

WEST VIRGINIA
SECRETARY OF STATE

KEN HECHLER

ADMINISTRATIVE LAW DIVISION

Do Not Mark In this Box

FILED

1989 JUL 15 AM 9:19

Form #6

OFFICE OF THE SECRETARY OF STATE
WEST VIRGINIA

NOTICE OF FINAL FILING AND ADOPTION OF A LEGISLATIVE RULE AUTHORIZED BY THE WEST VIRGINIA LEGISLATURE.

AGENCY: WV Air Pollution Control Commission TITLE NUMBER: 45

AMENDMENT TO AN EXISTING RULE: YES , NO

IF YES, SERIES NUMBER OF RULE BEING AMENDED: _____

TITLE OF RULE BEING AMENDED: _____

IF NO, SERIES NUMBER OF NEW RULE BEING PROPOSED: Regulation 20


TITLE OF RULE BEING PROPOSED: "Good Engineering Proactice as Applies to Stack Heights."

THE ABOVE RULE HAS BEEN AUTHORIZED BY THE WEST VIRGINIA LEGISLATURE.

AUTHORIZATION IS CITED IN (house or senate bill number) House Bill No. 2853

SECTION 16-2-15-h, PASSED ON April 8, 1989

THIS RULE IS FILED WITH THE SECRETARY OF STATE. THIS RULE BECOMES EFFECTIVE ON THE FOLLOWING DATE: July 14, 1989


G. Dale Farley
Director

WEST VIRGINIA ADMINISTRATIVE REGULATIONS
Air Pollution Control Commission

Chapter 16-20
Series 20
1988

Subject: Regulation 20 - "Good Engineering Practice as Applicable to Stack Heights."

Section 1. General.

1.1. Scope.

This regulation is promulgated to ensure that the degree of emission limitation required for the control of any air pollutant is not affected by that portion of any stack height which exceeds good engineering practice or by any other dispersion technique.

This regulation adopts good engineering practice for stack heights and prohibits dispersion techniques. In furtherance, this regulation adopts, by reference, the related US EPA Technical Support Documents as contained in the Federal Register dated July 8, 1985, beginning on Page 27892.

1.2. 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.

1.3. Filing Date.

This regulation was promulgated on the _____ day of _____, 19 ____, and was filed with the office of the Secretary of State the _____ day of _____, 19_____.

1.4. Effective Date.

The effective date of this regulation is the _____ day of _____, 19_____.

1.5. Type.

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

Section 2. Definitions.

- 2.1. "Stack" ~~shall mean~~ means any point in a source designed to emit solids, liquids, or gases into the air, including a pipe or duct but not including flares.
- 2.2. "Stack in Existence" ~~shall mean~~ means that the owner or operator had:
- a. begun, or caused to begin, a continuous program of physical onsite construction of the stack ~~on or before December 31, 1970~~; or
 - b. entered into binding agreements or contractual obligations, which could not be cancelled or modified without substantial loss to the owner or operator, to undertake a program of construction of the stack to be completed in a reasonable time ~~on or before December 31, 1970~~.
- 2.3. "Dispersion Technique" means any technique which attempts to affect the concentration of a pollutant in the ambient air by:
- a. using that portion of a stack which exceeds good engineering practice stack height; or
 - b. varying the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant; or
 - c. increasing final exhaust gas plume rise by manipulating source process parameters, exhaust gas parameters, stack parameters, or combining exhaust gases from several existing stacks into one stack; or other selective handling of exhaust gas streams so as to increase the exhaust gas plume rise.

d. Such techniques do not include:

A. the reheating of a gas stream, following use of a pollution control system, for the purpose of returning the gas to the temperature at which it was originally discharged from the facility generating the gas stream; or

B. the merging of exhaust gas streams where:

(a) the source owner or operator demonstrates that the facility was originally designed and constructed with such merged gas streams; or

