APCC
Adm. Reg. 16-20
Series VII

Index

(A)

WEST VIRGINIA ADMINISTRATIVE REGULATIONS

Subject: Regulation VII - To Prevent and Control Particulate Air Pollution From Manufacturing Process Operations.

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ABSTRACT

These amendments to Regulation VII (1974) were adopted by the Commission on the 23rd day of February, 1979. Regulation VII (1974), as amended, was retitled Regulation VII (1980) and became effective April 8, 1980, and was filed with the Secretary of State March 30, 1979. The amendments to Regulation VII (1970) were adopted by the West Virginia Air Pollution Control Commission on the 28th day of August, 1974, and became effective October 1, 1974, and were filed with the Secretary of State August 30, 1974. Regulation VII (1970), as amended, was retitled Regulation VII (1974). Regulation VII (1970) was adopted by the West Virginia Air Pollution Control Commission on the 27th day of May, 1970 and became effective July 1, 1970 and was filed with the Secretary of State May 28, 1970.

WEST VIRGINIA ADMINISTRATIVE REGULATIONS
Air Pollution Control Commission

Chapter 16-20
Series VII
(1980)

Subject: Regulation VII - "To Prevent and Control Particulate Air Pollution From Manufacturing Process Operations"

Section 0. General.

0.01. Scope.

The purpose of Regulation VII is to prevent and control particulate air pollution from manufacturing process operations.

0.02. Authority.

This regulation is issued under the authority of the West Virginia Code, Chapter 16, Article 20, Section 5. This regulation relates to West Virginia Code, Chapter 16, Article 20, Sections 1 through 13 inclusive.

0.03. Filing Date.

This regulation was promulgated or last amended on the 23rd day of February, 1979, was filed with the office of the Secretary of State the 30th day of March, 1979. Further, this regulation was filed pursuant to West Virginia Code, Chapter 29A, Article 2, Section 5 on the 30th day of December, 1982 in the office of the Secretary of State.

0.04. Effective Date.

The effective date of this regulation is the 8th day of April, 1980.

0.05. Type.

This regulation is a legislative rule as defined in West Virginia Code, Chapter 29A, Article 2.

Section 1. Definitions.

1.01. "Air Pollution", 'statutory air pollution' shall have the meaning ascribed to it in Section Two of Chapter Sixteen, Article Twenty of the Code of West Virginia, as amended.

1.02. "Commission" shall mean the West Virginia Air Pollution Control Commission.

1.03. "Director" shall mean the Director of the West Virginia Air Pollution Control Commission.

1.04. "Person" shall mean any and all persons, natural or artificial, including any municipal, public or private corporation organized or existing under the law of this or any other state or country and any firm, partnership, or association of whatever nature.

1.05. "Particulate Matter" shall mean any material, except uncombined water, that exists in a finely divided form as a liquid or solid.

1.06. "Smoke" shall mean small gasborne and airborne particulate matter emitted from a stack or other aperture in sufficient numbers to be visible.

1.07. "Opacity" shall mean the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

1.08. "Ringelmann Smoke Chart" shall be the Ringelmann's Scale for Grading the Density of Smoke published by the U. S. Bureau of Mines or any chart, recorder, indicator, or device which is a standardized method for the measurement of smoke density which is approved by the Commission as the equivalent of said Ringelmann Scale.

1.09. "Fugitive Particulate Matter" shall mean any and all particulate matter generated by any manufacturing process which, if not confined, would be emitted directly into the open air from points other than a stack outlet.

1.10. "Fuel" shall mean any form of combustible matter (solid, liquid, vapor, or gas) that is used as a source of heat.

1.11. "Air Pollution Control Equipment" shall mean any equipment used for collecting or converting smoke and/or particulate matter for the purpose of preventing or reducing emission of these materials into the open air.

1.12. "Standard Conditions" shall mean for the purposes of this regulation a temperature of $68^{\circ}F$ and a pressure of 29.92 inches of mercury column.

1.13. "Stack", for the purposes of this regulation, shall mean but not be limited to any duct, control equipment

exhaust, or similar apparatus, which is designed to vent gases containing particulate matter into the open air.

