



STATE OF WEST VIRGINIA  
OFFICE OF THE SECRETARY OF STATE  
CHARLESTON 25305

A. JAMES MANCHIN  
SECRETARY OF STATE

STATE REGISTER FILING

I, Carl G. Beard, II, Secretary,  
Title or Position

Air Pollution Control Commission, hereby submit to record in  
Department or Division

the State Register on 8 1/2 x 11" paper two (2) copies of

- ( ) proposed rules and regulations concerning topics of material not covered by existing rules and regulations;
- (x) proposed rules and regulations superseding rules and regulations already on file;
- (x) notice of hearing;
- ( ) findings and determinations;
- ( ) rules and regulations; or
- ( ) other - specify ( ):

This filing pertains to

Chapter 16  
Article 20  
Series II (1974)  
Section \_\_\_\_\_  
Page No. \_\_\_\_\_

FILED IN THE OFFICE OF  
SECRETARY OF STATE OF  
WEST VIRGINIA

THIS DATE 11-6-78

- (x) proposed rules and regulations are required to go to Legislative Rule Making Committee;
- ( ) proposed rules and regulations are excluded from Legislative Rule Making Committee;

November 6, 1978  
Date Submitted

Carl G. Beard, II  
Signature of Person Authorizing  
this Filing Carl G. Beard, II

**WEST VIRGINIA  
AIR POLLUTION CONTROL COMMISSION**

**NOTICE OF PUBLIC HEARINGS**

Pursuant to the provisions of Chapter 16 and Chapter 29A of the Code of West Virginia and the Clean Air Act Amendments of 1977, notice is hereby given that the West Virginia Air Pollution Control Commission will hold public hearings concerning proposed amendments to the following regulations:

Regulation II - "To Prevent and Control Particulate  
Air Pollution From Combustion of Fuel in Indirect  
Heat Exchangers",

Regulation III - "To Prevent and Control Air Pollution  
From the Operation of Hot Mix Asphalt Plants",

Regulation VI - "To Prevent and Control Air Pollution  
From Combustion of Refuse",

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

and

Regulation VIII - "Ambient Air Quality Standards for  
Sulfur Oxides and Particulate Matter".

Public hearings will also be held concerning the following proposed regulations:

Regulation XVII - "To Prevent and Control Particulate  
Air Pollution From Materials Handling, Preparation,  
Storage and Sources of Fugitive Particulate Matter,

and

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more      more

WEST VIRGINIA  
AIR POLLUTION CONTROL COMMISSION

Notice of Public Hearings  
Page Two

Regulation XVIII - "To Prevent and Control Air  
Pollution From Direct Meat-Firing Devices".

All public hearings will be held in the order listed with the hearing on Regulation II beginning at 9:15 a.m. on December 7 and subsequent hearings running consecutively through December 8, 1978, beginning at 9:15 a.m. each day, at the Charleston Civic Center, "Little Theater", located on Reynolds Street, Charleston, Kanawha County, West Virginia.

Copies of the proposed amendments to Regulation II, Regulation III, Regulation VI, Regulation VII and Regulation VIII, and proposed Regulation XVII and Regulation XVIII are available for public inspection in the offices of the West Virginia Air Pollution Control Commission located at 1558 Washington Street, East, Charleston, West Virginia.

Any person who desires to submit exhibits or other written material must submit the exhibits or documents and eleven (11) copies thereof.

The hearings are open to the public and comments from any person will be received and made part of the record.

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

FILE IN THE OFFICE OF  
SECRETARY OF STATE OF  
WEST VIRGINIA

THIS DATE 11-6-78

WEST VIRGINIA ADMINISTRATIVE REGULATIONS  
AIR POLLUTION CONTROL COMMISSION

PROPOSED AMENDMENTS TO

REGULATION II (1974)

"TO PREVENT AND CONTROL PARTICULATE AIR  
POLLUTION FROM COMBUSTION OF FUEL IN  
INDIRECT HEAT EXCHANGERS"

# PROPOSED REGULATION

Public hearings will be held concerning proposed amendments to the West Virginia Air Pollution Control Commission's Regulation II, Regulation III, Regulation VI, Regulation VII, Regulation VIII and proposed Regulation XVII and Regulation XVIII. The hearings will be held in the order listed beginning with the hearing on Regulation II on December 7, 1978 and subsequent hearings running consecutively through December 8, 1978 starting at 9:15 a.m. each day at the Charleston Civic Center "Little Theater" located on Reynolds Street, Charleston, Kanawha County, West Virginia.

