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Research Triangle Park NC 27711

EPA-450/2-81-033  
July 1981

Air

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# Regulations and Non-Regulatory Revisions to State Implementation Plan: Illinois

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16. ABSTRACT <p>This document has been produced in compliance with Section 110(h) of the Clean Air Act, as amended in 1977, which mandates periodic publication of State Implementation Plan (SIP) requirements. The first section of the document comprises the Federally approved SIP regulations. It consists of the EPA-approved State and/or local air pollution control regulations cited by reference in the <u>Federal Register</u>; regulations promulgated as of August 1, 1981 have been included in this document.</p> <p>The present compilation constitutes an update of a previous documentation of regulations as of July 1, 1979. State and/or local air quality regulations which have not been Federally approved as of August 1, 1981, are not included. However, any omissions of regulations from this document in no way affects the ability of the respective Federal, State, or local agencies to enforce such regulations. A summary sheet of the regulatory revisions is provided to give a quick historical assessment of the changes.</p> <p>The second part of the document contains the text of non-regulatory SIP revisions approved by EPA up to August 1, 1981, excluding notices or certifications of public hearings and technical support data. A complete tabulation of these revisions is also provided.</p>		
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**EPA-450/2-81-033**

# **Regulations and Non-Regulatory Revisions to State Implementation Plan: Illinois**

**By**

**Atlantic Environmental Associates, Inc.  
59 Vernon Street  
Waltham, MA 02154**

**Contract No. 68-02-3565**

**EPA Project Officer: Willis P. Beal**

**Prepared for**

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
Control Programs Development Division  
Office of Air Quality Planning and Standards  
Research Triangle Park, North Carolina 27711**

**July 1981**

*U.S. Environmental Protection Agency*

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*U.S. Environmental Protection Agency*

This report has been reviewed by the Control Programs Development Division of the Office of Air Quality Planning and Standards, EPA, and approved for publication. Mention of trade names or commercial products is not intended to constitute endorsement or recommendation for use. Copies of the entire document are available for inspection and copying at EPA Headquarters (401 M Street SW, Washington, DC 20460), EPA's Office of Air Quality Planning and Standards (Room 826, 411 West Chapel Hill Street, Durham, NC 27701), and the appropriate EPA Regional Office. Documents containing only the regulatory portions of each State Implementation Plan may be ordered for a nominal fee from the National Technical Information Services, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161.

## PREFACE

This document has been produced in compliance with Section 110(h) of the Clean Air Act, as amended in 1977, which mandates periodic publication of State Implementation Plan (SIP) requirements. The first section of the document comprises the Federally approved SIP regulations. It consists of the EPA approved State and/or local air pollution control regulations cited by reference in the Federal Register; all regulations Federally promulgated as of August 1, 1981 have been included.

The present compilation constitutes an update of a previous documentation of regulations as of July 1, 1979.\* State and/or local air quality regulations which have not been Federally approved as of August 1, 1981 are not included. However, any omissions of regulations from this document in no way affects the ability of the respective Federal, State or local agencies to enforce such regulations.

This document is not intended to provide a tool for determining the enforceability of any given regulation. Rather, it is intended to provide a comprehensive compilation of those regulations which are incorporated by reference into Title 40, Part 52, of the Code of Federal Regulations (CFR). 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 in this document does not, in itself, render the regulation enforceable by either the State or EPA.

The regulations have been organized in this document according to the official State/local agency format. However, since State air quality regulations vary widely in their organization, content, and language, a standardized subject index has been added. The index listings consist of both pollutant and activity oriented categories to facilitate usage. For example, regulations which apply to copper smelters may be found under sulfur compounds (50.2), particulate matter process weight (50.1.1), or copper smelters (51.15). Federal regulations pertaining to a given State are not included herein but can be found under Title 40 Code of Federal Regulations, Part 52.

Additionally, a summary sheet of the regulatory revisions is included to provide a quick historical assessment of the changes. These summary sheets contain the date of submittal to EPA of each revision and the Federal Register publication date on which the revision was approved by EPA. A brief description of the regulation which was submitted is also included.

In accordance with the Act, the second part of the document contains non-regulatory SIP revisions approved by EPA up to August 1, 1981. All approved non-regulatory revisions listed under Identification of Plan in the CFR are included except notices or certifications of public hearings, and technical support data. Non-regulatory submittals which have only received EPA approval on selected elements are included in their entirety with an accompanying indication of the status of Federal actions on the non-approved elements. The non-regulatory revisions have been organized in this document

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\* Regulations and Non-Regulatory Revisions to State Implementation Plan: Illinois, EPA-450/2-80-020, prepared under Contract 68-02-3388, July 31, 1980.

according to the date of publication of EPA approval in the Federal Register.  
For historical completeness, a complete tabulation of these revisions is  
provided at the beginning of this second section.

SUMMARY OF  
EPA-APPROVED REGULATORY REVISIONS TO STATE OF ILLINOIS SIP  
BETWEEN JULY 1, 1979 AND JULY 31, 1981

Publication of Approval	Submittal Date	Page	Document Description
02/21/80	04/04/79	45FR11493	Draft non-attainment plan. 203f revised. 205j revised and some additional new rules.
02/21/80	01/25/80	45FR11493	"Rules for the Issuance of Permits to New or Modified Air Pollution Sources", all approved except for 5.1(a)(2)ii, 5.1(a)(2)iii, 10.3, 4.7, and parts of 4.11.
08/19/80	-	45FR55197	Clarification of EPA action on 02/21/80 (Comp. schedule in Rule 205j disapproved as it applies to loading rack controls).
09/22/80	03/21/79	45FR62806	New portions of Rule 204(c)(2)(c), (e)(3), (i) and Rule 10 revised. Revisions for Rules 204(c)(1)(b), (c)(1)(c), (e)(1), (e)(2), (h) for those sources for which these rules do not represent a relaxation of the federally enforceable SIP.
09/22/80	01/17/80 02/07/80	45FR62806	Certified lists of the names and locations, as well as emission data for sources for which Rule 204 does not represent a relaxation of the federally enforceable SIP.
10/24/80	09/19/79	45FR70450	Revision to Rule 204(e)(1) for Commonwealth Edison Co. approving SO <sub>2</sub> limitation for Kincaid Generating station.