1.14. "Plant" shall mean and include all equipment, grounds, source operations, and any manufacturing process(es) utilized in an integral complex.

1.15. "Manufacturing Process" shall mean any action, operation or treatment embracing chemical, industrial, or manufacturing efforts, and employing, for example, heat treating furnaces, by-product coke plants, core-baking ovens, mixing kettles, cupolas, blast furnaces, open hearth furnaces, heating and reheating furnaces, puddling furnaces, sintering plants, electric steel furnaces, ferrous and non-ferrous foundries, kilns, stills, driers, crushers, grinders, roasters, and equipment used in connection therewith, and all other methods or forms of manufacturing or processing that may emit smoke, particulate matter, or gaseous matter.

1.16. "Process Weight" shall mean that total weight of all materials introduced into a source operation, excluding solid, liquid, and gaseous fuels used solely as fuels, and excluding air introduced for purposes of combustion.

1.17. "Process Weight Rate" shall mean a rate established as follows:

(a) For continuous or long-run steady-state source operations, the total process weight for the entire period of continuous operation or for a typical portion thereof,

divided by the number of hours of such period or portion thereof.

(b) For cyclical or batch unit operations, or unit processes, the total process weight for a period that covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such a period.

Where the nature of any process or operation or the design of any equipment is such as to permit more than one interpretation of this definition, the interpretation that results in the minimum value for allowable emission shall apply.

1.18. "Physical Change" shall mean for the purposes of this regulation, any change in a substance which does not change the properties of the substance. Such changes include but are not limited to crushing, grinding, drying, change of state and sizing.

1.19. "Chemical Change" shall mean for the purposes of this regulation, any change in a substance which does change the properties of the substance and by which a new substance is formed.

1.20. "Source Operation" shall mean the last operation in a manufacturing process preceding the emission of air contaminants which operation:

(a) Results in the separation of the air contaminant from the process materials or in the conversion of the process materials into air contaminants; and

(b) Is not an air pollution abatement operation.

1.21. "A Duplicate Source Operation" shall mean any combination of two or more individual source operations of any size that have the same nomenclature, either formerly adopted and/or commonly sanctioned by usage such as but not limited to two or more rotary driers, basic oxygen furnaces, or electric arc furnaces contained in the same plant.

1.22. "Source Operation Type" shall mean a categorization established as follows:

(a) Type 'a' shall mean any manufacturing process source operation involving glass melting, calcination or physical change except as noted in Type 'c' below.

(b) Type 'b' shall mean any metallurgical manufacturing process source operation. Gray iron cupolas located in the counties of Brooke, Hancock, Ohio, Marshall, and Kanawha; and the Magisterial Districts of Valley (Fayette County), Scott and Pocatalico (Putnam County), Tygart (Wood County), and Union and Winfield (Marion County west of I-79) shall be classified as Type 'b' source operations.

(c) Type 'c' shall mean any wet cement manufacturing process source operation which is used for the primary purpose of calcination. Gray iron cupolas located in the areas of the state other than those defined in Sub-Section 1.22 (b) shall be classified as Type 'c' source operations.

(d) Type 'd' shall mean any manufacturing process source operation in which materials of any origin undergo a chemical change unless otherwise classified.

Where the nature of any process or operation or the design of any equipment is such as to permit more than one interpretation of source operation type, the interpretation of the Commission shall apply.

Other words and phrases used in this regulation, unless otherwise indicated, shall have the meaning ascribed to them in Section Two of Chapter Sixteen, Article Twenty of the Code of West Virginia, as amended.

Section 2. Emission of Smoke and/or Particulate Matter Prohibited and Standards of Measurement.

2.01. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is darker in shade or appearance than that designated as No. 1 on the Ringelmann Smoke Chart or the equivalent opacity of this Ringelmann number, except as noted in Sub-Sections 2.02, 2.03, 2.04, and 2.05.

2.02. The provisions of Sub-Section 2.01 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than No. 2 on the Ringelmann Smoke Chart or the equivalent opacity of this Ringelmann number for any period or periods aggregating no more than

five (5) minutes in any sixty (60) minute period.

