

**§ 60.642**

**40 CFR Ch. I (7-1-14 Edition)**

The principal hydrocarbon constituent is methane.

*Onshore* means all facilities except those that are located in the territorial seas or on the outercontinental shelf.

*Reduced sulfur compounds* means H<sub>2</sub>S, carbonyl sulfide (COS), and carbon disulfide (CS<sub>2</sub>).

*Sulfur production rate* means the rate of liquid sulfur accumulation from the sulfur recovery unit.

*Sulfur recovery unit* means a process device that recovers element sulfur from acid gas.

*Sweetening unit* means a process device that separates the H<sub>2</sub>S and CO<sub>2</sub> contents from the sour natural gas stream.

*Total SO<sub>2</sub> equivalents* means the sum of volumetric or mass concentrations of the sulfur compounds obtained by adding the quantity existing as SO<sub>2</sub> to the quantity of SO<sub>2</sub> that would be obtained if all reduced sulfur compounds were converted to SO<sub>2</sub> (ppmv or kg/dscm (lb/dscf)).

**E**The sulfur emission rate expressed as elemental sulfur, kilograms per hour (kg/hr) [pounds per hour (lb/hr)], rounded to one decimal place.

**R**The sulfur emission reduction efficiency achieved in percent, carried to one decimal place.

**S**The sulfur production rate, kilograms per hour (kg/hr) [pounds per hour (lb/hr)], rounded to one decimal place.

**X**The sulfur feed rate from the sweetening unit (i.e., the H<sub>2</sub>S in the acid gas), expressed as sulfur, Mg/D(LT/D), rounded to one decimal place.

**Y**The sulfur content of the acid gas from the sweetening unit, expressed as mole percent H<sub>2</sub>S (dry basis) rounded to one decimal place.

**Z**The minimum required sulfur dioxide (SO<sub>2</sub>) emission reduction efficiency, expressed as percent carried to one decimal place. Z<sub>i</sub> refers to the reduction efficiency required at the initial performance test. Z<sub>c</sub> refers to the reduction efficiency required on a continuous basis after compliance with Z<sub>i</sub> has been demonstrated.

[50 FR 40160, Oct. 1, 1985, as amended at 65 FR 61773, Oct. 17, 2000]

**§ 60.642 Standards for sulfur dioxide.**

(a) During the initial performance test required by §60.8(b), each owner or operator shall achieve at a minimum, an SO<sub>2</sub> emission reduction efficiency (Z<sub>i</sub>) to be determined from table 1 based on the sulfur feed rate (X) and the sulfur content of the acid gas (Y) of the affected facility.

(b) After demonstrating compliance with the provisions of paragraph (a) of this section, the owner or operator shall achieve at a minimum, an SO<sub>2</sub> emission reduction efficiency (Z<sub>c</sub>) to be determined from table 2 based on the sulfur feed rate (X) and the sulfur content of the acid gas (Y) of the affected facility.

Table 1. REQUIRED MINIMUM INITIAL SO<sub>2</sub> EMISSION REDUCTION EFFICIENCY (Z<sub>i</sub>)

H <sub>2</sub> S content of acid gas (Y), %	Sulfur feed rate (X), LT/D			
	2.0 ≤ X ≤ 5.0	5.0 < X ≤ 15.0	15.0 < X ≤ 300.0	X > 300.0
Y ≥ 50	79.0	88.51X <sup>0.0101</sup> Y <sup>0.0125</sup> or 99.8, whichever is smaller		
20 ≤ Y < 50	79.0	88.51X <sup>0.0101</sup> Y <sup>0.0125</sup> or 97.9, whichever is smaller		97.9
10 ≤ Y < 20	79.0	88.51X <sup>0.0101</sup> Y <sup>0.0125</sup> or 93.5, whichever is smaller		93.5
Y < 10	79.0	79.0	79.0	79.0

Table 2. REQUIRED MINIMUM SO<sub>2</sub> EMISSION REDUCTION EFFICIENCY (Z<sub>c</sub>)

H <sub>2</sub> S content of acid gas (Y), %	Sulfur feed rate (X), LT/D			
	2.0 ≤ X ≤ 5.0	5.0 < X ≤ 15.0	15.0 < X ≤ 300.0	X > 300.0
Y ≥ 50	74.0	85.35X <sup>0.0144</sup> Y <sup>0.0128</sup> or 99.8, whichever is smaller		
20 ≤ Y < 50	74.0	85.35X <sup>0.0144</sup> Y <sup>0.0128</sup> or 97.5, whichever is smaller		97.5
10 ≤ Y < 20	74.0	85.35X <sup>0.0144</sup> Y <sup>0.0128</sup> or 90.8, whichever is smaller		90.8
Y < 10	74.0	74.0	74.0	74.0

§ 60.643 Compliance provisions.

formance test as required by § 60.8, the

(a)(1) To determine compliance with the standards for sulfur dioxide specified in § 60.642(a), during the initial per-