

**U.S. DEPARTMENT OF COMMERCE  
National Technical Information Service**

**PB-290 278**

# **Air Pollution Regulations in State Implementation Plans: New Hampshire**

**Abcor Inc, Wilmington, MA Walden Div**

**Prepared for**

**Environmental Protection Agency, Research Triangle Park, NC**

**Aug 78**

PB 290278

United States  
Environmental Protection  
Agency

Office of Air Quality  
Planning and Standards  
Research Triangle Park NC 27711

EPA-450/3-78-079  
August 1978

Air



# Air Pollution Regulations in State Implementation Plans: New Hampshire

REPRODUCED BY  
NATIONAL TECHNICAL  
INFORMATION SERVICE  
U. S. DEPARTMENT OF COMMERCE  
SPRINGFIELD, VA. 22161

TECHNICAL REPORT DATA (Please read Instructions on the reverse before completing)		
1. REPORT NO. EPA-450/3-78-079	2.	3. RECIPIENT'S ACCESSION NO. PB 290278
4. TITLE AND SUBTITLE Air Pollution Regulations in State Implementation Plans: New Hampshire		5. REPORT DATE August 1978
		6. PERFORMING ORGANIZATION CODE
7. AUTHOR(S)		8. PERFORMING ORGANIZATION REPORT NO.
9. PERFORMING ORGANIZATION NAME AND ADDRESS Walden Division of Abcor, Inc. Wilmington, Mass.		10. PROGRAM ELEMENT NO.
		11. CONTRACT/GRANT NO. 68-02-2890
12. SPONSORING AGENCY NAME AND ADDRESS Control Programs Development Division Office of Air Quality Planning and Standards Office of Air, Noise, and Radiation Research Triangle Park, NC 27711		13. TYPE OF REPORT AND PERIOD COVERED
		14. SPONSORING AGENCY CODE
15. SUPPLEMENTARY NOTES EPA Project Officer: Bob Schell, Control Programs Development Division		
16. ABSTRACT This document has been produced in compliance with Section 110(h)(1) of the Clean Air Act amendments of 1977. The Federally enforceable regulations contained in the State Implementation Plans (SIPs) have been compiled for all 56 States and territories (with the exception of the Northern Mariana Islands). They consist of both the Federally approved State and/or local air quality regulations as indicated in the <u>Federal Register</u> and the Federally promulgated regulations for the State, as indicated in the <u>Federal Register</u> . Regulations which fall into one of the above categories as of January 1, 1978, have been incorporated. As mandated by Congress, this document will be updated annually. State and/or local air quality regulations which have not been Federally approved as of January 1, 1978, are not included here; omission of these regulations from this document in no way affects the ability of the respective Federal, State, or local agencies to enforce such regulations.		
17. KEY WORDS AND DOCUMENT ANALYSIS		
a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Air pollution Federal Regulations Pollution State Implementation Plans		
18. DISTRIBUTION STATEMENT RELEASE UNLIMITED	19. SECURITY CLASS (This Report) Unclassified	
	20. SECURITY CLASS (This page) Unclassified	22. PRICE PC MF A06 A01

**EPA-450/3-78-079**

# **Air Pollution Regulations in State Implementation Plans: New Hampshire**

by

Walden Division of Abcor, Inc.  
Wilmington, Massachusetts

Contract No. 68-02-2890

EPA Project Officer: Bob Schell

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Air, Noise, and Radiation  
Office of Air Quality Planning and Standards  
Research Triangle Park, North Carolina 27711

August 1978

*iv*

This report is issued by the Environmental Protection Agency to report air pollution regulations of interest to a limited number of readers. Copies are available, for a fee, from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

This report was furnished to the Environmental Protection Agency by Walden Division of Abcor, Inc., Wilmington, Mass. 01887, in fulfillment of Contract No. 68-02-2890. The contents of this report are reproduced herein as received from Walden Division of Abcor, Inc. The opinions, findings, and conclusions expressed are those of the author and not necessarily those of the Environmental Protection Agency. Mention of company or product names is not to be considered as an endorsement by the Environmental Protection Agency.

Publication No. EPA-450/3-78-079

## INTRODUCTION

This document has been produced in compliance with Section 110(h)(1) of the Clean Air Act Amendments of 1977. The Federally enforceable regulations contained in the State Implementation Plans (SIPs) have been compiled for all 56 States and territories (with the exception of the Northern Mariana Islands). They consist of both the Federally approved State and/or local air quality regulations as indicated in the Federal Register and the Federally promulgated regulations for the State, as indicated in the Federal Register. Regulations which fall into one of the above categories as of January 1, 1978, have been incorporated. As mandated by Congress, this document will be updated annually. State and/or local air quality regulations which have not been Federally approved as of January 1, 1978, are not included here; omission of these regulations from this document in no way affects the ability of the respective Federal, State, or local agencies to enforce such regulations.

There have been recent changes in the Federal enforceability of parking management regulations and indirect source regulations. The October, 1977, appropriation bill for EPA prohibited Federal enforcement of parking management regulations in the absence of specific Federal authorizing legislation. Federally promulgated parking management regulations have, therefore, been suspended indefinitely. Pursuant to the 1977 Clean Air Act Amendments, indirect source regulations may not be required for the approval of a given SIP. Consequently, any State adopted indirect source regulations may be suspended or revoked; State adopted indirect source regulations contained in an applicable SIP are Federally enforceable. More importantly, EPA may only promulgate indirect source review regulations which are specific to Federally funded, operated, or owned facilities or projects. Therefore, the Federally promulgated indirect source regulations appearing in this document are not enforceable by EPA except as they relate to Federal facilities.

Since State air quality regulations vary widely in their organization, content, and language, a standardized subject index is utilized in this document. Index listings consist of both contaminant and activity oriented categories to facilitate usage. For example, for regulations which apply to copper smelters, one might look under sulfur compounds (50.2), particulate matter process weight (50.1.1), or copper smelters (51.15). Federal regulations pertaining to a given State immediately follow the approved State and local regulations.

Additionally, a summary sheet of the information included in each comprehensive document is presented prior to the regulatory text to allow one to quickly assess the contents of the document. Specifically, the summary sheets contain the date of submittal to EPA of each revision

to the SIP and the date of the Federal Register in which the revision was either approved or disapproved by EPA. Finally, a brief description or reference of the regulation which was submitted is also included.

This document is not intended to provide a tool for determining the enforceability of any given regulation. As stated above, it is intended to provide a comprehensive compilation of those regulations which are incorporated directly or by reference into Title 40, Part 52, of the Code of Federal Regulations. Consequently, the exclusion of a Federally approved regulation from this document does not diminish the enforceability of the regulation. Similarly, the inclusion of a given regulation (for example, regulations governing pollutants, such as odors, for which there is no national ambient air quality standards) in this document does not, in itself, render the regulation enforceable.

SUMMARY SHEET  
OF  
EPA-APPROVED REGULATION CHANGES  
NEW HAMPSHIRE

<u>Submittal Date</u>	<u>Approval Date</u>	<u>Description</u>
9/26/72	5/14/73	Regulation #5
6/6/74	11/20/75	Revision to Regulations 4, 6, 8, 10, 11, 13, 14 & 17
5/28/75	4/19/76	Regulation #18

FEDERAL REGULATIONS

<u>Section Number</u>	<u>Description</u>
52.1525	Regulation for Review of New or Modified Indirect Sources
52.1529	Regulation for the Prevention of Significant Deterioration



DOCUMENTATION OF CURRENT EPA-APPROVED  
STATE AIR POLLUTION REGULATIONS

REVISED STANDARD SUBJECT INDEX

- 1.0 DEFINITIONS
- 2.0 GENERAL PROVISIONS AND ADMINISTRATIVE PROCEDURES
- 3.0 REGISTRATION CERTIFICATES, OPERATING PERMITS AND APPLICATIONS
- 4.0 AIR QUALITY STANDARDS (PRIMARY AND SECONDARY)
  - 4.1 PARTICULATES
  - 4.2 SULFUR DIOXIDE
  - 4.3 NITRIC OXIDES
  - 4.4 HYDROCARBONS
  - 4.5 CARBON MONOXIDE
  - 4.6 OXIDANTS
  - 4.7 OTHERS
- 5.0 VARIANCES
- 6.0 COMPLIANCE SCHEDULES
- 7.0 EQUIPMENT MALFUNCTION AND MAINTENANCE
- 8.0 EMERGENCY EPISODES
- 9.0 AIR QUALITY SURVEILLANCE AND SOURCE TESTING
- 10.0 NEW SOURCE PERFORMANCE STANDARDS
- 11.0 NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS
- 12.0 MOTOR VEHICLE EMISSIONS AND CONTROLS
- 13.0 RECORD KEEPING AND REPORTING
- 14.0 PUBLIC AVAILABILITY OF DATA
- 15.0 LEGAL AUTHORITY AND ENFORCEMENT
- 16.0 HEARINGS, COMPLAINTS, AND INVESTIGATIONS
- 17.0 PREVENTION OF SIGNIFICANT DETERIORATION
- 18.0 AIR QUALITY MAINTENANCE AREA
- 19.0 - 49.0  
RESERVED FOR FUTURE EXPANSION OF COMMON INDEX
- 50.0 POLLUTANT - SPECIFIC REGULATIONS
  - 50.1 PARTICULATES
    - 50.1.1 PROCESS WEIGHT
    - 50.1.2 VISIBLE EMISSIONS
    - 50.1.3 GENERAL

- 50.2 SULFUR COMPOUNDS
- 50.3 NITRIC OXIDES
- 50.4 HYDROCARBONS
- 50.5 CARBON MONOXIDE
- 50.6 ODOROUS POLLUTANTS
- 50.7 OTHERS (Pb, Hg, etc.)
- 51.0 SOURCE CATEGORY SPECIFIC REGULATIONS
  - 51.1 AGRICULTURAL PROCESSES (includes Grain Handling, Orchard Heaters, Rice and Soybean Facilities, Related Topics)
  - 51.2 COAL OPERATIONS (includes Cleaning, Preparation, Coal Refuse Disposal Areas, Coke Ovens, Charcoal Kilns, Related Topics)
  - 51.3 CONSTRUCTION (includes Cement Plants, Materials Handling, Topics Related to Construction Industry)
  - 51.4 FERROUS FOUNDRIES (includes Blast Furnaces, Related Topics)
  - 51.5 FUEL BURNING EQUIPMENT (coal, natural gas, oil) - Particulates (includes Fuel Content and Other Related Topics)
  - 51.6 FUEL BURNING EQUIPMENT (coal, natural gas, oil) - SO<sub>2</sub> (includes Fuel Content and Other Related Topics)
  - 51.7 FUEL BURNING EQUIPMENT (oil, natural gas, coal) - NO<sub>2</sub> (includes Fuel Content and Other Related Topics)
  - 51.8 HOT MIX ASPHALT PLANTS
  - 51.9 INCINERATION
  - 51.10 NITRIC ACID PLANTS
  - 51.11 NON-FERROUS SMELTERS (Zn, Cu, etc.) - Sulfur Dioxide
  - 51.12 NUCLEAR ENERGY FACILITIES (includes Related Topic)
  - 51.13 OPEN BURNING (includes Forest Management, Forest Fire, Fire Fighting Practice, Agricultural Burning and Related Topics)
  - 51.14 PAPER PULP; WOOD PULP AND KRAFT MILLS (includes Related Topics)
  - 51.15 PETROLEUM REFINERIES
  - 51.16 PETROLEUM STORAGE (includes Loading, Unloading, Handling and Related Topics)
  - 51.17 SECONDARY METAL OPERATIONS (includes Aluminum, Steel and Related Topics)
  - 51.18 SULFURIC ACID PLANTS
  - 51.19 SULFURIC RECOVERY OPERATIONS
  - 51.20 WOOD WASTE BURNERS
  - 51.21 MISCELLANEOUS TOPICS

TABLE OF CONTENTS

STATE REGULATIONS

<u>Revised Standard Subject Index</u>	<u>Regulation Number</u>	<u>Title</u>	<u>Page</u>
(51.13)	1	Prohibition of Open Burning	1
(51.13)	2	Terminal Dates on Open Burning	3
(4.7)	3	Ambient Air Quality Standards - Fluorides	3
(51.5)	4 revised	Control of Visible and Particu- late Emissions from Fuel Burning Equipment	5
(51.6)	5	Prevention, Abatement and Control of Sulfur Emission from Stationary Combustion Equipment	9
(51.9)	6 revised	Prevention, Abatement and Control of Air Contaminants from Incine- rators	11
(51.20)	7 revised	Prevention, Abatement and Con- trol of Air Contaminants from Waste Burners	17
(51.8)	8 revised	Emissions from Asphalt Plants	19
(12.0)	9	Prevention, Abatement and Con- trol of Emissions from Diesel Engines and Motor Vehicles	22
(51.4)	10 revised	Prevention, Abatement and Con- trol of Air Contaminants from Ferrous Foundries	25
(4.1 - 4.6)	11	Particulate Matter, Sulfur Dioxide, Nitrogen Oxides, Hydrocarbons, Carbon Monoxide and Photochemical Oxidants	29

<u>Revised Standard Subject Index</u>	<u>Regulation Number</u>	<u>Title</u>	<u>Page</u>
(51.13)	12	Prevention, Abatement and Control of Contaminants from the Burning of Tires and Tubes	33
(51.3)	13	Prevention, Abatement and Control of Air Contaminants from the Sand and Gravel Industry and the Cement, Ready Mix Concrete and Cement Block Industry	34
(51.11) (51.21)	14	Prevention, Abatement and Control of Air Contaminants from Non-Ferrous Foundries, Smelters and Investment Casting Industries	37
(51.14)	15	Prevention, Abatement and Control of Air Contaminants from the Pulp and Paper Industry	44
(3.0)	16	Requirement for Statewide Permit System Regulating the Operation of Existing and New Sources of Air Pollution and of Modifications of Existing Sources of Air Pollution	48
(51.21)	17	Prevention, Abatement and Control of Air Contaminants from Process, Manufacturing, Service and Miscellaneous Industries	52
(13.0)	18	Requirements for Record Keeping at Facilities which Discharge Air Contaminants	60
(8.0)	19	Required Action: Emergency Episode Procedure	63

FEDERALLY PROMULGATED REGULATIONS

<u>Revised Standard Subject Index</u>	<u>Section Number</u>	<u>Title</u>	<u>Page</u>
(10.0)	52.1525	Review of New or Modified Indirect Sources	68
(17.0)	52.1529	Prevention of Significant Deterioration	78

PROHIBITION OF OPEN BURNING

I. Purpose

This regulation is adopted for the purpose of preventing, abating, and controlling air pollution caused by air contaminants discharged into the air by open burning of combustibles.

II. Definitions

For the purpose of this subtitle, the following words and phrases have these meanings:

A. Combustion Products: Particulate and gaseous contaminants created by the burning of any kind of material.

B. Open Burning: The burning of any type of combustible material in the open, not in any enclosure, where the products of combustion are emitted directly into the atmosphere without passing through a stack or chimney.

C. Refuse (garbage, rubbish and trade wastes):

1. Garbage: Waste resulting from distribution, preparation and serving of food.

2. Rubbish: Solids or liquids not considered to be highly flammable or explosive, such as, but not limited to, paper, rags, ashes, leaves, tree branches, yard trimmings, furniture, tin cans, glass, crockery, demolition wastes, junk automobiles, tires, automotive parts, paints, oils, and other similar materials.

3. Trade Waste: Combustible solid or liquid material resulting from construction, building operations, or the prosecution of any business, trade or industry, such as, but not limited to, plastic, rubber, leather, chemicals, cartons, paints, greases, oils, other petroleum products, sawdust, dead animals (including fish and fowl), and other forms of solid or liquid waste materials.

D. Stack or Chimney: Any flue, conduit, or duct arranged to conduct an effluent to the open air.

E. Commission: State Air Pollution Control Commission.

F. Agency: State Air Pollution Control Agency.

III. Open Burning Prohibited

No person, firm, corporation, association, municipal or state agency shall ignite, cause to be ignited, permit to be ignited, or suffer, allow, or maintain the burning of refuse except in conformity with the provisions of Section IV.

#### IV. Permissible Open Burning

When not prohibited by local ordinances or officials having jurisdiction, such as local, state or federal fire wardens or other fire prevention officials, the following types of burning are permissible, provided no nuisance is created:

A. Fires in conjunction with holiday and festive celebrations and other special occasions.

B. Campfires, outdoor grills, and fireplaces for recreation or preparing of food.

C. Burning of solid or liquid fuels or structures for the purpose of bona fide instruction and training of municipal, volunteer, and industrial firefighters in the methods of fighting fires when conducted under the direct control and supervision of qualified instructors. Said firefighters shall be residents of the state of New Hampshire or affiliated with the mutual aid systems within the state of New Hampshire.

D. Burning of brush, tree cuttings and slash in forest areas where the cuttings accrue from pulping, lumber, clearing of rights-of-way and similar operations.

E. On-premises burning of leaves and burning for the purpose of weed abatement, disease, frost and pest prevention and agricultural improvement.

F. Burning of combustible construction material resulting from the demolition of buildings and other structures, brush, tree trunks and the like, originating from within the state, provided such burning is done in a specified area approved by the Agency.

G. Backyard burning of combustible domestic rubbish where no public disposal service is available. This provision applies only to on-premises burning of combustible materials in a backyard waste burner having a capacity of seven (7) cubic feet or less and serving a building containing four (4) or less dwelling units.

H. Open burning in remote areas, of highly explosive or other dangerous materials for which there is no other feasible method of disposal or for non-recurring unusual circumstances. However, written permission for this type of burning must be obtained in advance from the Agency.

#### V. Salvaging Operations

No business, trade or industry engaged in whole or in part in salvaging or reclaiming any product or material, such as, but not limited to, reprocessing of used motor oils, metals, chemicals, shipping containers, or drums, and specifically including automobiles, automobile parts and junkyards, shall burn in the open air after July 1, 1968. A suitable incinerator or other means of compliance, approved by the Agency, shall be employed.

VI. With the exception of salvage operation as described in Section V, town and city solid waste disposal areas presently in use shall not be subject to the provisions of this regulation until July 1, 1971. Open burning shall not be permitted at any new waste disposal site after July 1, 1968.

(51.13)

Regulation No. 2

TERMINAL DATES ON OPEN BURNING

I. Abolish Section VI, page 3 of Regulation 1 and in place thereof the following shall apply.

II. With the exception of salvage operations as described in Section V, Regulation 1, town, city, county, and State solid waste disposal areas presently in use shall adhere to the following schedule for discontinuing open burning waste disposal sites:

Towns or cities of 7500 or greater population	July 1, 1972
Towns or cities of less than 7500 but more than 5000	July 1, 1973
Towns or cities of less than 5000 but more than 2500	July 1, 1974
Towns of less than 2500	July 1, 1975

The population for determining the above shall be based on the 1970 census figures.

III. Open burning shall not be permitted at any new waste disposal site approved and established after the effective date of this regulation (April 5, 1969).

(4.7)

Regulation No. 3

AMBIENT AIR QUALITY STANDARDS - FLUORIDES

I. Purpose

This regulation is adopted for the purpose of preventing, abating, and controlling any pollution in the ambient atmosphere which might be caused by discharges into the outdoor air of fluorides, either as fluorine, hydrogen, fluoride, or compounds of fluorides, which might be released from any process, industrial plant, or any other source.

II. Definitions

For the purpose of this subtitle the following words or phrases have these meanings:

A. Agency: State of New Hampshire Air Pollution Control Agency.

B. Commission: State of New Hampshire Air Pollution Control Commission.

C. Person: Any individual, partnership, firm or co-partnership, association, syndicated company, trust, corporation, department, bureau, agency, private or municipal corporation, or any other entity recognized by law as the subject of rights and duties.



D. Emission: A release into the outdoor atmosphere of air contaminants.

E. Air Contaminants: Soot, cinders, ashes, dust, fume, gas, mist (other than water), odor, toxic or radioactive material, particulate matter, or any combination thereof.

F. Forage: Forage, for the purpose of this regulation, shall mean any vegetable material that might be consumed during the process of grazing, by livestock such as cattle, sheep, horses, etc., and any grasses or other vegetation which might be consumed by deer, moose, or any other wildlife as a major part of their diet.

### III. Directive

The degree of air purity required may depend on the effect on any or all of the following receptors: Man, animals, vegetation, and property. This is especially true with such pollutants as fluorides, which not only damage vegetation but also may build up in forage crops, concentrations toxic to grazing ruminants and livestock. Accordingly, the following ambient air quality standards for fluorine, fluoride, and/or fluoride compounds is established.