2.03. The provisions of Sub-Sections 2.01 and 2.02 shall not apply to smoke and/or particulate matter emitted during the charging or pushing operations of a coke production facility in existence on the effective date of this regulation. The following conditions will apply:

(a) Effective January 1, 1971, emission of smoke and/or particulate matter the shade or appearance of which is no darker than No. 3 on the Ringelmann Smoke Chart or the equivalent opacity of that Ringelmann number shall be permitted for a period or periods aggregating no more than three (3) minutes per charge and one (1) minute per push.

(b) Effective July 1, 1971, emission of smoke and/or particulate matter the shade or appearance of which is no darker than No. 3 on the Ringelmann Smoke Chart or the equivalent opacity of that Ringelmann number shall be permitted for a period or periods aggregating no more than two (2) minutes per charge and one (1) minute per push.

(c) Effective January 1, 1972, emission of smoke and/or particulate matter the shade or appearance of which is no darker than No. 2.5 on the Ringelmann Smoke Chart or the equivalent opacity of that Ringelmann number shall be permitted for a period or periods aggregating no more than two (2) minutes per charge and one (1) minute per push.

(d) Effective July 1, 1972, emission of smoke and/or particulate matter the shade or appearance of which is not

as dark as or darker than No. 2 on the Ringelmann Smoke Chart or the equivalent opacity of that Ringelmann number shall be permitted for a period or periods aggregating no more than two (2) minutes per charge and one (1) minute per push.

2.04. The provisions of Sub-Sections 2.01, 2.02, and 2.03 shall not apply to the charging or pushing operations of a coke production facility installed after July 1, 1970. Emissions of smoke and/or particulate matter the shade or appearance of which is less than No. 2 on the Ringelmann Smoke Chart or the equivalent opacity of that Ringelmann number shall be permitted for a period or periods aggregating no more than one and one-half (1.5) minutes per charge and one-half (0.5) minutes per push.

2.05. No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air from any storage structure associated with any manufacturing process.

Section 3. Control and Prohibition of Particulate Emissions by Weight From Manufacturing Process Source Operations.

3.01. No person shall cause, suffer, allow, or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in the following table:

Operating Source Operation or Total Duplicate Source Operation Process Weight Rate in Pounds Per Hour [1]	Maximum Allowable Total Stack Emission Rate in Pounds Per Hour For the Appropriate Process Weight[1] and Source Operation Type			
	Type 'a'	Type 'b'	Type 'c'	Type 'd'[2]
0	0	0	0	0
2,500	3	3	9	0.2
5,000	5	5	13	0.8
10,000	10	10	19	1.8
20,000	16	16	26	4.0
30,000	22	22	32	6.2
40,000	28	28	36	8.3
50,000	31	31	40	10.5
100,000	33	33	54	21.2
200,000	37	37	70	21.2
300,000	40	40	80	21.2
400,000	43	46	88	21.2
500,000	47	53	94	21.2
600,000	50	62	99	21.2
700,000	50	71	99	21.2
800,000	50	79	99	21.2
900,000	50	88	99	21.2
1,800,000 and above	50	176	99	21.2

[1] For a process weight between any two consecutive process weights stated in this table, the emission limitation shall be determined by linear interpolation.

[2] Type 'd' source operation stack emission rates do no apply to MINERAL ACIDS. See Sub-Section 3.02.

3.02. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity given in the following table:

Mineral Acid	Allowable Stack Gas Concentration in Milligrams Per Dry Cubic Meter at Standard Conditions from Source Operations or Duplicate Source Operations in Existence on the Effective Date of this Regulation	Allowable Stack Gas Concentration in Milligrams Per Dry Cubic Meter at Standard Conditions from Source Operations or Duplicate Source Operations Installed After the Effective Date of this Regulation
Sulfuric Acid Mist	70	35
Nitric Acid Mist and/or Vapor	140	70
Hydrochloric Acid Mist and/or Vapor	420	210
Phosphoric Acid Mist and/or Vapor	6	3

3.03. No person shall circumvent the provisions of this regulation by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration.