TABLE OF CONTENTS

STATE REGULATIONS

<u>Revised Standard Subject Index</u>	<u>Rule Number</u>	<u>Title</u>	<u>Page</u>
(2.0)	Part I	General Provisions	1
(1.0)	Rule 101	Definitions	1
(2.0)	Rule 102	Prohibition of Air Pollution	3
(3.0)	Rule 103	Permits	4
(6.0)	Rule 104	Compliance Programs and Project Completion Schedules	16
(7.0)	Rule 105	Malfunctions, Breakdowns or Startups	18
(9.0)	Rule 106	Monitoring and Testing	21
(13.0)	Rule 107	Records and Reports	23
(2.0)	Rule 108	Proof of Emissions	24
(2.0)	Rule 109	Circumvention	24
(2.0)	Rule 110	Design of Effluent Exhaust System	24
(2.0)	Rule 111	Burden of Persuasion Regarding Exceptions	25
(13.0)	Rule 112	Annual Report	25
(2.0)	Rule 113	Severability	25
(2.0)	Rule 114	Repealer	25
(50.0)	Part II	Emission Standards and Limitations for Stationary Sources	26
(1.0)	Rule 201	Definitions	26
(50.1.2)	Rule 202	Visual Emission Standards and Limitations	35
(50.1)	Rule 203	Particulate Emission Standards and Limitations	39



<u>Revised Standard Subject Index</u>	<u>Rule Number</u>	<u>Title</u>	<u>Page</u>
(50.2)	Rule 204	Sulfur Standards and Limitations	71
(50.4)	Rule 205	Organic Material Emission Standards and Limitations	86
(50.5)	Rule 206	Carbon Monoxide Emission Standards and Limitations	120
(50.3)	Rule 207	Nitrogen Oxides Emission Standards and Limitations	122
(6.0)	Rule 208	Compliance Dates	126
(4.0)	Part III	Air Quality Standards	127
(2.0)	Rule 303	Nondegradation	127
(8.0)	Part IV	Episodes	128
(1.0)	Rule 401	Definitions	128
(2.0)	Rule 402	General Provisions	129
(15.0)	Rule 403	Local Agency Responsibilities	132
(8.0)	Rule 404	Air Pollution Episode Action Plans	133
(8.0)	Rule 405	Criteria for Declaring Episode Stages	137
(8.0)	Rule 406	Declaration of Stages	139
(8.0)	Rule 407	Actions During Episode Stages	140

Rules For Issuance of Permits  
To New Or Modified Air Pollution  
Sources Affecting Nonattainment Areas

(15.0)	1.0	Statutory Authority	149
(2.0)	2.0	Purpose	149
(2.0)	3.0	Background	150
(1.0)	4.0	Definitions	150

<u>Revised Standard Subject Index</u>	<u>Rule Number</u>		<u>Page</u>
(3.0)	5.0	Conditions for Issuance of Permits to New or Modified Sources of Particulate Matter, Sulfur Dioxide, Nitrogen Oxides or Carbon Monoxide Emissions	156
(3.0)	6.0	Conditions for Issuance of Permits to New or Modified Sources of Organic Material Emissions	157
(2.0)	7.0	Geographic Applicability and Effective Dates	158
(3.0)	8.0	Special Conditions for Issuance of Permits to New or Modified Sources of Organic Material or Carbon Monoxide Emissions	160
(2.0)	9.0	Procedure for Determination of Lowest Achievable Emission Rate (LAER)	160
(19.0)	10.0	Procedure for Determination of Emission Offsets	163
(3.0)	11.0	Procedure for Certification of Compliance by Other Sources	165
(2.0)	12.0	Procedure for Demonstration of Improvement in Air Quality	166
(19.0)	13.0	Alternatives to Emission Offsets	167
(51.21)	14.0	Temporary Emission Sources	168

Cook County Air Pollution Control Ordinance

<u>Revised Standard Subject Index</u>	<u>Article Number</u>	<u>Title</u>	<u>Page</u>
(2.0)	Article I	Title	170
(2.0)	Article II	Intent and Purpose	171
(1.0) (2.0)	Article III	Rules and Definitions	172
(2.0)	3.1	Rules	172
(1.0)	3.2	Definitions	172

<u>Revised Standard Subject Index</u>	<u>Article Number</u>	<u>Title</u>	<u>Page</u>
(2.0)	Article IV	General Provisions	178
(2.0)	4.1	Interpretation	178
(2.0)	4.2	Separability	178
(2.0)	4.3	Scope of Regulation	179
(7.0)	4.4	Report of Equipment Breakdown	179
(2.0) (15.0)	Article V	Administration and Enforcement	181
(2.0)	5.1	The Air Pollution Control Bureau	181
(3.0)	5.2	Permits and Plans	183
(15.0)	5.3	Enforcement	185
(5.0)	5.4	Variances	190
(16.0)	5.5	Appeals	191
(2.0)	5.6	Period of Grace	192
(50.7)	5.7	Abatement of Nuisances	193
(2.0)	5.8	Amendments	193
(2.0)	5.9	Fees	194
(2.0)	5.10	Advisory Committee	194
(50.1) (50.1.2)	Article VI	Smoke and Particulate Matter	196
(2.0)	6.1	General	196
(50.1.2)	6.2	Smoke Density Opacity Standards	196
(50.1)	6.3	Particulate Matter Standards	197
(51.13)	6.4	Open Burning	202
(50.1.3)	6.5	Materials Subject to Becoming Windborne	202
(51.9)	6.6	Incineration	203

<u>Revised Standard Subject Index</u>	<u>Article Number</u>	<u>Title</u>	<u>Page</u>
(50.1.3)	6.7	Condensable Emissions	203
(50.0)	Article VII	Toxic Matter	204
(50.6)	Article VIII	Noxious and Odorous Matter	205
(2.0)	8.1	General	205
(50.6)	8.2	Odor-Performance Standards	205
(12.0)	8.3	Internal Combustion Engines	206

City of Granite City

<u>Revised Standard Subject Index</u>	<u>Section Number</u>	<u>Title</u>	<u>Page</u>
(1.0)	Section 1	Definitions	207
(2.0)	Section 2	Air Pollution Prohibited	210
(16.0)	Section 3	Air Pollution Control Board	210
(15.0)	Section 4	Administration and Enforcement	211
(2.0)	Section 5	Formal Programs of Air Pollution Abatement	216
(5.0)	Section 6	Variances	216
(2.0)	Section 7	Rules and Regulations	217
(3.0)	Section 8	Permits and Fees	217
(8.0)	Section 9	Emergency Orders	219
(8.0)	Section 10	National Emergency	219
(15.0)	Section 11	Penalties	219
(13.0)	Section 12	-----	220
(2.0)	Section 13	Judicial Review	220
(2.0)	Section 14	Severability	220
(2.0)	Section 15	Repealer	220
(2.0)	Section 16	Effective Date	220

## 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 EMISSION OFFSET POLICY
- 20.0 MAJOR STATIONARY SOURCES
- 21.0 - 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 VOLATILE ORGANIC COMPOUNDS
- 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
- 51.22 COATING OPERATIONS (Can, Coil, Paper, Fabric, Vinyl, Metal,  
Wire, Surface Coating)
- 51.23 CUTBACK ASPHALT
- 51.24 SOLVENT METAL CLEANING

ILLINOIS POLLUTION CONTROL BOARD

RULES AND REGULATIONS

Chapter 2: AIR POLLUTION

PART I: GENERAL PROVISIONS

Except as hereinafter stated and unless a different meaning of a term is clear from its context, the definitions of terms used in this Chapter shall be the same as those used in the Environmental Protection Act.

All terms defined in Part 2 of this Chapter which appear in Part I of this Chapter have the definitions specified by Rule 201 of Part 2 of this Chapter.

Rule 101: DEFINITIONS

1. Air Contaminant

Any solid, liquid, or gaseous matter, any odor, or any form of energy, that is capable of being released into the atmosphere from an emission source.