(b) after July 8, 1985, such merging is part of a change in operation at the facility that includes the installation of pollution controls and is accompanied by a net reduction in the allowable emissions of a pollutant. This exclusion from the definition of "dispersion techniques" ~~shall apply~~ applies only to the emission limitation for the pollutant affected by such change in operation; or

(c) before July 8, 1985, such merging was part of a change in operation at the facility that included the installation of emissions control equipment or was carried out for sound economic or engineering reasons. Where there was an increase in the emission limitation or, in the event that no emission limitation was in existence prior to the merging, an increase in the quantity of pollutants actually emitted prior to the merging, the Director shall presume that merging was significantly motivated by an intent to gain emissions credit for greater dispersion. If such a demonstration cannot be made by the source owner or operator that such

merging was not significantly motivated by such intent, the Director shall deny credit for the effects of such merging in calculating the allowable emissions for the source; or

C. smoke management in agricultural or silvicultural prescribed burning programs; or

D. episodic restrictions on residential woodburning and open burning; or

E. techniques which increase final exhaust gas plume rise where the resulting allowable emissions of sulfur dioxide from the facility do not exceed 5,000 tons per year.

2.4. "Good Engineering Practice" (GEP) stack height means the greater of:

a. 65 meters, measured from a ground-level elevation at the base of the stack; or

b. A. for stacks in existence on January 12, 1979, and for which the owner or operator had obtained all applicable permits or approvals required,

$$H_g = 2.5H,$$

provided the owner or operator produces evidence that this equation was actually relied on in establishing an emission limitation; or

B. for all other stacks,

$$H_g = H + 1.5L,$$

where

- H_g = good engineering practice stack height, measured from the ground-level elevation at the base of the stack,
- H = height of nearby structure(s) measured from the ground-level elevation at the base of the stack,
- L = lesser dimension, height or projected width, of nearby structure(s)

provided that the Director may require the use of a field study or fluid model to verify GEP stack height for the source; or

- c. the height demonstrated by a fluid model or a field study approved by the Director, which ensures that the emissions from a stack do not result in excessive concentrations of any air pollutant as a result of atmospheric downwash, wakes, or eddy effects created by the source itself, nearby structures or nearby terrain features.

2.5. "Nearby" as used in Sub-section 2.4 of this regulation is defined for a specific structure or terrain feature; and

- a. for purposes of applying the formulae provided in Sub-section 2.4.b. of this regulation means that distance up to five (5) times the lesser of the height or the width dimension of a structure, but not greater than 0.8 km ($\frac{1}{2}$ mile), and

- b. for conducting demonstrations under Sub-section 2.4.c. means not greater than 0.8 km ($\frac{1}{2}$ mile), except that the portion of a terrain feature may be considered to be nearby which falls within a distance of up to 10 times the maximum height (H_t) of the feature, not to exceed two (2) miles if such feature achieves a height (H_t), 0.8 km from the stack that is at least 40 percent of the GEP stack height determined by the formulae

provided in Sub-section 2.4.b.B. of this regulation or twenty-six (26) meters, whichever is greater, as measured from the ground-level elevation at the base of the stack. The height of the structure or terrain feature is measured from the ground-level elevation at the base of the stack.

2.6. "Excessive Concentration" ~~is defined~~ means for the purpose of determining good engineering practice stack height under Sub-section 2.4.c. and means:

a. for sources seeking credit for stack height exceeding that established under Sub-section 2.4.b. of this regulation, a maximum ground-level concentration due to emissions from a stack due in whole or part to downwash, wakes, and eddy effects produced by nearby structures or nearby terrain features which individually is at least forty (40) percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects and which contributes to a total concentration due to emissions from all sources that is greater than an ambient air quality standard. For sources subject to APCC Regulation XIV the (Prevention of Significant Deterioration) an excessive concentration alternatively means a maximum ground-level concentration due to emissions from a stack due in whole or part to downwash, wakes, or eddy effects produced by nearby structures or nearby terrain features which individually is at least forty (40) percent in excess of the maximum concentration experienced in the absence of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects and greater than a prevention of significant deterioration increment. The allowable emission rate to be

used in making demonstrations under this part shall be prescribed by Regulation XVI (Standards of Performance for New Stationary Sources) that is applicable to the source category unless the owner or operator demonstrates that this emission rate is infeasible. Where such demonstrations are approved by the Director, an alternative emission rate shall be established in consultation with the source owner or operator;

b. for sources seeking credit after October 11, 1983, for increases in existing stack heights up to the heights established under Sub-section 2.4.b. of this regulation, either:

