Petroleum Gas Code or equivalent International Standard(s) approved by the Authority Having Jurisdiction. [NFPA 501A:4.3.2.1 - 4.3.2.2]

D 31.0 Installation of Cathodic Protection Systems.

Where required by 49 CFR 191 and 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards* or equivalent International Standard(s) approved by the Authority Having Jurisdiction, cathodic protection shall be installed for corrosion control of buried or submerged metallic gas piping. [NFPA 501A:4.3.3]

D 32.0 Required Gas Supply.

The minimum hourly volume of gas required at each M/H site outlet or any section of the M/H community gas piping system shall be calculated as shown in Table E-3. [NFPA 501A:4.3.4.1]

TABLE D-3
Demand Factors for Use in Calculating Gas Piping Systems in M/H Communities

No. of Manufactured Home Sites	Watts per Manufactured Home Site
1	37,000
2	34,000
3	30,000
4	28,000
5	27,000
6	25,000
7	24,000
8	24,000
9	23,000
10	22,500
11–20	19,000
21–30	18,000
31–40	17,000
41–60	16,000
Over 60	15,000

Note: In extreme climate areas, additional capacities shall be considered.

SI: 1kW = 3.4 Btu

D 33.0 Gas Pipe Sizing and Pressure.

D 33.1 The size of each section of a gas piping system shall be determined in accordance with NFPA 54, *National Fuel Gas Code*, by other standard engineering methods acceptable to the Authority Having Jurisdiction or equivalent International Standard(s) approved by the Authority Having Jurisdiction. [NFPA 501A:4.3.5.1]

D 33.2 Where all connected appliances are operated at their rated capacity, the supply pressure shall be not less than 18cm (7 in.) water column. The gas supply pressure shall not exceed 36cm (14 in.) water column. [NFPA 501A:4.3.5.2]

D 34.0 Gas Piping Materials.

D 34.1 Metal. Metal gas pipe shall be standard-weight wrought-iron or steel (galvanized or black), yellow brass containing not more than 75 percent copper, or internally tinned or treated copper of iron pipe size. Galvanizing shall not be considered as protection against corrosion. [NFPA 501A:4.3.6.1.1 - 4.3.6.1.2]

Seamless copper or steel tubing shall be permitted to be used with gases not corrosive to such material. Steel tubing shall comply with ASTM A539, *Standard Specification for Electric-Resistance-Welded Coiled Steel Tubing for Gas and Fuel Oil Lines*, ASTM A254, *Standard Specification for Copper-Brazed Steel Tubing* or equivalent International Standard(s) approved by the Authority Having Jurisdiction. Copper tubing shall comply with ASTM B88, *Specification for Seamless Copper Water Tubing (Type K or Type L)*, ASTM B280, *Specification for Seamless Copper Tubing for Air Conditioning and Refrigeration Field Service* or equivalent International Standard(s) approved by the Authority Having Jurisdiction. Copper tubing (unless tin-lined) shall not be used if the gas contains more than an average of 0.7mg of hydrogen sulfide per 100L of gas (0.3 grains/100scf). [NFPA 501A:4.3.6.1.3 - 4.3.6.1.6]

D 34.2 Protection Coatings for Metal Gas Piping. Buried or submerged metallic gas piping shall be protected from corrosion by approved coatings or wrapping materials. All gas pipe protective coatings shall be approved types, shall be machine applied, and shall conform to recognized standards. Field wrapping shall provide equivalent protection and is restricted to those short sections and fittings that are necessarily stripped for threading or welding. Risers shall be coated or wrapped to a point not less than 15cm (6 in.) above ground. [NFPA 501A:4.3.6.2]

D 34.3 Plastic. Plastic piping shall be used underground only and shall meet the requirements of ASTM D2513, *Thermoplastic Gas Pressure Pipe, Tubing, and Fittings*, or ASTM D2517, *Reinforced Epoxy Resin Gas Pressure Pipe and Fittings* or equivalent International Standard(s) approved by the Authority Having Jurisdiction, as well as the design pressure and design limitations of 49 CFR 192.123, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards* or equivalent International Standard(s)