

firemain and foam systems. These curves need not be submitted if the following information is shown on the drawing:

- (i) Rated capacity and head at rated capacity.
- (ii) Shutoff head.
- (iii) Head at 150 percent rated capacity.

(3) Standard drawings of the following fabrication details shall be submitted:

- (i) Welding details for piping connections.
- (ii) Welding details for nonstandard fittings (when appropriate).

(d-1) Plans of piping for industrial systems on mobile offshore drilling units must be submitted under subpart 58.60 of this subchapter.

(e) Where piping passes through watertight bulkheads and/or fire boundaries, plans of typical details of piping penetrations shall be submitted.

(f) Arrangement drawings specified in paragraph (c)(2) of this section are not required if—

(1) The location of each component for which there is a location requirement (i.e., shell penetration, fire station, foam monitor, etc.) is indicated on the piping diagram;

(2) The diagram includes, or is accompanied by and makes reference to,

a material schedule which describes components in sufficient detail to substantiate their compliance with the regulations of this subchapter;

(3) A thermal stress analysis is not required; and

(4) A dynamic analysis is neither required nor elected in lieu of allowable stress reduction.

[CGFR 68-82, 33 FR 18843, Dec. 18, 1968, as amended by CGFR 69-127, 35 FR 9978, June 17, 1970; CGFR 72-59R, 37 FR 6189, Mar. 25, 1972; CGD 73-251, 43 FR 56799, Dec. 4, 1978, CGD 77-140, 54 FR 40602, Oct. 2, 1989; CGD 95-012, 60 FR 48049, Sept. 18, 1995]

**Subpart 56.04—Piping Classification**

**§ 56.04-1 Scope.**

Piping shall be classified as shown in Table 56.04-1.

TABLE 56.04-1—PIPING CLASSIFICATIONS

Service	Class	Section in this part
Normal .....	I, II .....	56.04-2
Low temperature .....	I-L, II-L .....	56.50-105

[CGD 72-206R, 38 FR 17229, June 29, 1973, as amended by CGD 77-140, 54 FR 40602, Oct. 2, 1989; CGD 95-012, 60 FR 48049, Sept. 18, 1995]

**§ 56.04-2 Piping classification according to service.**

The designation of classes according to service is found in Table 56.04-2.

TABLE 56.04-2—PRESSURE PIPING CLASSIFICATION

Service	Class <sup>1</sup>	Pressure (p.s.i.g.)	Temp. (°F)
Class B and C poisons <sup>2</sup> .....	I .....	any .....	0 and above.
	I-L .....	any .....	below 0.
	II .....	( <sup>3</sup> ) .....	( <sup>3</sup> ) .....
Gases and vapors <sup>2</sup> .....	II-L .....	( <sup>3</sup> ) .....	( <sup>3</sup> ) .....
	I .....	above 150 .....	or .....
	I-L .....	above 150 .....	above 650.
	II .....	150 and below .....	and .....
Liquefied flammable gases <sup>2</sup> .....	II-L .....	150 and below .....	below 0.
	I .....	above 150 .....	and .....
	I-L .....	above 150 .....	0 and above. <sup>1</sup>
	II .....	150 and below .....	below 0.
Molten sulphur .....	II-L .....	150 and below .....	and .....
	I .....	above 225 .....	or .....
Cargo liquids Grades A through D <sup>2</sup> .....	II .....	225 and below .....	and .....
	I .....	above 225 .....	or .....
	I-L .....	above 225 .....	above 150.
	II .....	225 and below .....	and .....
Cargo liquids Grade E .....	II-L .....	225 and below .....	and .....
	I .....	above 225 .....	below 0.
	I-L .....	above 225 .....	0 to 150.
	II .....	225 and below .....	and .....
	II-L .....	225 and below .....	and .....
	I .....	above 225 .....	below 0.
	I-L .....	above 225 .....	0 to 400.
	II .....	225 and below .....	and .....
	II-L .....	225 and below .....	and .....
	I .....	above 225 .....	below 0.
	I-L .....	above 225 .....	0 to 400.
	II .....	225 and below .....	and .....