2. Air Pollution Control Equipment

Any equipment or facility of a type intended to eliminate, prevent, reduce or control the emission of specified air contaminants to the atmosphere.

3. Air Pollution

The presence in the atmosphere of one or more air contaminants in sufficient quantities and of such characteristics and duration as to be injurious to human, plant, or animal life, to health, or to property, or to unreasonably interfere with the enjoyment of life or property.

4. Ambient Air

That portion of the atmosphere external to buildings comprising emission sources.

5. Ambient Air Quality Standard

Those standards promulgated from time to time by the Board pursuant to the authority contained in the Act, or by the United



States Environmental Protection Agency pursuant to authority contained in Public Law 91-604, as amended from time to time.

6. Commence

The act of entering into a binding agreement or contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

7. Construction

Commencement of on-site fabrication, erection or installation of an emission source or of air pollution control equipment.

8. Emission Source

Any equipment or facility of a type capable of emitting specified air contaminants to the atmosphere.

9. Existing Air Pollution Control Equipment

Any air pollution control equipment, the construction or modification of which has commenced prior to the effective date of this Chapter.

10. Existing Emission Source

Any emission source, the construction or modification of which has commenced prior to the effective date of this Chapter.

11. Modification

Any physical change in, or change in the method of operation of, an emission source or of air pollution control equipment which increases the amount of any specified air contaminant emitted by such source or equipment or which results in the emission of any specified air contaminant not previously emitted. It shall be presumed that an increase in the use of raw materials, the time of operation, or the rate of production will change the amount of any specified air contaminant emitted. Notwithstanding any other provisions of this definition, for purposes of permits issued pursuant to Rule 103, the Agency may specify conditions under which an emission source or air pollution control equipment may be operated without causing a modification as herein defined, and normal cyclical variations, before the date operating permits are required, shall not be considered modifications.

12. New Air Pollution Control Equipment

Any air pollution control equipment, the construction or modification of which is commenced on or after the effective date of this Chapter.

13. New Emission Source

Any emission source, the construction or modification of which is commenced on or after the effective date of this Chapter.

14. Owner or Operator

Any person who owns, leases, controls or supervises an emission source or air pollution control equipment.

15. Person

Any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this State, any other State or political subdivision or agency thereof or any legal successor, representative, agent or agency of the foregoing.

16. PSD Increment

The maximum allowable increase over baseline concentration of sulfur dioxide as determined by Section 163 of the Clean Air Act and Regulations adopted thereunder.

17. Specified Air Contaminant

Any air contaminant as to which this Chapter contains emission standards or other specific limitations.

18. Standard Industrial Classification Manual

The United States Office of Statistical Standards, Standard Industrial Classification Manual (1967), as revised from time to time.

Rule 102: PROHIBITION OF AIR POLLUTION

No person shall cause or threaten or allow the discharge or emission of any contaminant into the environment in any State so as, either alone or in combination with contaminants from other sources, to cause or tend to cause air pollution in Illinois, or so as to violate the provisions of this Chapter, or so as to prevent the attainment or maintenance of any applicable ambient air quality standard.

Rule 103: PERMITS

a. Construction Permits

1. Prohibition

No person shall cause or allow the construction of any new emission source or any new air pollution control equipment, or cause or allow the modification of any existing emission source of air pollution control equipment, without first obtaining a Construction Permit from the Agency, except as provided in paragraph (i) of this Rule 103.

2. Application

An application for a Construction Permit shall contain, as a minimum, the following data and information: the nature of the emission source and air pollution control equipment, including the expected life and deterioration rate; information concerning processes to which the emission source or air pollution control equipment is related; the quantities and types of raw materials to be used in the emission source or air pollution control equipment; the nature, specific sources, and quantities of uncontrolled and controlled air contaminant emissions at the facility which includes the emission source or air pollution control equipment; the type, size, efficiency and specifications (including engineering drawings, plans and specifications certified to by a registered Illinois professional engineer) of the proposed emission source or air pollution control equipment; maps, statistics, and other data sufficient reasonably to describe the location of the emission source or air pollution control equipment. The Agency may waive the submission by the applicant of such engineering drawings, plans, specifications, or such other portions of the above data or information as it shall deem inappropriate or unnecessary to the Construction Permit application, provided that any such waiver by the Agency shall be given in writing to the applicant. The Agency may adopt procedures which require data and information in addition to and in amplification of the matters specified in the first sentence of this paragraph (a) (2), which are reasonably designed to determine compliance with the Act, this Chapter, and ambient air quality standards, and which set forth the format by

which all data and information shall be submitted. Such procedures and formats, and revisions thereto, shall not become effective until filed with the Index Division of the Office of the Secretary of State as required by "An Act concerning administrative rules," approved June 14, 1951, as amended.

3. An application shall not be deemed to be filed until the applicant has submitted all information and completed all application forms required by paragraph (a) (2) of this Rule 103 and procedures adopted and effective pursuant thereto. Provided, however, that if the Agency fails to notify the applicant within 30 days after the filing of a purported application that the application is incomplete and of the reasons the Agency deems it incomplete, the application shall be deemed to have been filed as of the date of such purported filing. The applicant may treat the Agency's notification that an application is incomplete as a denial of the application for purposes of review.
4. All applications and supplements thereto shall be signed by the owner and operator of the emission source or air pollution control equipment, or their authorized agent, and shall be accompanied by evidence of authority to sign the application.

5. Standards for Issuance

No Construction Permit shall be granted unless the applicant submits proof to the Agency that:

- a. The emission source or air pollution control equipment will be constructed or modified to operate so as not to cause a violation of the Act or of this Chapter; and
- b. If subject to a future compliance date, the applicant has an approved Compliance Program and Project Completion Schedule in accordance with the provisions of Rule 104.

6. Conditions

The Agency may impose such conditions in a Construction Permit as may be necessary to accomplish the purposes of the Act, and as are not inconsistent with the regulations promulgated by the Board thereunder. Except as herein specified, nothing in this Chapter shall be deemed

to limit the power of the Agency in this regard. Such conditions may include conditions specifying any testing operations that may be conducted under the Construction Permit.

b. Operating Permits

1. New Emission Sources and New Air Pollution Control Equipment

a. Prohibition

No person shall cause or allow the operation of any new emission source or new air pollution control equipment of a type for which a Construction Permit is required by paragraph (a) of this Rule 103 without first obtaining an Operating Permit from the Agency, except for such testing operations as may be authorized by the Construction Permit. Applications for Operating Permits shall be made at such times and contain such information (in addition to the information required by paragraph (b) (3) of this Rule 103) as shall be specified in the Construction Permit.

