WEST VIRGINIA LEGISLATURE
CHARLESTON 25305

November 9, 1976

Mr. James R. McCartney
Secretary of State
Room W-151, State Capitol
Charleston, West Virginia 25305

Dear Mr. McCartney:

Notification of Approval of Rules or Regulations in accordance with Section eleven, Article three, Chapter twenty-nine-a of the West Virginia Code.

On November 8, 1976, the Legislative Rule-Making Review Committee approved regulations submitted by the Air Pollution Control Commission concerning Regulation X entitled "To Prevent and Control Air Pollution from the Emission of Sulfur Oxides."

A copy of the approved regulations is attached.

Very truly yours,

Mario J. Palumbo
State Senate

A. L. Sommerville, Jr.
House of Delegates

Cochairmen, Legislative
Rule-Making Review Committee

FILE IN THE OFFICE OF
SECRETARY OF STATE OF
WEST VIRGINIA

THIS DATE 11-5-76

Enclosure

CERTIFICATION OF PRESENTATION

OF PROPOSED RULE TO THE

LEGISLATIVE RULE-MAKING REVIEW COMMITTEE

The undersigned hereby certifies that in accordance with Chapter 29A, Article 3, Section 11 of the Code of West Virginia of 1931, as amended, the statutory requirement of seventeen (17) copies of the attached Regulation X (1976) - To Prevent and Control Air Pollution From the Emission of Sulfur Oxides, has been submitted to the Legislative Rule-Making Review Committee this 5th day of November, 1976.

Carl G. Beard, II

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

November 5, 1976
Date

FILED IN THE OFFICE OF SECRETARY OF STATE OF WEST VIRGINIA

THIS DATE 11-5-76

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WEST VIRGINIA ADMINISTRATIVE REGULATIONS

Air Pollution Control Commission

Chapter 16-20

Series X

(1976)

Subject: Regulation X - To Prevent and Control Air Pollution From the Emission of Sulfur Oxides.

Section 1. Intent and Purpose.

1.01. Fuel Quality Goals. It is the intent of the Commission that all persons engaged in the burning of fuel make a maximum effort to utilize the best quality fuel available regardless of the requirements of this regulation.

Section 2. Definitions.

2.01. "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.

2.02. "Air Pollutants" shall mean solids, liquids, or gases which, if discharged into the air, may result in a statutory air pollution.

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

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

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

2.06. "Fuel Burning Unit" shall mean and include any furnace, boiler apparatus, device, mechanism, stack or structure used in the process of burning fuel or other combustible material for the primary purpose of producing heat or power by indirect heat transfer. For the purposes of this regulation, all fuel burning units are classified in the following categories:

(a) Type 'a' shall mean any fuel burning unit which has as its primary purpose the generation of steam or other vapor to produce electric power for sale.

(b) Type 'b' shall mean any fuel burning unit not classified as a Type 'a' or Type 'c' unit such as industrial pulverized-fuel-fired furnaces, cyclone furnaces, gas-fired and liquid-fuel-fired units.

(c) Type 'c' shall mean any hand-fired or stoker-fired fuel burning unit not classified as a Type 'a' unit.

2.07. "Waste Heat Boiler" shall mean any boiler which derives all or part of its heat input from the waste heat of a manufacturing process operation.

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

2.09. "Priority I Regions", "Priority II Regions", and "Priority III Regions" are defined as follows:

Priority Classification	Federal Air Quality Control Region	Included West Virginia Counties
I	Region I Steubenville-Weirton-Wheeling Interstate Air Quality Control Region (Ohio-W. Va.)	Brooke Hancock Marshall Ohio
	Region VII Cumberland-Keyser Interstate Air Quality Control Region (W. Va.-Md.)	Grant (Union District only) Mineral (Elk, New Creek, and Piedmont Districts)
II	Region II Parkersburg-Marietta Interstate Air Quality Control Region (W. Va.-Ohio)	Jackson Pleasants Tyler Wetzel Wood
III	All other regions	All other counties or districts not listed above

2.10. "Air Pollution Control Equipment" shall mean any equipment used for collecting, confining, or converting air pollutants for the purpose of preventing or reducing the emission of these pollutants into the open air.

2.11. "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, pipe stills, reformers, furnaces associated with manufacturing processes, driers, crushers, grinders, roasters, and equipment used in connection therewith, and all other methods or forms of manufacturing or processing that may emit sulfur dioxide or other sulfur compounds.