WEST VIRGINIA ADMINISTRATIVE REGULATIONS  
Air Pollution Control Commission

Chapter 16-20  
Series II  
(1974)  
(1978)

**Subject:** Regulation II - To Prevent and Control Particulate Air  
Pollution From Combustion of Fuel in Indirect Heat  
Exchangers,

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**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.** "Air Pollutants" shall mean solids, liquids, or gases which, if discharged into the air, may result in a statutory air pollution.
- 1.03.** "Commission" shall mean the West Virginia Air Pollution Control Commission,
- 1.04.** "Director" shall mean the director of the West Virginia Air Pollution Control Commission,
- 1.05.** "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,

1.06. "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 product 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.

1.07. "Similar Unit(s)" shall mean all Type 'a', or all Type 'b', or all Type 'c' fuel burning units located at one plant.

1.08. "Fuel", for the purpose of this regulation, shall mean any form of combustible matter (solid, liquid, vapor, or gas) that is used as a source of heat,

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

1.10. "Smoke" shall mean small gasborne and airborne particulate matter arising from a process of combustion in sufficient number to be visible.

1.11. "Opacity" shall mean the degree to which smoke and/or particulate emissions reduce the transmission of light and obscure the view of an object in the background.

~~1.11.~~ 1.12. "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 approved by the Commission as the equivalent of said Ringelmann's Scale.

~~1.12.~~ 1.13. "Plant" shall mean and include all fuel burning units, source operations, equipment, and grounds utilized in an integral complex.

~~1.13.~~ 1.14. "Fugitive Particulate Matter" shall mean any and all particulate matter generated by any operation involving or associated with the combustion of fuel in fuel burning units which, if not confined, would be emitted directly into the open air from points other than a stack outlet.

~~1.14.~~ 1.15. "Fugitive Particulate Matter Control System" shall mean any equipment or method used to confine, collect, or dispose of fugitive particulate matter, including, but not limited to, hoods, bins, duct work, fans, and air pollution control equipment.

~~1.15,~~      1.16,      "Air Pollution Control Equipment" shall mean any equipment used for collecting or confining particulate matter for the purpose of preventing or reducing the emission of this air pollutant into the open air,

~~1.16,~~      1.17,      "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,

~~1.17, --- "Kanawha Valley Air Basin" shall mean that area starting at the junction of the Gauley and New Rivers and terminating at the center of the Winfield Locks and extending a distance of three (3) statute miles, - measured horizontally, - with no reference to terrain, on each side of the center line of the Kanawha River. -~~

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

2.01,      Visible Emission Requirements for Fuel Burning Units ~~Not Meeting the Requirements of Section 3, - Weight Emission Standard -~~  
Whose Maximum Design Heat Input is Less than Ten (10) Million BTU's Per Hour.

(a)    No person shall cause, suffer, allow or permit the emission of smoke and/or particulate matter into the open air from any fuel burning unit which is in excess of 0.5 on the Ringelmann



limitations specified in the following tables for the designated areas and time periods: Smoke Chart or ten (10) percent opacity.

(a) From March 15, 1972, until September 1, 1972, smoke which is as dark as or darker than:

Areas of State	Installation Date of Fuel Burning Unit	Ringelmann Limitations on Fuel Burning Units
Kanawha Valley Air Basin	Before April 4, 1966	-2-
	After April 4, 1966	-1-
All Other	NO LIMITATIONS	

(b) From September 1, 1972, until June 30, 1975, smoke which is as dark as or darker than:

Areas of State	Ringelmann Limitation on Fuel Burning Units
All	-1-

(c) After June 30, 1975, smoke which is darker than:

Areas of State	Ringelmann Limitation on Fuel Burning Units
All	0.5-

2.02.