A. a maximum ground-level concentration due in whole or part to downwash, wakes or eddy effects as provided in ~~paragraph~~Sub-section 2.6.a. of this regulation except that the emission rate specified by any regulation of the Commission (or, in the absence of such a limit, the actual emission rate) shall be used; or

B. the actual presence of a local nuisance caused by the existing stack, as determined by the Director, and

c. for sources seeking credit after January 12, 1979 for a stack height determined under Sub-section 2.4.b. of this regulation where the Director requires the use of a field study or fluid model to verify GEP stack height, for sources seeking stack height credit after November 9, 1984, based on the aerodynamic influence of cooling towers, and for sources seeking stack height credit after December 31, 1970, based on the aerodynamic influence of structures not adequately represented by the equations in Sub-section 2.4.b. of this regulation, a maximum ground-level

concentration due in whole or part to downwash, wakes or eddy effects that is at least forty (40) percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects.

2.7. "Allowable Emissions" means the emission rate of a stationary source calculated using the maximum rated capacity of the source (unless the source is subject to federally enforceable limits or limits enforceable by the Commission which restrict the operating rate, or hours of operation, or both) and the most stringent of the following:

a. all other applicable standards as set forth in APCC Regulation XV (Emission Standards for Hazardous Air Pollutants) and APCC Regulation XVI (Standards of Performance for New Stationary Sources);

b. all other applicable emissions limitations or permit conditions, including those with a future compliance date; or

c. The applicable federally enforceable emissions limitations or permit conditions, including those with a future compliance date.

2.8. "Director" ~~shall-mean~~ means the Director of the West Virginia Air Pollution Control Commission.

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

2.10. "Emission" ~~shall-refer-to~~ means the release, escape, or emission of air pollutants into the air.

2.11. "Air Pollution", 'statutory air pollution', shall have the meaning ascribed to it in Section 2 of Chapter 16, Article 20, of the Code of West Virginia, as amended.

2.12. "Commission" ~~shall mean~~ means the West Virginia Air Pollution Control Commission.

2.13. "Ambient Air Quality Standard" ~~shall mean~~ means the numerical expression of a specified concentration level for a particular air pollutant in the ambient air and the time-averaging interval over which that concentration level is measured.

2.14. "Stationary Source" ~~shall mean~~ means any building, structure, facility, or installation which emits or may emit any air pollutant.

Other words and phrases used in this regulation, unless otherwise indicated, shall have the meaning ascribed to them in Chapter 16, Article 20, Section 2, of the Code of West Virginia, 1931, as amended.

Section 3. Standards.

3.1. The degree of emission limits required for control of any air pollutant subject to any regulation of this Commission shall not be affected in any manner by:

a. so much of the stack height of any source as exceeds good engineering practice; or

b. any other dispersion technique.

3.2. Subsection 3.1. of this regulation shall not apply with respect to:

a. any stack in existence before December 31, 1970; or

b. dispersion techniques implemented on or before December 31, 1970, except where pollutants are being emitted from such stacks or using such dispersion techniques by stationary sources, which were constructed, or reconstructed, or for which major modifications, as defined in APCC

Regulation XIV (Prevention of Significant Deterioration), were carried out after December 31, 1970; or

c. coal fired steam electric generating units subject to the provisions of Section 118 of the Clean Air Act, which commenced operation before July 1, 1957, and whose stacks were constructed under a construction contract awarded before February 8, 1974.

