

# DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

## DIVISION OF AIR AND WASTE MANAGEMENT

Statutory Authority: 7 Delaware Code, Chapter 60, (7 Del.C. Ch. 60)

### FINAL

#### 1109 Emissions of Sulfur Compounds From Industrial Operations

#### ~~Regulation No. 9~~ 1109 Emissions of Sulfur Compounds From Industrial Operations

05/09/1985

~~Section 1~~

#### 1.0 General Provisions

- 1.1 The emission of sulfur dioxide from process operations shall be controlled to a limit that shall meet the ambient air quality requirements.
- 1.2 For all tables in this regulation, unless otherwise indicated, the emission limitation for a production rate between any two consecutive production rates shall be determined by linear interpolation.
- 1.3 For all tables in this regulation, unless otherwise indicated, the emission limitation for a production rate above the maximum production rate or below the minimum production rate shall be determined by linear extrapolation.
- 1.4 The provisions of this regulation shall not apply to the start-up and shutdown of equipment which operates continuously or in an extended steady state when emissions from such equipment during start-up and shutdown are governed by an operation permit issued pursuant to the provisions of ~~Section 2, Regulation No. 2~~ 2.0 of 7 DE Admin. Code 1102.

02/01/1981

~~Section 2~~

#### 2.0 Restrictions on Sulfuric Acid Manufacturing Operations

- 2.1 No person shall cause or allow the emission of sulfur dioxide in the tail gases from any existing sulfuric acid manufacturing operation to exceed either a concentration of 1,000 parts per million by volume or a mass emission rate as specified in Table 4 2-1 of this regulation.

TABLE 4 2-1  
ALLOWABLE MASS EMISSION RATE OF SULFUR DIOXIDE FROM  
EXISTING SULFURIC ACID MANUFACTURING OPERATIONS

Production Rate (Tons per Day)	Mass Emission Rate (Pounds per Hour)
100	75
300	210
500	345
700	480
900	615
1,100	750

1,300	885
1,500	1020

- 2.2 No person shall cause to be discharged into the atmosphere from any existing sulfuric acid plant any gases which ~~a-G~~ contain acid mist, expressed as H<sub>2</sub>SO<sub>4</sub>, in excess of 0.25 g per kg of acid produced (0.5 lb per ton) the product being expressed as 100% ~~percent~~ H<sub>2</sub>SO<sub>4</sub>.
- 2.3 The provisions of ~~Section 2.2 of this regulation~~ shall not apply to acid plants used as sulfur dioxide control systems, to chamber process plants, to acid concentrators or to petroleum storage and transfer facilities.
- 2.4 The reference methods used to determine compliance with standards prescribed in ~~Section 2.2 of this Regulation~~ shall be those set forth in ~~Section 1.5 of Regulation 20 7~~ DE Admin. Code 1120.

02/01/1981

~~Section 3~~

**3.0 Restriction on Sulfur Recovery Operations**

- 3.1 No person shall cause or allow the emission of sulfur dioxide in the tail gases from existing sulfur recovery operations to exceed either a concentration of 2,000 parts per million by volume or a mass emission rate as specified in Table ~~2 3-1~~ of this regulation.

TABLE ~~2 3-1~~  
ALLOWABLE MASS EMISSION RATE OF SULFUR DIOXIDE  
FROM SULFUR RECOVERY OPERATIONS

Production Rate (Tons per Day)	Mass Emission Rate (Pounds per Hour)
50	425
100	550
200	800
300	1,050
400	1,300
500	1,550
600	1,800
700	2,050
800	2,300
900	2,550
1,000	2,300

- 3.2 Except as provided in ~~Section 11 Regulation No. 20 11.0 of 7 DE Admin. Code 1120~~, NEW SOURCE PERFORMANCE STANDARDS, no person shall cause or allow the emission of sulfur dioxide in the tail gases from new sulfur recovery operations to exceed either a concentration of 2,000 parts per million by volume or a mass emission rate as specified in Table ~~2 3-1~~ of this regulation.

02/01/1981

~~Section 4~~

**4.0 Stack Height Requirements**

- 4.1 Minimum stack heights for new sources of sulfur dioxide will be determined by the Department on an individual basis. Such stack height requirements will be based on considerations such as, but not limited to, existing ambient levels of sulfur dioxide, local sources, atmospheric dispersion calculations, land use, and population density. The provisions of ~~Regulation No. 27~~ **7 DE Admin. Code 1127** shall apply to these calculations.

**12 DE Reg. 347 (09/01/08) (Final)**