3.04. If a duplicate source operation that meets the requirements of this regulation is expanded or if a source operation that meets the requirements of this regulation is expanded to form a duplicate source operation, the total allowable emission rate for the expanded portion shall be determined by the following formula:

$$R_e = \left(\frac{W_e}{W_{et}} \right) R_{et}$$

Where,

R_e is the total allowable emission rate in pounds per hour for the new expanded portion of the duplicate source operation;

W_{et} is the total operating process weight rate in pounds per hour of the source operation or duplicate source operation prior to expansion plus the operating process weight rate of the new expanded portion;

R_{et} is the allowable emission rate in pounds per hour found in Sub-Section 3.01 opposite the process weight rate, W_{et};

W_e is the operating process weight rate in pounds per hour for the new expanded portion.

3.05. Separate stack emission rates for the new expanded portions of concern in Sub-Section 3.04 shall be calculated as per Sub-Section 3.09. The applicable stack emission rate(s) so calculated shall be additive with the existing emission rate for any stack used to vent both an existing source operation or duplicate source operation(s) and the addition(s) or portion(s) thereof.

3.06. The operating process weight for new plants which will contain duplicate source operations shall include the total process weight of those duplicate units to be installed during the initial five (5) year operating period.

3.07. Except as noted in Sub-Section 3.08, the increase of the operating process weight rate of any manufacturing process source operation or duplicate source operation by the operation of new, replacement, reactivated, and/or altered source operation(s) shall be considered as an expansion and the allowable emission rates from the source operation(s) which resulted in the increase shall be determined as per Sub-Section 3.04.

3.08. (a) Type 'b' duplicate source operations whose air pollution control equipment efficiency is a minimum of 99% by weight and whose total process weight rate is less than 250,000 pounds per hour shall be exempted from the requirements of Sub-Section 3.01 provided that smoke emitted into the open air from any such duplicate source operation

is not as dark or darker in shade or appearance than that designated as No. 1 on the Ringelmann Smoke Chart or the equivalent opacity of that Ringelmann number. If a duplicate source operation is expanded by the addition of a new source operation(s) and the total operating process weight rate is then greater than 250,000 pounds per hour, the allowable emission rates from the source operation which resulted in the increase above 250,000 pounds per hour shall be determined as per Sub-Section 3.04.

(b) Primary aluminum reduction potlines which are equipped with a fluidized bed reactor or other similar gas cleaning device which utilizes particulate matter as a media or as a component of a media for collecting or reducing the emissions of gaseous fluorides, shall be exempted from the requirements of Sub-Sections 3.01 and 3.04 provided that:

(1) At least 99% of the gaseous fluoride is removed from the exit gas stream by such device prior to discharging the cleaned gas stream to the open air; and

(2) The particulate matter loading in the exit gas stream is not greater than 0.01 grains per standard cubic foot of dry stack gas; and

(3) The smoke emitted into the open air from any such duplicate source operation is not as dark or darker in shade or appearance than that designated as No. 1 on the Ringelmann Smoke Chart or the equivalent opacity of that Ringelmann number. If a duplicate source operation is expanded by the addition of new source operation(s) and the total operating process weight rate is then greater than 250,000 pounds per hour, the allowable emission rates from the source operation which resulted in the increase above 250,000 pounds per hour shall be determined as per Sub-Section 3.04.

3.09. Where more than one source operation or combinations thereof, which are part of a duplicate source operation, are vented through separate stacks, the allowable stack emission rates for the separate stacks shall be determined by the following formula:

$$R_s = R_t \frac{W_s}{W_t}$$

Where,

R_s is the allowable stack emission rate for the separate stack venting the source operation(s) in question;

R_t is the total allowable emission rate for the duplicate source operation;

W_s is the operating process weight rate for the source operation(s) vented through the separate stack;

W_t is the total operating process weight rate for the duplicate source operation.

3.10. The provisions of this Section shall not apply to the coking of coal. See Section 2.

3.11. Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.

3.12. Potential Hazardous Material Emissions

Persons responsible for manufacturing process source operations from which hazardous particulate material may be emitted such as, but not limited to, lead, arsenic, beryllium, and other such materials shall give the utmost care and consideration to the potential harmful effects of the emissions resulting from such activities. Evaluations of these facilities as to adequacy, efficiency and emission potential will be made on an individual basis by the Commission working in conjunction with other appropriate governmental agencies.