A. Total Fluorides (parts of fluoride per million parts of forage) dry weight basis (as inorganic fluoride compounds) in or on forage for consumption by grazing ruminants and livestock based on samples taken once each month:

1. Average concentrations over growing season (not to exceed six consecutive months) - To be less than 40 parts per million.
2. Average concentrations over two consecutive months -  
To be less than 60 parts per million.
3. Average concentrations for any month -  
To be less than 80 parts per million.

B. Gaseous Fluorides (parts of hydrogen fluoride per billion parts of air) in air and at plant property line or where a natural barrier acceptable to the Agency exists, calculated on the basis of volume at 760 mm. of mercury and at 25°C.

1. 12-hour average to be less than 4.5 parts per billion.
2. 24-hour average to be less than 3.5 parts per billion.
3. 1-week average to be less than 2.0 parts per billion.
4. 1-month average to be less than 1.0 parts per billion.

### IV. Analysis

Methods of analysis for fluorine, fluorides and/or compounds of fluorides in forage or the ambient atmosphere shall be by any generally accepted standard scientific method or such other method as may be determined by the Agency.

CONTROL OF VISIBLE AND PARTICULATE EMISSIONS  
FROM FUEL BURNING EQUIPMENT

I. Purpose

This regulation is adopted for the purpose of preventing, abating, and controlling visible emissions and/or emissions of particulate matter from fuel burning equipment into the atmosphere.

II. Definitions

For the purpose of this subtitle the following words or phrases have these meanings:

- A. Agency: State of New Hampshire Air Pollution Control Agency.
- B. BTU: British Thermal Unit. The quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit at or near its point of maximum density.
- C. Commission: State of New Hampshire Air Pollution Control Commission.
- D. Emission: A release into the outdoor atmosphere of air contaminants.
- E. Fuel: Any form of combustible matter -- solid, liquid, vapor, or gas, excluding refuse.
- F. Fuel burning or combustion equipment or device: Any furnace or boiler used for the burning of fuel or for the emission of products of combustion, or used in connection with any process which generates heat and may emit products of combustion.
- G. Opacity: The degree of optical density of any translucent medium; the common logarithm of the ratio of the initial intensity of light to the intensity of transmitted or reflected light.
- H. Particulate matter: Any material, except uncombined water, which is or has been suspended in air or other gases and which exists in a finely divided form as a liquid or solid at standard conditions.
- I. Person: Any individual, partnership, firm or co-partnership, association, syndicate, company, trust, corporation, department, bureau, agency, private or municipal corporation or any other entity recognized by law as the subject of rights and duties.
- J. Ringelmann Smoke Chart: Chart published and described in the U.S. Department of the Interior, Bureau of Mines, Information Bulletin 8333, and on which are illustrated graduated shades of grey to black for use in estimating the obscuring capacity of particulate matter.

K. Smoke: Small gas borne particles resulting from incomplete combustion, consisting predominantly, but not exclusively, of carbon ash and other combustible materials.

L. Stack: Any dust passage, chimney, or flue for carrying combusted gases or products to the atmosphere.

M. MSA Smokescope: An instrument manufactured by the Mine Safety Appliances Co. for determining density of smoke in stack effluence by comparison with reference film disc showing equivalents of Numbers 2 and 3 of the Ringelmann Chart.

### III. Visible Emission Control and Prohibition

#### 1. Existing

A. Visible emissions from existing fuel burning equipment. No person shall cause, suffer, allow, or permit emissions from any existing fuel burning equipment (i.e., equipment installed prior to the effective date of this regulation), which are darker in shade or appearance than that designated as No. 2 on the Ringelmann Smoke Chart; or of such opacity as to obscure an observer's view to a degree greater than does smoke designated as No. 2 on the Ringelmann Smoke Chart.

B. Visible emissions from new fuel burning equipment. No person shall cause, suffer, allow, or permit emissions from new fuel burning equipment (i.e., equipment installed on or after the effective date of this regulation), which are darker in shade or appearance than that designated as No. 1 on the Ringelmann Smoke Chart; or of such opacity as to obscure an observer's view to a degree greater than does smoke designated as No. 1 on the Ringelmann Smoke Chart.

C. Major repairs to existing equipment. When it becomes necessary to replace fuel burning equipment, it will be considered that the combustion equipment is new and will be required to operate within the limits imposed in Paragraph III.B. above.

D. Exceptions. The provisions of subsections III.A. and III.B. shall not apply to emissions during the building of a new fire, cleaning of fires, or soot blowing, the shade or appearance of which may exceed No. 2 on the Ringelmann Smoke Chart for a period or periods aggregating no more than six minutes in any 60 minutes. Those installations equipped with automatic soot blowers will be permitted to exceed No. 2 on the Ringelmann Smoke Chart for a period not to exceed 60 minutes in any 8-hour period.

2. For new steam generators over 250 million BTU/hr. heat input, visible emissions shall not exceed 20% opacity except for 2 minutes in any one hour emissions may be as great as 40% opacity.

### IV. Particulate Matter Emissions -- Control and Prohibition

A. Particulate matter from fuel burning equipment. No person shall cause, suffer, allow, or permit particulate matter resulting from the combustion of fuel to be emitted from any stack or chimney into the atmosphere in excess of the rates set forth in the following table:

Heat Input in Million  
British Thermal Units  
Per Hour

Maximum Allowable Emissions of  
Particulate Matter in Pounds Per  
Million British Thermal Units

	Existing Fuel Burning Equipment	New Fuel Burning Equipment
Up to and including 10	0.60	0.60
50	0.46	0.40
100	0.40	0.35
250	-	.10
500	0.31	.10
1000	0.28	.10
2500	0.24	.10
5000	0.22	.10
7500	0.20	.10
10,000 and above	0.19	.10

1. When two or more fuel burning units are connected to a single stack, the combined heat input of all units connected to the stack shall be used to determine the allowable emission from the stack.

2. When a single unit is connected to two or more stacks, the allowable emission shall not exceed that allowable for the same unit connected to a single stack.

#### V. Testing

The Agency may require any person owning or operating the combustion unit to conduct or have conducted testing to determine compliance with this regulation. The Agency may, at its option, witness or conduct such tests. Such testing will be done at a reasonable time and all data obtained will be provided to both parties.

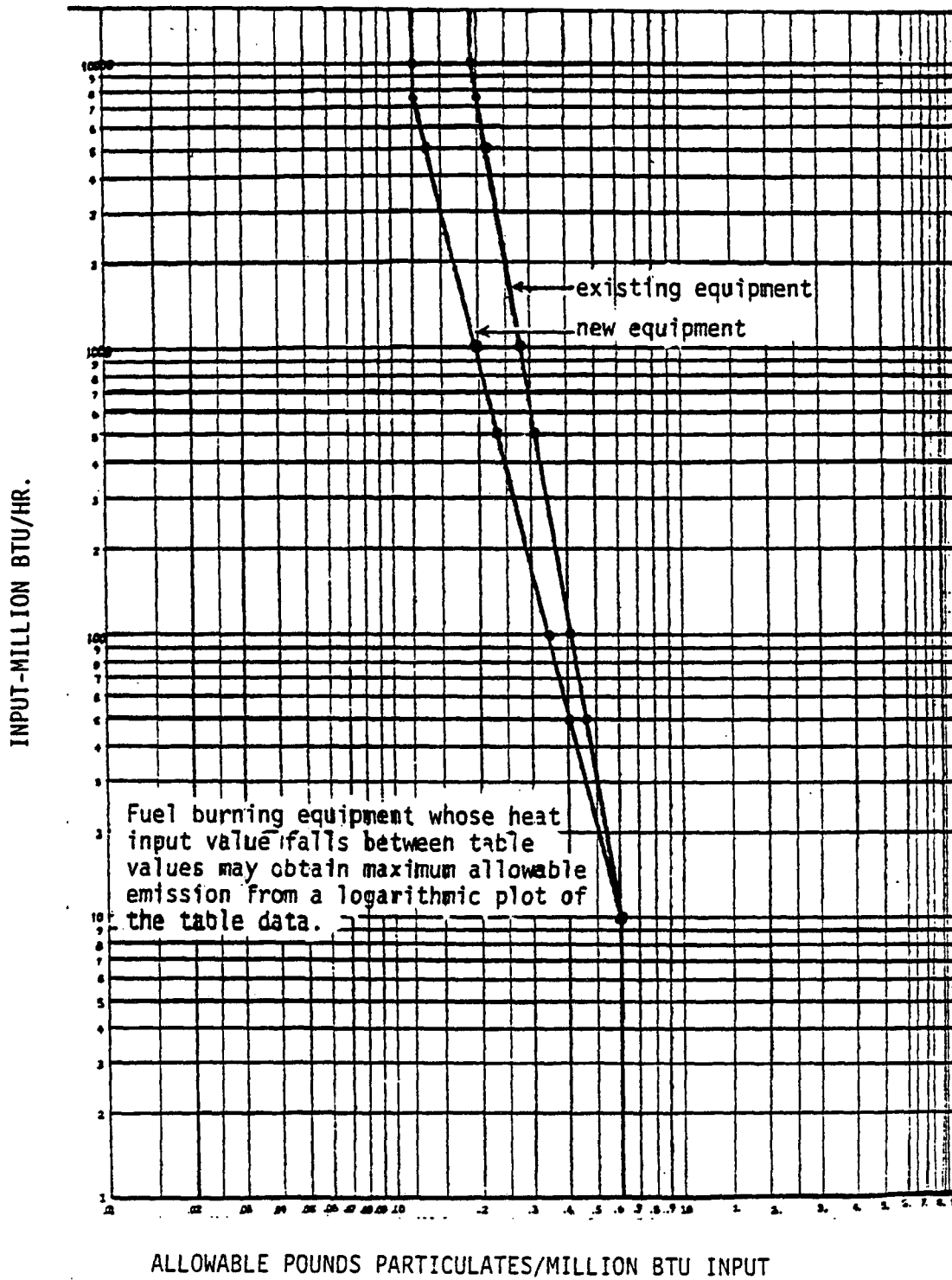
A. Testing to determine the quantity of emission shall be undertaken by methods of measurement accepted by the Environmental Protection Agency or the New Hampshire Air Pollution Control Agency, and at a point or points such as are representative of the actual emission into the atmosphere.

B. When the Agency conducts or has conducted such tests, the person owning or operating the combustion unit shall provide such sampling ports as might be required, power and water sources and safety equipment such as scaffolding, railing, ladders, etc., to comply with generally accepted good safety practices.

#### VI. Malfunction and Breakdown

In the event of malfunction or breakdown of any combustion equipment or component part of the air pollution control equipment, emissions exceeding those specified by this regulation may be permitted by the Agency for a period not to exceed 48 hours, if the Agency is notified within eight hours of the malfunction or breakdown. The Commission may upon request of the owner of the combustion equipment or his authorized representative or at the request of the Director of the Agency grant an extension of time or temporary variance for a period longer than 48 hours.

Regulation No. 4  
Revised



VII. Existing installations unable to comply with Sections III.A. and/or IV.A. are required without further request, to submit to the Agency on or before December 1, 1970, a statement of intent as to how and when compliance will be achieved. However, all existing installations shall comply with Sections III.A. and IV.A. not later than December 1, 1971.

(51.6)

Regulation No. 5

PREVENTION, ABATEMENT, AND CONTROL OF SULFUR EMISSION  
FROM STATIONARY COMBUSTION EQUIPMENT

I. Purpose

This regulation is adopted for the purpose of preventing, abating, and controlling sulfur compounds emitted into the ambient air by controlling the sulfur content of fuels.

II. Definitions

For the purpose of this subtitle the following words or phrases have these meanings:

- A. ASTM: American Society for Testing and Materials.
- B. Agency: State of New Hampshire Air Pollution Control Agency.
- C. BTU: British Thermal Unit. The quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit at or near its point of maximum density.
- D. Commission: State of New Hampshire Air Pollution Control Commission.
- E. Emission: A release into the outdoor atmosphere of air contaminants.
- F. Fuel: Any form of combustible matter--solid, liquid, vapor, or gas--excluding refuse.
- G. Person: Any individual, partnership, firm or co-partnership, association, syndicate, company, trust, corporation, department, bureau, agency, private or municipal corporation, or any other entity recognized by law as the subject of rights and duties.
- H. Standard conditions: A gas temperature of 68° Fahrenheit and a gas pressure of 14.7 pounds per square inch, absolute.
- I. Sulfur dioxide: A colorless gas at standard conditions which has the molecular formula SO<sub>2</sub>.
- J. Sulfur compound: All organic or inorganic chemicals having an atom or atoms of sulfur in their chemical structure.

### III. Prohibition

No person shall cause or permit the use, purchase for use, or the sale for use in stationary combustion installations within the State of New Hampshire for heat or power generation, fuels containing more sulfur than that specified below:

#### A. Liquid Fuel (Oil)

No. 2	by October 1, 1972	Not more than 0.4%	Sulfur by weight
No. 4	by October 1, 1972	Not more than 1.0%	Sulfur by weight
No. 5 & 6	by October 1, 1972	Not more than 2.0%	Sulfur by weight
	by October 1, 1973	Not more than 1.0%	Sulfur by weight

#### B. Gaseous Fuel (Natural Gas and Manufactured Gas)

By October 1, 1970, not more than 5 grains per 100 cubic feet calculated as Hydrogen sulfide ( $H_2S$ ) at standard conditions.

#### C. Solid Fuel (Coal)

1. By October 1, 1970, existing installations shall not use a coal with a maximum sulfur content greater than 2.8 pounds sulfur per million BTU gross heat content, provided that the weighted average of all coal received during a trimonthly period for use in any existing stationary combustion installation to generate heat or power does not exceed 2.0 pounds sulfur per million BTU gross heat content.

2. Coal for any new stationary combustion installation to generate heat or power placed in operation on or after the effective date of this regulation shall contain as a maximum not more than 1.5 pounds sulfur per million BTU gross heat content, provided that the weighted average of all coal received during a trimonthly period does not exceed 1.0 pound of sulfur per million BTU gross heat content.

### IV. Exemption

A. Any person may upon application to the Commission be granted a variance to operate fuel burning equipment using coal or residual fuel oil as a fuel which exceeds the sulfur content prescribed in paragraph III above, provided that the applicant shall prove to the satisfaction of the Agency that the equipment is operated in such a manner or is equipped with such control apparatus as to continuously prevent the emission of any sulfur compound or compounds in the amounts which would be permitted by the same combustion equipment without such control apparatus using fuel whose sulfur content was in compliance with that specified above at the appropriate time.

B. The provisions of this regulation shall not apply to the burning of sulfur, hydrogen sulfide, acid sludge, or other sulfur compounds in the manufacture of sulfur or sulfur compound.

## V. Fuel Analysis

All major companies which supply fuel for use, or for sale for use, within the State, shall provide the Agency with a copy of a report of laboratory analysis for each different consignment of fuel; such analysis shall include viscosity, sulfur content, and BTU's per pound for fuel oils; ash, sulfur content, and BTU's per pound for solid fuels.

The Agency may take, or cause to be taken, samples of any fuel in such quantity as may be necessary at any reasonable time and place for purposes of determining compliance with this regulation. Sampling, compositing, and analysis of fuel samples shall be carried out in accordance with the most recent ASTM methods or equivalent methods acceptable to the Agency.

(51.9)

### Regulation No. 6 Revised

#### PREVENTION, ABATEMENT AND CONTROL OF AIR CONTAMINANTS FROM INCINERATORS

##### I. Purpose

This regulation is adopted for the purpose of preventing, abating, and controlling air pollution caused by air contaminants discharged into the atmosphere from incinerators.

##### II. Definitions

For the purpose of this subtitle the following words or phrases have these meanings:

A. Air contaminant: Soot, cinders, ashes, dust, fume, gas, mist (other than water), odor, toxic or radioactive material, particulate matter, or any combination thereof.

B. Incinerator: An engineered apparatus capable of withstanding elevated temperatures and designed to efficiently reduce, by burning, solid, semi-solid, or gaseous combustible waste at specified rates and from which the residues contain little or no combustible matter.

C. Particulate Matter: Any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.

D. Ringelmann Chart: Chart published and described in U.S. Department of the Interior, Bureau of Mines, Information Circular 8333, 1967, and on which are illustrated graduated shades of grey to black for use in estimating the light obscuring capacity of smoke.

E. MSA Smokescope: Instrument manufactured by Mine Safety Appliances Co. for determining density of smoke in stack effluent by comparison to reference film disc showing equivalents of Nos. 2 and 3 on the Ringelmann Chart.

F. Stack: Any duct, passage, chimney, or flue for carrying combustion gases or products of combustion to the atmosphere.



- G. Emission: The release into the outdoor atmosphere of air contaminants.
- H. Flue Gas: The products of combustion that leave the incinerator by way of a flue or stack.
- I. Fly Ash: Any solids carried in the gas stream being emitted from a flue or stack.
- J. Heat Release: The amount of heat liberated by the complete combustion of a given unit of a specific material and expressed as BTU's per hour per cubic foot of the inside volume of the furnace in which the combustion takes place.
- K. Heating Values: The BTU's released by the combustion of a unit quantity of fuel or waste.
- L. BTU: The quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit at or near its point of maximum density.
- M. Commission: State of New Hampshire Air Pollution Control Commission.
- N. Agency: State of New Hampshire Air Pollution Control Agency.
- O. Standard Cubic Foot: One cubic foot of gas at 68°F. and 14.7 pounds per square inch, absolute.
- P. Opacity: The degree of optical density of any translucent medium, the common logarithm of the ratio of the initial intensity of light to the intensity of transmitted or reflected light.
- Q. Sewage Sludge Incinerator: Any combustion device used in the process of burning sewage sludge for the primary purpose of solids sterilization and to reduce the volume of waste by removing combustible matter, but does not include portable facilities or facilities used solely for burning scum or other floatable materials recalcining lime, or regenerating active carbon.

### III. Classification of Wastes (as defined by the Incinerator Institute of America standards)

#### Type 0

Trash, a mixture of highly combustible waste such as paper, cardboard cartons, wood boxes, and combustible floor sweepings, from commercial and industrial activities. The mixtures contain up to 10 percent by weight of plastic bags, coated paper, laminated paper, treated corrugated cardboard, oily rags, and plastic or rubber scraps. This type of waste contains 10 percent moisture, 5 percent incombustible solids, and has a heating value of 8500 BTU's per pound as fired.

#### Type 1

Rubbish, a mixture of combustible waste such as paper, cardboard cartons, wood scrap, foliage and combustible floor sweepings, from domestic, commercial and industrial activities. The mixture contains up to 20 percent by weight of restaurant or cafeteria waste but contains little or no treated papers, plastic or rubber waste. This type of waste contains 25 percent moisture, 10 percent incombustible solids, and has a heating value of 6500 BTU's per pound as fired.

### Type 2

Refuse, consisting of an approximately even mixture of rubbish and garbage by weight. This type of waste is common to apartment and residential occupancy, consisting of up to 50 percent moisture, 7 percent incombustible solids, and has a heating value of 4300 BTU's per pound as fired.

### Type 3

Garbage, consisting of animal and vegetable wastes from restaurants, cafeterias, hotels, hospitals, markets and like installations. This type of waste contains up to 70 percent moisture, 5 percent incombustible solids, and has a heating value of 2500 BTU's per pound as fired.

### Type 4

Human and animal remains, consisting of carcasses, organs and solid organic wastes from hospitals, laboratories, abattoirs, animal pounds and similar sources, consisting of up to 85 percent moisture, 5 percent incombustible solids, and having a heating value of 100 BTU's per pound as fired.

### Type 5

By-product waste, gaseous, liquid, or semi-liquid, such as tar, paints, solvents, sludge, fumes, etc., from industrial operations. BTU values must be determined for the individual materials to be destroyed.

### Type 6

Solid by-product waste, such as rubber, plastics, wood waste, etc., from industrial operations. BTU values must be determined for the individual materials to be destroyed.

## IV. Classification of Incinerators (as defined by the Incinerator Institute of America Standards)

### Class I

Portable, packaged, completely assembled, direct fed incinerators, having not over 5 cubic feet storage capacity or 25 pounds per hour burning capacity and suitable for Type 2 waste.

