

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 2 AIR QUALITY (STATEWIDE)
PART 19 POTASH, SALT OR SODIUM SULFATE PROCESSING EQUIPMENT - PARTICULATE MATTER

20.2.19.1 ISSUING AGENCY: Environmental Improvement Board.
[11/30/95; 20.2.19.1 NMAC - Rn, 20 NMAC 2.19.100 10/31/02]

20.2.19.2 SCOPE: All geographic areas within the jurisdiction of the Environmental Improvement Board.
[11/30/95; 20.2.19.2 NMAC - Rn, 20 NMAC 2.19.101 10/31/02]

20.2.19.3 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 74-2-4(A), (B), and (C).
[11/30/95; 20.2.19.3 NMAC - Rn, 20 NMAC 2.19.102 10/31/02]

20.2.19.4 DURATION: Permanent.
[11/30/95; 20.2.19.4 NMAC - Rn, 20 NMAC 2.19.103 10/31/02]

20.2.19.5 EFFECTIVE DATE: November 30, 1995.
[11/30/95; 20.2.19.5 NMAC - Rn, 20 NMAC 2.19.104 10/31/02]
[The latest effective date of any section in this Part is 10/31/02.]

20.2.19.6 OBJECTIVE: The objective of this Part is to establish particulate matter emission standards for potash, salt or sodium sulfate processing equipment.
[11/30/95; 20.2.19.6 NMAC - Rn, 20 NMAC 2.19.105 10/31/02]

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

- A. "Best engineering practices"** means, with respect to control of fugitive particulate matter emissions, the installation and use of hoods, enclosures, ducts, covers, sprays, or other equipment or measures on potash, salt or sodium sulfate processing equipment as necessary to prevent particulate matter from becoming airborne.
- B. "Compactor operations"** means compaction of fine muriate of potash materials and recrushing, screening or other size classification, and drying of the compacted materials.
- C. "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 contractual obligation to undertake and complete within a reasonable time a continuous program of construction.
- D. "Existing potash, salt or sodium sulfate processing equipment"** means process equipment in which the fabrication, erection or installation was commenced prior to January 1, 1979, and includes all crushers, grinders, screens, and other size-classification units, compactors, granulators, evaporators, dryers, conveyors, storage piles (including ore, product or other storage piles), facilities for bagging and loading, and any other process units with particulate matter emissions to the atmosphere.
- E. "Fugitive particulate matter emissions"** means particulate matter emissions which escape from potash, salt or sodium sulfate processing equipment due to leakage, materials handling, transfer and storage or other causes without being ducted through a stack.
- F. "Good engineering practice"** means, with respect to stack heights, 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 a 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:
 - (1) a thirty meters for stacks not influenced by the source itself, nearby structures or terrain; or
 - (2) for stacks that are influenced by nearby structures or terrain, the height determined by use of the equation $H_g = H + 1.5 L$, where: H_g = 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.

G. "Modification" means a physical change or change in the manner of operation which increases the amount of any air contaminant emitted by the potash, salt or sodium sulfate processing equipment or which results in the emission of any air contaminant not previously emitted.

H. "New potash, salt or sodium sulfate processing equipment" means process equipment or process unit thereof, the fabrication, erection, installation or modification of which is commenced on or after January 1, 1979, and includes all crushers, grinders, screens and other size-classification units, compactors, granulators, evaporators, dryers, conveyors, storage piles (including ore, product or other storage piles) facilities for bagging and loading, and any other process units with particulate matter emissions to the atmosphere. New potash, salt or sodium sulfate processing equipment does not include process equipment installed solely to replace equivalent equipment installed prior to January 1, 1979, if the replacement equipment will not result in a significant increase in capacity.

I. "Part" means an air quality control regulation under Title 20, Chapter 2 of the New Mexico Administrative Code, unless otherwise noted; as adopted or amended by the Board.

J. "Potash" means muriate potash (the chemical compound potassium chloride, KCl), sulfate of potash (the chemical compound sulfate K_2SO_4), and langbeinite (the chemical compound potassium magnesium sulfate, $K_2SO_4 \cdot 2MgSO_4$), or any other potassium, magnesium or mixed-potassium salts, and includes ores, intermediates, products and reaction products of such compounds.