Section 4. Control of Fugitive Particulate Matter.

4.01. No person shall cause, suffer, allow, or permit any manufacturing process generating fugitive particulate

matter to operate that is not equipped with a fugitive particulate matter control system. This system shall be operated and maintained in such a manner as to minimize the emission of fugitive particulate matter.

4.02. The owner or operator of a plant shall maintain dust control of the plant premises and plant owned, leased or controlled access roads by paving or other suitable measures. Good operating practices shall be observed in relation to stockpiling and general maintenance to prevent dust generation and atmospheric entrainment.

Section 5. Registration.

After the effective date of this regulation all persons owning and/or operating an existing manufacturing process source operation not previously registered shall register such source operation with the Commission. The information required for registration shall be determined by the Director, and shall be provided in the manner specified by the Director.

Section 6. Permits.

No person shall construct, modify, or relocate any manufacturing process source operation without first obtaining a permit in accordance with the provisions of Section Two, Chapter Sixteen, Article Twenty, Paragraph 11b of the Code of West Virginia, as amended, and Regulation XIII of this agency.

Section 7. Reports and Testing.

7.01. At such reasonable times as the Director may designate the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases when the Director has reason to believe that the stack emission limitation(s) is/are being violated. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment, and the required safety equipment such as scaffolding, railings, and ladders to comply with generally accepted good safety practices.

7.02. The Director, or his duly authorized representative, may conduct such other tests as he may deem necessary to evaluate air pollution emissions other than those noted in Sections 2 and 3.

Section 8. Compliance Programs and Schedules.

8.01. In the event that process equipment or operations in existence prior to the adoption of this regulation do not meet the emission limitations, an acceptable program to fully comply

with the regulation shall be developed and offered to the Commission by the person responsible for the installation. This program shall be submitted upon the request of and within such time as shall be fixed by the Commission. Once this program has been approved by the Commission, the owner and/or operator of such installation shall not be in violation of this regulation so long as the approved or amended program is observed. Compliance programs, schedules, and variances that have previously been issued by the Commission under Regulation VII (1974) shall remain in effect until the expiration date of that compliance program, schedule, or variance.

8.02. In the event that an owner or operator of such process equipment fails to submit a program or an acceptable program and schedule, the Commission shall, by order, determine the compliance program and schedule.

Section 9. Variance.

Due to unavoidable malfunction of equipment, emissions exceeding those provided for in this regulation may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Commission provided a corrective program has been submitted by the owner or operator and approved by the Commission.

Section 10. Exemptions.

Provisions of this regulation shall not apply to particulate emissions regulated by Regulations II, III, V and VI or to internal combusion engines, aircraft, and air entrained particulate matter from public or private carriers.

Section 11. Effective Date.

Regulation Series VII (1974) was amended by the Commission on the 23rd day of February, 1979, and shall become effective the 8th day of April 1980. Regulation Series VII (1974), as amended, shall henceforth be cited as Regulation Series VII (1980). Regulation Series VII (1974) was adopted by the Commission on the 28th day of August, 1974, and became effective October 1, 1974, and superseded Regulation Series VII (1970) which was adopted by the Commission on the 27th day of May, 1970, and became effective July 1, 1970.

The foregoing is a true and correct copy of the West Virginia Air Pollution Control Commission Regulation Series VII (1979) as adopted on the 23rd day of February, 1979.

Carl G. Beard, II
Secretary
West Virginia Air Pollution
Control Commission

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1.08. "Ringelmann Smoke Chart" shall be the Ringelmann's Scale for Grading the Density of Smoke published by the U. S. Bureau of Mines or any chart, recorder, indicator, or device which is a standardized method for the measurement of smoke density which is approved by the Commission as the equivalent of said Ringelmann Scale.

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divided by the number of hours of such period or portion thereof.

(b) For cyclical or batch unit operations, or unit processes, the total process weight for a period that covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such a period.

Where the nature of any process or operation or the design of any equipment is such as to permit more than one interpretation of this definition, the interpretation that results in the minimum value for allowable emission shall apply.

