Having Jurisdiction. [NFPA 54:5.6.1.1]

1208.5.1.2 Used Materials. Pipe, fittings, valves, or other materials shall not be used again, unless they are free of foreign materials and have been ascertained to be adequate for the service intended. [NFPA 54:5.6.1.2]

1208.5.1.3 Other Materials. Material not covered by the standards specifications listed herein shall be investigated and tested to determine that it is safe and suitable for the proposed service and, in addition, shall be recommended for that service by the manufacturer and shall be acceptable to the Authority Having Jurisdiction. [NFPA 54:5.6.1.3]

1208.5.2 Metallic Pipe.

1208.5.2.1 Cast-iron pipe shall not be used. [NFPA 54:5.6.2.1]

1208.5.2.2 Steel and wrought-iron pipe shall be not less than standard weight (Schedule 40) and shall comply with one of the following standards [NFPA 54:5.6.2.2]:

(1) ASME B36.10, *Welded and Seamless Wrought-Steel Pipe* or equivalent International Standard(s) approved by the Authority Having Jurisdiction

(2) ASTM A 53, *Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless* or equivalent International Standard(s) approved by the Authority Having Jurisdiction

(3) ASTM A 106, *Standard Specification for Seamless Carbon Steel Pipe for High-Temperature Service* or equivalent International Standard(s) approved by the Authority Having Jurisdiction

1208.5.2.3 Copper and brass pipe shall not be used if the gas contains more than an average of 0.7mg/100L (0.3 grains per 100 ft.^{3}) of hydrogen sulfide. [NFPA 54:5.6.2.3]

Threaded copper, brass, or aluminum alloy pipe shall not be used with gases corrosive to such material. [NFPA 54:5.6.2.4]

1208.5.2.4 Aluminum alloy pipe shall comply with ASTM B241, *Specification for Aluminum-Alloy Seamless Pipe and Seamless Extruded Tube* or equivalent International