K. "Salt" means the chemical compound sodium chloride (NaCl) and includes ores, intermediates, products and reaction products of this compound.

L. "Sodium sulfate" means the chemical compound sodium sulfate (Na_2SO_4) and includes ores, intermediates, products and reaction products of this compound.

M. "Standard conditions" means temperature of 68 degrees Fahrenheit and pressure of 29.92 inches of mercury.

N. "Submerged combustion evaporators" means vessels in which combustion occurs beneath the surface of a solution of dissolved potash, salt or sodium sulfate materials for the purpose of evaporating water. [11/30/95; 20.2.19.7 NMAC - Rn, 20 NMAC 2.19.107 10/31/02]

20.2.19.8 AMENDMENT AND SUPERSESSION OF PRIOR REGULATIONS: This Part amends and supersedes Air Quality Control Regulation ("AQCR") 508 -- Potash, Salt or Sodium Sulfate Processing Equipment - Particulate Matter last filed July 16, 1986.

A. All references to AQCR 508 in any other rule shall be construed as a reference to this Part.

B. The amendment and supersession of AQCR 508 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 508.

[11/30/95; 20.2.19.8 NMAC - Rn, 20 NMAC 2.19.106 10/31/02]

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

[11/30/95; 20.2.19.9 NMAC - Rn, 20 NMAC 2.19.108 10/31/02]

20.2.19.10 to 20.2.19.108 [RESERVED]

20.2.19.109 ALLOWABLE EMISSIONS:

A. The owner or operator of new potash, salt or sodium sulfate processing equipment shall not permit, cause, suffer or allow particulate matter emissions to the atmosphere:

(1) to exceed 0.10 grains per dry cubic foot of discharge gas adjusted to standard conditions from dryers; or

(2) to exceed 0.04 grains per dry cubic foot of discharge gas adjusted to standard conditions from all other processing equipment.

B. The owner or operator of existing potash, salt or sodium sulfate processing equipment shall not permit, cause, suffer or allow particulate matter emissions to the atmosphere:

(1) in excess of a total of 90 pounds per hour from all stacks serving equipment used in drying muriate of potash and all associated compactor operations;

(2) in excess of a total of 90 pounds per hour from all stacks serving equipment used in drying langbeinite;

(3) in excess of a total of 35 pounds per hour from all stacks serving equipment used in drying sulfate of potash and associated screening operations;

(4) in excess of a total of 15 pounds per hour from all stacks serving equipment used in dry milling of fine langbeinite; and

(5) in excess of a total of 50 pounds per hour from all stacks serving equipment used in drying salt or sodium sulfate.

C. The owner or operator of existing potash, salt or sodium sulfate processing equipment shall not permit, cause, suffer or allow particulate matter emissions to the atmosphere in excess of a total of 30 pounds per hour from all stacks serving evaporators.

D. The owner or operator of existing potash, salt or sodium sulfate processing equipment shall not permit, cause, suffer or allow particulate matter emissions from any equipment not regulated by subsections A, B, or C of 20.2.19.109 NMAC to exceed the allowable rates specified within Table 1.

(1) Interpolation of rates not specified within the table shall be accomplished by use of the equation: $E = 0.045 \text{ times } q \text{ raised to the power } 0.62$, where E is the allowable emission rate expressed in pounds per hour and q is the stack volumetric flow rate expressed in dry cubic feet per minute adjusted to standard conditions.