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(c) Type 'c' shall mean any wet cement manufacturing process source operation which is used for the primary purpose of calcination. Gray iron cupolas located in the areas of the state other than those defined in Sub-Section 1.22 (b) shall be classified as Type 'c' source operations.

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2.02. The provisions of Sub-Section 2.01 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than No. 2 on the Ringelmann Smoke Chart or the equivalent opacity of this Ringelmann number for any period or periods aggregating no more than

five (5) minutes in any sixty (60) minute period.

2.03. The provisions of Sub-Sections 2.01 and 2.02 shall not apply to smoke and/or particulate matter emitted during the charging or pushing operations of a coke production facility in existence on the effective date of this regulation. The following conditions will apply:

(a) Effective January 1, 1971, emission of smoke and/or particulate matter the shade or appearance of which is no darker than No. 3 on the Ringelmann Smoke Chart or the equivalent opacity of that Ringelmann number shall be permitted for a period or periods aggregating no more than three (3) minutes per charge and one (1) minute per push.

(b) Effective July 1, 1971, emission of smoke and/or particulate matter the shade or appearance of which is no darker than No. 3 on the Ringelmann Smoke Chart or the equivalent opacity of that Ringelmann number shall be permitted for a period or periods aggregating no more than two (2) minutes per charge and one (1) minute per push.

(c) Effective January 1, 1972, emission of smoke and/or particulate matter the shade or appearance of which is no darker than No. 2.5 on the Ringelmann Smoke Chart or the equivalent opacity of that Ringelmann number shall be permitted for a period or periods aggregating no more than two (2) minutes per charge and one (1) minute per push.

(d) Effective July 1, 1972, emission of smoke and/or particulate matter the shade or appearance of which is not

as dark as or darker than No. 2 on the Ringelmann Smoke Chart or the equivalent opacity of that Ringelmann number shall be permitted for a period or periods aggregating no more than two (2) minutes per charge and one (1) minute per push.

2.04. The provisions of Sub-Sections 2.01, 2.02, and 2.03 shall not apply to the charging or pushing operations of a coke production facility installed after July 1, 1970. Emissions of smoke and/or particulate matter the shade or appearance of which is less than No. 2 on the Ringelmann Smoke Chart or the equivalent opacity of that Ringelmann number shall be permitted for a period or periods aggregating no more than one and one-half (1.5) minutes per charge and one-half (0.5) minutes per push.

2.05. No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air from any storage structure associated with any manufacturing process.

Section 3. Control and Prohibition of Particulate Emissions by Weight From Manufacturing Process Source Operations.

3.01. No person shall cause, suffer, allow, or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in the following table:

Operating Source Operation or Total Duplicate Source Operation Process Weight Rate in Pounds Per Hour [1]	Maximum Allowable Total Stack Emission Rate in Pounds Per Hour For the Appropriate Process Weight [1] and Source Operation Type			
	Type 'a'	Type 'b'	Type 'c'	Type 'd' [2]
0	0	0	0	0
2,500	3	3	9	0.2
5,000	5	5	13	0.8
10,000	10	10	19	1.8
20,000	16	16	26	4.0
30,000	22	22	32	6.2
40,000	28	28	36	8.3
50,000	31	31	40	10.5
100,000	33	33	54	21.2
200,000	37	37	70	21.2
300,000	40	40	80	21.2
400,000	43	46	88	21.2
500,000	47	53	94	21.2
600,000	50	62	99	21.2
700,000	50	71	99	21.2
800,000	50	79	99	21.2
900,000	50	88	99	21.2
1,800,000 and above	50	176	99	21.2

1 For a process weight between any two consecutive process weights stated in this table, the emission limitation shall be determined by linear interpolation.