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

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

(b) Is not an air pollution abatement operation.

2.13. "Sulfur Dioxide" is an air pollutant which is a nonflammable, nonexplosive, colorless, gaseous molecule composed of one atom of sulfur and two atoms of oxygen. In concentrations of 0.3 to 1.0 parts per million and above, most people can detect it by taste; in concentrations greater than 3.0 parts per million it has a pungent, irritating odor to most people.

2.14. "Plant" shall mean and include all fuel burning units, source operations, equipment and grounds utilized in an integral complex.

2.15. "Equivalent Fuel Sulfur Content" shall mean that quantity of sulfur dioxide in pounds per million British Thermal Units (B.T.U.'s) which corresponds to a given percent sulfur in fuel being burned and is calculated on the basis of 100 percent conversion of the sulfur to sulfur dioxide and assuming that no sulfur or sulfur dioxide recovery or control measures are employed.

2.16. "Stack", for the purposes of this regulation, shall mean, but not be limited to, any duct, control equipment exhaust, or similar apparatus, which vents gases and/or particulate matter into the open air.

Section 3. Sulfur Dioxide Weight Emission Standards for Fuel Burning Units.

3.01. Total Allowable Emission Rates for Similar Units in Priority I and Priority II Regions.

No person shall cause, suffer, allow, or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows:

(1) For fuel burning units of the Kammer and Mitchell Plants of Ohio Power Company, located in Air Quality Control Region I, the product of 6.8 and the total design heat inputs for such units discharging through those stacks in million British Thermal Units (B.T.U.'s) per hour.

(2) For fuel burning units of the Willow Island Station of Monongahela Power Company, located in Air Quality Control Region II, the product of 6.0 and the total design heat inputs for such units discharging from those stacks in million B.T.U.'s per hour.

(3) For all other Type 'a' fuel burning units, the product of 2.7 and the total design heat inputs for such units discharging through those stacks in million B.T.U.'s per hour.

(4) For Type 'b' and Type 'c' fuel burning units, the product of 3.1 and the total design heat

inputs for such units discharging through those stacks in million B.T.U.'s per hour.

3.02. Maximum Allowable Emission Rates for Similar Units in Region IV (Kanawha Valley Air Quality Control Region: Kanawha County, Putnam County, and Falls and Kanawha Magisterial Districts of Fayette County).

No person shall cause, suffer, allow, or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows:

(1) For fuel burning units of the John Amos Plant of Appalachian Power Company, located in Air Quality Control Region IV, the product of 2.5 and the total design heat inputs for such units discharging from those stacks in million B.T.U.'s per hour.

(2) For all other Type 'a' fuel burning units, the product of 1.6 and the total design heat inputs for such units discharging through those stacks in million B.T.U.'s per hour, provided however, that no more than 45,000 pounds per hour of sulfur dioxide shall be discharged into the open air from all such stacks.

(3) For Type 'b' and Type 'c' fuel burning units, the product of 1.6 and the total design heat inputs for such units discharging through those stacks in million B.T.U.'s per hour, provided however, that no more than 5,500 pounds per hour of sulfur dioxide shall be discharged into the open air from all such stacks.

3.03. Maximum Allowable Emission Rates for Similar Units in All Priority III Regions Except Region IV.

No person shall cause, suffer, allow, or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows:

(1) For fuel burning units of the Harrison Power Station of Monongahela Power Company, located in Air Quality Control Region VI, the product of 6.0 and the total design heat inputs for such units discharging from those stacks in million B.T.U.'s per hour.

(2) For fuel burning units of the Rivesville Power Station of Monongahela Power Company,

located in Air Quality Control Region VI, the product of 5.35 and the total design heat inputs for such units discharging from those stacks in million B.T.U.'s per hour.

(3) For fuel burning units of the Albright Power Station of Monongahela Power Company, located in Air Quality Control Region VI, the product of 4.50 and the total design heat inputs for such units discharging from those stacks in million B.T.U.'s per hour.

(4) For fuel burning units of the Fort Martin Power Station of Monongahela Power Company, located in Air Quality Control Region VI, the product of 4.30 and the total design heat inputs for such units discharging from those stacks in million B.T.U.'s per hour.

(5) For fuel burning units of the Philip Sporn Plant of Central Operating Company, located in Air Quality Control Region III, the product of 2.55 and the total design heat inputs for such units discharging from those stacks in million B.T.U.'s per hour.

