

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DIVISION OF AIR QUALITY

Statutory Authority: 7 Delaware Code, Section 6010(a) and (c) (7 **Del.C.** §6010(a) & (c))
7 **DE Admin. Code** 1109

PROPOSED

PUBLIC NOTICE

SAN # 2023-14
DOCKET # 2023-R-A-0026

1109 Emissions of Sulfur Compounds From Industrial Operations

1. TITLE OF THE REGULATIONS:

7 **DE Admin. Code** 1109 "Emissions of Sulfur Compounds from Industrial Operations".

2. BRIEF SYNOPSIS OF THE SUBJECT, SUBSTANCE AND ISSUES:

The Division of Air Quality of the Department of Natural Resources and Environmental Control (DNREC) is proposing to amend 7 **DE Admin. Code** 1109, Section 1.0 "General Provisions", regarding emissions limits of sulfur compounds from industrial operations during startup, shutdown, and malfunction of equipment.

On June 12, 2015 the Environmental Protection Agency (EPA) identified the State Implementation Plans (SIP) of 36 states as inadequate because they allegedly allowed unregulated excess emissions (80 FR 33840). This EPA action is known as the "Startup, Shutdown, and Malfunction (SSM) SIP Call". 7 **DE Admin. Code** 1109 "Emissions of Sulfur Compounds from Industrial Operations" was cited in the SSM SIP Call because the EPA believed the regulation did not appropriately restrict emissions during startup or shutdown events. On October 23, 2023 EPA issued a final rule disapproving Delaware's November 26, 2016 SSM SIP Call submittal for Regulation 1109 (88 FR 72688). Delaware is proposing to amend Regulation 1109 in response to EPA's disapproval, to comply with the 2015 SSM SIP Call.

3. POSSIBLE TERMS OF THE AGENCY ACTION:

None.

4. STATUTORY BASIS OR LEGAL AUTHORITY TO ACT:

7 **Del.C.** Ch. 60, Section 6010 (a) and (c).

5. OTHER REGULATIONS THAT MAY BE AFFECTED BY THE PROPOSAL:

None.

6. NOTICE OF PUBLIC COMMENT:

A virtual public hearing (Docket # 2023-R-A-0026) will be held on Tuesday, August 27, 2024, beginning at 6 p.m. The web link to the virtual hearing can be accessed through the DNREC Public Hearings site at <https://de.gov/dnrechearings>. If prompted for a password, please use: 478566. To access the audio-only portion of the virtual hearing, dial 1-646-931-3860 and enter the Meeting ID 837 6527 6725. Closed captioning in over 20 languages, including English and Spanish, is available to attendees via Zoom platform utilized for all DNREC Public Hearings.

Those wishing to offer verbal comments during DNREC virtual public hearings must pre-register no later than noon on the date of the virtual hearing at <https://de.gov/dnrecomments> or by telephone at 302-739-9001.

The proposed amendment may be inspected online starting August 1, 2024 at http://regulations.delaware.gov/services/current_issue.shtml, or in-person, by appointment only, by contacting Kelsey Pangman by phone at 302-323-4542 or by email at Kelsey.Pangman@delaware.gov.

The Department will accept public comment through the close of business on Wednesday, September 11, 2024. Comments will be accepted in written form via email to DNRECHearingComments@delaware.gov, or by using the online form at <https://de.gov/dnrecomments>, or by U.S. mail to the following address:

Theresa Smith, Hearing Officer
DNREC - Office of the Secretary

7. PREPARED BY:

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1109 Emissions of Sulfur Compounds From Industrial Operations

~~05/09/1985~~

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 2.0 of 7 DE Admin. Code 1102.~~

~~02/01/1981~~

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 2-1 of this regulation.

**TABLE 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 contain acid mist, expressed as H₂SO₄, in excess of 0.25 g per kg of acid produced (0.5 lb per ton) the product being expressed as 100% H₂SO₄.
- 2.3 The provisions of 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 2.2 of this Regulation shall be those set forth in 1.5 of 7 DE Admin. Code 1120.

~~02/01/1981~~

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 3-1 of this regulation.

**TABLE 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 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 3-1 of this regulation.

02/01/1984

4.0 Stack Height Requirements

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 7 **DE Admin. Code** 1127 shall apply to these calculations.

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

28 DE Reg. 99 (08/01/24) (Prop.)