(b) The provision ~~of~~ of Sub-Section 2.01 (a) ~~of this section~~ shall not apply to smoke emitted during the cleaning of a fire box or soot blowing the shade or appearance of which is less than 2.0 on the Ringelmann ~~number specified in the following table,~~ Smoke Chart or forty (40) percent opacity for a period or periods aggregating no more than eight (8) minutes per fuel burning unit in any eight (8)-hour period:

Sub-Sections	Ringelmann-Number
2.01 (a)	3 -
2.01 (b) and (c)	2 -

2.03.

2.02. Visible Emission Requirements for Fuel Burning Units that ~~Meet the Requirements of Section 3, - Weight Emission Standards~~ Whose Maximum Design Heat Input is Equal to or More than Ten (10) Million BTU's Per Hour.

(a) No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is darker in shade or appearance than 0.5 on the Ringelmann Smoke Chart or ten (10) percent opacity.

2.04.

(b) The provision ~~of~~ of Sub-Section 2.03 2.02 (a) shall not apply to smoke emitted during the cleaning of a fire box or soot blowing the shade or appearance of which is less than ~~No. 1~~ 1.0 on

the Ringelmann Smoke Chart or twenty (20) percent opacity for a period or periods aggregating no more than eight (8) minutes per fuel burning unit for any eight (8)-hour period.

2.05.

2.03. Realizing that with present technology the provisions of this section may, in some cases, be too restrictive to be applied to the building of a new fire in a fuel burning unit, the Commission may, upon specific application by the owner and/or operator of a fuel burning unit(s), grant exemptions to these provisions. However, in no case shall these exemptions exceed the limitations set forth in the following table:

Type of Fuel Burning Unit	Exemptions Allowed for No More Than Two (2) Hours Per Start-Up Operation Shall Not be as Dark or Darker in Shade or Appearance as:
Type 'a' and Type 'b'	<del>No. 2</del> <u>2.0 on the Ringelmann Smoke Chart or forty (40) percent opacity</u>
Type 'c'	<p>(1) For forty-five (45) minutes <del>No. 3</del> <u>3.0 on the Ringelmann Smoke Chart or sixty (60) percent opacity</u></p> <p>(2) For the remaining seventy-five (75) minutes <del>No. 2</del> <u>2.0 on the Ringelmann Smoke Chart or forty (40) percent opacity</u></p>

If such an exemption to the provisions of this section is desired, an application in writing shall be made to the Director. From time to time

the Commission shall review such exemptions to determine if they are still warranted. If the Commission revises or terminates an exemption the owner and/or operator of the affected fuel burning unit(s) shall be notified by certified mail. Such revisions or terminations shall not become effective for at least ninety (90) days after the receipt of notification by the owner and/or operator.

Section 3. Weight Emission Standards.

3.01. (a) No person shall cause, suffer, allow, or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount determined as follows:

(1) For Type 'a' fuel burning units, the product of 0.05 and the total design heat inputs for such units in million British Thermal Units (B.T.U.'s) per hour, provided however that no more than 1200 pounds per hour of particulate matter shall be discharged into the open air from all such units;

(2) For Type 'b' fuel burning units, the product of 0.09 and the total design heat inputs for such units in million B.T.U.'s per hour, provided however that no more than 600 pounds per hour of particulate matter shall be discharged into the open air from all such units; and

(3) For Type 'c' fuel burning units, in excess of the values listed in the following table, provided however that no more than 300 pounds per hour of particulate matter shall be discharged into the open air from all such units.

Table for Type 'c' Units	
Total Design Heat Input for All Type 'c' Fuel Burning Units Located at One Plant in Millions of B.T.U.'s Per Hour	Total Allowable Particulate Matter Emission Rate for All Type 'c' Fuel Burning Units Located at One Plant in Pounds Per Hour
10	3.4
20	5.6
40	9.0
60	11.7
80	14.4
100	16.6
200	26.4
400	42.2
600	54.0
3,333	300.0

For values between any two corresponding consecutive values listed in this table, linear interpolation is to be used for both columns.