2. Existing Emission Sources

a. Prohibition

No person shall cause or allow the operation of any existing emission source or any existing air pollution control equipment without first obtaining an Operating Permit from the Agency no later than the dates shown in the following schedule:

(A) Source Classification

<u>SOURCE CLASSIFICATION</u>	<u>DATE OPERATING PERMIT REQUIRED</u>
Primary Metal Industry Operations as defined by Code 33 of the "Standard Industrial Classification Manual" . . . . .	By November 1, 1972
Rubber and Plastics Products Industry Operations as defined by code 30 of the "Standard Industrial Classification Manual" . . . . .	By November 1, 1972

<u>SOURCE CLASSIFICATION</u>	<u>DATE OPERATING PERMIT REQUIRED</u>
Chemicals and Allied Products Industry Operations as defined by code 28 of the "Standard Industrial Classification Manual" . . . . .	By December 1, 1972
Food and Kindred Products Industry Operations as defined by code 20 and Printing and Publishing Industry Operations as defined by code 27 of the "Standard Industrial Classification Manual" . . . . .	By January 1, 1973
Petroleum and Coal Products Industry Operations as defined by code 29 of the "Standard Industrial Classification Manual" and bituminous cement (asphalt) plants . . . . .	By January 1, 1973
Stone, Clay, and Glass Products and Paper and Allied Products Industry Operations as defined by code 32 and 26 of the "Standard Industrial Classification Manual" and all painting operations using in excess of 5,000 gallons of paint (including thinner) per year . . . . .	By February 1, 1973
Incinerators . . . . .	By March 1, 1973
Electric, Gas, and Sanitary Services as defined by code 49 of the "Standard Industrial Classification Manual" and coal fired boilers . . . . .	By April 1, 1973
Gas and Oil fired boilers and all other emission sources or air pollution control equipment not listed previously in this paragraph except equipment excluded under paragraph (i) of this Rule . . . . .	By May 1, 1973
Grain-handling and Conditioning Operations . . . . .	By September, 1974
Grain-handling and Grain-Drying Operations . . . . .	By December 31, 1975
(B) All applications for Operating Permits shall be submitted to the Agency at least 90 days prior to the date on which an Operating Permit is required. Provided, however, the Agency may waive this 90 day requirement when	

appropriate. If necessary, to prevent an unmanageable workload as may be deemed appropriate, the Agency may extend the dates by which Operating Permits are required under Section 103 (b) (2) (A) for a period not to exceed four months. The Agency shall notify the persons affected and the Board in writing of the extension at least four months before the dates set forth in Section 103 (b) (2) (A).

- (C) Nothing in this Rule shall preclude any person from applying for an Operating Permit earlier than the dates specified in Part (b) (2) (A) of this Rule 103.

### 3. Application

An application for an Operating Permit shall contain, as a minimum, the data and information specified in paragraph (a) (2) of this Rule 103. Each application shall list all individual emission sources for which a permit is sought. Any applicant may seek to obtain from the Agency a permit for each emission source, or such emission sources as are similar in design or principle of operation or function, or for all emission sources encompassed in an identifiable operating unit. To the extent that the above specified data and information has previously been submitted to the Agency pursuant to this Rule 103, the data and information need not be resubmitted; provided, however, that the applicant must certify that the data and information previously submitted remains true, correct and current. An application for an Operating Permit shall contain a description of the startup procedure for each emission source, the duration and frequency of startups, the types and quantities of emissions during startup, and the applicant's efforts to minimize any such startup emissions, duration of individual startups, and frequency of startups, the types and quantities of emissions during startup, and the applicant's efforts to minimize any such startup emissions, duration of individual startups, and frequency of startups. The Agency may adopt procedures which require data

and information in addition to and in amplification of the matters specified in the first sentence of this paragraph (b) (3), which are reasonably designed to determine compliance with the Act, this Chapter, and ambient air quality standards, and which set forth the format by which all data and information shall be submitted. Such procedures and formats, and revisions thereto, shall not become effective until filed with the Index Division of the Office of the Secretary of State as required by "An Act concerning administrative rules," approved June 14, 1951, as amended.

4. An application shall not be deemed to be filed until the applicant has submitted all information and completed application forms required by paragraph (b) (3) of this Rule 103 and procedures adopted and effective pursuant thereto. Provided, however, that if the Agency fails to notify the applicant within 30 days after the filing of a purported application that the application is incomplete and of the reasons the Agency deems it incomplete, the application shall be deemed to have been filed as of the date of such purported filing. The applicant may treat the Agency's notification that an application is incomplete as a denial of the application for purposes of review.
5. All applications and supplements thereto shall be signed by the owner and operator of the emission source or air pollution control equipment, or their authorized agent, and shall be accompanied by evidence of authority to sign the application.
6. Standards for Issuance

No Operating Permit shall be granted unless the applicant submits proof to the Agency that:

- (A) The emission source or air pollution control equipment has been constructed or modified to operate so as not to cause a violation of the Act or of this Chapter, or has been granted a variance therefrom by the Board and is in full compliance with such variance; and
- (B) The emission source or air pollution control equipment has been constructed or modified in accordance with all conditions in the Construction Permit, where applicable; and



- (C) The emission source or air pollution control equipment has been shown by tests in accordance with the provisions of Rule 106 to operate in accordance with the emission limitations set forth in this Chapter, provided that the Agency may waive the requirement for actual tests where sufficient standard testing information is available; and
- (D) The applicant has taken all technically feasible measures, including changes in work rules, to minimize the duration and frequency of start-ups and to reduce the quantity of emissions during startup; and
- (E) If subject to a future compliance date, the applicant has an approved Compliance Program and Project Completion Schedule in accordance with the provisions of Rule 104; and
- (F) If required, the applicant has an approved episode action plan in effect in accordance with the provisions of Part IV of this Chapter; and
- (G) If subject to a future compliance date, the applicant was, on the effective date of this Chapter, and is at the time of application for an Operating Permit pursuant to Rule 103 (b) (2), in compliance with any applicable emission standards of the Rules and Regulations Governing the Control of Air Pollution of the former State of Illinois Air Pollution Control Board; or was, on the effective date of this Chapter, in full compliance with any variance from those regulations granted by the Pollution Control Board; or has been, since the effective date of this Chapter, granted a variance from those regulations, and is in full compliance with such variance.

## 7. Conditions

The Agency may impose such conditions in an Operating Permit as may be necessary to accomplish the purposes of the Act, and as are not inconsistent with the regulations promulgated by the Board thereunder. Except as herein specified, nothing in this Chapter shall be deemed to limit the power of the

Agency in this regard. When deemed appropriate as a condition to the issuance of an Operating Permit, the Agency may require that the permittee adequately maintain the air pollution control equipment covered by the permit. To assure that such a maintenance program is planned, the Agency may require that the permittee have a maintenance program and keep such maintenance records as are necessary to demonstrate compliance with the Rule; provided, however, the Agency shall not have the authority to approve the maintenance programs required thereunder.

8. Duration of Permit

No operating Permit shall be valid for longer than five years or such shorter period as the Agency may specify in the Operating Permit as necessary to accomplish the purposes of the Act and this Chapter. Applications for renewal of an Operating Permit shall be submitted to the Agency at least 90 days prior to the expiration of the prior Permit, and shall conform to paragraphs (b) (3), (b) (4), and (b) (5) of this Rule 103. The standards for issuance of Renewal Permits shall be as set forth in paragraph (b) (6) of this Rule.

c. Joint Construction and Operating Permits

In cases where the Agency determines that an emission source or air pollution control equipment is sufficiently standard so as to obviate the need for separate Construction and Operating Permits, the Agency may issue a Joint Construction and Operating Permit. The Agency may adopt procedures which: set forth the circumstances under which Joint Construction and Operating Permits may be issued; require data and information designed to determine compliance with the Act, this Chapter, and ambient air quality standards; and which set forth the format by which all data and information shall be submitted. Such procedures and formats, and revisions thereto, shall not become effective until filed with the Index Division of the Office of the Secretary of State as required by "An Act concerning administrative rules," approved June 14, 1951, as amended. The standards for issuance of Joint Construction and Operating Permits shall be as set forth in paragraphs (a) (5) and (b) (6) of this Rule 103.