### Class IA

Portable, packaged or job assembled, direct fed incinerators, 5 to 15 cubic feet primary chamber volume; or a burning rate of 25 pounds per hour up to but not including 100 pounds per hour of Type 0, Type 1 or Type 2 waste; or a burning rate of 25 pounds per hour up to but not including 75 pounds per hour of Type 3 waste.

### Class II

Flue-fed, single chamber incinerators with more than 2 square feet burning area, suitable for Type 2 waste. This type of incinerator is served by one vertical flue functioning both as a chute for charging waste and to carry the products of combustion to atmosphere.

#### Class IIA

Chute-fed multiple chamber incinerators with more than 2 square feet burning area, suitable for Type I (non-industrial) or Type 2 waste. This type of incinerator is served by a vertical chute for charging wastes from two or more floors above the incinerator and a separate flue for carrying the products of combustion to atmosphere.

#### Class III

Direct fed incinerators with a burning rate of 100 pounds per hour or over, suitable for Type 0, Type 1 or Type 2 waste.

#### Class IV

Direct fed incinerators with a burning rate of 75 pounds per hour or over, suitable for Type 3 waste.

#### Class V

Municipal incinerators suitable for Type 0, Type 1, Type 2, or Type 3 wastes or a combination of all four wastes and are rated in tons per hour or tons per 24 hours.

#### Class VI

Crematory and pathological incinerators, suitable for Type 4 waste.

#### Class VII

Incinerators designed for specific by-product wastes, Type 5 or 6.

### V. Incinerator Construction Prohibited Without Prior Approval

The construction, reconstruction, installation, or substantial alteration of incinerators after the effective date of this regulation is prohibited unless detailed plans and specifications therefor have been submitted to, and approved by, the Agency.

### VI. Emission Standards for New Incinerators

Incinerators constructed, reconstructed, installed, or substantially altered after the effective date of this regulation shall conform to the following emission standards:

A. There shall not be discharged into the atmosphere from any incinerator any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade than that designated as No. 1 on the Ringelmann Chart or determined by use of the MSA Smokescope, or of such opacity as to obscure an observer's view to a degree greater than does smoke designated as #1 on the Ringelmann Smoke Chart.

B. Incinerators of 200 pounds per hour capacity and less shall not emit more than 0.3 grains of particulate matter per standard cubic foot of dry flue gas corrected to 12 percent carbon dioxide (without the contribution of carbon dioxide from auxiliary fuel).

C. Incinerators of over 200 pounds per hour capacity shall not emit more than 0.2 grains of particulate matter per standard cubic foot of dry flue gas corrected to 12 percent carbon dioxide (without the contribution of carbon dioxide from auxiliary fuel).

D. After the effective date of this part, new incinerators whose changing rate is over 50 tons per day shall not be operated in such a manner as to discharge or cause the discharge into the atmosphere any gases which contain more than 180 milligrams/N m<sup>3</sup>, 0.080 grains of particulate matter per standard cubic foot corrected to 12% CO<sub>2</sub> (maximum 2-hour average).

E. After the effective date of this part, new sewage sludge incinerators shall not be operated in such a manner as to discharge or cause the discharge into the atmosphere any gases which

- (1) Contain particulate matter in excess of 0.65 g/Kg dry sludge input. (1.30 lb./ton dry sludge input)
- (2) Exhibit 20% opacity or greater. Where the presence of uncombined water is the only reason for failure to meet the requirements of this part, such failure shall not be a violation of this part.

#### VII. Emission Standards for Existing Incinerators

Incinerators existing on the effective date of this regulation shall conform to the following standards:

A. There shall not be discharged into the atmosphere from any existing incinerators any air contaminant for a period or periods aggregating more than three minutes in any one hour which is darker in shade than that designated as No. 2 on the Ringelmann Chart or determined by use of the MSA Smokescope, or of such opacity as to obscure an observer's view to a degree greater than does smoke designated as #2 on the Ringelmann Smoke Chart.

B. Existing incinerators shall not emit more than 0.4 grains of particulate matter per standard cubic foot of dry flue gas corrected to 12 percent carbon dioxide (without the contribution of carbon dioxide from auxiliary fuel).

C. Existing incinerators having a capacity of 200 pounds or less per hour shall conform to the emission standards of new incinerators as specified in paragraph VI at the earliest practicable date, but in no case later than two years from the effective date of this regulation.

D. Existing incinerators having a capacity of more than 200 but less than 1000 pounds per hour shall conform to the emission standards of new incinerators as specified in paragraph VI at the earliest practicable date but in no case later than three years from the effective date of this regulation.

E. Existing incinerators having a capacity of more than 1000 pounds per hour shall conform to the emission standards of new incinerators as specified in paragraph VI at the earliest practicable date but in no case later than five years from the effective date of this regulation.

## VIII. Testing

The Agency may require any person owning or operating the equipment to conduct or have conducted testing to determine compliance with this regulation. The Agency may, at its option, witness or conduct such tests. Such testing will be done at a reasonable time and all data obtained will be provided to both parties.

A. Testing to determine the quantity of emission shall be undertaken by methods of measurement accepted by the National Air Pollution Control Administration or the Agency, and at a point or points such as to be representative of the actual emission into the atmosphere.

B. When the Agency conducts or has conducted such tests, the person owning or operating the equipment shall provide such sampling ports as might be required, power and water sources and safety equipment such as scaffolding, railing, ladders, etc., to comply with generally accepted good safety practices.

## IX. Incinerator Manufacturer's Name Plate

The manufacturer's name plate shall be installed in a conspicuous place on the incinerator, giving model number, rated capacity, and the types of waste for which the unit is designed.

## X. Posting of Instructions for Operation of Incinerators

Detailed instructions for the operation of each incinerator shall be posted in a conspicuous place near the unit.

## XI. Trained and Competent Operator Required

The owner is responsible for having an operator, trained and competent in the operation of the incinerator, in charge of the facility.

## XII. Malfunction and Breakdown

In the event of malfunction or breakdown of any incinerator or component part of the air pollution control equipment emissions exceeding those specified by this regulation may be permitted by the Agency for a period not to exceed 48 hours, if the Agency is notified within 8 hours of the malfunction or breakdown. The Commission may upon request of the owner of an incinerator or his authorized representative or at the request of the Director of the Agency grant an extension of time or temporary variances for a period longer than 48 hours.

## XIII. Compliance Schedule

Owners/operators of existing incinerators as specified in Section VII.E. must submit to the Agency prior to December 31, 1972, a compliance schedule delineating the progressive steps required to bring these incinerators into compliance with this regulation on or before April 15, 1975. Such progressive steps shall include but are not limited to; date for submittal of engineering plans, proof of purchase of the required control equipment, date for installation and operation of the modified or new incinerator. Compliance schedules shall be subject to the approval of the Director.

XIV. Nothing in this regulation shall be interpreted as prohibiting the Agency from approving the construction of any incinerator which will introduce:

- A. New methods which may improve upon combustion and reduce air pollution.
- B. New design and engineering features which may improve upon combustion and reduce air pollution.

(51.20)

Regulation No. 7 Revised

PREVENTION, ABATEMENT AND CONTROL  
OF AIR CONTAMINANTS FROM WASTE BURNERS

I. Purpose

This regulation is adopted for the purpose of preventing, abating, and controlling air pollution caused by air contaminants discharged into the air from waste burners.

II. Definitions

For the purpose of this regulation the following words and phrases shall have these meanings:

- A. Agency: State of New Hampshire Air Pollution Control Agency.
- B. Air Contaminant: Soot, cinders, ashes, dust, fume, gas, mist (other than water), odor, toxic or radioactive material, particulate matter, or any combination thereof.
- C. Commission: State of New Hampshire Air Pollution Control Commission.
- D. Emission: The release into the outdoor atmosphere of air contaminants.
- E. M.S.A. Smokescope: Instrument manufactured by Mine Safety Appliances Co. for determining density of smoke in stack effluent by comparison to reference film disc showing equivalents of Numbers 2 and 3 on the Ringelmann Chart.
- F. Particulate Matter: Any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.
- G. Ringelmann Chart: Chart published and described in the U.S. Department of the Interior, Bureau of Mines, Information Circular 8333 of 1967, and on which are illustrated graduated shades of grey to black for use in estimating the light obscuring capacity of smoke.
- H. Standard Cubic Foot: One cubic foot of gas at 68° Fahrenheit and 14.7 pounds per square inch absolute.
- I. Waste: For this regulation waste shall be limited to include only that portion of refuse defined as trade waste in Section II of Regulation I, and further limited to mean "combustible material resulting from the processing of wood and/or wood products."
- J. Waste Burner: Any article, machine, equipment, contrivance, or device, including, but not limited to, burners commonly known as tepees, wigwams, truncated cones and silos, which are not incinerators as defined in Regulation 6, used to dispose of combustible waste by burning.

### III. Construction of Waste Burners

Construction, reconstruction, or substantial alteration of waste burners is prohibited after the effective date of this regulation, unless detailed plans and specifications have been submitted to, and approved by, the Agency. Waste burners may be used only for the purpose of burning wood waste.

### IV. Emission Standards

Waste burners constructed, installed, reconstructed, or substantially altered after the effective date of this regulation shall conform to the following emission standards:

A. There shall not be discharged into the atmosphere from any waste burner any air contaminant for a period or periods aggregating more than three minutes in any hour which is as dark or darker in shade as that designated as No. 2 of the Ringelmann Chart and determined by use of an M.S.A. Smokescope, or of such opacity as to obscure an observer's view to a degree greater than does smoke designated as #2 on the Ringelmann Smoke Chart.

B. Particulate matter shall not be discharged into the atmosphere from any waste burner which exceeds 0.3 grains per standard cubic foot of dry flue gas corrected to 12 percent carbon dioxide (without the contribution of carbon dioxide from an auxiliary fuel).

### V. Testing

The Agency may require any person owning or operating the equipment to conduct or have conducted testing to determine compliance with this regulation. The Agency may, at its option, witness or conduct such tests. Such testing will be done at a reasonable time and all data obtained will be provided to both parties.

A. Testing to determine the quantity of emission shall be undertaken by methods of measurement accepted by the National Air Pollution Control Administration or the Agency, and at a point or points such as to be representative of the actual emission into the atmosphere.

B. When the Agency conducts or has conducted such tests, the person owning or operating the equipment shall provide such sampling ports as might be required, power and water sources and safety equipment such as scaffolding, railing, ladders, etc., to comply with generally accepted good safety practices.

### VI. Existing Waste Burners

Five years from the effective date of this regulation all waste burners shall meet the emission standards set forth in Section IV of this regulation.

### VII. Exception

Backyard waste burners as excepted under the conditions specified in Section IV.G. of Regulation 1 are excepted from this regulation. Municipal waste burners are excepted from the provisions of this regulation provided that they comply with the provision established for incinerators as specified in Regulation 6, Section VII.

#### VIII. Manufacturer's Name Plate

The manufacturer's name plate shall be installed in a conspicuous place on the waste burner, giving model number and capacity rate.

#### IX. Posting of Instruction for Operation

Detailed instruction for the operation of each waste burner shall be posted in a conspicuous place near the facility.

#### X. Competent Operators

The owner is responsible for having an operator trained and competent in the operation of the facility in charge of the facility.

#### XI. Compliance Schedule

Owners/operators of existing waste burners as specified in Section VI must submit to the Agency prior to December 1, 1972, a compliance schedule delineating the progressive steps required to bring these waste burners into compliance with this regulation on or before April 15, 1975. Such progressive steps shall include, but are not limited to; date for submittal of engineering plans, proof of purchase of the required control equipment, date for installation and operation of the modified waste burner. Compliance schedules shall be subject to the approval of the Director.

(51.8)

Regulation No. 8 Revised

### EMISSIONS FROM ASPHALT PLANTS

#### I. Purpose

This regulation is adopted for the purpose of preventing, abating, and controlling air pollution caused by air contaminants discharged into the air by the operation of hot mix asphalt plants.

#### II. Definitions

For the purpose of this subtitle the following words or phrases have these meanings:

A. Agency: State Air Pollution Control Agency.

B. Commission: State Air Pollution Control Commission.

C. Air Contaminants: Soot, cinders, ashes, dust, fumes, gas, mist (other than water), odor, toxic or radioactive material, particulate matter, or any combination thereof.

D. Emission: The release into the outdoor atmosphere of air contaminants.

E. Plant: An asphaltic hot mix plant including all equipment utilized in the manufacture of asphaltic hot mix concrete: e.g., burners, dryers, elevators, screens, mixers, weighing equipment, bins, air pollution control equipment, etc.



F. Particulate matter: Any material except uncombined water, which is or has been suspended in air or other gases and exists in a finely divided form as a liquid or solid at standard conditions.

G. Ringelmann Chart: Chart published and described in the U. S. Department of the Interior, Bureau of Mines, Information Circular 8333 and on which are illustrated graduated shades of grey to black for use in estimating the obscuring capacity of particulate matter.

H. Person: Any individual, partnership, firm or co-partnership, association, syndicate, company, trust, corporation, department, bureau, agency, private or municipal corporation, or any other entity recognized by law as the subject of rights and duties.

I. Fugitive dust: Any and all particulate matter generated by the operation of an asphalt mix plant which, if not confined or collected, would be emitted directly to the air from points other than the stack outlet.

J. Opacity: The degree of optical density of any translucent medium; the common logarithm of the ratio of the initial intensity of light to the intensity of transmitted or reflected light.

### III. Emission of Smoke Prohibited

A. No person shall cause, suffer, allow, or permit the emission of smoke into the open air from any fuel burning equipment operated in conjunction with an asphalt plant darker in shade or appearance than that designated as No. 1 on the Ringelmann Smoke Chart, or of such opacity as to obscure an observer's view to a degree greater than does smoke designated as #1 on the Ringelmann Smoke Chart.

B. Subsection III.A. shall not apply to smoke emitted during the starting operation and a Ringelmann No. 3 (60% equivalent opacity) or less shall be permitted for a period not to exceed three minutes per startup.

### IV. Control of Particulate Emissions

A. No person shall cause, suffer, allow, or permit particulate emission from a plant into the open air in excess of the quantities listed in the following table:

<u>Aggregate Process Rate</u> Pounds per Hour	<u>Stack Emission Rate</u> Pounds per Hour
10,000	10
20,000	16
30,000	22
40,000	28
50,000	31
100,000	33
200,000	37
300,000	40
400,000	43
500,000 and above	47

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

B. New or Modified Asphalt Plants

No person shall cause, suffer, allow or permit the operation of a new or modified asphalt plant in such a manner as to (a) emit particulate matter in excess of 90 milligrams per dry normal cubic meter (0.04 gr/dscf); (b) exhibit 20% capacity or greater. When the presence of uncombined water is the only reason for failure to meet the requirements of this paragraph, such failure shall not be a violation of this part.

C. When a plant is equipped with more than one stack the emission rate shall be based on the total emissions from all stacks.

D. No person shall cause, suffer, allow, or permit a plant to operate that is not equipped with a fugitive dust control system operated and maintained in such a manner as to prevent the emission of particulate matter from any point other than the stack outlet. Overflow chutes are excepted from this section.

E. The plant owner and/or operator shall control the dust from vehicular movement over access roads to, from, and within the plant premises by suitable means; e.g., paving, oiling, wetting, or other. Good operating practices shall be maintained at all times relative to stockpiling, screen changing, and general maintenance.

F. At such time as the Agency may request, the person owning or operating the plant shall submit all data on type, sizing, and quantity of the aggregates used, and hours of plant operation.

V. Testing

The Agency may require any person owning or operating the equipment to conduct or have conducted testing to determine compliance with this regulation. The Agency may, at its option, witness or conduct such tests. Such testing will be done at a reasonable time and all data obtained will be provided to both parties.

A. Testing to determine the quantity of emission shall be undertaken by methods of measurement accepted by the National Air Pollution Control Administration or the Agency, and at a point or points such as to be representative of the actual emission into the atmosphere.

B. When the Agency conducts or has conducted such tests, the person owning or operating the equipment shall provide such sampling ports as might be required, power and water sources and safety equipment such as scaffolding, railing, ladders, etc., to comply with generally accepted good safety practices.

VI. Notification

All persons owning or operating an asphalt hot mix plant shall notify the Agency of the name of the individual operating the plant, location of the plant, size, make, and type of air pollution control equipment on forms supplied by the Agency within 30 days of the effective date of this regulation.

When such plants are modified by changes in burner design, heating fuel, fan capacity, dryer design, air pollution control equipment or like changes which significantly affect the emission characteristics of the plants, the owner or operator shall then renotify the Agency of these changes within 30 days after placing such modification in operation.

When an existing plant is moved from one location to another, the plant owner or operator shall notify the Agency within 5 days of the site of the new location.

#### VII. Malfunctions and Breakdowns

In the event of any malfunction in equipment or the breakdown of any component part of the air pollution control equipment, emissions exceeding those specified may be permitted by the Agency for a period not to exceed 48 hours, if the Agency is notified within eight hours of the malfunction or breakdown. The Commission may upon request of the owner or operator of the plant or at the request of the Director of the Agency grant an extension of time or temporary variance for a period longer than 48 hours.

(12.0)

#### Regulation No. 9

#### PREVENTION, ABATEMENT AND CONTROL OF EMISSIONS FROM DIESEL ENGINES AND MOTOR VEHICLES

I. This regulation is adopted for the purpose of preventing, abating and controlling emissions into the ambient air from diesel engines and motor vehicles.

#### II. Definitions

For the purpose of this regulation, the following words and phrases shall have these meanings:

- A. Agency: State of New Hampshire Air Pollution Control Agency.
- B. Commission: State of New Hampshire Air Pollution Control Commission.
- C. Crankcase: The three-dimensional space within an engine which is connected to the oil sump by internal passages through which gases and vapor can flow.
- D. Crankcase emission: Substances consisting of gases and/or vapors which have leaked past the piston rings and/or intake or exhaust valve mechanisms, and oil decomposition products which are emitted to the atmosphere through any opening in the crankcase.
- E. Diesel engine: Any engine using diesel oil as a fuel and having compression ignition.
- F. Emission: A release into the outdoor atmosphere of air contaminants.
- G. Exhaust emission: Substances emitted to the atmosphere from any opening downstream from the exhaust manifold of a motor vehicle engine.

H. Motor Vehicle: Gasoline powered vehicles with spark ignition engines, including motorcycles, but excluding snow, water and similar type of vehicle.

I. Person: Any individual, partnership, firm or co-partnership, association, syndicate, company, trust, corporation, department, bureau, agency, private or municipal corporation, or any other entity recognized by law as the subject of rights and duties.

### III. Directive

A. Diesel Engines. This part shall apply to all diesel engines operated in this State.

1. No diesel engine manufactured on or after January 1, 1970, shall emit smoke which will reduce the transmission of light by more than 20 percent, average over a 15-second period. No diesel engine manufactured before January 1, 1970, shall emit smoke which will reduce the transmission of light by more than 30 percent, averaged over a 15-second period, and such engines shall conform to the requirements of those manufactured on or after January 1, 1970, by July 1, 1973. Individual smoke puffs will be permitted provided that they do not exceed 10 seconds duration and reduce the transmission of light by an average of more than 40 percent.

2. No diesel engine which provides motive power in a bus or truck shall be allowed to idle for more than five consecutive minutes when the bus or truck is not in motion except as provided below.

3. No person owning or operating a diesel engine may alter or remove any smoke control device or system (including the basic fuel system) which may limit or reduce the ability of that device or system to control smoke except as provided below.

#### B. Exceptions

1. When a diesel powered vehicle is forced to remain motionless because of traffic conditions over which the operator has no control, the provisions of section III.A.3 shall not apply.

2. The provisions of section III.A.2 shall not apply in an area where temperatures below -10°F. are predicted. When such idling is permitted by this exception, no nuisance shall be created.

3. The five-minute idling limitation of section III.A.2 may be exceeded when diesel engines are providing power takeoff, for refrigeration, life gate pumps or other auxiliary uses, or to supply heat or air conditioning necessary for passenger comfort in those vehicles intended for commercial passenger transportation.

4. Diesel engines undergoing maintenance will be exempt from the provisions of subsection III.A.1, 2, and 3, if necessary during such periods of maintenance but only when operated by a qualified mechanic.

C. Motor Vehicles. This section shall apply to all gasoline engine propelled vehicles operated in this State.

1. All motor vehicles manufactured since 1967 year model will comply with all federal laws pertaining to the installation of air pollution control devices.

2. No person shall operate a motor vehicle which emits visible smoke, gases, or fumes (except water vapor or steam) while standing or moving on the roads or highways of the State, except during initial startups and periods of warmups.

