**Section 500.280 Heating Value and Calorimeter Equipment**

a)

1) Each utility furnishing natural gas, liquefied petroleum gas or a mixture of such gases with manufactured gas shall maintain in each community or territory served by it a monthly average standard of heating value of gas authorized by the Commission for that utility and community. Such standard of heating value shall be maintained with as little deviation as practicable, and the average total heating value on any one day shall not exceed or fall below the authorized monthly standard by more than five percent.

2) In situations, however, where, for the purpose of meeting the requirements of a peak load or an emergency, a utility makes use of a reserve or emergency supply, such as liquefied petroleum gas, then it shall be permissible to furnish gas of a heating value exceeding the authorized monthly standard by more than five percent, during the said peak or emergency.

b) Each utility furnishing manufactured gas shall supply gas which at any point at least one mile from the plant shall have a monthly average total heating value of not less than 565 British thermal units per cubic foot, and at no time shall the total heating value of the gas at such point be less than 530 British thermal units per cubic foot. In case gas is carried by mains at five pounds pressure or over per square inch, there shall be an allowance in the service of such higher pressure district of 35 British thermal units per cubic foot in the monthly average, and the minimum heating value shall not fall below 520 British thermal units per cubic foot.

c) To obtain the monthly average total heating value, the results of all tests of heating value made on each day during the calendar month on which tests are made shall be averaged, and the average of all the daily averages shall be taken as the monthly average.

d) No utility shall change its present standard of heating value without first obtaining the consent of the Commission.

e) Each utility furnishing manufactured gas, liquefied petroleum gas or a mixture of such gases with natural gas, and whose output exceeds fifteen million cubic feet of gas per year, shall test the heating value of such gas on at least five days of each week at such point or points on its system as may be designated or approved by the Commission from time to time. In communities and territories where straight natural gas service is furnished from a common natural gas pipeline system, heating value tests shall be made by the local utility at such frequencies and at such locations as may be determined from time to time by the Commission. Each utility required to make the above tests shall provide and maintain complete calorimeter equipment of a type approved by the Commission. In other communities, not hereinabove provided for, tests shall be made as the Commission may require. The methods of testing shall be in accordance with established practices.

f) In determining the acceptability of equipment and methods of testing, the recommendations of the National Bureau of Standards will be deemed prima facie to set forth established practice of the art.

g) The records of results of heating value tests made by the utility shall be kept on file, together with all data taken at the time of the test, in sufficiently complete form to permit the convenient checking of the methods and the calculations employed.

h) Definition of a cubic foot of gas. For the purpose of testing the gas under this Part, a cubic foot of gas shall be taken to be that amount of gas which occupies the volume of one cubic foot when saturated with water vapor at 60 degrees Fahrenheit and under an absolute pressure equal to that of 30 inches of mercury at a temperature of 32 degrees Fahrenheit. For the purpose of measurement to a customer, a cubic foot of gas shall be the amount of gas in a volume of one cubic foot under the conditions existing in such customer's meter as and where installed. A suitable correction factor shall be applied for pressure or for temperature and pressure, when gas is metered at a pressure in excess of 12 inches of water pressure.

i) Definition of British thermal unit. A British thermal unit is the quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit under standard conditions.

j) Definition of a therm. A therm is a unit of heating value equivalent to 100,000 British thermal units. The number of therms in any given volume of gas can be ascertained by multiplying such given volume of gas in cubic feet by the average total heating value of the gas expressed in British thermal units per cubic foot and then dividing the result by 100,000.