The Agency may impose such conditions in a Joint Construction and Operating Permit as may be necessary to accomplish the purposes of the Act, and as are not inconsistent with regulations promulgated thereunder. Except as herein provided, nothing in this Chapter shall be deemed to limit the power of the Agency in this regard. No Joint Construction and Operating Permit shall be valid for longer than five years or such shorter period as the Agency may specify the Joint Construction and Operating Permit as necessary to accomplish the purposes of the Act and this Chapter. Applications for renewal of a Permit shall be submitted to the Agency at least 90 days prior to the expiration of the prior Permit, and shall conform to such procedures as may have been adopted by the Agency; and the standards for issuance of Renewal Permits shall be as set forth in paragraphs (a) (5) and (b) (6) of this Rule 103. The term "Operating Permit" as used elsewhere in this Chapter shall be deemed to include a Joint Construction and Operating Permit.

d. Design Criteria

1. The Agency may adopt procedures which set forth criteria for the design, operation or maintenance of emission sources and air pollution control equipment. These procedures shall be revised from time to time to reflect current engineering judgment and advances in the state of the art. Such procedures and formats, and revisions thereto, shall not become effective until filed with the Index Division of the Office of the Secretary of State as required by "An Act concerning administrative rules," approved June 14, 1951, as amended.
2. Before adopting new criteria or making substantive changes to any criteria adopted by the Agency, the Agency shall:
  - (A) Publish a summary of the proposed changes in the Board Newsletter or a comparable publication, at the Agency's expense; and
  - (B) Provide a copy of the full text of the proposed changes to any person who in writing so requests; and
  - (C) Defer adoption of the changes for 45 days from the date of publication to allow submission and consideration of written comments on the proposed changes.

e. Hearings

1. The Agency may conduct hearings, prior to issuing a Permit pursuant to this Chapter, to determine whether an applicant has submitted proof that the emission source or air pollution control equipment is or will be in compliance with every Rule of this Chapter.
2. The Agency shall adopt procedural regulations for the conduct of such hearings, which regulations shall be effective upon filing with the Index Division of the Office of the Secretary of State pursuant to "An Act concerning administrative rules," approved June 14, 1951, as amended. Revisions to such procedural regulations adopted by the Agency pursuant to this paragraph shall take effect in like manner.

f. Revocation

Violation of any of the conditions of a Permit, or the failure to comply with any rule or regulation of this Chapter, shall be grounds for revocation of the Permit, as well as for other sanctions provided in the Act. Such sanctions shall be sought by filing a complaint with the Board.

g. Revisions to Permits

The Agency may revise any Permit issued pursuant to this Rule 103, or any condition contained in such Permit, as follows:

1. Upon reapplication by the Permittee; or
2. Upon the revision of the Act or this Chapter.

h. Existence of Permit No Defense

The existence of a Permit under this Rule 103 shall not constitute a defense to a violation of the Act or any rule or regulation of this Chapter, except for construction or operation without a permit.

i. Exemptions

No Permit is required for the following classes of equipment:

1. Air contaminant detectors or recorders, combustion controllers, or combustion shutoffs;
2. Air conditioning or ventilating equipment not designed to remove air contaminants generated by or released from associated equipment;
3. Fuel burning emission sources for indirect heating systems and for heating and reheating furnace systems used exclusively for residential or commercial establishments using gas and/or fuel oil exclusively with a total capacity or less than 50 million BTU per hour input;
4. Fuel burning emission sources other than those listed in (3) above for indirect heating systems with a total capacity of less than one million BTU per hour input;
5. Mobile internal combustion and jet engines, marine installation, and locomotives;
6. Laboratory equipment used exclusively for chemical or physical analysis;
7. Painting operations using not in excess of 5,000 gallons of paint (including thinner) per year;
8. Any emission source acquired exclusively for domestic use, except that a Permit shall be required for any incinerator and for any fuel burning emission source using solid fuel with a total capacity of 50 million BTU per hour input or more;
9. Stationary internal combustion engines of less than 1500 horsepower;
10. Stacks or vents used to prevent the escape of sewer gases through plumbing traps;
11. Safety devices designed to protect life and limb, provided that safety devices associated with an emission source shall be included within the Permit for such emission source;
12. Storage tanks for liquids used for retail dispensing;

13. All printing operations using less than 750 gallons or organic solvents per year;
14. Storage tanks of organic liquids with a capacity of less than 5,000 gallons;
15. Flanged and threaded pipe connections, vessel manways and process valves capable of discharging specified air contaminants to the atmosphere; and
16. Sampling connections used exclusively to withdraw materials for laboratory testing and analyses.
17. Grain-handling operations, exclusive of grain-drying operations, with an annual grain throughput not exceeding 300,000 bushels.
18. Grain-drying operations with a total grain-drying capacity not exceeding 750 bushels per hour for 5% moisture extraction at manufacturer's rated capacity, using the American Society of Agricultural Engineers Standard 248.2, Section 9, Basis for Stating Drying Capacity of Batch and Continuous-Flow Grain Dryers.
19. Portable Grain-handling equipment and one-turn storage space.

j. Former Permits

Any Permit issued by the Agency, or any predecessor, is subject to the requirements of this Rule 103, and shall be revised or revoked as necessary to conform to this Rule.

k. Appeals From Conditions in Permits

An applicant may consider any condition imposed by the Agency in a Permit as a refusal by the Agency to grant a Permit, which shall entitle the applicant to appeal the Agency's decision to the Board pursuant to Section 40 of the Act.

l. Bonds

The Agency may require, as a condition to the issuance of a Permit, the posting of a bond to insure compliance by the permittee with any condition or undertaking related to such Permit. The Board shall have jurisdiction of proceedings to adjudicate facts related to forfeiture of any such bond.