(4) For Type 'c' units located in the following counties and magisterial districts.

(i) Counties - Brooke, Hancock, Ohio, Marshall and Kanawha.

(ii) Magisterial Districts - Valley (Fayette County),  
Scott and Pocatalico (Putnam County), Tygart (Wood County),  
Union and Winfield (Marion County, west of interstate I-79)

<u>Table for Type 'c' Units</u>	
<u>Total Design Heat Input for All Type 'c' Fuel Burning Units Located at One Plant in Millions of B.T.U.'s Per Hour</u>	<u>Total Allowable Particulate Matter Emission Rate for All Type 'c' Fuel Burning Units Located at One Plant in Pounds Per Hour</u>
<u>10</u>	<u>3.4</u>
<u>20</u>	<u>5.6</u>
<u>40</u>	<u>9.0</u>
<u>60</u>	<u>11.7</u>
<u>80</u>	<u>14.4</u>
<u>100</u>	<u>16.6</u>
<u>110</u>	<u>17.6</u>
<u>Above 110</u>	<u>.09 x total design heat input in million B.T.U.'s per hour</u>

(b) 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/or any permits concerning such source(s), and shall not be changed without the prior written approval of the Director.

(c) If the number of similar fuel burning units located at one plant, each of which is meeting the requirements of this regulation, is expanded by the addition of a new unit(s), the total allowable emission rate for the new unit(s) shall be determined by the following formula. However, the maximum allowable emission rates given in Sub-Section 3.01 (a) are not to be exceeded:

$$R_e = \left[ 1 - \left( \frac{H_{et} - R_{et}}{H_{et}} \right) \right] H_e$$

Where,

$R_e$  is the total allowable emission rate in pounds per hour for the new fuel burning unit(s);

$H_{et}$  is the total design heat input in million B.T.U.'s per hour of the existing and new similar units;

$R_{et}$  is the total allowable emission rate in pounds per hour corresponding to  $H_{et}$ ; and

$H_e$  is the total design heat input in million B.T.U.'s per hour for the new fuel burning unit(s).

### 3.02. Addition of Sulfur Oxides to Combustion Unit Exit Gas Stream.

No person shall cause, suffer, allow, or permit the addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving control equipment efficiency. Such action shall constitute a violation of this regulation.

3.03. The provision of Sub-Section 3.02 of this section shall not apply to combustion units in operation on the effective date of this regulation, September 1, 1974.

Section 4. Control of Fugitive Particulate Matter.

4.01. No person shall cause, suffer, allow, or permit any source of 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. Sources of fugitive particulate matter associated with fuel burning units shall include, but not be limited to, the following:

- (a) Stockpiling of ash or fuel either in the open or in enclosures such as silos;
- (b) Transport of ash in vehicles or on conveying systems, to include spillage, tracking, or blowing of particulate matter from or by such vehicles or equipment; and
- (c) Ash or fuel handling systems and ash disposal areas.

Section 5. Registration.

5.01. Within thirty (30) days after the effective date of this regulation all persons owning and/or operating existing fuel



burning units not previously registered shall have registered such units 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 fuel burning unit(s) subject to the provision of this section.

~~5.02. --- The owner and/or operator of fuel burning units that are under construction or on which construction is initiated within thirty (30) days after the effective date of this regulation shall register such fuel burning units within this thirty (30) day period.~~

Section 6. Permits.

~~6.01. --- After the effective date of this regulation, no person shall construct or modify any fuel burning unit 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(s) 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 Secondary 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.~~

6.01. No person shall construct, modify, or relocate any fuel burning unit without first obtaining a 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 7. Reports and Testing.

7.01. At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s) may be required to conduct or have conducted tests to determine the compliance of such unit(s) with the emission limitations of Section 3. 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 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.

Within a reasonable tolerance, the individual samples for such emission tests shall be extracted isokinetically, with the probe and filter media maintained at, or about, stack temperatures.