2 Type 'd' source operation stack emission rates do no apply to MINERAL ACIDS. See Sub-Section 3.02.

3.02. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity given in the following table:

Mineral Acid	Allowable Stack Gas Concentration in Milligrams Per Dry Cubic Meter at Standard Conditions from Source Operations or Duplicate Source Operations in Existence on the Effective Date of this Regulation	Allowable Stack Gas Concentration in Milligrams Per Dry Cubic Meter at Standard Conditions from Source Operations or Duplicate Source Operations Installed After the Effective Date of this Regulation
Sulfuric Acid Mist	70	35
Nitric Acid Mist and/or Vapor	140	70
Hydrochloric Acid Mist and/or Vapor	420	210
Phosphoric Acid Mist and/or Vapor	6	3

3.03. No person shall circumvent the provisions of this regulation by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration.

3.04. If a duplicate source operation that meets the requirements of this regulation is expanded or if a source operation that meets the requirements of this regulation is expanded to form a duplicate source operation, the total allowable emission rate for the expanded portion shall be determined by the following formula:

$$R_e = \left(\frac{W_e}{W_{et}} \right) R_{et}$$

Where,

R_e is the total allowable emission rate in pounds per hour for the new expanded portion of the duplicate source operation;

W_{et} is the total operating process weight rate in pounds per hour of the source operation or duplicate source operation prior to expansion plus the operating process weight rate of the new expanded portion;

R_{et} is the allowable emission rate in pounds per hour found in Sub-Section 3.01 opposite the process weight rate, W_{et};

W_e is the operating process weight rate in pounds per hour for the new expanded portion.

3.05. Separate stack emission rates for the new expanded portions of concern in Sub-Section 3.04 shall be calculated as per Sub-Section 3.09. The applicable stack emission rate(s) so calculated shall be additive with the existing emission rate for any stack used to vent both an existing source operation or duplicate source operation(s) and the addition(s) or portion(s) thereof.

3.06. The operating process weight for new plants which will contain duplicate source operations shall include the total process weight of those duplicate units to be installed during the initial five (5) year operating period.

3.07. Except as noted in Sub-Section 3.08, the increase of the operating process weight rate of any manufacturing process source operation or duplicate source operation by the operation of new, replacement, reactivated, and/or altered source operation(s) shall be considered as an expansion and the allowable emission rates from the source operation(s) which resulted in the increase shall be determined as per Sub-Section 3.04.

3.08. (a) Type 'b' duplicate source operations whose air pollution control equipment efficiency is a minimum of 99% by weight and whose total process weight rate is less than 250,000 pounds per hour shall be exempted from the requirements of Sub-Section 3.01 provided that smoke emitted into the open air from any such duplicate source operation

is not as dark or darker in shade or appearance than that designated as No. 1 on the Ringelmann Smoke Chart or the equivalent opacity of that Ringelmann number. If a duplicate source operation is expanded by the addition of a new source operation(s) and the total operating process weight rate is then greater than 250,000 pounds per hour, the allowable emission rates from the source operation which resulted in the increase above 250,000 pounds per hour shall be determined as per Sub-Section 3.04.

(b) Primary aluminum reduction potlines which are equipped with a fluidized bed reactor or other similar gas cleaning device which utilizes particulate matter as a media or as a component of a media for collecting or reducing the emissions of gaseous fluorides, shall be exempted from the requirements of Sub-Sections 3.01 and 3.04 provided that:

(1) At least 99% of the gaseous fluoride is removed from the exit gas stream by such device prior to discharging the cleaned gas stream to the open air; and

(2) The particulate matter loading in the exit gas stream is not greater than 0.01 grains per standard cubic foot of dry stack gas; and

(3) The smoke emitted into the open air from any such duplicate source operation is not as dark or darker in shade or appearance than that designated as No. 1 on the Ringelmann Smoke Chart or the equivalent opacity of that Ringelmann number. If a duplicate source operation is expanded by the addition of new source operation(s) and the total operating process weight rate is then greater than 250,000 pounds per hour, the allowable emission rates from the source operation which resulted in the increase above 250,000 pounds per hour shall be determined as per Sub-Section 3.04.

3.09. Where more than one source operation or combinations thereof, which are part of a duplicate source operation, are vented through separate stacks, the allowable stack emission rates for the separate stacks shall be determined by the following formula:

$$R_s = R_t \frac{W_s}{W_t}$$

Where,

R_s is the allowable stack emission rate for the separate stack venting the source operation(s) in question;

R_t is the total allowable emission rate for the duplicate source operation;

W_s is the operating process weight rate for the source operation(s) vented through the separate stack;

W_t is the total operating process weight rate for the duplicate source operation.