Rule 104: COMPLIANCE PROGRAMS AND PROJECT COMPLETION SCHEDULES

a. Prohibition

No person shall cause or allow the operation of an emission source which is not in compliance with the standards or limitations set forth in Part 2 of this Chapter (after the date by which such emission source is required to have an Operating Permit pursuant to Rule 103) without a Compliance Program and a Project Completion Schedule approved by the Agency.

b. Contents of Compliance Programs and Project Completion Schedules

1. A Compliance Program shall contain, as a minimum, the following data and information: the nature and/or type of the proposed air pollution control equipment or proposed air pollution control technique which has been chosen to achieve compliance; the cost, availability and technical reasonableness of the proposed air pollution control equipment or proposed air pollution control technique, including detailed cost analyses and copies of engineering reports or studies sufficient to prove to the Agency that the Compliance Program will result in compliance with applicable standards and limitations of Part 2 of this Chapter.
2. A Project Completion Schedule shall contain, as a minimum, the following data and information: a final compliance date, which date shall be no later than the applicable date prescribed in Part 2 of this Chapter; and interim dates by which various increments of the proposed compliance program shall be completed, such as dates when contracts will be awarded, dates for equipment delivery, and dates for construction of preliminary structural work.
3. The Agency may adopt procedures which require data and information in addition to and in amplification of the matters specified in paragraph (b) (2) of this Rule 104, and which set forth the format by which all data and information shall be submitted. Such procedures and formats, and revisions thereto, shall not become effective until filed with the Index Division of the Office of the Secretary of State as required by "An Act concerning administrative rules," approved June 15, 1951, as amended.

c. Standards for Approval

No compliance Program and Project Completion Schedule shall be approved unless the applicant submits proof to the Agency that:

1. The Compliance Program will result in timely compliance with applicable standards and limitations of Part 2 of this Chapter; and



2. The owner or operator has provided adequate proof that it is committed to the Compliance Program and Project Completion Schedule, including, in the case of a corporation, certification by a duly authorized officer of such corporation that such corporation approves each and every provision of such program and of such schedule.

d. Revisions

The owner or operator of an emission source or air pollution control equipment subject to an approved Compliance Program and Project Completion Schedule may request a revision of such Program or Schedule at any time. In addition, the Agency may require a revision upon any change in the Act or this Chapter. The Agency shall not approve any revision which contains a final compliance date later than the applicable date prescribed in Part 2 of this Chapter.

e. Effects of Approval

The approval of a Compliance Program and Project Completion Schedule shall be a condition precedent to the issuance and effectiveness of a Permit pursuant to Rule 103. An approved Compliance Program and Project Completion Schedule, and full compliance therewith, and a current Operating Permit, shall be a prima facie defense to any enforcement action alleging a violation of the standards or limitations set forth in Part 2 of this Chapter with respect to any air contaminant included in such Program and Schedule during the period of the program. Failure to adhere to an approved compliance schedule shall constitute a violation of this Part for which appropriate sanctions may be sought in accordance with the Act.

f. Records and Reports

Any person subject to this Rule shall maintain such records and make such reports as may be required in procedures adopted by the Agency pursuant to Rule 107.

Rule 105: MALFUNCTIONS, BREAKDOWNS OR STARTUPS

a. Prohibition

No person shall cause or allow the continued operation of an emission source during a malfunction or breakdown of the emission source or related air pollution control equipment if such operation would cause a violation of the standards

or limitations set forth in Part 2 of this Chapter, unless the current Operating Permit granted by the Agency provides for operation during a malfunction or breakdown. No person shall cause or allow violation of the standards or limitations set forth in Part 2 of this Chapter during startup unless the current Operating Permit granted by the Agency provides for violation of such standards or limitations during startup.

b. Contents of Request For Permission to Operate During a Malfunction, Breakdown or Startup

1. A request for permission to continue to operate during a malfunction or breakdown, if desired, shall be included as an integral part of the application for an Operating Permit pursuant to Rule 103, and shall include as a minimum: a full and detailed explanation of why such continued operation is necessary; the anticipated nature, sources and quantities of emissions which will occur during such continued operation; the anticipated length of time during which such operation will continue; all measures, such as use of off-shift labor or equipment which will be taken to minimize the quantity of air contaminant emissions and length of time during which such operation will continue. When the standards or limitations of Part 2 of this Chapter will be violated during startup, a request for permission to violate such standards or limitations shall be an integral part of the application for an Operating Permit pursuant to Rule 103, and shall include, as a minimum: a description of the startup procedure for each emission source, the duration and frequencies of such startups, the types and quantities of emissions during such startups, and the applicant's efforts to minimize any such startup emissions, duration of individual startups, and frequency of startups.
2. The Agency may adopt procedures which require data and information in addition to or in amplification of the matters set forth in paragraph (b) (1) of this Rule 105, and which set forth the format in which all data and information shall be submitted. Such procedures and formats, and revisions thereto, shall not become effective until filed with the Index Division of the Office of the Secretary of State as required by "An Act concerning administrative rules," approved June 14, 1951, as amended.

c. Standards for Granting Permission to Operate During a Malfunction, Breakdown or Startup

Permission shall not be granted to allow continued operation during a malfunction or breakdown unless the applicant submits proof to the Agency that: such continued operation is necessary to prevent injury to persons or severe damage to equipment; or that such continued operation is required to provide essential services; provided, however, that continued operation solely for the economic benefit of the owner or operator shall not be a sufficient reason for granting of permission. Permission shall not be granted to allow violation of the standards or limitations of Part 2 of this Chapter during startup unless the applicant has affirmatively demonstrated that all reasonable efforts have been made to minimize startup emissions, duration of individual startups, and frequency of startups.

d. Records and Reports

Any person who causes or allows the continued operation of an emission source during a malfunction or breakdown of the emission source or related air pollution control equipment when such continued operation would cause a violation of the standards or limitations set forth in Part 2 of this Chapter shall immediately report such incident to the Agency by telephone, telegraph, or such other method as constitutes the fastest available alternative, except if otherwise provided in the Operating Permit. Thereafter, any such person shall comply with all reasonable directives of the Agency with respect to the incident. In addition, any person subject to this Rule shall maintain such records and make such reports as may be required in procedures adopted by the Agency pursuant to Rule 107.

e. Continued Operation or Startup Prior to Granting of Operating Permit

Any person desiring to continue to operate or to startup in accordance with paragraph (a) of this Rule prior to the date when an Operating Permit is required pursuant to Rule 103 shall make immediate application for Permission to Operate during a Malfunction, Breakdown or Startup in accordance with paragraph (b) of this Rule 105.

f. Effect of Granting of Permission to Operate During a Malfunction, Breakdown or Startup

The granting of permission to operate during a malfunction or breakdown, or to violate the standards or limitations of Part 2 of this Chapter during startup, and full compliance with any terms and conditions connected therewith, shall be a prima facie defense to an enforcement action alleging a violation of paragraph (a) of this Rule 105, of the emission and air quality standards of this Chapter, and of the prohibition of air pollution during the time of such malfunction, breakdown, or startup.

Rule 106: MONITORING AND TESTING

a. Monitoring Equipment

1. Every emission source or air pollution control equipment shall be equipped with such monitoring instruments as may be required in procedures adopted by the Agency or as a condition to a permit issued by the Agency. Such procedures and formats, and revisions thereto, shall not become effective until filed with the Index Division of the Office of the Secretary of State as required by "An Act concerning administrative rules," approved June 14, 1951, as amended. The Agency may require that such monitoring instruments shall be installed, maintained and operated at the expense of the owner or operator of the emission source or air pollution control equipment.
2. Before adopting or making substantive changes to any such procedures adopted by the Agency, the Agency shall:
  - (A) Publish a summary of the proposed changes in the Board Newsletter or a comparable publication, at the Agency's expense; and
  - (B) Provide a copy of the full text of the proposed changes to any person who in writing so requests; and
  - (C) Defer adoption of the changes for 45 days from the date of publication to allow submission and consideration of written comments on the proposed changes.

b. Testing

Every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:

1. Testing by Owner or Operator

The Agency may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Agency, at such reasonable times as may be specified by the Agency and at the expense of the owner or operator of the emission source or air pollution control equipment. The Agency may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures, and revisions thereto, shall not become effective until filed with the Index Division of the Office of the Secretary of State, as required by "An Act concerning administrative rules," approved June 14, 1951, as amended. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Agency shall have the right to observe all aspects of such tests.