3. No person shall remove, alter, or otherwise render inoperative exhaust emission control, crankcases, ventilation, or any other air pollution control device which was installed as a requirement of federal and New Hampshire State law or regulation except as provided below.

4. No person shall operate a motor vehicle originally equipped with air pollution control devices as required by federal or State law or regulation unless such devices are in place and in operating condition.

5. No gasoline engine which provides motive power in a bus or truck shall be allowed to idle for more than five consecutive minutes when the bus or truck is not in motion except as provided below.

D. Exceptions

1. The requirements of section III.C.3, and 4 shall not apply to an alteration or modification to use a fuel other than gasoline where it has been shown that the emission from such modified or altered vehicle is at levels which comply with existing State or Federal standards for emissions from motor vehicles.

2. The provisions of sections III.C.2, 3, and 4 shall not apply to motor vehicles or motorcycles used only for racing on an established raceway, race course, or race track provided that no nuisance of either noise or odor is created.

3. The five-minute idling limitation of section III.C.5 may be exceeded when gasoline engines are providing power takeoff for refrigeration, lift gate pumps, or other auxiliary uses, or to supply heat or air conditioning necessary for passenger comfort in those vehicles intended for commercial passenger transportation.

IV. Testing

Testing to determine compliance with this regulation shall be in accordance with methods specified by the Environmental Protection Agency and/or the Agency including dynamometer procedure and opacity meter measurement. All such testing will be conducted only after the initial startup and warmup periods have been completed.

PREVENTION, ABATEMENT, AND CONTROL  
OF AIR CONTAMINANTS FROM FERROUS FOUNDRIES

I. Purpose

This regulation is adopted for the purpose of preventing, abating, and controlling air pollution caused by air contaminants discharged into the outdoor atmosphere from ferrous foundries.

II. Definitions

For the purpose of this regulation the following words and phrases shall have these meanings:

- A. Agency: State of New Hampshire Air Pollution Control Agency.
- B. ASTM: American Society for Testing and Materials.
- C. Commission: State of New Hampshire Air Pollution Control Commission.
- D. Emission: A release into the outdoor atmosphere of air contaminants.

E. Fumes: Very small particles resulting from chemical reaction or from the condensation of vapors produced in combustion, distillation or sublimation. They are commonly metals or metallic oxides and their composition may be different from that of the parent material from which they originate.

F. Foundry: Any installation used for melting and/or refining of ferrous metals, consisting of, but not limited to, furnace proper, checkers, flues, stack, tuyerer, fans or blowers, tapping spout, charging equipment, gas cleaning devices and other auxiliaries. The foundry furnaces may be cupola, rotary, reverbatory, electric, air, open hearth, crucible, etc.

G. Particulate Matter: Any material, except uncombined water, which is or has been suspended in air or other gases, and which exists in a finely divided form as a liquid or solid at standard condition.

H. Person: Any individual, partnership, firm or co-partnership, association, syndicate, company, trust, corporation, department, bureau, agency, private or municipal corporation, or any other entity recognized by law as the subject of rights and duties.

I. Process Weight: The total weight of all materials introduced into any source operation. Solid fuel charged will be considered as part of the process weight but liquid and gaseous fuels and uncombined water and combustion air will not.

J. Process Weight Rate: 1) 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 part thereof,

2) For a cyclical or batch source operation, 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. When 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.

K. Standard Conditions: A gas temperature of 68°F. and a gas pressure of 14.7 lbs/square inch absolute.

### III. Prohibition

A. No person shall cause, suffer, allow, or permit the emission of particulate matter and fumes which will exceed those limits specified in Table 1, from any ferrous foundry in operation on or prior to the effective date of this regulation.

B. When it becomes necessary to replace a foundry furnace, which was in operation prior to May 12, 1971, but not after the effective date of this revision, with a furnace which is larger, the provisions of Table 1 for new installations shall apply upon completion of said replacement.

C. Any ferrous foundry placed in operation after May 12, 1971, but prior to the effective date of this revision will be required to comply with the provisions of Table 1, "New Installations."

D. After the effective date of this part no person shall cause, suffer, permit or allow new or modified ferrous foundries to be operated in such a manner as to discharge or cause the discharge into the atmosphere any gases which: 1) contain particulate matter in excess of 50 milligrams per dry standard m<sup>3</sup> (0.022 grains DSCF).

### IV. Testing

The Agency may require any person owning or operating a foundry to conduct or have conducted testing to determine compliance with this regulation. The Agency may, at its option, witness or conduct such tests. Such testing will be done at a reasonable time and all data obtained will be provided to both parties.

A. Testing to determine the quantity of emission shall be undertaken by methods of measurement accepted by the Environmental Protection Agency or the New Hampshire Air Pollution Control Agency and at a point or points such as are representative of the actual emission into the atmosphere.

B. When the Agency conducts or has conducted such tests, the person owning or operating the foundry shall provide such sampling ports as might be required, power and water sources and safety equipment such as scaffolding, railings, ladders, etc., to comply with generally accepted good safety practices.

V. Malfunction or Breakdown

In the event of malfunction or breakdown of any component part of the air pollution control equipment, emissions in excess of those specified in this regulation may be permitted by the Agency for a period not to exceed 48 hours, provided that the Agency is notified within eight hours of the malfunction or breakdown.

The Commission may, upon request of the foundry owner or his authorized representative, or at the request of the Director of the Agency, grant an extension of time or temporary variance for a period longer than 48 hours.

VI. Existing installations unable to comply with Section III.A are required without further request to submit to the Agency on or before January 1, 1972, a statement of intent as to how and when compliance will be achieved. However, all existing installations shall comply with Section III.A not later than January 1, 1973.



Table 1

Process Weight Rate (lbs/hr)	NEW INSTALLATIONS Emission Rate (lbs/hr)	EXISTING INSTALLATIONS Emission Rate (lbs/hr)
50	0.36	0.43
100	0.55	0.68
500	1.53	1.99
1,000	2.58	3.17
5,000	7.58	9.35
10,000	12.0	14.85
20,000	19.2	23.62
60,000	40.0	49.31
80,000	42.5	51.03
120,000	46.3	55.55
160,000	49.0	58.88
200,000	51.2	61.53
1,000,000	69.0	82.75
2,000,000	77.6	93.11

Interpolation of the data in Table 1 for the process weight rates up to 60,000 lbs/hr. shall be accomplished by the use of the equations:

$$E = 4.10 P^{0.67} \quad P \leq 30 \text{ tons/hr} - \text{New Installations}$$

$$E = 5.05 P^{0.67} \quad P \leq 30 \text{ tons/hr} - \text{Existing Installations}$$

and interpolation and extrapolation of the data for process weight rates in excess of 60,000 lbs/hr. shall be accomplished by use of the equations:

$$E = 55.0 P^{0.11} - 40 \quad P > 30 \text{ tons/hr} - \text{New Installations}$$

$$E = 66.0 P^{0.11} - 48 \quad P > 30 \text{ tons/hr} - \text{Existing Installations}$$

Where:

E = Emissions in pounds per hour

P = Process Weight Rate in tons per hour

(4.1 -  
4.6)

Regulation No. 11

PARTICULATE MATTER, SULFUR DIOXIDE, NITROGEN OXIDES, HYDROCARBONS,  
CARBON MONOXIDE, AND PHOTOCHEMICAL OXIDANTS

I. Purpose

This regulation is adopted for the purpose of delineating a maximum concentration and duration of time for particulates, sulfur dioxide, nitrogen oxides, hydrocarbons, carbon monoxide, and photochemical oxidants, either separately, in combination with each other, or in combination with other contaminants in the ambient air, which are deemed compatible with the health and welfare of man.

II. Background

Pursuant to the Clean Air Act of 1967, certain areas of each State were designated as air quality control regions. On October 6, 1970, Cheshire, Sullivan, Hillsborough, Merrimack, Belknap, Rockingham, and Strafford counties were designated as the New Hampshire portion of the Merrimack Valley-Southern New Hampshire Air Quality Control Region. On November 14, 1970, Coos County was designated as part of the Androscoggin Valley Air Quality Control Region. By the Clean Air Amendment of 1970, those areas of a State not already included in an air quality control region were required to be included in one or more such regions. Consequently on April 1, 1971, Grafton and Carroll counties were designated as the Central New Hampshire Intrastate Air Quality Control Region by the U.S. Environmental Protection Agency.

By the Clean Air Act of 1967 those areas of a State declared a part of an air quality control region were required to adopt ambient air quality standards to ensure the public health and welfare in that region. The Clean Air Amendment of 1970 further required the promulgation of national primary and secondary ambient air quality standards; primary standards are those protective of public health and secondary standards are those protective of the public welfare. The secondary standards are the more stringent.

Accordingly, primary ambient air quality standards, to be attained and maintained by 1975, are hereby adopted for the entire State of New Hampshire. These primary standards are equivalent to the federal secondary standards and are therefore protective of both the public health and welfare. The promulgation of New Hampshire primary ambient air quality standards shall not be considered in any manner to allow significant deterioration of existing air quality in any portion of the State.

III. Definitions

For the purpose of this regulation the following words or phrases shall have these meanings:

A. Agency: State of New Hampshire Air Pollution Control Agency.

B. Air Contaminants: Soot, cinders, ashes, dust, fumes, gas, mist (other than water), odor, toxic or radioactive material, particulate matter, or any combination thereof.

- C. Ambient Air: The unconfined atmosphere which envelops the earth.
- D. Arithmetic Mean: The sum of N (number) factors divided by N.
- E. Carbon Monoxide: A colorless, odorless, toxic gas having the molecular formula CO and produced by incomplete burning of carbon containing substances.
- F. Daily Average: A mean value, arithmetic or geometric as indicated, determined for a period of one day.
- G. Emission: A release into the outdoor atmosphere of air contaminants.
- H. Geometric Mean: The  $N^{\text{th}}$  (number) root of the product of N factors.
- I. Hydrocarbons: Compounds whose molecules consist of atoms of carbon and hydrogen and which exist in the atmosphere in a gaseous state at standard conditions.
- J. Nitrogen Oxides ( $\text{NO}_x$ ): A mixture of gases, the most significant components of which are nitric oxide, having the molecular formula NO and nitrogen dioxide, having the molecular formula  $\text{NO}_2$ . These gases are found in the atmosphere and are produced by man by the high temperature combustion of fuel in excess air.
- K. Particulate Matter: Any material except uncombined water which is or has been suspended in air or other gases and which exists in a finely divided form as a liquid or solid at standard conditions.
- L. Photochemical Oxidants: Substances resulting from a complex series of atmospheric reactions initiated by sunlight. When reactive organic substances and nitrogen oxides accumulate in the atmosphere and are exposed to the ultraviolet component of sunlight the formation of new compounds (photochemical oxidants), including ozone and peroxyacyl nitrates, takes place.
- M. Standard Conditions: A gas temperature of  $68^{\circ}\text{F}$  and a gas pressure of 14.7 lbs/sq. inch absolute.
- N. Sulfur Dioxide: A colorless gas at standard conditions with a pungent suffocating odor, having a molecular formula of  $\text{SO}_2$ .

#### IV. Directive

The degree of air purity required for particulate matter, sulfur dioxide, hydrocarbons, nitrogen oxides, carbon monoxide, and photochemical oxidants depends upon the adverse effects upon any or all receptors such as man, animals, vegetation, and property. In order to prevent the buildup of concentrations which might adversely affect the health and welfare of man, the following primary standards are hereby established.

A. Particulate Matter

1. The total suspended particulate matter shall be reported in terms of  $\text{ug}/\text{m}^3$  (micrograms per cubic meter) of air and shall be determined by the High Volume Air Sampling Procedure, as specified in the Federal Register, Vol. 36, No. 158, 8-14-71 or as is acceptable to the Agency.

a. Primary Ambient Air Quality Standards

- 1) The annual geometric mean for particulates shall not exceed  $60 \text{ ug}/\text{m}^3$ .
- 2) The annual geometric mean will consist of the geometric mean for the 12-month period beginning on July 1 and ending on June 30.
- 3) The 24-hour maximum concentration of particulates shall not exceed  $150 \text{ ug}/\text{m}^3$  over one day per year.

B. Sulfur Dioxide

1. Sulfur dioxide concentrations shall be reported in terms of micrograms per cubic meter or parts per million parts of ambient air, as determined by the Modified West-Gaeke Procedure, or such other method as specified in the Federal Register, Vol. 36, No. 158, 8-14-71 or as is acceptable to the Agency.

a. Primary Ambient Air Quality Standards

- 1) The annual arithmetic average for sulfur dioxide shall not exceed 0.022 ppm (parts per million),  $60 \text{ ug}/\text{m}^3$ .
- 2) The annual arithmetic average shall be the arithmetic average for the 12-month period beginning July 1 and ending June 30.
- 3) The maximum daily average shall not exceed 0.10 ppm,  $260 \text{ ug}/\text{m}^3$ , over one day per year.
- 4) Maximum three hour average  $1300 \text{ ug}/\text{m}^3$ , 0.5 ppm not to be exceeded more than once per year.

C. Carbon Monoxide

1. Carbon monoxide concentrations shall be reported in milligrams per cubic meter or parts per million parts of ambient air, as determined by non-dispersive infrared spectrophotometry or such other methods as specified in the Federal Register, Vol. 36, No. 158, 8-14-71 or as is acceptable to the Agency.

a. Primary Ambient Air Quality Standards

- 1) The maximum 8-hour arithmetic average concentration shall not exceed 9 ppm, 10 milligrams per cubic meter over once per year.

- 2) The maximum one-hour average shall not exceed 35 ppm, 40 milligrams per cubic meter over once per year.

#### D. Nitrogen Oxides

1. Nitrogen oxides shall be reported in terms of micrograms per cubic meter or parts per million parts of ambient air, as determined by the 24-hour sampling method (Jacobs-Hochhiser method) or such method as specified in the Federal Register, Vol. 36, No. 158, 8-14-71, or as is acceptable to the Agency.

##### a. Primary Ambient Air Quality Standards

- 1) The annual arithmetic average for nitrogen oxides shall not exceed 0.05 ppm, 100 ug/m<sup>3</sup>.

#### E. Photochemical Oxidants

1. Photochemical oxidants shall be reported in terms of micrograms of ozone per cubic meter or parts of ozone (O<sub>3</sub>) per million parts of ambient air, as determined by the Saltzman modification of Neutral Buffered Potassium Iodide (KI), colorimetric method, or such other method as specified in the Federal Register, Vol. 36, No. 158, 8-14-71, or as is acceptable to the Agency.

##### a. Primary Ambient Air Quality Standards

- 1) The maximum one-hour concentration of photochemical oxidants, expressed as Ozone, shall not exceed 0.08 ppm parts of ambient air, 160 ug/m<sup>3</sup>.

#### F. Hydrocarbons

1. Hydrocarbons shall be reported in ug/m<sup>3</sup> of non-methane hydrocarbons as determined by a method acceptable to the Environmental Protection Agency or the Agency.

##### a. Primary Ambient Air Quality Standards

- 1) The maximum 3-hour concentration (6:00 a.m. to 9:00 a.m.) of non-methane hydrocarbons shall not exceed 160 ug/m<sup>3</sup>.

#### V. Analysis

Methods for analysis for these contaminants shall be as specified under each contaminant or by such other method as is acceptable to the Agency.

Regulation No. 12

(51.13)

PREVENTION, ABATEMENT, AND CONTROL OF CONTAMINANTS  
FROM THE BURNING OF TIRES AND TUBES

I. Purpose

This regulation is adopted for the purpose of preventing, abating, and controlling air pollution caused by the open burning of tires and tubes.

II. Definitions

For the purpose of this regulation the following words and phrases have these meanings:

A. Agency: State of New Hampshire Air Pollution Control Agency.

B. Commission: State of New Hampshire Air Pollution Control Commission.

C. Person: Any individual, partnership, firm or co-partnership, association, syndicate, company, trust, corporation, department, bureau, agency, private or municipal corporation, or any other entity recognized by law as the subject of rights and duties.

D. Tires: Any device, rubber or synthetic, pneumatics, solid or liquid filled, upon which vehicles or machines may be or have been driven or moved.

E. Tubes: Any device, rubber or synthetic, used in conjunction with tires for the purpose of containing or having contained air within a tire cavity.

III. Prohibition

No person shall cause, suffer, allow or permit tires, tubes or any portion thereof to be burned in the open air at any area or place for any reason.

Tires and tubes received at any dump which is permitted to burn by Regulation No. 2 will be separated from the waste and disposed of by other means than open burning.

IV. Those portions of Regulation No. 1 which might be interpreted as permitting the burning of tires and tubes are hereby superseded and the provisions of this regulation shall govern.

PREVENTION, ABATEMENT, AND CONTROL OF AIR  
CONTAMINANTS FROM THE SAND AND GRAVEL INDUSTRY  
AND THE CEMENT, READY MIX CONCRETE & CEMENT BLOCK INDUSTRY

I. Purpose

This regulation is adopted for the purpose of preventing, abating, and controlling air pollution caused by the emission of air contaminants into the ambient air from the operation of sand and gravel facilities, and the operation of cement, ready mix concrete, and cement block manufacturing facilities.

II. Definitions

For the purpose of this subtitle the following words or phrases have these meanings:

- A. Agency: State Air Pollution Control Agency.
- B. Commission: State Air Pollution Control Commission.
- C. Air Contaminants: Soot, cinders, ashes, dust, fumes, gas, mist (other than water), odor, toxic or radioactive material, particulate matter, or any combination thereof.
- D. Cement, Ready Mix Concrete, and Cement Block Facility: Any establishment engaged in the manufacturing or handling of bulk cement or the handling of cement and aggregate for the manufacture of ready mix cement or the manufacture and handling of cement blocks.
- E. Emission: The release into the outdoor atmosphere of air contaminants.
- F. Sand and Gravel Facility: Any activity where grinding, crushing, drying, mixing, conveying, sizing and blending of rock, sand and gravel products is conducted, including all equipment and auxiliaries utilized in these functions.
- G. Particulate Matter: Any material except uncombined water, which is or has been suspended in air or other gases and exists in a finely divided form as a liquid or solid at standard conditions.
- H. Ringelmann Chart: Chart published and described in the U.S. Department of the Interior, Bureau of Mines, Information Circular 8333 and on which are illustrated graduated shades of grey to black for use in estimating the obscuring capacity of particulate matter.
- I. Person: Any individual, partnership, firm or co-partnership, association, syndicate, company, trust, corporation, department, bureau, agency, private or municipal corporation, or any other entity recognized by law as the subject of rights and duties.
- J. Fugitive Dust: Any and all particulate matter generated by the operation of sand and gravel facilities, which, if not confined or collected, would be emitted directly to the air from points other than the stack outlet.

K. Opacity: The degree of optical density of any translucent medium; the common logarithm of the ratio of the initial intensity of light to the intensity of transmitted or reflected light.

L. Portland Cement Plant: Any facility manufacturing Portland Cement by either the wet or dry process.

### III. Control of Particulate Emissions

A. No person shall cause, suffer, allow, or permit a sand and gravel facility to operate which is not equipped with a fugitive dust control system operated and maintained in such a manner as to control the emission of particulate matter. Emissions shall be limited to a visual limit of 20% equivalent opacity at crushers, transfer points and screens.

B. No person shall cause, suffer, allow, or permit the operation of a facility for the cement, ready mix concrete, or cement block industry in such a manner as to permit visible emission in excess of 20% equivalent opacity.

C. No person shall cause, suffer, allow or permit the operation of a Portland cement plant in such a manner as to permit particulate emissions in excess of the following:

- 1) 0.30 lbs. from the kiln per ton of feed to the kiln (0.15 per metric ton) 2 hr. average.
- 2) 0.10 lbs. from the clinker cooler per ton of feed to the kiln (0.050 kg per metric ton) 2 hour average.
- 3) There shall be no visible emission from individual sources within the plant that exceed 10% equivalent opacity.

D. The facility owner and/or operator shall control the dust from vehicular movement over access roads to, from, and within the facility premises by suitable means; e.g., paving, oiling, wetting, or other. Good operating practices shall be maintained at all times relative to stockpiling, screen changing, and general maintenance.

E. No person shall cause, suffer, allow, or permit the transportation of shatterable material on any public way unless suitably covered to prevent shattering or eroding by wind, apparent wind or weather.

