TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 2 AIR QUALITY (STATEWIDE)
PART 40 SULFURIC ACID PRODUCTION UNITS - SULFUR DIOXIDE, ACID MIST AND VISIBLE EMISSIONS

20.2.40.1 ISSUING AGENCY: Environmental Improvement Board.
[11/30/95; 20.2.40.1 NMAC - Rn, 20 NMAC 2.40.100 10/31/02]

20.2.40.2 SCOPE: All geographic areas within the jurisdiction of the Environmental Improvement Board.
[11/30/95; 20.2.40.2 NMAC - Rn, 20 NMAC 2.40.101 10/31/02]

20.2.40.3 STATUTORY AUTHORITY: Environmental Improvement Act, NMSA 1978, section 74-1-8(A)(4) and (7), and Air Quality Control Act, NMSA 1978, sections 74-2-1 et seq., including specifically, section 74-2-5(A), (B) and (C).
[11/30/95; 20.2.40.3 NMAC - Rn, 20 NMAC 2.40.102 10/31/02]

20.2.40.4 DURATION: Permanent.
[11/30/95; 20.2.40.4 NMAC - Rn, 20 NMAC 2.40.103 10/31/02]

20.2.40.5 EFFECTIVE DATE: November 30, 1995.
[11/30/95; 20.2.40.5 NMAC - Rn, 20 NMAC 2.40.104 10/31/02]
[The latest effective date of any section in this Part is 10/31/02.]

20.2.40.6 OBJECTIVE: The objective of this Part is to establish requirements and standards for sulfuric acid production units to minimize emissions.
[11/30/95; 20.2.40.6 NMAC - Rn, 20 NMAC 2.40.105 10/31/02]

20.2.40.7 DEFINITIONS: In addition to the terms defined in 20.2.2 NMAC (Definitions), as used in this Part:

A. **"Acid mist"** means sulfuric acid mist as measured by the method referenced in 20.2.40.110 NMAC and includes liquid mist as well as sulfur trioxide and sulfuric acid vapor.

B. **"Commenced"** means that an owner or operator has undertaken a continuous program of construction or that an owner or operator has entered into a binding agreement or contractual obligation to undertake and complete within a reasonable time a continuous program of construction.

C. **"Construction"** means fabrication, erection or installation of an affected facility.

D. **"Existing sulfuric acid production unit"** means a sulfuric acid production unit the construction or modification of which was commenced on or before August 17, 1971.

E. **"Good engineering practice"** means:

(1) With respect to stack heights less than 65 meters, the height necessary to insure that emissions from the stack do not result in excessive concentrations of any pollutant in the immediate vicinity of the source as result of atmospheric downwash, eddies and wakes which may be created by the source itself, nearby structures or nearby terrain obstacles. Such height shall not exceed:

(a) Thirty meters for stacks not influenced by the source itself, nearby structures or terrain; or

(b) The height determined by use of the equation: Hg = H+1.5 L; where: Hg = good engineering practice stack heights; H = the height of the source or nearby structure; and L = the lesser dimension (height or width) of the source or nearby structure for stacks that are influenced by nearby structures or terrain;

(2) With respect to stack heights equal to or greater than 65 meters, the owner or operator must satisfy all provisions and obtain all applicable approvals required under 20.2.80 NMAC (Stack Heights).

F. **"Modification"** means a physical change or change in the manner of operation which increases the amount of any air contaminant emitted by the sulfuric acid production unit or which results in the emission of any air contaminant not previously emitted.

G. **"Pecos-Permian Basin Intrastate Air Quality Control Region"** means Chaves, Curry, De Baca, Eddy, Lea, Quay and Roosevelt Counties.

H. **"Sulfuric acid"** means the chemical compound H_2SO_4.

I. **"Sulfuric acid produced"** means the production expressed as 100 percent H_2SO_4.

J. **"Sulfuric acid production unit"** means any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, organic sulfides and mercaptans, or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.

K. **"Ton"** means 2,000 pounds.

[11/30/95; 20.2.40.7 NMAC - Rn, 20 NMAC 2.40.107 10/31/02]

20.2.40.8 AMENDMENT AND SUPERSESSION OF PRIOR REGULATIONS: This Part amends and supersedes Air Quality Control Regulation ("AQCR") 651 -- Sulfuric Acid Production Units -- Sulfur Dioxide, Acid Mist and Visible Emissions last filed November 17, 1993:

A. All references to AQCR 651 in any other rule shall be construed as a reference to this Part.

B. The amendment and supersession of AQCR 651 shall not affect any administrative or judicial enforcement action pending on the effective date of such amendment nor the validity of any permit issued pursuant to AQCR 651.

[11/30/95; 20.2.40.8 NMAC - Rn, 20 NMAC 2.40.106 10/31/02]

20.2.40.9 DOCUMENTS: Documents cited in this Part may be viewed at the New Mexico Environment Department, Air Quality Bureau, Harold Runnels Building, 1190 St. Francis Drive, Santa Fe, NM 87505 [2048 Galisteo St., Santa Fe, NM 87505].

[11/30/95; 20.2.40.9 NMAC - Rn, 20 NMAC 2.40.108 10/31/02]

20.2.40.10 to 20.2.40.108 [RESERVED]

20.2.40.109 EXISTING UNITS:

A. The owner or operator of an existing sulfuric acid production unit located within the Pecos-Permian Basin Intrastate Air Quality Control Region shall not permit, cause, suffer or allow sulfur dioxide emissions to the atmosphere in excess of 575 pounds per hour, with a minimum stack height of 40 meters, or acid mist emissions in excess of 0.5 pounds per ton of sulfuric acid produced. Stack height shall meet standards for good engineering practice.

