

Environmental Protection Agency

§ 60.642

of the sulfur compounds obtained by adding the quantity existing as SO₂ to the quantity of SO₂ that would be obtained if all reduced sulfur compounds were converted to SO₂ (ppmv or kg/dscm (lb/dscf)).

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

RThe sulfur emission reduction efficiency achieved in percent, carried to one decimal place.

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

XThe sulfur feed rate from the sweetening unit (i.e., the H₂S in the acid gas), expressed as sulfur, Mg/D(LT/D), rounded to one decimal place.

YThe sulfur content of the acid gas from the sweetening unit, expressed as mole percent H₂S (dry basis) rounded to one decimal place.

ZThe minimum required sulfur dioxide (SO₂) emission reduction efficiency, expressed as percent carried to one decimal place. Z_i refers to the reduction efficiency required at

the initial performance test. Z_c refers to the reduction efficiency required on a continuous basis after compliance with Z_i 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 SO₂ emission reduction efficiency (Z_i) 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 SO₂ emission reduction efficiency (Z_c) 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 SO₂ EMISSION REDUCTION EFFICIENCY (Z_i)

| H ₂ 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 ^{0.0101} Y ^{0.0125} or 99.8, whichever is smaller | | |
| 20 ≤ Y < 50 | 79.0 | 88.51X ^{0.0101} Y ^{0.0125} or 97.9, whichever is smaller | | 97.9 |
| 10 ≤ Y < 20 | 79.0 | 88.51X ^{0.0101} Y ^{0.0125} or 93.5, whichever is smaller | | 93.5 |
| Y < 10 | 79.0 | 79.0 | 79.0 | 79.0 |

Table 2. REQUIRED MINIMUM SO₂ EMISSION REDUCTION EFFICIENCY (Z_c)

| H ₂ 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 ^{0.0144} Y ^{0.0128} or 99.8, whichever is smaller | | |
| 20 ≤ Y < 50 | 74.0 | 85.35X ^{0.0144} Y ^{0.0128} or 97.5, whichever is smaller | | 97.5 |
| 10 ≤ Y < 20 | 74.0 | 85.35X ^{0.0144} Y ^{0.0128} 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-