2. Testing by the Agency

The Agency shall have the right to conduct such tests at any time at its own expense. Upon request of the Agency, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Agency, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.

3. Records and Reports

Any person subject to this Rule shall maintain such records and make such reports as may be required in Procedures adopted by the Agency pursuant to Rule 107.

Rule 107: RECORDS AND REPORTS

a. Records

1. The owner or operator of any emission source or air pollution control equipment shall maintain, as a minimum: records detailing all activities pursuant to any Compliance Program and Project Completion Schedule pursuant to Rule 104; records detailing all Malfunctions, Break-downs or Startups pursuant to Rule 105; and records of all Monitoring and Testing conducted pursuant to Rule 106, plus records of all Monitoring and Testing of any type whatsoever conducted with respect to specified air contaminants. All such records shall be made available to the Agency at any reasonable time.
2. The Agency may adopt procedures which:
  - (A) Require additional records be maintained consistent with these regulations; and
  - (B) Set forth the format in which all records shall be maintained.

Such procedures and formats, and revisions thereto, shall not become effective until filed with the Index Division of the Office of the Secretary of State as required by "An Act concerning administrative rules," approved June 14, 1951, as amended.

b. Reports

1. The owner or operator of any emission source or air pollution control equipment shall submit to the Agency as a minimum, annual reports detailing the nature, specific sources, and total annual quantities of all specified air contaminant emissions; provided, however, that the Agency may require more frequent reports where necessary to accomplish the purposes of the Act and this Chapter.
2. The Agency may adopt procedures which require that additional reports be submitted, and which set forth the format in which all reports shall be submitted. Such procedures and formats, and revisions thereto, shall not become effective until filed with the Index Division of the Office of the Secretary of State as required by "An Act concerning administrative rules," approved June 14, 1951, as amended.

3. All emission data received by the Agency relative to specified air contaminants shall be correlated by the Agency with any emission limitations or standards set forth in Part 2 of this Chapter.
4. All emission data received by the Agency, shall be available for public inspection at reasonable times and upon reasonable notice.

Rule 108: PROOF OF EMISSIONS

Notwithstanding other provisions of this Chapter, evidence that specified air contaminant emissions, as calculated on the basis of standard emission factors or other factors generally accepted as true by those persons engaged in the field of air pollution control, exceed the limitations prescribed by this Chapter shall constitute adequate proof of a violation, in the absence of a showing that actual emissions are in compliance.

Rule 109: CIRCUMVENTION

Except as provided in paragraphs 203 (g) (3), 204 (d), and 204 (e) of Part 2 of this Chapter, and except as further provided by Rule 110 of this Chapter, no person shall cause or allow the construction or operation of any device or any means, including the creation or use of any corporations or other business entities having interlocking directorships or substantially identical ownerships which, without resulting in a reduction in the total amount of any air contaminant emitted, conceals, dilutes or permits air contaminant emissions which would otherwise violate these regulations.

Rule 110: DESIGN OF EFFLUENT EXHAUST SYSTEM

No person shall cause or allow the operation of an emission source or of air pollution control equipment without providing one or more stacks or vents that are designed to prevent the concentration of any air contaminant from:

1. Exceeding any applicable ambient air quality standard, either alone or in combination with air contaminants from other sources; or,
2. Causing or tending to cause air pollution, either alone or in combination with air contaminants from other sources; or,
3. Exceeding the emission standards and limitations of Part 2 of this Chapter.

Exception: This Rule 110 shall not apply to emission sources, such as stock piles of particulate matter which, because of the disperse nature of such emission sources, cannot reasonably be expected to be emitted through a stack.

Rule 111: BURDEN OF PERSUASION REGARDING EXCEPTIONS

In any proceeding pursuant to this Chapter, if an exception stated in this Chapter would limit an obligation, limit a liability, or eliminate either an obligation or a liability, the person who would benefit from the application of the exception shall have the burden of persuasion that the exception applies and that the terms of the exception have been met.

Rule 112: ANNUAL REPORT

The Agency shall annually prepare and submit to the Board an Air Contaminant Emission Report which lists the emission sources in the State for which an operating permit is required under Rule 103, describes the type, quantity and concentrations of the various specified contaminants being emitted, and describes the existing and planned controls and the scheduled dates for completion of improvements.

Rule 113: SEVERABILITY

If any provision of these rules or regulations is adjudged invalid, or if the application thereof to any person or in any circumstance is adjudged invalid, such invalidity shall not affect the validity of this Chapter as a whole or of any part, sub-part, sentence or clause thereof not adjudged invalid.

Rule 114: REPEALER

Each provision of the Rules and Regulations Governing the Control of Air Pollution, as amended August 19, 1969, applying to an emission source shall remain in full force and effect unless and until such source is required to comply with a corresponding provision of this Chapter.



## PART II: EMISSION STANDARDS AND LIMITATIONS FOR STATIONARY SOURCES

### Rule 201: DEFINITIONS

ALL TERMS DEFINED IN PART 1 OF THIS CHAPTER WHICH APPEAR IN PART 2 OF THIS CHAPTER HAVE THE DEFINITIONS SPECIFIED BY RULE 101 OF PART 1 OF THIS CHAPTER.

#### Actual Heat Input

The quantity of heat produced by the combustion of fuel using the gross heating value of the fuel.

#### Aeration

The practice of forcing air through bulk stored grain to maintain the condition of the grain.

#### Annual Grain Throughput

Unless otherwise shown by the owner or operator, annual grain throughput for grain-handling operations, which have been in operation for three consecutive years prior to the effective date of Rule 203(d)(9), shall be determined by adding grain receipts and shipments for the three previous fiscal years and dividing the total by 6. The annual grain throughput for grain-handling operations in operation for less than three consecutive years prior to the effective date of Rule 203(d)(9) shall be determined by a reasonable three-year estimate; the owner or operator shall document the reasonableness of his three-year estimate.

#### Architectural Coating

Any coating used for residential or commercial buildings or their appurtenances, or for industrial buildings which is site applied.

#### British Thermal Unit

The quantity of heat required to raise one pound of water from 60°F to 61°F (abbreviated BTU).

#### Certified Investigation

A report signed by Agency personnel certifying whether a grain-handling operation (or portion thereof) or grain-drying operation is causing or tending to cause air pollution. Such report must describe the signatory's investigation, including a summary of those facts on which he relies to certify whether the grain-handling or grain-drying operation is causing or threatening or allowing the discharge or emission of any contaminant into the environment so as to cause or tend to cause air pollution in Illinois, either alone or in combination with contaminants from other sources, or so as to violate regulations or standards adopted by the Board under the Act. The certified investigation shall be open to reasonable public inspection and may be copied upon payment of the actual cost of reproducing the original.