### IV. Testing

The Agency may require any person owning or operating the equipment to conduct or have conducted testing to determine compliance with this regulation. The Agency may, at its option, witness or conduct such tests. Such testing will be done at a reasonable time and all data obtained will be provided to both parties. A detailed test plan will be agreed upon by both parties prior to the start of testing.



A. Testing to determine the quantity of emission shall be undertaken by methods of measurement accepted by the Office of Air Programs of the EPA or the Agency, and at a point or points such as to be representative of the actual emission into the atmosphere.

B. When the Agency conducts or has conducted such tests, the person owning or operating the equipment shall provide such sampling ports as might be required, power and water sources and safety equipment such as scaffolding, railing, ladders, etc. to comply with generally accepted good safety practices.

#### V. Notification

All persons owning or operating a sand and gravel facility shall notify the Agency of the name of the individual operating the facility, location of the facility, size, make, and type of air pollution control equipment on forms supplied by the Agency within 30 days of the effective date of this regulation.

When such facilities are modified by changes which significantly affect the emission characteristics of the facility, the owner or operator shall then renotify the Agency of these changes within 30 days after placing such modification in operation.

Portable facilities will advise the Agency of any relocation within five days of commencement of operations at a new location. Forms for this purpose are available at the Agency upon request.

#### VI. Malfunctions and Breakdowns

In the event of any malfunction in equipment or the breakdown of any component part of the air pollution control equipment, emissions exceeding those specified may be permitted by the Agency for a period not to exceed 48 hours, if the Agency is notified within eight hours of the malfunction or breakdown. The Commission may upon request of the owner or operator of the facility or at the request of the Director of the Agency grant an extension of time or temporary variance for a period longer than 48 hours.

#### VII. Compliance Schedule

Owners/operators of existing installations unable to comply with Sections III and IV above, must submit to the Agency, prior to December 31, 1972, a compliance schedule delineating the progressive steps required to bring these installations into compliance with this regulation on or before December 31, 1973. Such progressive steps shall include, but are not limited to: date for submittal of engineering plans, proof of purchase of the required control equipment, and date for completion and operation of the modified or new installation. Compliance schedules shall be subject to the approval of the Director.

(51.11)  
(51.21)

Regulation No. 14

PREVENTION, ABATEMENT AND CONTROL OF AIR CONTAMINANTS FROM  
NON-FERROUS FOUNDRIES, SMELTERS, AND INVESTMENT CASTING INDUSTRIES

I. Purpose

This regulation is adopted for the purpose of preventing, abating, and controlling air pollution caused by air contaminants discharged into the ambient atmosphere from non-ferrous foundries, smelters, and investment casting facilities.

II. Definitions

For the purpose of this regulation the following words and phrases shall have these meanings:

- A. Agency: State of New Hampshire Air Pollution Control Agency.
- B. ASTM: American Society for Testing and Materials.
- C. Commission: State of New Hampshire Air Pollution Control Commission.
- D. Emission: A release into the outdoor atmosphere of air contaminants.
- E. Fumes: Very small particles resulting from chemical reaction or from the condensation of vapors produced in combustion, distillation or sublimation. They are commonly metals or metallic oxides and their composition may be different from that of the parent material from which they originate.
- F. Non-Ferrous Foundry: Any installation used for melting and alloying nonferrous metals such as brass, bronze and zinc, consisting of but not necessarily limited to rotary, reverberatory, induction furnaces; crucibles, or kettles. The furnace or other melting device shall consist of furnace proper, flues, stack, tuyeres, fans or blowers, tapping spout, charging equipment, gas cleaning devices and other auxiliaries.
- G. Smelter: Any installation designed to separate a metal from its ores, or to process scrap metal from secondary materials markets. A smelter installation shall consist of various concentrating, roasting, smelting, sintering, condensing and converting equipment and associated gas cleaning devices and other auxiliaries.
- H. Investment Casting Facilities: Any installation involving the fabrication of precision parts by means of the "lost wax" or related methods.
- I. Particulate Matter: Any material, except uncombined water, which is or has been suspended in air or other gases, and exists in a finely divided form as a liquid or solid at standard conditions.
- J. Opacity: The degree of optical density of any translucent medium; the common logarithm of the ratio of the initial intensity of light to the intensity of transmitted or reflected light.

K. Person: Any individual, partnership, firm or co-partnership, association, syndicate, company, trust, corporation, department, bureau, agency, private or municipal corporation, or any other entity recognized by law as the subject of rights and duties.

L. Process Weight: The total weight of all materials introduced into any source operation. Solid fuel charged will be considered as part of the process weight but liquid and gaseous fuels and uncombined water and combustion air will not.

M. Process Weight Rate:

1. 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 part thereof.

2. For a cyclical or batch source operation, 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. When 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.

N. Standard Conditions: A gas temperature of 68°F and a gas pressure of 14.7 lbs/square inch absolute.

O. Effects Factor: A value assigned to air contaminants in the form of a numerical modifier which, when multiplied by emission rate, yields allowable emission.

P. Secondary Lead Smelter: Any facility producing lead from lead bearing scrap material by smelting to the metallic form.

Q. Secondary Brass and Bronze Ingot Production Plant: Any facility producing brass or bronze ingots from copper, zinc, tin, lead, or other scrap metals.

### III. Prohibition

A. No person shall cause, suffer, allow, or permit the emission of particulate matter or fumes in any one hour period from non-ferrous foundries, smelters or investment casting facilities which will exceed those limits specified in Table 1. If any of these facilities emit particulate matter of a toxic nature, these emissions are to be further limited in accordance with Table 2.

B. No person shall cause, suffer, allow or permit the emission of gaseous pollutants from non-ferrous foundries, smelters or investment casting facilities which exceed those limits specified in Table 3.

C. On or after the effective date of this part, no person shall operate a new or modified secondary lead smelter in such a manner as to discharge or cause the discharge into the atmosphere of any gases

1. from blast (cupola) furnaces which:
  - a. contain particulate matter in excess of 50 mg/dscm (0.022 gr/dscf)
  - b. exhibit 20% opacity or greater
2. from electric furnaces (pot furnaces) which exhibit 10% opacity or greater.
3. where the presence of uncombined water is the only reason for failure to meet the requirements of this section, such failure shall not be a violation of this part.

D. On or after the effective date of this part no person shall operate a new or modified secondary brass and bronze ingot production plant in such a manner as to discharge or cause the discharge into the atmosphere any gases

1. from a reverberatory furnace of 1000 kg (2,205 lb) or greater production capacity which:
  - a. contains particulate matter in excess of 50 mg/dscm (0.022 gr/dscf)
  - b. exhibit 20% opacity or greater
2. from electric furnaces of 1000 kg (2,205 lb) or greater production capacity and/or blast (cupola) furnace of 250 kg/hr (550 lbs/hr) or greater production capacity which exhibit 10% opacity or greater.
3. where the presence of uncombined water is the only reason for failure to meet the requirements of this section such failure shall not be a violation of this part.

E. The limits specified in Tables 1, 2 and 3 may be revised from time to time as additional and more refined technology becomes available and as dictated by air quality requirements.

#### IV. Testing

The Agency may require any person owning or operating a non-ferrous foundry, smelter or investment casting facility to conduct or have conducted testing to determine compliance with this regulation. The Agency may, at its option, witness or conduct such tests. Such testing will be done at a reasonable time and all data obtained will be provided to both parties. A detailed test plan will be agreed upon by both parties prior to the start of testing.

A. Testing to determine the quantity of emission shall be undertaken by methods of measurement accepted by the Environmental Protection Agency or the New Hampshire Air Pollution Control Agency and at a point or points such as are representative of the actual emission into the atmosphere.

B. When the Agency conducts or has conducted such tests, the person owning or operating the facility shall provide such sampling ports as might

be required, power and water sources and safety equipment such as scaffolding, railings, ladders, etc., to comply with generally accepted good safety practices.

#### V. Malfunction or Breakdown

In the event of malfunction or breakdown of any component part of the air pollution control equipment, emissions in excess of those specified in this regulation may be permitted by the Agency for a period not to exceed 48 hours, provided that the Agency is notified within eight hours of the malfunction or breakdown.

The Commission may, upon request of the owner or his authorized representative, or at the request of the Director of the Agency, grant an extension of time or temporary variance for a period longer than 48 hours.

#### VI. Compliance Schedule

Owners/operators of existing installations unable to comply with Section III above, must submit to the Agency, prior to December 31, 1972, a compliance schedule delineating the progressive steps required to bring these installations into compliance with this regulation on or before December 31, 1973. Such progressive steps shall include, but are not limited to, date for submittal of engineering plans, proof of purchase of the required control equipment, and date of completion and operation of the modified or new installation. Compliance schedules shall be subject to the approval of the Director.

#### VII. Notification

All persons owning or operating non-ferrous foundries, smelters, and investment casting facilities, shall notify the Agency of the name of the individual operating the facility, location of the facility, and size, make and type of air pollution control equipment, in forms supplied by the Agency within 30 days of the effective date of this regulation. When such facilities are modified by changes which significantly affect the emission characteristics of the facility, the owner or operator shall then renotify the Agency of these changes within 30 days after placing such modification into operation.

Table 1

Process Weight Rate (lbs/hr)	NEW INSTALLATIONS Emission Rate (lbs/hr)	EXISTING INSTALLATIONS Emission Rate (lbs/hr)
50	0.36	0.43
100	0.55	0.68
500	1.53	1.99
1,000	2.58	3.17
5,000	7.58	9.35
10,000	12.0	14.85
20,000	19.2	23.62
60,000	40.0	49.31
80,000	42.5	51.03
120,000	46.3	55.55
160,000	49.0	58.88
200,000	51.2	61.53
1,000,000	69.0	82.75
2,000,000	77.6	93.11

Interpolation of the data in Table 1 for the process weight rates up to 60,000 lbs/hr. shall be accomplished by the use of the equations:

$$E = 4.10 P^{0.67} \quad P \leq 30 \text{ tons/hr} - \text{New Installations}$$

$$E = 5.05 P^{0.67} \quad P \leq 30 \text{ tons/hr} - \text{Existing Installations}$$

and interpolation and extrapolation of the data for process weight rates in excess of 60,000 lbs./hr. shall be accomplished by use of the equations:

$$E = 55.0 P^{0.11} - 40 \quad P > 30 \text{ tons/hr.} - \text{New Installations}$$

$$E = 66.0 P^{0.11} - 48 \quad P > 30 \text{ tons/hr.} - \text{Existing Installations}$$

Where:

E = Emissions in pounds per hour

P = Process Weight Rate in tons per hour

Table 2

EFFECTS FACTOR FOR PARTICULATE MATTER

MATERIAL

A. All material not specifically listed here 1.0

---

B. Elements and their compounds of the basic elements

Antimony	0.9
Arsenic	0.9
Barium	0.9
Cadmium	0.2
Chromium	0.2
Cobalt	0.9
Copper	0.2
Hafnium	0.9
Lead - Lead arsenate	0.3
Lithium hydride	0.04
Phosphorus	0.2
Selenium	0.2
Silver	0.1
Tellurium	0.2
Thallium	0.2
Uranium (soluble)	0.1
Uranium (insoluble)	0.4
Vanadium	0.2
Zinc Oxide	0.8

Beryllium - Not more than 10 grams of beryllium over a 24-hour period. The operator may elect to meet the ambient air concentration of 0.01 ug/m<sup>3</sup> averaged over a 30-day period and measured in the vicinity of the source.

Mercury - Not more than 2300 grams per 24-hour period. The provisions of this subpart are applicable to those stationary sources which process mercury ore or recover mercury and to those which use mercury chloralkale cells to produce chlorine gas and alkali metal hydroxide.

---

C. Mineral material and miscellaneous substances

Silica (crystalline)	0.4
Asbestos - As specified by the EPA in Vol. 38, #66, Federal Register, Friday, April 6, 1973.	

---

Table 3

Limitations on emission of sulfur oxides (as  $\text{SO}_2$ ) from primary non-ferrous smelters are required in accordance with the following equations, for new installations:

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

where:

$X$  = Total sulfur fed to smelter (lb/hr.)

$Y$  = Sulfur dioxide emissions (lb/hr.)



PREVENTION, ABATEMENT AND CONTROL OF AIR CONTAMINANTS  
FROM THE PULP AND PAPER INDUSTRY

I. Purpose

This regulation is adopted for the purpose of preventing, abating, and controlling air pollution caused by emissions into the ambient atmosphere from the pulp and paper industry.

II. Definitions

For the purpose of this regulation the following words and phrases shall have these meanings:

- A. Agency: State of New Hampshire Air Pollution Control Agency.
- B. ASTM: American Society for Testing and Materials.
- C. Commission: State of New Hampshire Air Pollution Control Commission.
- D. Emission: A release into the outdoor atmosphere of air contaminants.
- E. Pulp and Paper Industry: That segment of industry involving the manufacture of pulp, including but not necessarily limited to Kraft and sulfite pulps, and paper, including but not necessarily limited to fine papers, coarse papers, and specialty papers.
- F. Kraft Mills: Any pulping process which uses, for a cooking liquor, an alkaline sulfide solution containing sodium hydroxide and sodium sulfide.
- G. Sulfite Mills: Any pulping process which uses, for a cooking liquor, an acidic solution containing sulfurous acid and a bisulfite of an alkaline base such as calcium, sodium, ammonium or magnesium.
- H. Person: Any individual, partnership, firm or co-partnership, association, syndicate, company, trust, corporation, department, bureau, agency, private or municipal corporation, or any other entity recognized by law as the subject of rights and duties.
- I. Particulate Matter: Any material, except uncombined water, which is, or has been suspended in air or other gases, and which exists in a finely divided form as a liquid or solid at standard conditions.
- J. Total Reduced Sulfur (TRS): Hydrogen sulfide, mercaptans, dimethyl sulfide, dimethyldisulfide, and any other organic sulfides present in the emissions from a pulp and/or paper mill.
- K. Process Weight: The total weight of all materials introduced into any source operation. Solid fuel charged will be considered as part of the process weight but liquid and gaseous fuels and uncombined water and combustion air will not.

L. Process Weight Rate:

1. 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 part thereof.

2. For a cyclical or batch source operation, 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. When 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.

M. Organic Vapors: Gaseous materials formed from the evaporation of organic liquids or from the combustion of organic materials.

N. Gases: Formless fluids which, under standard conditions, occupy the space of enclosure and which can be changed to the liquid or solid state only by the combined effect of increased pressure and decreased temperature.

O. Aerosols: Liquid particles which have volume but are not of rigid shape and which upon collection tend to coalesce and create uniform homogeneous films upon the surface of the collecting media.

III. Prohibition

A. No person shall cause, suffer, allow or permit the emission of particulate matter from Kraft Mill recovery furnace stacks in excess of 4 pounds per ton of air dried pulp.

B. No person shall cause, suffer, allow or permit the emission of particulate matter from Kraft Mill lime kilns in excess of one pound per ton of air dried pulp.

C. No person shall cause, suffer, allow or permit the emission of particulate matter from Kraft Mill smelt tanks in excess of one-half pound per ton of air dried pulp.

D. No person shall cause, suffer, allow or permit the emission of particulate matter from sulfite mills in excess of those limits specified in Table 1. Particulate emissions from fuel burning equipment at sulfite mills are regulated by Regulation No.4.

E. No person shall cause, suffer, allow or permit the emission of TRS from Kraft Mill recovery furnace stacks in excess of 2 pounds of sulfur per ton of air dried pulp.

F. No person shall cause, suffer, allow or permit the emission of sulfur oxides, calculated as sulfur dioxide, from existing sulfite mills in excess of 20 pounds per ton of air dried pulp.

G. No person shall cause, suffer, allow or permit the emission of particulate matter from paper manufacturing (as opposed to pulp manufacturing), in excess of these limits specified in Table 1.

#### IV. Testing

The Agency may require any person owning or operating any pulp and paper manufacturing facility to conduct or have conducted testing to determine compliance with this regulation. The Agency may, at its option, witness or conduct such tests. Such testing will be done at a reasonable time and all data obtained will be provided to both parties. A detailed test plan will be agreed upon by both parties prior to the start of testing.

A. Testing to determine the quantity of emission shall be undertaken by methods of measurement accepted by the Office of Air Programs of the EPA or the Agency, and at a point or points such as to be representative of the actual emission into the atmosphere.

B. When the Agency conducts or has conducted such tests, the person owning or operating the equipment shall provide such sampling ports as might be required, power and water sources and safety equipment such as scaffolding, railing, ladders, etc., to comply with generally accepted good safety practices.

#### V. Notification

All persons owning or operating a pulp and paper manufacturing facility shall notify the Agency of the name of the individual operating the facility, location of the facility, and size, make and type of air pollution control equipment, on forms supplied by the Agency, within 30 days of the effective date of this regulation. When such facilities are modified by changes which significantly affect the emission characteristics of the facility, the owner or operator shall then renotify the Agency of these changes within 30 days after placing such modification into operation.

#### VI. Compliance Schedule

Owners/operators of existing installations unable to comply with Section III above, must submit to the Agency, prior to December 31, 1972, a compliance schedule delineating the progressive steps required to bring these installations into compliance with this regulation on or before December 31, 1974. Such progressive steps shall include, but are not limited to; date for submittal of engineering plans, proof of purchase of the required control equipment, and date for completion and operation of the modification or new installation. Compliance shall be subject to approval of the Director.

Table 1

Process Weight Rate (lbs/hr)	NEW INSTALLATIONS Emission Rate (lbs/hr)	EXISTING INSTALLATIONS Emission Rate (lbs/hr)
50	0.36	0.43
100	0.55	0.68
500	1.53	1.99
1,000	2.58	3.17
5,000	7.58	9.35
10,000	12.0	14.85
20,000	19.2	23.62
60,000	40.0	49.31
80,000	42.5	51.03
120,000	46.3	55.55
160,000	49.0	58.88
200,000	51.2	61.53
1,000,000	69.0	82.75
2,000,000	77.6	93.11

Interpolation of the data in Table 1 for the process weight rates up to 60,000 lbs/hr. shall be accomplished by the use of the equations:

$$E = 4.10 P^{0.67} \quad P \leq 30 \text{ tons/hr} - \text{New Installations}$$

$$E = 5.05 P^{0.67} \quad P \leq 30 \text{ tons/hr} - \text{Existing Installations}$$

and interpolation and extrapolation of the data for process weight rates in excess of 60,000 lbs/hr. shall be accomplished by use of the equations:

$$E = 55.0 P^{0.11} - 40 \quad P > 30 \text{ tons/hr} - \text{New Installations}$$

$$E = 77.0 P^{0.11} - 48 \quad P > 30 \text{ tons/hr} - \text{Existing Installations}$$

REQUIREMENT FOR STATEWIDE PERMIT SYSTEM REGULATING THE OPERATION  
OF EXISTING AND NEW SOURCES OF AIR POLLUTION AND OF MODIFICATIONS  
OF EXISTING SOURCES OF AIR POLLUTION

I. Purpose

This regulation is adopted for the purpose of regulating the operation of new and existing stationary sources of air pollution and the operation of modifications to existing sources, such that the ambient air quality standards set forth in New Hampshire regulations will be achieved and maintained at their required levels.

II. Definitions

For the purpose of this regulation the following words and phrases shall have these meanings:

- A. Agency: State of New Hampshire Air Pollution Control Agency.
- B. Air Contaminant: Soot, cinders, ashes, dust, fumes, gas, mist (other than water), odor, toxic or radioactive material, particulate matter, or any combination thereof.
- C. Class A Device: Any residential or commercial heating plant which
  1. has a heat input of less than  $1 \times 10^6$  BTU per hour utilizing #1 or #2 fuel oils or gas, or
  2. uses electricity to generate heat, or
  3. uses wood, charcoal, coal, or coke for heating or recreational purposes in a one- or two-family dwelling.
- D. Class B Device: Any industrial or commercial heating plant or process which generates and discharges air contaminants.
- E. Class C Device: Any device designed for the incineration of waste or refuse, except residential incinerators.
- F. Device: Any burner, furnace, machine, equipment, or article which in the opinion of the Air Pollution Control Agency contributes or may contribute to pollution of the air.
- G. Director: The Director of the New Hampshire Air Pollution Control Agency.
- H. Particulate Matter: Any material, except uncombined water which is or has been suspended in air or other gases and which exists in a finely divided form as a liquid or solid at standard conditions.

I. Residential Heating Plant: Any heating system associated with single and multi-family, private dwellings and apartment houses.