(6) For all other Type 'a' fuel burning units, the product of 3.2 and the total design heat inputs for such units discharging through those stacks in million B.T.U.'s per hour.

(7) For Type 'b' and Type 'c' fuel burning units, the product of 3.2 and the total design heat inputs for such units discharging through those stacks in million B.T.U.'s per hour.

3.04. Allowable Emission Rates for Individual Stacks.

The maximum allowable emission rate for an individual stack shall not exceed by more than 25 percent the emission rate determined by prorating the total allowable emission rate specified in Sub-Sections 3.01, 3.02, or 3.03 on the basis of individual unit heat input at design capacity for all fuel burning units discharging through that stack.

Subject to the provisions of this regulation, allowable emission rates for individual stacks shall be determined by the owner and/or operator and registered with the Commission at the request of and on forms provided by the Director. Such rates shall be subject to review and approval by the Director.

The approved set of individual stack allowable emission rates shall become an official part of the compliance schedule

and any permits concerning such source or sources, and shall not be changed without the prior written approval of the Director.

3.05. The design heat input of a waste heat boiler shall not be included in computing the total plant design heat input for the purposes of Sub-Sections 3.01, 3.02, 3.03, or 3.04 of this regulation.

3.06. No person shall circumvent the provisions of this regulation by constructing fuel burning unit(s) larger than would be necessary to provide heat and/or power for an existing manufacturing plant, with a reasonable margin for plant expansion, in order to use that design heat input to raise the allowable sulfur content in fuel.

3.07. No person shall cause, suffer, allow, or permit the discharge of sulfur dioxide to the open air from the combustion of fuel in a fuel burning unit of a waste heat boiler in excess of 2.2 pounds of sulfur dioxide per million B.T.U.'s of heat input per hour. This limitation is based on the heat input provided to the boiler by the combustion of this auxiliary fuel.

The provision of this Sub-Section applies only to the fuel used for the waste heat boiler(s) and does not replace or supersede the provisions of Sub-Section 3.08.

3.08. Weight Emission Standards for Manufacturing Process Source Operations.

(a) No person shall cause, suffer, allow, or permit the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in Sub-Sections (b), (c), (d), (e), and (f) following.

(b) No person shall cause, suffer, allow, or permit sulfur dioxide tail gas emissions from sulfuric acid manufacturing plants to exceed the following:

(1) For plants using elemental sulfur as a feed stock, 30 pounds per ton of acid produced.

(2) For plants using other materials as a feed stock, 40 pounds per ton of acid produced.

(c) No person shall cause, suffer, allow, or permit the emission of sulfur oxides, calculated as sulfur dioxide, from a sulfur recovery plant to exceed 0.06 pounds per pound of sulfur processed.

(d) No person shall cause, suffer, allow, or permit the combustion of any refinery process gas stream or any other process gas stream that contains hydrogen sulfide in a

concentration greater than 50 grains per 100 cubic feet of gas. In certain cases very small units may be considered exempt from this requirement if, in the opinion of the Commission, compliance would be economically unreasonable and if the contribution of the unit to the surrounding air quality could be considered negligible.

(e) No person shall cause, suffer, allow, or permit the emission of sulfur oxides, calculated as sulfur dioxide, from primary non-ferrous smelters to exceed that determined by the following equations:

Copper Smelters:	$Y = 0.2\ X$
Zinc Smelters:	$Y = 0.564\ X^{0.85}$
Lead Smelters:	$Y = 0.98\ X^{0.77}$

Where X is the total sulfur fed to the smelter in pounds per hour, and Y is the allowable sulfur dioxide emissions in pounds per hour.

(f) No person shall cause, suffer, allow or permit the total sulfite pulp mill emissions of sulfur oxides, calculated as sulfur dioxide, from operations such as blow pits, washer vents, storage tanks, digester relief, and recovery system, to exceed 9.0 pounds per air-dried ton of pulp produced.

Section 4. Registration.

4.01. Within thirty (30) days after the effective date of this regulation all persons owning and/or operating a source(s) of sulfur dioxide subject to this regulation and not previously registered shall have registered such source(s) with the Commission. The information required for registration shall be determined and provided in the manner specified by the Director. Registration forms should be requested from the Director by the owner and/or operator of such source(s).

4.02. The owner and/or operator of a source(s) of sulfur dioxide that is under construction or on which construction is initiated within thirty (30) days after the effective date of this regulation shall register such source(s) within this thirty (30) day period.