3.10. The provisions of this Section shall not apply to the coking of coal. See Section 2.

3.11. Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.

3.12. Potential Hazardous Material Emissions

Persons responsible for manufacturing process source operations from which hazardous particulate material may be emitted such as, but not limited to, lead, arsenic, beryllium, and other such materials shall give the utmost care and consideration to the potential harmful effects of the emissions resulting from such activities. Evaluations of these facilities as to adequacy, efficiency and emission potential will be made on an individual basis by the Commission working in conjunction with other appropriate governmental agencies.

Section 4. Control of Fugitive Particulate Matter.

4.01. No person shall cause, suffer, allow, or permit any manufacturing process generating fugitive particulate

matter to operate that is not equipped with a fugitive particulate matter control system. This system shall be operated and maintained in such a manner as to minimize the emission of fugitive particulate matter.

4.02. The owner or operator of a plant shall maintain dust control of the plant premises and plant owned, leased or controlled access roads by paving or other suitable measures. Good operating practices shall be observed in relation to stockpiling and general maintenance to prevent dust generation and atmospheric entrainment.

Section 5. Registration.

After the effective date of this regulation all persons owning and/or operating an existing manufacturing process source operation not previously registered shall register such source operation with the Commission. The information required for registration shall be determined by the Director, and shall be provided in the manner specified by the Director.

Section 6. Permits.

No person shall construct, modify, or relocate any manufacturing process source operation without first obtaining a permit in accordance with the provisions of Section Two, Chapter Sixteen, Article Twenty, Paragraph 11b of the Code of West Virginia, as amended, and Regulation XIII of this agency.

Section 7. Reports and Testing.

7.01. At such reasonable times as the Director may designate the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases when the Director has reason to believe that the stack emission limitation(s) is/are being violated. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment, and the required safety equipment such as scaffolding, railings, and ladders to comply with generally accepted good safety practices.

7.02. The Director, or his duly authorized representative, may conduct such other tests as he may deem necessary to evaluate air pollution emissions other than those noted in Sections 2 and 3.

Section 8. Compliance Programs and Schedules.

8.01. In the event that process equipment or operations in existence prior to the adoption of this regulation do not meet the emission limitations, an acceptable program to fully comply

with the regulation shall be developed and offered to the Commission by the person responsible for the installation. This program shall be submitted upon the request of and within such time as shall be fixed by the Commission. Once this program has been approved by the Commission, the owner and/or operator of such installation shall not be in violation of this regulation so long as the approved or amended program is observed. Compliance programs, schedules, and variances that have previously been issued by the Commission under Regulation VII (1974) shall remain in effect until the expiration date of that compliance program, schedule, or variance.

8.02. In the event that an owner or operator of such process equipment fails to submit a program or an acceptable program and schedule, the Commission shall, by order, determine the compliance program and schedule.

Section 9. Variance.

Due to unavoidable malfunction of equipment, emissions exceeding those provided for in this regulation may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Commission provided a corrective program has been submitted by the owner or operator and approved by the Commission.

Section 10. Exemptions.

Provisions of this regulation shall not apply to particulate emissions regulated by Regulations II, III, V and VI or to internal combusion engines, aircraft, and air entrained particulate matter from public or private carriers.

Section 11. Effective Date.

Regulation Series VII (1974) was amended by the Commission on the 23rd day of February, 1979, and shall become effective the 8th day of April 1980. Regulation Series VII (1974), as amended, shall henceforth be cited as Regulation Series VII (1980). Regulation Series VII (1974) was adopted by the Commission on the 28th day of August, 1974, and became effective October 1, 1974, and superseded Regulation Series VII (1970) which was adopted by the Commission on the 27th day of May, 1970, and became effective July 1, 1970.

The foregoing is a true and correct copy of the West Virginia Air Pollution Control Commission Regulation Series VII (1979) as adopted on the 23rd day of February, 1979.

Carl G. Beard, II
Secretary
West Virginia Air Pollution
Control Commission