J. Residential Incinerator: Any incinerator associated with a one or two family dwelling.

### III. Requirements

A. All owners or operators of Class B and C devices shall submit to the New Hampshire Air Pollution Control Agency application for permits to operate such devices. Application shall be made by completing and submitting forms provided for that purpose by the Agency (Ref. Form No. APCA 50). Permits for Class A devices are granted automatically without application.

B. The Director may require owners or operators of devices for which Class A eligibility is claimed to demonstrate to his satisfaction that the device does in fact meet the definition in Section II.C of this regulation.

C. No person shall cause, suffer, permit or allow the operation of a Class B or C device after February 1, 1973, without first having obtained an operating permit for such device.

A separate permit application shall be submitted for each device.

D. All Class B and C devices in operation on April 1, 1972, shall apply for operating permits prior to May 1, 1972.

E. All Class B and C devices existing on April 1, 1972, shall be issued a Temporary Permit to operate by the Agency for ninety (90) days or until such time as an inspection is made by the Agency and/or source tests are performed or until a Conditional Permit or a final Permit to Operate is granted or denied. If such inspection and/or tests are not accomplished within the said ninety (90) days, an automatic extension not to exceed an additional 180 days will be allowed. Failure of the Agency to act within this 270 days will result in the automatic issuance of a permit to operate. No further Temporary Permits to operate shall be issued after February 1, 1973.

F. All applications for new devices, or modifications for existing devices, shall be accompanied by supplemental information, including a description of the device and such engineering plans, specifications, measurement data, or such other information as may be stipulated by the Agency.

G. The Agency shall act within thirty (30) days on all applications submitted after February 1, 1973. Failure of the Agency to act within thirty days will result in automatic issuance of the permit. Applications submitted prior to this date shall not be subject to the thirty (30) day limitation.

H. Action by the Agency on any Class B or C permit application for new, existing, or modified devices shall consist of one of the following steps:

1. Granting of a Temporary Permit to operate for Existing Devices in accordance with paragraph III.E.

2. Granting of a Conditional Permit to operate for New Devices or modifications to existing devices.

3. Refusing to grant a Conditional Permit to operate if:

- a. In the judgement of the Director, the device for which a permit is sought contributes disproportionately to pollution of the air in comparison to other devices of its type currently in use; or
- b. The device for which a permit is sought should in the opinion of the Director, be fitted with or modified by equipment designed to reduce the air pollution capacity of the device.

4. Issuing or Denying final Permit to Operate.

I. No person shall cause, suffer, allow, or permit the construction of a new device or the modification of an existing device without first having been issued a Conditional Permit to Operate.

J. An applicant for a Permit shall, upon receipt of notification by the Director of refusal to grant a Permit, resubmit his application, correcting any deficiency found in his earlier application and shall provide such additional information in support of his new submission as the Director may stipulate. The thirty (30) day time limitation stipulated in paragraph III.H. shall apply to all resubmissions.

K. In the event that a Permit holder has failed to comply with any order for testing or modification issued by the Director, the Director may, after hearing suspend or revoke a permit previously issued.

L. Upon completion of construction of new or modified devices, the holder of a Conditional Permit to Operate shall notify the Agency within 7 calendar days that construction is complete, for purposes of inspection.

M. Upon orders by the Agency after post-construction inspection, the holder of a conditional Permit to Operate shall perform, or have performed, such tests or make such modifications on the device as may be ordered by the Agency.

N. In the event of failure on the part of a holder of a Conditional Permit to Operate to notify the Agency within 7 calendar days that construction has been completed, the Director may suspend or revoke the Permit.

O. The holder of a Permit to Operate shall notify the Agency within 15 calendar days of any change in the operation of the device covered by the Permit which represents a significant deviation from the circumstances of the original Permit application. In the event of failure to provide such notification, the Director may, after hearing, suspend or revoke the previously issued permit, and/or may require the operator of the device to submit a new application.

P. The New Hampshire Air Pollution Control Agency shall issue forms for use in applications for Permits to Operate for the Class B and C devices.

Q. The issuance of any permit pursuant to this regulation will not relieve the owner/operator of any source from complying with all other state and federal regulations.

#### IV. Criteria for Permit Issuance

No operating permit shall be granted unless the applicant shows to the satisfaction of the Director that:

A. The operation of the device will not cause a violation of any applicable State or Federal rules and regulations, and if an additional control method is required to prevent violation, the control method proposed will represent the technologically available and economically feasible control required to achieve compliance.

B. Operation of the device will not endanger maintenance or attainment of any applicable ambient air quality standards.

C. The applicant has conducted a valid source test of air pollutants emitted, if required by the Director.

D. The applicant has installed an Agency approved continuous emission monitoring system if required by the Director.



PREVENTION, ABATEMENT AND CONTROL OF AIR CONTAMINANTS  
FROM PROCESS, MANUFACTURING, SERVICE AND MISCELLANEOUS INDUSTRIES

I. Purpose

This regulation is adopted for the purpose of preventing, abating, and controlling air pollution caused by the emission of air contaminants into the ambient air from process, manufacturing, service and miscellaneous industries not specifically covered by other regulations.

II. Definitions

For the purpose of this regulation the following words and phrases shall have these meanings:

- A. Agency: State of New Hampshire Air Pollution Control Agency.
- B. Air Contaminants: Soot, cinders, ashes, dust, fumes, gas, mist (other than water), odor, toxic or radioactive material, particulate matter or any combination thereof.
- C. Ambient Air: The unconfined atmosphere which surrounds the earth.
- D. ASTM: American Society for Testing and Materials.
- E. Commission: State of New Hampshire Air Pollution Control Commission.
- F. Effects Factor: A value assigned to air contaminants in the form of a numerical modifier which when multiplied by emission rate, yields allowable emission.
- G. Emission: A release into the outdoor atmosphere of air contaminants.
- H. Fumes: Very small particles resulting from chemical reaction or from the condensation of vapors produced in combustion, distillation or sublimation. They are commonly metals or metallic oxides and their composition may be different from that of the parent material from which they originate.
- I. Exhaust and Ventilation System: Any system which removes and transports particulates, fumes, or any gaseous or gas borne products from their point of generation to the ambient air.
- J. Fuel Burning or Combustion Equipment or Device: Any furnace or boiler used for the burning of fuel or the emission of products of combustion or used in connection with any process which generates heat and may emit products of combustion.
- K. Particulate Matter: Any material except uncombined water which is or has been suspended in air or other gases and exists in a finely divided form as a liquid or solid at standard conditions.

L. Person: Any individual, partnership, firm, or co-partnership, association, syndicate, company, trust, corporation, department, bureau, agency, private or municipal corporation or any other entity recognized by law as the subject of rights and duties.

M. Process Weight: The total weight of all materials introduced into any source operation. Solid fuel used in the process will be considered as part of the process weight but liquid and gaseous fuels and uncombined water and combustion air will not.

N. Process weight rate:

1. 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 part thereof.

2. For a cyclical or batch source operation, the total process weights for a period that covers a complete operation of an integral number of cycles, divided by the hours of actual process operation during such a period. When 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.

O. Stack: Any duct, passage, chimney or flue carrying combusted gases or products to the atmosphere.

P. Standard Conditions: A gas temperature of 68°F and a gas pressure of 14.7 lbs/square inch absolute.

Q. Process and Manufacturing Industries: All establishments engaged in the manufacture of goods and supplies, both finished and intermediate in nature, whose operations involve emissions to the ambient atmosphere from process or manufacturing equipment or machinery, directly or through stacks and exhaust and ventilating systems. Process and Manufacturing Industries include, but are not necessarily limited to, the following types of establishments:

1. Chemical process industries
2. Food and agricultural industries
3. Metallurgical industries
4. Mineral products industries
5. Pulp and paper industries
6. Petroleum refining and petrochemical operations
7. Wood processing

R. Service Industries: All establishments engaged in supplying services, whose operations involve emission to the ambient atmosphere from various equipment and apparatus, directly or through stacks and exhaust and ventilating systems. Examples of service establishments include, but are not necessarily limited to the following:

1. Dry cleaning establishments
2. Printing establishments
3. Commercial wholesale and retail establishments
4. Hospitals, schools and other institutional establishments
5. Hotels, restaurants, theaters, sports arenas and similar establishments

S. Gases: Formless fluids which, under standard conditions, occupy the space of enclosure and which can be changed to the liquid or solid state only by the combined effect of increased pressure and decreased temperature.

T. Nitric Acid Production Unit: Any facility producing weak nitric acid (30% to 70% in strength) by either pressure or atmospheric pressure process.

U. Sulfuric Acid Production Unit: Any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, organic sulfides and mercaptans, or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.

V. Opacity: The degree of optical density of any translucent medium; the common logarithm of the ratio of the initial intensity of light to the intensity of transmitted or reflected light.

### III. Prohibition

A. No person shall cause, suffer, allow or permit the emission of particulate matter and fumes from any process, manufacturing, service or miscellaneous industry installation into the ambient air in excess of the amounts stipulated herein as follows:

1. All process, manufacturing, service or miscellaneous industry installations will comply with the requirements of Table 1 of the regulation. If the process, manufacturing, service or miscellaneous industry installation is emitting particulate matter which because of its toxicity is further regulated by an effect factor from Table 2, the required emissions as established by Table 1 are further reduced by the effects factor. When two or more elements or compounds are emitted from the same stack or chimney, the more stringent effects factor shall govern.

B. No person shall cause, suffer, allow or permit the emission of gases from any process, manufacturing, service or miscellaneous industry installation into the ambient air in excess of those quantities which are compatible with the achievement of ambient air quality standards for sulfur dioxide, nitrogen oxides, hydrocarbons and photochemical oxidants, as specified in New Hampshire Air Pollution Control Commission Regulation No. 11, and for other gases to be specified in future regulations.

C. No person shall cause, suffer, allow or permit the emission of acid tests from stationary industrial, commercial or residential sources in excess of those specified on Table 3 of this regulation. Table 3 specifies allowable

emissions of acid mist. Emission limits for other aerosol substances may be added to this table in the future.

#### IV. Exception

A. Those process or manufacturing installations, fuel burning or combustion equipment, or other sources of gaseous and particulate matter covered specifically by other regulations will be controlled by such other regulation or part thereof as applicable.

#### V. Testing

The Agency may require any person owning or operating a process, manufacturing service or miscellaneous industry installation to conduct or have conducted testing to determine compliance with this regulation. The Agency may, at its option, witness or conduct such tests. Such testing will be done at a reasonable time and all data obtained will be provided to both parties. A detailed test plan will be agreed upon by both parties prior to the start of testing.

A. Testing to determine the quantity of emission shall be undertaken by methods of measurement accepted by the Environmental Protection Agency or the New Hampshire Air Pollution Control Agency and at a point or points such as are representative of the actual emission into the atmosphere.

B. When the Agency conducts or has conducted such tests, the person owning or operating the manufacturing process or exhaust and ventilating system shall provide such sampling ports as might be required, power and water sources and safety equipment such as scaffolding, railings, ladders, etc., to comply with generally accepted good safety practices.

#### VI. Malfunction or Breakdown

In the event of a malfunction or breakdown of any component part of the air pollution control equipment, emissions in excess of those specified in this regulation may be permitted by the Agency for a period not to exceed 48 hours, provided that the Agency is notified expeditiously of the malfunction or breakdown.

The Commission may, upon request of the firm or owner or his authorized representative, or at the request of the Director of the Agency, grant an extension of time or temporary variance for a period longer than 48 hours.

#### VII. Notification

All persons owning or operating a process manufacturing, service, or miscellaneous industry installation shall notify the Agency of the name of the individual operating the installation, location of the installation, and size, make and type of air pollution control equipment, on forms supplied by the Agency, within 30 days of the effective date of this regulation. When such installations are modified by changes which significantly affect the emission characteristics of the installation, the owner or operator shall then renotify the Agency of these changes within 30 days after placing such modification into operation.

#### VIII. Compliance Schedule

Owners/operators of existing installations unable to comply with Section III above, must submit to the Agency, prior to December 31, 1972, a compliance schedule delineating the progressive steps required to bring these installations into compliance with this regulation, on or before December 31, 1973. Such progressive steps shall include, but are not limited to: date for submittal of engineering plans, proof of purchase of the required control equipment, and date of completion and operation of the modification or new installation. Compliance schedules shall be subject to the approval of the Director.

Table 1

Process Weight Rate (lbs/hr)	NEW INSTALLATIONS Emission Rate (lbs/hr)	EXISTING INSTALLATIONS Emission Rate (lbs/hr)
50	0.36	0.43
100	0.55	0.68
500	1.53	1.99
1,000	2.58	3.17
5,000	7.58	9.35
10,000	12.0	14.85
20,000	19.2	23.62
60,000	40.0	49.31
80,000	42.5	51.03
120,000	46.3	55.55
160,000	49.0	58.88
200,000	51.2	61.53
1,000,000	69.0	82.75
2,000,000	77.6	93.11

Interpolation of the data in Table 1 for the process weight rates up to 60,000 lbs/hr. shall be accomplished by the use of the equations:

$$E = 4.10 P^{0.67} \quad P \leq 30 \text{ tons/hr} - \text{New Installations}$$

$$E = 5.05 P^{0.67} \quad P \leq 30 \text{ tons/hr} - \text{Existing Installations}$$

and interpolation and extrapolation of the data for process weight rates in excess of 60,000 lbs/hr. shall be accomplished by use of the equations:

$$E = 55.0 P^{0.11} - 40 \quad P > 30 \text{ tons/hr} - \text{New Installations}$$

$$E = 66.0 P^{0.11} - 48 \quad P > 30 \text{ tons/hr} - \text{Existing Installations}$$

Where:

E = Emissions in pounds per hour

P = Process Weight Rate in tons per hour

Table 2

EFFECTS FACTOR FOR PARTICULATE MATTER

MATERIAL

A. All material not specifically listed here 1.0

---

B. Elements and their compounds of the basic elements

Antimony	0.9
Arsenic	0.9
Barium	0.9
Cadmium	0.2
Chromium	0.2
Cobalt	0.9
Copper	0.2
Hafnium	0.9
Lead - Lead arsenate	0.3
Lithium hydride	0.04
Phosphorus	0.2
Selenium	0.2
Silver	0.1
Tellurium	0.2
Thallium	0.2
Uranium (soluble)	0.1
Uranium (insoluble)	0.4
Vanadium	0.2
Zinc Oxide	0.8

Beryllium - Not more than 10 grams of beryllium over a 24-hour period.  
The operator may elect to meet the ambient air concentration of 0.01 ug/m<sup>3</sup> averaged over a 30-day period and measured in the vicinity of the source.

Mercury - Not more than 2300 grams per 24-hour period. The provisions of this subpart are applicable to those stationary sources which process mercury ore or recover mercury and to those which use mercury chloralkale cells to produce chlorine gas and alkali metal hydroxide.

---

C. Mineral material and miscellaneous substances

Silica (crystalline) 0.4  
Asbestos - As specified by the EPA in Vol. 38, #66, Federal Register, Friday, April 6, 1973.

Table 3

LIMITATION OF EMISSIONS OF ACID MISTS

(Allowable Stack Gas Concentrations in Milligrams Per Dry Cubic Meter  
at Standard Conditions)

Sulfuric Acid Mist (except as provided in note 1 below)	35
Nitric Acid Mist and/or Vapor (except as provided in Note 2 below)	70
Hydrochloric Acid Mist and/or Vapor	210
Phosphoric Acid Mist and/or Vapor	3

Note 1. On or after the effective date of this part no owner or operator of a sulfuric acid production unit shall discharge or cause the discharge into the atmosphere of sulfur dioxide in excess of lbs. per ton of acid produced (2kg. per metric ton) maximum two-hour average.

Note 2. On or after the effective date of this part no owner or operator of a Nitric Acid Production Unit shall discharge or cause to be discharged into the atmosphere nitrogen oxides which are in excess of 3 lbs. per ton of acid produced (1.5 kg. per metric ton) maximum two-hour average expressed as NO<sub>2</sub> and/or 10% opacity or greater.



REQUIREMENT FOR RECORD KEEPING AT  
FACILITIES WHICH DISCHARGE AIR CONTAMINANTS

I. Purpose

This regulation is adopted for the purpose of requiring that records be kept at facilities which discharge air contaminants such that the quantities of such contaminants may be readily calculated or estimated.

II. Definitions

For the purpose of this subtitle, the following words or phrases have these meanings:

A. Air Contaminant: Soot, cinders, ashes, dust, fume, gas, mist (other than water), odor, toxic or radioactive material, particulate matter, or any combination thereof.

B. Facility: Any establishment, residential, commercial, institutional, or industrial, which discharges air contaminants to the ambient atmosphere through stacks, chimneys, ventilation or exhaust ducts, or any other opening communicating with the ambient atmosphere.

C. Person: Any individual, partnership, firm or co-partnership, association, syndicate, company, trust, corporation, department, bureau, agency, private or municipal corporation, or any other entity recognized by law as the subject of rights and duties.

D. Records: Organized information pertinent to the discharge of air contaminants, of a quality consistent with good business practice, and as defined further under III herein.

III. Requirement

The following records are required to be kept at each facility which discharges air contaminants to the ambient atmosphere:

A. Fuel Utilization. Monthly records of fuel consumption are to be kept. Fuel type, sulfur content (percent by weight), and the percent ash content are to be recorded for each monthly entry. If more than one type of fuel is used, data on each fuel are to be recorded separately. Facilities which utilize #1 or #2 fuel oils, gas, or electrical energy are exempted from this requirement.

If a facility operates fuel burning equipment which discharges air contaminants through more than one discharge point, data are to be recorded as to the distribution of the fuel utilization among such discharge points. Such distribution may be estimated, but estimates must be based on reliable operational data, such as boiler loading records.

Records must also be kept of hours of operation corresponding to the utilization and distribution of fuels.

B. Process Operations. Monthly records are to be kept regarding the total quantities of raw materials, excluding gaseous and liquid fuels and combustion air charged to a process (process weight). The number of hours of operation corresponding to the process weight quantities must also be recorded.

If a facility operates more than one process, such records must be kept for each process.

If a facility operates one or more processes which discharge air contaminants through more than one discharge point, data are to be recorded as to the distribution of the process weights or discharges among such discharge points, whichever is applicable. Such distribution may be estimated, but estimates must be based on reliable operational information.

C. Emission Data. If a facility operates instruments or equipment which measures or otherwise relates to emissions of air contaminants, such data are to be recorded on a regular basis. The number of hours of operation of such instruments or equipment is to be recorded along with the corresponding hours of operation of the process or fuel burning equipment on which the instruments or equipment are installed.

If the measurements consist of concentrations of contaminants (e.g., parts per million by volume of sulfur dioxide), these are to be converted to actual emissions (e.g., pounds per hour) by application of appropriate operational information (such as volume flow). Such parameters may be estimated but must be based on reliable operational information.

D. Availability of Records. Any person operating a facility, except those exempted under III.A. above, which discharges air contaminants into the ambient atmosphere, may be required to make available to the New Hampshire Air Pollution Control Agency information as described in paragraphs III.A., III.B., and III.C. above, annually, and shall be required to make such information available at such other times as the Agency shall deem necessary. The Agency shall have access to all such records kept from the effective date of this regulation.

All emission data, private or agency sources shall be available to the public and shall be correlated with applicable emission limitations.

E. Compatibility with Permit System. The record-keeping required by this regulation is to be considered a separate and independent requirement from any information to be required by any permit system adopted by the New Hampshire Air Pollution Control Commission. However, certain consistencies in information format may be desirable. These will be specified at such times as the permit system becomes effective.

#### IV. Exception

The New Hampshire Air Pollution Control Commission may except any facility from the requirements of this regulation, which, by virtue of its size and

operation, is not expected to contribute markedly to the discharge of contaminants into the atmosphere and/or whose discharges (e.g., from fuel combustion) are readily and accurately predictable from other means (e.g., degree-day information, etc.).

V. Effective Date

The effective date of this regulation shall be January 1, 1973.

REQUIRED ACTION: EMERGENCY EPISODE PROCEDUREI. Purpose

This regulation is adopted for the purpose of requiring that specific steps be taken at facilities which discharge air contaminants into the ambient atmosphere such that the quantities of such contaminants are reduced or eliminated during air pollution emergency episodes.

II. Definitions

For the purpose of this subtitle, the following words or phrases shall have these meanings:

A. Air Contaminant: Soot, cinders, ashes, dust, fume, gas, mist (other than water), odor, toxic or radioactive material, particulate matter, or any combination thereof.

B. Facility: Any establishment, residential, commercial, institutional or industrial which discharges air contaminants to the ambient atmosphere through stacks, chimneys, ventilation or exhaust ducts, or any other opening communicating with the ambient atmosphere.