B. The owner or operator of an existing sulfuric acid production unit located outside the Pecos-Permian Basin Intrastate Air Quality Control Region shall not permit, cause, suffer or allow sulfur dioxide emissions to the atmosphere in excess of 680 pounds per hour, or acid mist emissions in excess of 0.5 pounds per ton of sulfuric acid produced.

[11/30/95; 20.2.40.109 NMAC - Rn, 20 NMAC 2.40.109 10/31/02]

20.2.40.110 COMPLIANCE: Compliance with sulfur dioxide and acid mist emission limitations of this Part shall be determined consistent with the method and procedures specified by the US EPA in 40 CFR Section 60.85 or any other equivalent method and procedures receiving prior approval from the Department and the US EPA. Upon request of the Department, the owner or operator of sulfuric acid production units subject to this regulation shall perform stack testing for sulfur dioxide and acid mist emissions according to the method stated above and report the results of such tests in the format and time period specified by the Department. The owner or operator shall inform the Department of the dates and times of such testing so that the Department may have opportunity to have an observer present during testing.

[11/30/95; 20.2.40.110 NMAC - Rn, 20 NMAC 2.40.110 10/31/02]

20.2.40.111 VISIBLE EMISSIONS: Opacity of visible emissions from existing sulfuric acid production units shall be determined consistent with the method set forth by the US EPA in 40 CFR Part 60, Appendix A, Method 9 or any other equivalent method receiving prior approval from the Department and the US EPA. The time period for taking opacity readings shall be for a minimum of six minutes.

[11/30/95; 20.2.40.111 NMAC - Rn, 20 NMAC 2.40.111 10/31/02]

20.2.40.112 MONITORING:

A. The owner or operator of an existing sulfuric acid production unit shall not permit, cause, suffer or allow operation of the sulfuric acid production unit without maintaining in good operating condition a monitor which continuously measures and records the sulfur dioxide concentration in the gases within the stack from which the gases are emitted to the atmosphere. The sampling point for monitoring emissions and the method for

determining the volumetric flow rate of the gases shall be approved by the Department. Instruments and sampling systems installed and used pursuant to this section shall be calibrated in accordance with the methods prescribed by the manufacturer's recommended zero adjustment and calibration check procedures at least once every 24 hours of operation, unless the manufacturer specifies or recommends more frequent calibration checks. The owner or operator of a sulfuric acid production unit shall retain for a period of two years all raw data and quality assurance measurements and procedures. This section is applicable to existing sulfuric acid production units after December 31, 1980.

B. Instruments and sampling systems installed and used pursuant to subsection A of 20.2.40.112 NMAC shall be installed, operated and maintained in accordance with the performance specifications and other requirements set forth by the US EPA in 40 CFR Section 60.84. The continuous emission monitoring system shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. In the event that significant repair work is performed on the monitoring system, the owner or operator of a sulfuric acid production unit shall demonstrate to the Department that the system continues to meet applicable performance specifications. The Department may require the owner or operator to conduct performance tests as specified at 40 CFR Part 60, Appendix B at any time that the Department determines that such a test is necessary to verify the performance of the monitoring system. An alternative means of verifying the performance of the monitoring system may be used if approved by the Department and the US EPA. The Department may also perform independent audits on the continuous monitoring system using the method referenced above, or other applicable methods.

[11/30/95; 20.2.40.112 NMAC - Rn, 20 NMAC 2.40.112 10/31/02]

20.2.40.113 REPORTING: To aid the Department in determining compliance with this Part, persons owning or operating existing sulfuric acid production units subject to this Part shall submit quarterly reports to the Department for the periods January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31 of each year; each report to be received by the Department within 45 days of the end of the quarterly period. The quarterly reports shall contain:

A. For each day that the plant is operating, the maximum 3-hour integrated average sulfur dioxide emissions, expressed in terms of pounds of sulfur dioxide per hour; and

B. All 3-hour periods during which the integrated average sulfur dioxide emissions exceed the sulfur dioxide emission limit.

[11/30/95; 20.2.40.113 NMAC - Rn, 20 NMAC 2.40.113 10/31/02]

HISTORY OF 20.2.40 NMAC:

Pre-NMAC History: The material in this part was derived from that previously filed with the commission of public records-state records center and archives:

AQCR 651, Sulfuric Acid Plants - Sulfur, 02/17/72;

AQCR 651, Sulfuric Acid Production Units - Sulfur Dioxide, Acid Mist And Visible Emissions, 01/30/80;

AQCR 651, Air Quality Control Regulation 651 -- Sulfuric Acid Production Units -- Sulfur Dioxide, Acid Mist And Visible Emissions, 04/29/81;

EIB/AQCR 651, Air Quality Control Regulation 651 -- Sulfuric Acid Production Units -- Sulfur Dioxide, Acid Mist And Visible Emissions, 07/15/86;

EIB/AQCR 651, Air Quality Control Regulation 651 -- Sulfuric Acid Production Units -- Sulfur Dioxide, Acid Mist And Visible Emissions, 11/17/93.

History of Repealed Material: [RESERVED]

Other History:

EIB/AQCR 651, Air Quality Control Regulation 651 -- Sulfuric Acid Production Units -- Sulfur Dioxide, Acid Mist And Visible Emissions, filed 11/17/93 was **renumbered** into first version of the New Mexico Administrative Code as 20 NMAC 2.40, Sulfuric Acid Production Units -- Sulfur Dioxide, Acid Mist And Visible Emissions, filed 10/30/95.

20 NMAC 2.40, Sulfuric Acid Production Units -- Sulfur Dioxide, Acid Mist And Visible Emissions, filed 10/30/95 was **renumbered, reformatted and replaced** by 20.2.40 NMAC, Sulfuric Acid Production Units -- Sulfur Dioxide, Acid Mist And Visible Emissions, effective 10/31/02.