- 3.3. It is hereby adopted by reference the US EPA Technical Support Documents as ~~contained in the Federal Register dated July 8, 1985,~~ referenced at 50 FR 27892 and 27893 (July 8, 1985), beginning on Page 27892, with such requirements applicable to any such sources controlled by this regulation.

Section 4. Public Review Procedures.

- 4.1. In the event that an applicant for a construction, modification, or relocation permit shall make a demonstration of good engineering practice in accordance with Subsection 2.4.c. of this regulation, the Director shall not issue a construction, modification, or relocation permit to such source with a good engineering practice stack height that exceeds the height allowed by ~~Subsection 2.4.b.A. and B.~~ of this regulation without first publishing notice of intent to issue such permit as a Class I legal notice in a newspaper of general circulation within the region in which the proposed construction, modification, or relocation would be located. Such legal notice shall contain, as a minimum, the name of the applicant, the type and location of the source, the proposed start-up date, and the expected

impact from the source. The legal notice shall provide that the public shall have thirty (30) days within which to make comments to the Director.

4.2. The Director shall make available for public review a copy of the demonstration of good engineering practice in at least one (1) location in the region in which the proposed source, modification, or relocation shall be located.

4.3. The Director may provide opportunity for a public meeting at which interested persons may appear and submit written or oral comments regarding the demonstration of good engineering practice.

Section 5. Inconsistency Between Regulations.

5.1. In the event of any inconsistency between this regulation and any other regulation of the Commission, such inconsistency shall be resolved by the determination of the Director and such determination shall be based upon the application of the more stringent provision, term, condition, method, rule or regulation.

The foregoing is a true and correct copy of the West Virginia Air Pollution Control Commission Regulation 20.

Secretary
West Virginia Air Pollution
Control Commission



KEN HECHLER
Secretary of State

MARY P. RATLIFF
Deputy Secretary of State

A. RENEE COE
Deputy Secretary of State

CATHERINE FREROTTE
Executive Assistant

Telephone: (304) 558-6000
Corporations: (304) 558-8000

WILLIAM H. HARRINGTON
Chief of Staff

JUDY COOPER
Director, Administrative Law

DONALD R. WILKES
Director, Corporations

(Plus all the volunteer
help we can get)

STATE OF WEST VIRGINIA

SECRETARY OF STATE OCT -8 AM 9:17
Building 1, Suite 157-K
1900 Kanawha Blvd., East
Charleston, WV 25305-0770

TO: Tammy Mowrer

AGENCY: Air Pollution Control Commission

FROM: JUDY COOPER, DIRECTOR, ADMINISTRATIVE LAW DIVISION

DATE: October 7, 1992

THE ATTACHED RULE RECENTLY FILED BY YOUR AGENCY HAS BEEN ENTERED INTO OUR COMPUTER SYSTEM. PLEASE REVIEW, PROOF AND RETURN IT WITH ANY CORRECTIONS. IF THERE ARE NO CORRECTIONS, PLEASE SIGN THIS MEMO AND RETURN IT TO THIS OFFICE. YOU WILL BE SENT A FINAL VERSION OF THE RULE FOR YOUR RECORDS.

PLEASE RETURN EITHER THE CORRECTED RULE OR THIS FORM WITHIN TEN (10) WORKING DAYS OF THE DATE YOU RECEIVED THIS REQUEST. CALL IF YOU HAVE ANY QUESTIONS.

SERIES: 20 TITLE: 45 Air Pollution Control Commission

* THE ATTACHED RULE HAS BEEN REVIEWED AND IS CORRECT.

SIGNED: _____

TITLE OF PERSON SIGNING: _____

DATE: _____

* THE ATTACHED RULE HAS BEEN REVIEWED AND NEEDS CORRECTING. THE CORRECTIONS HAVE BEEN MARKED.

SIGNED: Randall B. Hester

TITLE OF PERSON SIGNING: Attorney Office of Air Quality

DATE: 2-10-93

NOTE: IF YOU ARE NOT THE PERSON WHO HANDLES THIS RULE, PLEASE FORWARD TO THE CORRECT PERSON.