Section 5. Permits.

5.01. After the effective date of this regulation, no person shall construct or modify any source of sulfur dioxide without first obtaining a permit for such construction or modification. Applications for permits shall be made upon forms available from the Director and shall be filed no less than ninety (90) days prior to the construction or modification. These forms shall include such information as in the judgment of the Director will enable him to determine whether such source will be so designed as to operate in conformance with the provisions of this regulation

and the Code of West Virginia, and will not cause or contribute to the violation of Air Quality Standards. Within ninety (90) days of the receipt of an application the Director shall issue or deny such permit in accordance with the provisions of Section 2 of Chapter 16, Article 20, Paragraph 11b of the Code of West Virginia, as amended, and Regulation XIII of this agency.

Section 6. Reports and Testing.

6.01. Tests to determine compliance with the allowable sulfur dioxide emission limitations of this regulation shall be based on a two (2)-hour averaging time.

6.02. (a) At the request of the Commission the owner and/or operator of a source shall install such stack gas monitoring devices as the Director deems necessary to determine compliance with the provisions of this regulation. The data from such devices shall be readily available at the source location or such other reasonable location that the Director may specify. At the request of the Director, or his duly authorized representative, such data shall be made available for inspection or copying. Failure to promptly provide such data shall constitute a violation of this regulation.

(b) Prior to the installation of calibrated stack gas monitoring devices, sulfur dioxide emission rates shall be calculated on an equivalent fuel sulfur content basis.

6.03. At such reasonable times as the Director may designate, the owner or operator of a source(s) of sulfur dioxide may be required to conduct or have conducted tests to determine the compliance of such source(s) with the emission limitations of Section 3. 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 tests. Should the Director exercise his option to conduct such tests, the operator will provide all 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.

6.04. 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 Section 3.

6.05. The operators of the fuel burning units or persons selling fuel shall submit data on the fuel used or sold for use in such units. Such data shall be reported in the manner the Director may specify. However, reports on such data shall not exceed one (1) per month. Such reports must be filed within fifteen (15) days of the end of the established reporting period and will include, but not necessarily be limited to, information such as the quantity of fuel burned or sold and the sulfur, moisture, volatile matter, and the B.T.U. content.

Section 7. Compliance Programs and Schedules.

7.01. In the event that a source(s) of sulfur dioxide in existence prior to the adoption of this regulation does 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 source. 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.

7.02. In the event that an owner or operator of such a source(s) of sulfur dioxide fails to submit a program or an acceptable

program and schedule, the Commission, shall, by order, determine the compliance program and schedule.

Section 8. Variance.

8.01. Due to unavoidable malfunction of equipment or inadvertent fuel shortages, 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 equipment malfunction or fuel shortage. 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 9. Exemptions and Recommendations.

9.01. All fuel burning units having a heat input under ten (10) million B.T.U.'s per hour will be exempt from Section 3 through Section 8. However, failure to attain acceptable air quality in parts of some urban areas may require the mandatory control of these sources at a later date.

9.02. In an effort to avoid the necessity for such mandatory controls the Commission strongly recommends that specific fuel quality objectives be met. In Priority I and Priority II

regions and in cities in Priority III regions with a population of more than 10,000 (based on the latest census) the Commission recommends that no person use or provide for sale fuel having a sulfur content greater than that listed in the following table for use in residential and other fuel burning units not otherwise restricted by this regulation:

Effective Date	Percent Sulfur Content of Fuels	
	Coal	Oil
June 30, 1972	3.0	2.0
June 30, 1975	2.0	1.5
June 30, 1978	1.0	0.5

Section 10. Scope.

(a) Regulation X (1976) shall in no way circumvent or supersede the requirements as established in 40 C.F.R. Part 60 et. seq. (July 1, 1976) more commonly referred to as the Standards of Performance for New Stationary Sources.

(b) If Regulation X (1976), adopted by the West Virginia Air Pollution Control Commission on the 4th day of November, 1976, is found invalid by any court of competent jurisdiction, then Regulation X (1973), adopted by the West Virginia Air

Pollution Control Commission on the 28th day of June, 1973, shall remain in full force and effect.

Section 11. Effective Date.

Regulation X (1976) shall become effective December 10, 1976.

The foregoing is a true and correct copy of the West Virginia Air Pollution Control Commission Regulation X (1976) as adopted on the 4th day of November, 1976.

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