C. Person: Any individual, partnership, firm or co-partnership, association, syndicate, company, trust, corporation, department, bureau, agency, private or municipal corporation, or any other entity recognized by law as the subject of rights and duties.

D. Air Pollution Emergency Episode: An occurrence of atmospheric stagnation whereby natural ventilation is restricted, allowing for rapid accumulation of pollutant concentrations at the lowest levels in the atmosphere, thereby endangering the health and welfare of the citizens in the area.

E. Forecast Status: An internal watch by the Air Pollution Control Agency, activated by a National Weather Service advisory that at Atmospheric Stagnation Advisory is in effect, or by an equivalent local forecast of stagnant atmospheric conditions.

F. Alert Status: An alert will be declared when any one of the following levels is reached at any sampling station:

$SO_2$  - 0.3 ppm ( $800 \text{ ug/m}^3$ ), 24-hour average

or Particulate - 3.0 COHs, or  $375 \text{ ug/m}^3$  Hi-Volume Suspended Particulate, 24-hour sample

or  $SO_2$  and Particulate Combined - product of  $SO_2$  ppm, 24-hour average and COHs, equal to  $0.3^2$ , or product of  $SO_2 \text{ ug/m}^3$ , 24-hour average, and Particulate  $\text{ug/m}^3$ , 24-hour average equal to  $65 \times 10^3$

and Meteorological conditions are such that this condition can be expected to continue for twelve (12) or more hours or increase unless control actions are taken.

G. Warning Status: A warning will be declared when any one of the following levels is reached at any sampling station:

SO<sub>2</sub> - 0.6 ppm (1600 ug/m<sup>3</sup>), 24-hour average

or Particulate - 5.0 COHs, or 675 ug/m<sup>3</sup> Hi Volume Suspended Particulate, 24-hour sample

or SO<sub>2</sub> and Particulate Combined - product of SO<sub>2</sub> ppm, 24-hour average and COHs, equal to 0.8, or product of SO<sub>2</sub> ug/m<sup>3</sup>, 24-hour average, and Particulate ug/m<sup>3</sup>, 24-hour average equal to  $261 \times 10^3$

and Meteorological conditions are such that this condition can be expected to continue for twelve (12) or more hours or increase unless control actions are taken.

H. Emergency Status: When the concentration(s) for the Warning Status have been exceeded and are continuing to increase, or if the Director of the New Hampshire Air Pollution Control Agency determines that, because of meteorological and other factors, the concentrations will continue to increase.

I. Termination: Once declared, any status reached by application of the alert, warning and emergency criteria will remain in effect until the criteria for that status are no longer met. At such time the next lower status will be assumed.

### III. Requirement

The following steps shall be taken by any facility which discharges air contaminants into the ambient atmosphere, and by those with whom preplanned emission reduction strategy has been established (Ref. Section III-E) for the various status levels defined in II-E through II-I.

A. Forecast Status: Facilities with whom preplanned emission reduction strategy has been established shall, upon notification by the New Hampshire Air Pollution Control Agency, inspect all equipment to obtain best operation and prepare for curtailment of operation.

#### B. Alert Status:

1. All persons holding open burning permits shall cease such burning and consider such permit suspended until further notice.

2. Private and Commercial Incinerators shall be operated only between 12 noon and 4 p.m.

3. Sootblowing, firecleaning, etc., shall be kept to a minimum and when necessary shall be accomplished only between 12 noon and 4 p.m.

4. All coal or oil fired process steam generating plants with annual emissions greater than 100 tons shall make maximum use of fuels having the lowest available ash and sulfur content. All sources regardless of size shall prepare to initiate a plan of action to minimize production of pollutants in case an emergency is called.

5. Coal and oil fired electric power generating stations shall convert to fuels having the lowest available ash and sulfur content, and shall prepare to place all possible electric power requirements with generating facilities outside of the Alert area.

6. Major facilities (such as, but not limited to, primary metal industry, chemical industries, mineral processing industries, paper and allied products, and grain industry) having an emission rate in excess of 100 tons annually shall prepare to make substantial reductions in emissions in accordance with preplanned strategy.

C. Warning Status: All provisions of the Alert Status continue and:

1. Coal and oil fired electric power generating stations shall place all possible electric power requirements with generating facilities outside of Warning Area.

2. Upon notification by the Director, all coal or oil fired process steam generating plants with emissions greater than 100 tons annually shall reduce power output in accordance with preplanned strategy.

3. Incinerators shall not operate, except in instances agreed to in writing by the Director of the Agency.

4. Major facilities (such as, but not limited to, primary metal industry, chemical industries, mineral processing industries, paper and allied products, and grain industry) having an emission rate in excess of 100 tons annually shall make a maximum reduction in emissions in accordance with preplanned strategy and, if considered necessary by the Director of the Agency, shall postpone or reschedule production operations.

5. All facilities having an emission rate less than 100 tons annually shall reduce emissions as directed by the Agency, and if considered necessary, shall postpone or reschedule production operations.

D. Emergency Status: All provisions of Warning Status continue and:

1. Mining and quarrying of non-metallic materials and asphalt plant operations shall cease operations.

2. All construction projects, except those exempted by the Director of the Agency, shall cease operations.

3. All manufacturing establishments, except those operating under an air pollution emergency plan, shall cease operations.

4. All wholesale trade establishments except wholesale druggists and surgical supply houses, shall cease operations.

5. All governmental offices and other governmental functions, except those determined to be vital for public safety and welfare and the enforcement of this regulation, shall cease operations.

6. Except for food outlets, pharmacies, and retail surgical supply outlets, all retail establishments, banks, credit house, insurance offices, securities and commodities brokers, and real estate offices, shall cease operations.

7. Wholesale and retail laundries, dry-cleaners, dyers, photographic studios, beauty shops, barber shops, and shoe repair shops, shall cease operations.

8. Advertising offices, consumer credit, adjustment and collection agencies, duplicating, blueprinting, photocopying, stenographic services, equipment rental and commercial testing laboratories shall cease operations.

9. Automobile repair, automobile services, and garages shall close, except for the sale and distribution of petroleum products.

10. Establishments which render amusement and recreational services, including indoor and outdoor motion picture theaters, shall cease operations.

11. Elementary and secondary schools, colleges, universities, professional schools, junior colleges, vocational schools and public and private libraries shall close.

12. The use of motor vehicles shall be restricted except in extreme emergency and with the approval of the local or state police.

13. In addition to the measures described in paragraphs 1 through 12 above all other commercial and manufacturing establishments not specifically mentioned must institute such actions as will result in maximum reduction of air pollutants from their operation by ceasing, curtailing, or postponing operations which emit air pollutants to the extent possible without causing injury to persons or damage to equipment.

#### E. Source Curtailment

All air contaminant sources having annual emissions greater than 100 tons per year of particulates or sulfur oxides must submit a preplanned abatement strategy plan to the Agency no later than July 1, 1972. If the abatement plan is not submitted or is unacceptable, the Director of the New Hampshire Air Pollution Control Agency will serve notice to such sources that a strategy will be prepared by the Agency without further referral to the source.

**FEDERALLY PROMULGATED  
REGULATIONS**



(b) Regulation for Review of New or Modified Indirect Sources

- (1) All terms used in this paragraph but not specifically defined below shall have the meaning given them in 52.01 of this chapter.
  - (i) The term "indirect source" means a facility, building, structure, or installation which attracts or may attract mobile source activity that results in emissions of a pollutant for which there is a national standard. Such indirect sources include, but are not limited to:
    - (a) Highways and roads.
    - (b) Parking facilities.
    - (c) Retail, commercial and industrial facilities.
    - (d) Recreation, amusement, sports and entertainment facilities.
    - (e) Airports.
    - (f) Office and Government buildings.
    - (g) Apartment and condominium buildings.
    - (h) Education facilities.
  - (ii) The term "Administrator" means the Administrator of the Environmental Protection Agency or his designated agent.
  - (iii) The term "associated parking area" means a parking facility or facilities owned and/or operated in conjunction with an indirect source.
  - (iv) The term "aircraft operation" means an aircraft take-off or landing.
  - (v) The phrase "to commence construction" means to engage in a continuous program of on-site construction including site clearance, grading, dredging, or land filling specifically designed for an indirect source in preparation for the fabrication, erection, or installation of the building components of the indirect source. For the purpose of this paragraph, interruptions resulting from acts of God, strikes, litigation, or other matters beyond the control of the owner shall be disregarded in determining whether a construction or modification program is continuous.

- (vi) The phrase "to commence modification" means to engage in a continuous program of on-site modification, including site clearance, grading, dredging, or land filling in preparation for specific modification of the indirect source.
  - (vii) The term "highway section" means the development proposal of a highway of substantial length between logical termini (major crossroads, population centers, major traffic generators, or similar major highway control elements) as normally included in a single location study or multi-year highway improvement program as set forth in 23 CFR 770.201 (38 FR 31677).
  - (viii) The term "highway project" means all or a portion of a highway section which would result in a specific construction contract.
  - (ix) The term "Standard Metropolitan Statistical Area (SMSA)" means such areas as designated by the U.S. Bureau of the Budget in the following publication: "Standard Metropolitan Statistical Area," issued in 1967, with subsequent amendments.
- (2) The requirements of this paragraph are applicable to the following:
- (i) In an SMSA:
    - (a) Any new parking facility or other new indirect source with an associated parking area, which has a new parking capacity of 1,000 cars or more; or
    - (b) Any modified parking facility, or any modification of an associated parking area, which increases parking capacity by 500 cars or more; or
    - (c) Any new highway project with an anticipated average annual daily traffic volume of 20,000 or more vehicles per day within ten years of construction; or
    - (d) Any modified highway project which will increase average annual daily traffic volume by 10,000 or more vehicles per day within ten years after modification.
  - (ii) Outside an SMSA:
    - (a) Any new parking facility, or other new indirect source with an associated parking area, which has a parking capacity of 2,000 cars or more; or

- (b) Any modified parking facility, or any modification of an associated parking area, which increases parking capacity by 1,000 cars or more.
  - (iii) Any airport, the construction or general modification program of which is expected to result in the following activity within ten years of construction or modification:
    - (a) New airport: 50,000 or more operations per year by regularly scheduled air carriers, or use by 1,600,000 or more passengers per year.
    - (b) Modified airport: Increase of 50,000 or more operations per year by regularly scheduled air carriers over the existing volume of operations, or increase of 1,600,000 or more passengers per year.
  - (iv) Where an indirect source is constructed or modified in increments which individually are not subject to review under this paragraph, and which are not part of a program of construction or modification in planned incremental phases approved by the Administrator, all such increments commenced after December 31, 1974, or after the latest approval hereunder, whichever date is most recent, shall be added together for determining the applicability of this paragraph.
- (3) No owner or operator of an indirect source subject to this paragraph shall commence construction or modification of such source after December 31, 1974, without first obtaining approval from the Administrator. Application for approval to construct or modify shall be by means prescribed by the Administrator, and shall include a copy of any draft or final environmental impact statement which has been prepared pursuant to the National Environmental Policy Act (42 U.S.C. 4321). If not included in such environmental impact statement, the Administrator may request the following information:
  - (i) For all indirect sources subject to this paragraph, other than highway projects:
    - (a) The name and address of the applicant.
    - (b) A map showing the location of the site of indirect source and the topography of the area.
    - (c) A description of the proposed use of the site, including the normal hours of operation of the facility, and the general types of activities to be operated therein.

- (d) A site plan showing the location of associated parking areas, points of motor vehicle ingress and egress to and from the site and its associated parking areas, and the location and height of buildings on the site.
- (e) An identification of the principal roads, highways, and intersections that will be used by motor vehicles moving to or from the indirect source.
- (f) An estimate, as of the first year after the date the indirect source will be substantially complete and operational, of the average daily traffic volumes, maximum traffic volumes for one-hour and eight-hour periods, and vehicle capacities of the principal roads, highways, and intersections identified pursuant to subdivision (i) (e) of this subparagraph located within one-fourth mile of all boundaries of the site.
- (g) Availability of existing and projected mass transit to service the site.
- (h) Where approval is sought for indirect sources to be constructed in incremental phases, the information required by this subparagraph (3) shall be submitted for each phase of the construction project.
- (i) Any additional information or documentation that the Administrator deems necessary to determine the air quality impact of the indirect source, including the submission of measured air quality data at the proposed site prior to construction or modification.
- (ii) For airports:
  - (a) An estimate of the average number and maximum number of aircraft operations per day by type of aircraft during the first, fifth and tenth years after the date of expected completion.
  - (b) A description of the commercial, industrial, residential and other development that the applicant expects will occur within three miles of the perimeter of the airport within the first five and the first ten years after the date of expected completion.
  - (c) Expected passenger loadings at the airport.
  - (d) The information required under subdivisions (i) (a) through (i) of this subparagraph.

- (iii) For highway projects:
  - (a) A description of the average and maximum traffic volumes for one, eight, and 24-hour time periods expected within 10 years of date of expected completion.
  - (b) An estimate of vehicle speeds for average and maximum traffic volume conditions and the vehicle capacity of the highway project.
  - (c) A map showing the location of the highway project, including the location of buildings along the right-of-way.
  - (d) A description of the general features of the highway project and associated right-of-way, including the approximate height of buildings adjacent to the highway.
  - (e) Any additional information or documentation that the Administrator deems necessary to determine the air quality impact of the indirect source, including the submission of measured air quality data at the proposed site prior to construction or modification.
- (iv) For indirect sources other than airports and those highway projects subject to the provisions of paragraph (b) (6) (iii) of this section, the air quality monitoring requirements of paragraph (b) (3) (i) (i) of this section shall be limited to carbon monoxide, and shall be conducted for a period of not more than 14 days.
- (4) (i) For indirect sources other than highway projects and airports, the Administrator shall not approve an application to construct or modify if he determines that the indirect source will:
  - (a) Cause a violation of the control strategy of any applicable state implementation plan; or
  - (b) Cause or exacerbate a violation of the national standards for carbon monoxide in any region or portion thereof.
- (ii) The Administrator shall make the determination pursuant to paragraph (b) (4) (i) (b) of this section by evaluating the anticipated concentration of carbon monoxide at reasonable receptor or exposure sites which will be affected by the mobile source activity expected to be attracted by the indirect source. Such determination may be made by using traffic flow characteristic guidelines

published by the Environmental Protection Agency which relate traffic demand and capacity considerations to ambient carbon monoxide impact, by use of appropriate atmospheric diffusion models (examples of which are referenced in Appendix O to Part 51 of this chapter), and/or by any other reliable analytic method. The applicant may (but need not) submit with his application, the results of an appropriate diffusion model and/or any other reliable analytic method, along with the technical data and information supporting such results. Any such results and supporting data submitted by the applicant shall be considered by the Administrator in making his determination pursuant to paragraph (b) (4) (i) (b) of this section.

- (5) (i) For airports subject to this paragraph, the Administrator shall base his decision on the approval or disapproval of an application on the considerations to be published as an Appendix to this Part.
- (ii) For highway projects and parking facilities specified under paragraph (b) (2) of this section which are associated with airports, the requirements and procedures specified in paragraphs (b) (4) and (6) (i) and (ii) of this section shall be met.
- (6) (i) For all highway projects subject to this paragraph, the Administrator shall not approve an application to construct or modify if he determines that the indirect source will:
  - (a) Cause a violation of the control strategy of any applicable state implementation plan; or
  - (b) Cause or exacerbate a violation of the national standards for carbon monoxide in any region or portion thereof.
- (ii) The determination pursuant to paragraph (b) (6) (i) (b) of this section shall be made by evaluating the anticipated concentration of carbon monoxide at reasonable receptor or exposure sites which will be affected by the mobile source activity expected on the highway for the ten year period following the expected date of completion according to the procedures specified in paragraph (b) (4) (ii) of this section.
- (iii) For new highway projects subject to this paragraph with an anticipated average daily traffic volume of 50,000 or more vehicles within ten years of construction, or modifications to highway projects subject to this paragraph which will increase average daily traffic volume by 25,000

or more vehicles within ten years after modification, the Administrator's decision on the approval or disapproval of an application shall be based on the considerations to be published as an Appendix to this Part in addition to the requirements of paragraph (b) (6) (i) of this section.

- (7) The determination of the air quality impact of a proposed indirect source "at reasonable receptor or exposure sites", shall mean such locations where people might reasonably be exposed for time periods consistent with the national ambient air quality standards for the pollutants specified for analysis pursuant to this paragraph.
- (8) (i) Within 20 days after receipt of an application or addition thereto, the Administrator shall advise the owner or operator of any deficiency in the information submitted in support of the application. In the event of such a deficiency, the date of receipt of the application for the purpose of paragraph (b) (8) (ii) of this section shall be the date on which all required information is received by the Administrator.
- (ii) Within 30 days after receipt of a complete application, the Administrator shall:
  - (a) Make a preliminary determination whether the indirect source should be approved, approved with conditions in accordance with paragraphs (b) (9) or (10) of this section, or disapproved.
  - (b) Make available in at least one location in each region in which the proposed indirect source would be constructed, a copy of all materials submitted by the owner or operator, a copy of the Administrator's preliminary determination, and a copy or summary of other materials, if any, considered by the Administrator in making his preliminary determination; and
  - (c) Notify the public, by prominent advertisement in a newspaper of general circulation in each region in which the proposed indirect source would be constructed, of the opportunity for written public comment on the information submitted by the owner or operator and the Administrator's preliminary determination on the approvability of the indirect source.
- (iii) A copy of the notice required pursuant to this subparagraph shall be sent to the applicant and to officials and agencies having cognizance over the location where the indirect source will be situated, as follows: State and local air pollution control agencies, the chief executive of the city and county; any comprehensive regional

land use planning agency; and for highways, any local board or committee charged with responsibility for activities in the conduct of the urban transportation planning process (3-C process) pursuant to 23 U.S.C. 134.

- (iv) Public comments submitted in writing within 30 days after the date such information is made available shall be considered by the Administrator in making his final decision on the application. No later than 10 days after the close of the public comment period, the applicant may submit a written response to any comments submitted by the public. The Administrator shall consider the applicant's response in making his final decision. All comments shall be made available for public inspection in at least one location in the region in which the indirect source would be located.
- (v) The Administrator shall take final action on an application within 30 days after the close of the public comment period. The Administrator shall notify the applicant in writing of his approval, conditional approval, or denial of the application, and shall set forth his reasons for conditional approval or denial. Such notification shall be made available for public inspection in at least one location in the region in which the indirect source would be located.
- (vi) The Administrator may extend each of the time periods specified in paragraphs (b) (8) (ii), (iv), or (v) of this section by no more than 30 days, or such other period as agreed to by the applicant and the Administrator.
- (9) (i) Whenever an indirect source as proposed by an owner or operator's application would not be permitted to be constructed for failure to meet the tests set forth pursuant to paragraphs (b) (4) (i), (b) (5) (i), or (b) (6) (i) and (iii) of this section, the Administrator may impose reasonable conditions on an approval related to the air quality aspects of the proposed indirect source so that such source, if constructed or modified in accordance with such conditions, could meet the tests set forth pursuant to paragraphs (b) (4) (i), (b) (5) (i), or (b) (6) (i) and (iii) of this section. Such conditions may include, but not be limited to:
  - (a) Binding commitments to roadway improvements or additional mass transit facilities to serve the indirect source secured by the owner or operator from governmental agencies having jurisdiction thereof;
  - (b) Binding commitments by the owner or operator to specific programs for mass transit incentives for employees and patrons of the source; and



- (c) Binding commitments by the owner or operator to construct, modify, or operate the indirect source in such a manner as may be necessary to achieve the traffic flow characteristics published by the Environmental Protection Agency pursuant to paragraph (b) (4) (ii) of this section.
- (ii) The Administrator may specify that any items of information provided in an application for approval related to the operation of an indirect source which may affect the source's air quality impact shall be considered permit conditions.
- (10) Notwithstanding the provisions relating to modified indirect sources contained in paragraph (b) (2) of this section, the Administrator may condition any approval by reducing the extent to which the indirect source may be further modified without resubmission for approval under this paragraph.
- (11) Any owner or operator who fails to construct an indirect source in accordance with the application as approved by the Administrator; any owner or operator who fails to construct and operate an indirect source in accordance with conditions imposed by the Administrator under paragraph (b) (9) of this section; any owner or operator who modifies an indirect source in violation of conditions imposed by the Administrator under paragraph (b) (10) of this section; or any owner or operator of an indirect source subject to this paragraph who commences construction or modification thereof after December 31, 1974, without applying for and receiving approval hereunder, shall be subject to the penalties specified under section 113 of the Act and shall be considered in violation of an emission standard or limitation under section 304 of the Act. Subsequent modification to an approved indirect source may be made without applying for permission pursuant to this paragraph only where such modification would not violate any condition imposed pursuant to paragraphs (b) (9) and (10) of this section and would not be subject to the modification criteria set forth in paragraph (b) (2) of this section.
- (12) Approval to construct or modify shall become invalid if construction or modification is not commenced within 24 months after receipt of such approval. The Administrator may extend such time period upon satisfactory showing that an extension is justified. The applicant may apply for such an extension at the time of initial application or at any time thereafter.
- (13) Approval to construct or modify shall not relieve any owner or operator of the responsibility to comply with the control strategy and all local, State and Federal regulations which are part of the applicable State implementation plan.