(2) Table 1 - Allowable Particulate Emission Rates for Specific Stack Volumetric Flow Rates:

Volumetric Flow Rate (dscfm)	Allowable Emission Rate (lb/hr)
1,000 or less	3.3
2,000	5.0
4,000	7.7
6,000	9.9
8,000	11.8
10,000	13.6
20,000	20.9
30,000	26.9
40,000	32.1
50,000	36.9
60,000	41.3
70,000 or greater	45.4

[11/30/95; 20.2.19.109 NMAC - Rn, 20 NMAC 2.19.109 10/31/02]

20.2.19.110 PROCESSING EQUIPMENT AND STACKS:

A. The owner or operator of potash, salt or sodium sulfate processing equipment shall not install or utilize any equipment or mechanism which increases the volume of gases emitted from a stack or stacks so as to decrease the apparent concentration of particulate matter within the gas stream so as to circumvent the requirements of subsection A of 20.2.19.109 NMAC above or increase the allowable emission rate as specified within subsection D of 20.2.19.109 NMAC.

B. The owner or operator of potash, salt or sodium sulfate processing equipment shall not permit, cause, suffer or allow emissions of particulate matter to the atmosphere except through stacks equipped with sampling ports and platforms in such number, location and size to allow accurate sampling to be performed. Stack height shall meet standards for good engineering practice. When it is not feasible to direct certain emissions through a stack, the owner or operator must utilize best engineering practices to minimize the release of fugitive particulate matter emissions to the atmosphere.

C. Where a stack or stacks regulated by subsection B or C of 20.2.19.109 NMAC also carry discharge gases from equipment regulated by subsection D of 20.2.19.109 NMAC, the allowable emission limit for the stack or stacks shall be increased by the allowable emission rate for the volume of discharge gases arising from the equipment regulated by subsection D of 20.2.19.109 NMAC. The additional allowed emissions shall be calculated as specified within subsection D of 20.2.19.109 NMAC based upon a determination of the volume of discharge gases prior to the point at which they are combined with discharged gases from equipment regulated by subsections B or C of 20.2.19.109 NMAC. In no case shall the allowable emissions from a stack or stacks which carry combined discharge gases exceed the sum of the allowable emission if the discharge gases were not combined.

[11/30/95; 20.2.19.110 NMAC - Rn, 20 NMAC 2.19.110 10/31/02]

20.2.19.111 TEST METHODS: Compliance with 20.2.19.109 NMAC shall be determined consistent with the method for manual stack testing set forth by the US EPA at 40 CFR, Part 60, Appendix A, Methods 1 through 5, or any other method receiving prior approval from the Department. Upon request of the Department, the owner or operator of potash, salt or sodium sulfate processing equipment shall perform stack testing according to the method stated above and report the results of such tests in the format and time period specified by the Department. The Department shall not require testing of a stack or stacks more frequently than annually unless the Department has reason to believe that the emissions from the stack or stacks may be in violation of applicable emission limits, or a test is necessary to demonstrate compliance after the completion of measures intended to gain compliance on a stack or stacks previously determined to be in violation of applicable emission limits. The owner or operator shall inform the Department of the dates and times of such testing so that the Department may have the opportunity to have an observer present during testing.

[11/30/95; 20.2.19.111 NMAC - Rn, 20 NMAC 2.19.110 10/31/02]

HISTORY OF 20.2.19 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:

HSSD 70-1, Ambient Air Quality Standards And Air Quality Control Regulations, 01/27/70.

AQCR 508, Potash, Salt Or Sodium Sulfate Processing Equipment - Particulate Matter, 11/21/78.

EIB/AQCR 508, Air Quality Control Regulation 508 - Potash, Salt Or Sodium Sulfate Processing Equipment - Particulate Matter, 07/16/86.

History of Repealed Material: [RESERVED]

Other History:

EIB/AQCR 508, Air Quality Control Regulation 508 - Potash, Salt Or Sodium Sulfate Processing Equipment - Particulate Matter, 07/16/86 was **renumbered** into first version of the New Mexico Administrative Code as 20 NMAC 2.19, Potash, Salt Or Sodium Sulfate Processing Equipment - Particulate Matter, filed 10/30/95.

20 NMAC 2.19, Potash, Salt Or Sodium Sulfate Processing Equipment - Particulate Matter, filed 10/30/95 was **renumbered, reformatted and replaced** by 20.2.19 NMAC, Potash, Salt Or Sodium Sulfate Processing Equipment - Particulate Matter, effective 10/31/02.