Individual measurements shall be made at each of the various extraction points throughout the sampling plane in a manner that yields a composite sample and a distribution of measurements which are representative of the total stack gas flow and pollutant concentrations during the test.

The primary particulate sample collector shall be a pre-conditioned, fiberglass mat filter, certified as being at least ninety-nine (99) percent efficient in collecting 0.3 micron DOP (Diocetyl Phthalate) smoke, or a filter of equivalent properties and efficiency. The filter used shall be pre-weighed to at least one-tenth (0.1) of a milligram.

The total sample weight shall include both the particulate collected by the filter and the particulate obtained by appropriate cleaning of all devices preceding this filter in the sampling train. The total sample weight shall be determined to the nearest one-tenth (0.1) of a milligram.

Sufficient information on temperatures, velocities, pressures, weights and dimensional values shall be reported to the Director, with such necessary commentary as he may require to allow an accurate evaluation of the reported test results and the conditions under which they were obtained.

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 Sub-Section 3.01.

7.03. The operators of fuel burning units shall submit data on operating schedules and the quality of fuel used in such units. Such data shall be reported in the manner the Director may specify, and will include, but not necessarily be limited to, information such as the number of start-ups, the quantity of fuel burned, and the ash, sulfur, moisture, volatile matter, and B. T. U. content.

7.04. Within a reasonable time prior to the start-up of a fuel burning unit(s), the owner and/or operator of such unit(s) shall notify the Director of the proposed start-up. If such prior notification is not practicable (e. g., if emergency conditions require prompt action, or if the requirement for the start-up and the start-up itself must necessarily occur, in time, outside the Commission's normal working hours) notification should be made within a reasonable time thereafter.

7.05. The Commission may publish, and from time to time revise, detailed test procedures and reporting instructions implementing the provisions of this section.

Section 8. Compliance Programs and Schedules.

Delayed Compliance Order.

~~8.01.- In the event that a fuel burning unit(s) 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 plant. - 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 H (1966) shall remain in effect until the expiration date of that compliance program, schedule, or variance.~~

8.01. The owner or operator of a fuel burning unit(s) in existence prior to the effective date of this regulation which does not meet the emission limitations of this regulation shall develop and submit to the Commission, within such time as shall be allowed by the Commission, an acceptable control program for the attaining and maintaining of the emission limitations of this regulation. The control program shall be embodied in a consent order as provided

in Chapter 16, Article 20, Section 5 (17) of the Code. Any owner or operator who is subject to a consent order that provides for compliance after the effective date of this regulation shall be exempt from the requirement of this section.

- 8.02. In the event that an owner or operator of such a fuel burning unit(s) fails to submit ~~a program or an acceptable program and schedule, the Commission shall, by order, determine the compliance program and schedule.~~ an acceptable control program within the time allowed, the Commission shall, by final order, determine a reasonable control program for the attaining and maintaining of the emission limitations of this regulation for such fuel burning unit(s).

Section 9. Variance.

- 9.01. 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.
- 9.02. For the purpose of preventing possible equipment damage during the start-up of a fuel burning unit(s), emissions exceeding

those provided for in this regulation may be permitted by the Director for periods not to exceed twenty-four (24) hours, upon specific application to the Director no less than twenty-four (24) hours prior to the start-up operation.

Section 10. Exemptions.

10.01. All fuel burning units having a heat input under ten (10) million B.T.U.'s per hour will be exempt from Sections 3 through 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.

Section 11. Effective Date.

Regulation II (1978) was adopted by the West Virginia Air Pollution Control Commission on the \_\_\_\_ day of \_\_\_\_\_, 1978, and shall become effective the \_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_. Said regulation shall supersede Regulation II (1974) which was adopted by the West Virginia Air Pollution Control Commission on the 23rd day of July, 1974, and became effective the 1st day of September, 1974, and which superseded Regulation II (1972) which was adopted by the West Virginia Air Pollution Control Commission on the 26th day of January 1972, and became effective March 15, 1972.