- (14) Where the Administrator delegates the responsibility for implementing the procedures for conducting indirect source review pursuant to this paragraph to any agency, other than a regional office of the Environmental Protection Agency, the following provisions shall apply:
- (i) Where the agency designated is not an air pollution control agency, such agency shall consult the appropriate State or local air pollution control agency prior to making any determination required by paragraphs (b) (4), (5), or (6) of this section. Similarly, where the agency designated does not have continuing responsibilities for land use planning, such agency shall consult with the appropriate State or local land use and transportation planning agency prior to making any determination required by paragraph (b) (9) of this section.
  - (ii) The Administrator of the Environmental Protection Agency shall conduct the indirect source review pursuant to this paragraph for any indirect source owned or operated by the United States Government.
  - (iii) A copy of the notice required pursuant to paragraph (b) (8) (ii) (c) of this section shall be sent to the Administrator through the appropriate Regional Office.
- (15) In any area in which a "management of parking supply" regulation which has been promulgated by the Administrator is in effect, indirect sources which are subject to review under the terms of such a regulation shall not be required to seek review under this paragraph but instead shall be required to seek review pursuant to such management of parking supply regulation. For purposes of this paragraph, a "management of parking supply" regulation shall be any regulation promulgated by the Administrator as part of a transportation control plan pursuant to the Clean Air Act which requires that any new or modified facility containing a given number of parking spaces shall receive a permit or other prior approval, issuance of which is to be conditioned on air quality considerations.
- (16) Notwithstanding any of the foregoing provisions to the contrary, the operation of this paragraph is hereby suspended pending further notice. No facility which commences construction prior to the expiration of the sixth month after the operation of this paragraph is reinstated (as to that type of facility) shall be subject to this paragraph.

(37 FR 10846, May 31, 1972 as amended at 40 FR 28065, July 3, 1975; 40 FR 40160, Sept. 2, 1975)

(17.0) 52.1529 Prevention of Significant Deterioration

(b) Definitions. For the purposes of this section:

- (1) "Facility" means an identifiable piece of process equipment. A stationary source is composed of one or more pollutant-emitting facilities.
- (2) The phrase "Administrator" means the Administrator of the Environmental Protection Agency or his designated representative.
- (3) The phrase "Federal Land Manager" means the head, or his designated representative, of any Department or Agency of the Federal Government which administers federally-owned land, including public domain lands.
- (4) The phrase "Indian Reservation" means any federally-recognized reservation established by Treaty, Agreement, Executive Order, or Act of Congress.
- (5) The phrase "Indian Governing Body" means the governing body of any tribe, band, or group of Indians subject to the jurisdiction of the United States and recognized by the United States as possessing power of self-government.
- (6) "Construction" means fabrication, erection or installation of a stationary source.
- (7) "Commenced" means that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

(c) Area designation and deterioration increment

- (1) The provisions of this paragraph have been incorporated by reference into the applicable implementation plans for various States, as provided in Subparts B through DDD of this part. Where this paragraph is so incorporated, the provisions shall also be applicable to all lands owned by the Federal Government and Indian Reservations located in such State. The provisions of this paragraph do not apply in those counties or other functionally equivalent areas that pervasively exceeded any national ambient air quality standards during 1974 for sulfur dioxide or particulate matter and then only with respect to such pollutants. States may notify the Administrator at any time of those areas which exceeded the national standards during 1974 and therefore are exempt from the requirements of this paragraph.

- (2) (i) For purposes of this paragraph, areas designated as Class I or II shall be limited to the following increases in pollutant concentration occurring since January 1, 1975:

Area Designations		
Pollutant	Class I (ug/m <sup>3</sup> )	Class II (ug/m <sup>3</sup> )
Particulate matter:		
Annual geometric mean .....	5	10
24-hr maximum .....	10	30
Sulfur dioxide:		
Annual arithmetic mean .....	2	15
24-hr maximum .....	5	100
3-hr maximum .....	25	700

- (ii) For purposes of this paragraph, areas designated as Class III shall be limited to concentrations of particulate matter and sulfur dioxide no greater than the national ambient air quality standards.
- (iii) The air quality impact of sources granted approval to construct or modify prior to January 1, 1975 (pursuant to the approved new source review procedures in the plan) but not yet operating prior to January 1, 1975, shall not be counted against the air quality increments specified in paragraph (c) (2) (i) of this section.
- (3) (i) All areas are designated Class II as of the effective date of this paragraph. Redesignation may be proposed by the respective States, Federal Land Manager, or Indian Governing Bodies, as provided below, subject to approval by the Administrator.
- (ii) The State may submit to the Administrator a proposal to redesignate areas of the State Class I, Class II, or Class III, provided that:
- (a) At least one public hearing is held in or near the area affected and this public hearing is held in accordance with procedures established in 51.4 of this chapter, and
- (b) Other States, Indian Governing Bodies, and Federal Land Managers whose lands may be affected by the proposed redesignation are notified at least 30 days prior to the public hearing, and

- (c) A discussion of the reasons for the proposed redesignation is available for public inspection at least 30 days prior to the hearing and the notice announcing the hearing contains appropriate notification of the availability of such discussion, and
  - (d) The proposed redesignation is based on the record of the State's hearing, which must reflect the basis for the proposed redesignation, including consideration of (1) growth anticipated in the area, (2) the social, environmental, and economic effects of such redesignation upon the area being proposed for redesignation and upon other areas and States, and (3) any impacts of such proposed redesignation upon regional or national interests.
  - (e) The redesignation is proposed after consultation with the elected leadership of local and other sub-state general purpose governments in the area covered by the proposed redesignation.
- (iii) Except as provided in paragraph (c) (3) (iv) of this section, a State in which lands owned by the Federal Government are located may submit to the Administrator a proposal to redesignate such lands Class I, Class II, or Class III in accordance with subdivision (ii) of this subparagraph provided that:
- (a) The redesignation is consistent with adjacent State and privately owned land, and
  - (b) Such redesignation is proposed after consultation with the Federal Land Manager.
- (iv) Notwithstanding subdivision (iii) of this subparagraph, the Federal Land Manager may submit to the Administrator a proposal to redesignate any Federal lands to a more restrictive designation than would otherwise be applicable provided that:
- (a) The Federal Land Manager follows procedures equivalent to those required of States under paragraph (c) (3) (ii) and,
  - (b) Such redesignation is proposed after consultation with the State(s) in which the Federal Land is located or which border the Federal Land.
- (v) Nothing in this section is intended to convey authority to the States over Indian Reservations where States have not assumed such authority under other laws nor is it intended to deny jurisdiction which States have assumed

under other laws. Where a State has not assumed jurisdiction over an Indian Reservation the appropriate Indian Governing Body may submit to the Administrator a proposal to redesignate areas Class I, Class II, or Class III, provided that:

- (a) The Indian Governing Body follows procedures equivalent to those required of States under paragraph (c) (3) (ii) and,
  - (b) Such redesignation is proposed after consultation with the State(s) in which the Indian Reservation is located or which border the Indian Reservation and, for those lands held in trust, with the approval of the Secretary of the Interior.
- (vi) The Administrator shall approve, within 90 days, any redesignation proposed pursuant to this subparagraph as follows:
- (a) Any redesignation proposed pursuant to subdivisions (ii) and (iii) of this subparagraph shall be approved unless the Administrator determines (1) that the requirements of subdivisions (ii) and (iii) of this subparagraph have not been complied with, (2) that the State has arbitrarily and capriciously disregarded relevant considerations set forth in subparagraph (3) (ii) (d) of this paragraph, or (3) that the State has not requested and received delegation of responsibility for carrying out the new source review requirements of paragraphs (d) and (e) of this section.
  - (b) Any redesignation proposed pursuant to subdivision (iv) of this subparagraph shall be approved unless he determines (1) that the requirements of subdivision (iv) of this subparagraph have not been complied with, or (2) that the Federal Land Manager has arbitrarily and capriciously disregarded relevant considerations set forth in subparagraph (3) (ii) (d) of this paragraph.
  - (c) Any redesignation submitted pursuant to subdivision (v) of this subparagraph shall be approved unless he determines (1) that the requirements of subdivision (v) of this subparagraph have not been complied with, or (2) that the Indian Governing Body has arbitrarily and capriciously disregarded relevant considerations set forth in subparagraph (3) (ii) (d) of this paragraph.

- (d) Any redesignation proposed pursuant to this paragraph shall be approved only after the Administrator has solicited written comments from affected Federal agencies and Indian Governing Bodies and from the public on the proposal.
- (e) Any proposed redesignation protested to the proposing State, Indian Governing Body, or Federal Land Manager and to the Administrator by another State or Indian Governing Body because of the effects upon such protesting State or Indian Reservation shall be approved by the Administrator only if he determines that in his judgment the redesignation appropriately balances considerations of growth anticipated in the area proposed to be redesignated; the social, environmental and economic effects of such redesignation upon the area being redesignated and upon other areas and States; and any impacts upon regional or national interests.
- (f) The requirements of paragraph (c) (3) (vi) (a) (3) that a State request and receive delegation of the new source review requirements of this section as a condition to approval of a proposed redesignation, shall include as a minimum receiving the administrative and technical functions of the new source review. The Administrator will carry out any required enforcement action in cases where the State does not have adequate legal authority to initiate such actions. The Administrator may waive the requirements of paragraph (c) (3) (vi) (a) (3) if the State Attorney-General has determined that the State cannot accept delegation of the administrative/technical functions.
- (vii) If the Administrator disapproves any proposed area designation under this subparagraph, the State, Federal Land Manager or Indian Governing Body, as appropriate, may re-submit the proposal after correcting the deficiencies noted by the Administrator or reconsidering any area designation determined by the Administrator to be arbitrary and capricious.

(d) Review of new sources

- (1) The provisions of this paragraph have been incorporated by reference into the applicable implementation plans for various States, as provided in Subparts B through DDD of this part. Where this paragraph is so incorporated, the requirements of this paragraph apply to any new or modified stationary source of the type identified below which has not commenced construction or modification prior to June 1, 1975 except as specifically provided below. A

source which is modified, but does not increase the amount of sulfur oxides or particulate matter emitted, or is modified to utilize an alternative fuel, or higher sulfur content fuel, shall not be subject to this paragraph.

- (i) Fossil-Fuel Steam Electric Plants of more than 1000 million B.T.U. per hour heat input.
  - (ii) Coal Cleaning Plants.
  - (iii) Kraft Pulp Mills.
  - (iv) Portland Cement Plants.
  - (v) Primary Zinc Smelters.
  - (vi) Iron and Steel Mills.
  - (vii) Primary Aluminum Ore Reduction Plants.
  - (viii) Primary Copper Smelters.
  - (ix) Municipal Incinerators capable of charging more than 250 tons of refuse per 24 hour day.
  - (x) Sulfuric Acid Plants.
  - (xi) Petroleum Refineries.
  - (xii) Lime Plants.
  - (xiii) Phosphate Rock Processing Plants.
  - (xiv) By-Product Coke Oven Batteries.
  - (xv) Sulfur Recovery Plants.
  - (xvi) Carbon Black Plants (furnace process).
  - (xvii) Primary Lead Smelters.
  - (xviii) Fuel Conversion Plants.
  - (xix) Ferroalloy production facilities commencing construction after October 5, 1975.
- (2) No owner or operator shall commence construction or modification of a source subject to this paragraph unless the Administrator determines that, on the basis of information submitted pursuant to subparagraph (3) of this paragraph:



- (i) The effect on air quality concentration of the source or modified source, in conjunction with the effects of growth and reduction in emissions after January 1, 1975, of other sources in the area affected by the proposed source, will not violate the air quality increments applicable in the area where the source will be located nor the air quality increments applicable in any other areas. The analysis of emissions growth and reduction after January 1, 1975, of other sources in the areas affected by the proposed source shall include all new and modified sources granted approval to construct pursuant to this paragraph; reduction in emissions from existing sources which contributed to air quality during all or part of 1974; and general commercial, residential, industrial, and other sources of emissions growth not exempted by paragraph (c) (2) (iii) of this section which has occurred since January 1, 1975.
  - (ii) The new or modified source will meet an emission limit, to be specified by the Administrator as a condition to approval, which represents that level of emission reduction which would be achieved by the application of best available control technology, as defined in 52.01 (f), for particulate matter and sulfur dioxide. If the Administrator determines that technological or economic limitations on the application of measurement methodology to a particular class of sources would make the imposition of an emission standard infeasible, he may instead prescribe a design or equipment standard requiring the application of best available control technology. Such standard shall to the degree possible set forth the emission reductions achievable by implementation of such design or equipment, and shall provide for compliance by means which achieve equivalent results.
  - (iii) With respect to modified sources, the requirements of subparagraph (2) (ii) of this paragraph shall be applicable only to the facility or facilities from which emissions are increased.
- (3) In making the determinations required by paragraph (d) (2) of this section, the Administrator shall, as a minimum, require the owner or operator of the source subject to this paragraph to submit: site information, plans, description, specifications, and drawings showing the design of the source; information necessary to determine the impact that the construction or modification will have on sulfur dioxide and particulate matter air quality levels; and any other information necessary to determine that best available control technology will be applied. Upon request of the Administrator, the owner or operator of the source shall provide information on the nature and extent of general commercial, residential, industrial, and other growth which has occurred in the area affected by the source's emissions (such area to be specified by the

Administrator) since January 1, 1975.

- (4) (i) Where a new or modified source is located on Federal Lands, such source shall be subject to the procedures set forth in paragraphs (d) and (e) of this section. Such procedures shall be in addition to applicable procedures conducted by the Federal Land Manager for administration and protection of the affected Federal Lands. Where feasible, the Administrator will coordinate his review and hearings with the Federal Land Manager to avoid duplicate administrative procedures.
  - (ii) New or modified sources which are located on Indian Reservations shall be subject to procedures set forth in paragraphs (d) and (e) of this section. Such procedures shall be administered by the Administrator in cooperation with the Secretary of the Interior with respect to lands over which the State has not assumed jurisdiction under other laws.
  - (iii) Whenever any new or modified source is subject to action by a Federal Agency which might necessitate preparation of an environmental impact statement pursuant to the National Environmental Policy Act (42 U.S.C. 4321), review by the Administrator conducted pursuant to this paragraph shall be coordinated with the broad environmental reviews under that Act, to the maximum extent feasible and reasonable.
- (5) Where an owner or operator has applied for permission to construct or modify pursuant to this paragraph and the proposed source would be located in an area which has been proposed for redesignation to a more stringent class (or the State, Indian Governing Body, or Federal Land Manager has announced such consideration), approval shall not be granted until the Administrator has acted on the proposed redesignation.

(e) Procedures for public participation

- (1) (i) Within 20 days after receipt of an application to construct, or any addition to such application, the Administrator shall advise the owner or operator of any deficiency in the information submitted in support of the application. In the event of such a deficiency, the date of receipt of the application for the purpose of paragraph (e) (1) (ii) of this section shall be the date on which all required information is received by the Administrator.
- (ii) Within 30 days after receipt of a complete application, the Administrator shall:

- (a) Make a preliminary determination whether the source should be approved, approved with conditions, or disapproved.
  - (b) Make available in at least one location in each region in which the proposed source would be constructed, a copy of all materials submitted by the owner or operator, a copy of the Administrator's preliminary determination and a copy or summary of other materials, if any, considered by the Administrator in making his preliminary determination; and
  - (c) Notify the public, by prominent advertisement in newspaper of general circulation in each region in which the proposed source would be constructed, of the opportunity for written public comment on the information submitted by the owner or operator and the Administrator's preliminary determination on the approvability of the source.
- (iii) A copy of the notice required pursuant to this subparagraph shall be sent to the applicant and to officials and agencies having cognizance over the locations where the source will be situated as follows: State and local air pollution control agencies, the chief executive of the city and county; any comprehensive regional land use planning agency; and any State, Federal Land Manager or Indian Governing Body whose lands will be significantly affected by the source's emissions.
- (iv) Public comments submitted in writing within 30 days after the date such information is made available shall be considered by the Administrator in making his final decision on the application. No later than 10 days after the close of the public comment period, the applicant may submit a written response to any comments submitted by the public. The Administrator shall consider the applicant's response in making his final decision. All comments shall be made available for public inspection in at least one location in the region in which the source would be located.
- (v) The Administrator shall take final action on an application within 30 days after the close of the public comment period. The Administrator shall notify the applicant in writing of his approval, conditional approval, or denial of the application, and shall set forth his reasons for conditional approval or denial. Such notification shall be made available for public inspection in at least one location in the region in which the source would be located.

- (vi) The Administrator may extend each of the time periods specified in paragraph (e) (1) (ii), (iv), or (v) of this section by no more than 30 days or such other period as agreed to by the applicant and the Administrator.
- (2) Any owner or operator who constructs, modifies, or operates a stationary source not in accordance with the application, as approved and conditioned by the Administrator, or any owner or operator of a stationary source subject to this paragraph who commences construction or modification after June 1, 1975, without applying for and receiving approval hereunder, shall be subject to enforcement action under section 113 of the Act.
- (3) Approval to construct or modify shall become invalid if construction or expansion is not commenced within 18 months after receipt of such approval or if construction is discontinued for a period of 18 months or more. The Administrator may extend such time period upon a satisfactory showing that an extension is justified.
- (4) Approval to construct or modify shall not relieve any owner or operator of the responsibility to comply with the control strategy and all local, State, and Federal regulations which are part of the applicable State Implementation Plan.
- (f) Delegation of authority
  - (1) The Administrator shall have the authority to delegate responsibility for implementing the procedures for conducting source review pursuant to paragraphs (d) and (e), in accordance with subparagraphs (2), (3), and (4) of this paragraph.
  - (2) Where the Administrator delegates the responsibility for implementing the procedures for conducting source review pursuant to this section to any Agency, other than a regional office of the Environmental Protection Agency, the following provisions shall apply:
    - (i) Where the agency designated is not an air pollution control agency, such agency shall consult with the appropriate State and local air pollution control agency prior to making any determination required by paragraph (d) of this section. Similarly, where the agency designated does not have continuing responsibilities for managing land use, such agency shall consult with the appropriate State and local agency which is primarily responsible for managing land use prior to making any determination required by paragraph (d) of this section.
    - (ii) A copy of the notice pursuant to paragraph (e) (1) (ii) (c) of this section shall be sent to the Administrator through the appropriate regional office.

- (3) In accordance with Executive Order 11752, the Administrator's authority for implementing the procedures for conducting source review pursuant to this section shall not be delegated, other than to a regional office of the Environmental Protection Agency, for new or modified sources which are owned or operated by the Federal government or for new or modified sources located on Federal lands; except that, with respect to the latter category, where new or modified sources are constructed or operated on Federal lands pursuant to leasing or other Federal agreements, the Federal land Manager may at his discretion, to the extent permissible under applicable statutes and regulations, require the lessee or permittee to be subject to a designated State or local agency's procedures developed pursuant to paragraphs (d) and (e) of this section.
- (4) The Administrator's authority for implementing the procedures for conducting source review pursuant to this section shall not be re-delegated, other than to a regional office of the Environmental Protection Agency, for new or modified sources which are located on Indian reservations except where the State has assumed jurisdiction over such land under other laws, in which case the Administrator may delegate his authority to the States in accordance with subparagraphs (2), (3), and (4) of this paragraph.

(39 FR 42514, Dec. 5, 1974; 40 FR 2802, Jan. 16, 1975, as amended at 40 FR 24535, June 9, 1975; 40 FR 25005, June 12, 1975; 40 FR 42012, Sept. 10, 1975)