#### Choke Loading

That method of transferring grain from the grain-handling operation to any vehicle for shipment or delivery which precludes a free fall velocity of grain from a discharge spout into the receiving container.

#### Cleaning and Separating Operation

That operation where foreign and undesired substances are removed from the grain.

#### Coal Refuse

Waste products of Coal Mining Cleaning and coal preparation operations containing coal, matrix material, clay and other organic and inorganic material.

#### Complete Combustion

A process in which all carbon contained in a fuel or gas stream is converted to carbon dioxide

#### Concentrated Nitric Acid Manufacturing Process

Any acid producing facility manufacturing nitric acid with a concentration equal to or greater than 70 percent by weight.

#### Distillate Fuel Oil

Fuel oils of grade No. 1 and 2 as specified in detailed requirements for fuel oil A.S.T.M. D396-69 (1971).

#### Dump-Pit Area

Any area where grain is received at a grain-handling or grain-drying operation.

#### Effective Grate Area

That area of a dump-pit grate through which air passes, or would pass, when aspirated.

#### Effluent Water Separator

Any tank, box, sump, or other apparatus in which any organic material floating on or entrained or contained in water entering such tank, box, sump, or other apparatus is physically separated and removed from such water prior to outfall, drainage, or recovery of such water.

#### Emission Rate

Total quantity of any air contaminant discharged into the atmosphere in any one-hour period.

#### Excess Air

Air supplied in addition to the theoretical quantity necessary for complete combustion of all fuel and/or combustible waste material.

#### Excessive Release

A discharge of more than 0.65 pounds of mercaptans and/or hydrogen sulfide into the atmosphere in any five minute period.

#### Existing Grain-Drying Operation

Any grain-drying operation the construction or modification of which was commenced prior to the effective date of Rule 203(d)(9).

#### Existing Grain-Handling Operation

Any grain-handling operation the construction or modification of which was commenced prior to the effective date of Rule 203(d)(9).

#### Floating Roof

A roof on a stationary tank, reservoir or other container which moves vertically upon change in volume of the stored material.

#### Fuel Combustion Emission Source

Any furnace, boiler, or similar equipment used for the primary purpose of producing heat or power by indirect heat transfer.

#### Fugitive Particulate Matter

Any particulate matter emitted into the atmosphere other than through a stack, provided that nothing in this definition or in Rule 203(f) shall exempt any source from compliance with other provisions of Rule 203 otherwise applicable merely because of the absence of a stack.

#### Grain

The whole kernel or seed of corn, wheat, oats, soybeans, and any other cereal or oil seed plant; and the normal fines, dust, and foreign matter which results from harvesting, handling, or conditioning. The grain shall be unaltered by grinding or processing.

#### Grain-Drying Operations

Any operation, excluding aeration, by which moisture is removed from grain and which typically uses forced ventilation with the addition of heat.

#### Grain-Handling Operation

Any operation where one or more of the following grain-related processes (other than grain-drying operation, portable grain-handling equipment, one-turn storage space, and excluding flour mills and feed mills) are performed: receiving, shipping, transferring, storing, mixing, or treating of grain or other processes pursuant to normal grain operations.

#### Gross Heating Value

Amount of heat produced when a unit quantity of fuel is burned to carbon dioxide and water vapor, and the water vapor condensed as described in A.S.T.M. D 2015-66, D 900-55, D1826-64, and D 240-64.

#### Housekeeping Practices

Those activities specifically defined in the list of Housekeeping Practices developed by the Joint EPA - Industry Task Force and included herein under Rule 205(d) (9)(A).

#### Incinerator

Combustion apparatus in which refuse is burned.

#### Indirect Heat Transfer

Transfer of heat in such a way that the source of heat does not come into direct contact with process materials.

#### Internal Transferring Area

Areas and associated equipment used for conveying grain among the various grain operations.

#### Load-Out Area

Any area where grain is transferred from the grain-handling operation to any vehicle for shipment or delivery.

#### Major Dump Pit

Any dump pit with an annual grain throughput of more than 300,000 bushels, or which receives more than 40% of the annual grain throughput of the grain-handling operation.

#### Major Metropolitan Area (MMA)

Any county or group of counties which is defined by Table A.

TABLE A  
MAJOR METROPOLITAN AREAS IN ILLINOIS  
(MMA's)

<u>M M A</u>	<u>COUNTIES INCLUDED IN MMA</u>
(1) Champaign - Urbana	Champaign
(2) Chicago	Cook, Lake, Will, DuPage, McHenry, Kane, Grundy, Kendall, Kankakee
(3) Decatur	Macon
(4) Peoria	Peoria, Tazewell
(5) Rockford	Winnebago
(6) Rock Island - Moline	Rock Island
(7) Springfield	Sangamon
(8) St. Louis (Illinois)	St. Clair, Madison
(9) Bloomington - Normal	McLean

Major Population Area (MPA)

Areas of major population concentration in Illinois, as described below.

The area within the counties of Cook; Lake; DuPage; Will; the townships of Burton, Richmond, McHenry, Greenwood, Nunda, Door, Algonquin, Grafton, and the municipality of Woodstock, plus a zone extending two miles beyond the boundary of said municipality located in McHenry County; the townships of Dundee, Rutland, Elgin, Plato, St. Charles, Campton, Geneva, Blackberry, Batavia, Sugar Creek, and Aurora located in Kane County; and the municipalities of Kankakee, Bradley, and Bourbonnais, plus a zone extending two miles beyond the boundaries of said municipalities in Kankakee County.

The area within the municipalities of Rockford and Loves Park, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Rock Island, Moline, East Moline, Carbon Cliff, Milan, Oak Grove, Silvis, Hampton, Greenwood, and Coal Valley, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Galesburg and East Galesburg, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Bartonville, Peoria, and Peoria Heights, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Pekin, North Pekin, Marquette Heights, Creve Coeur, and East Peoria, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Bloomington and Normal, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Champaign, Urbana, and Savoy, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Decatur, Mt. Zion, Harriestown, and Forsyth, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Springfield, Leland Grove, Jerome, Southern View, Grandview, Sherman, and Chatham, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Springfield, Leland Grove, Jerome, Southern View, Grandview, Sherman, and Chatham, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the municipalities of Springfield, Leland Grove, Jerome, Southern View, Grandview, Sherman, and Chatham, plus a zone extending two miles beyond the boundaries of said municipalities.

The area within the townships of Godfrey, Foster, Wood River, Fort Russell, Chouteau, Edwardsville, Venice, Nameoki, Alton, Granite City, and Collinsville located in Madison County; and the townships of Stites, Canteen, Centreville, Caseyville, St. Clair, Sugar Loaf, and Stookey located in St. Clair County.

#### Mixing Operation

The operation of combining two or more ingredients, of which at least one is a grain.

#### New Grain-Drying Operation

Any grain-drying operation the construction or modification of which is commenced on or after the effective date of Rule 203(d)(9).

#### New Grain-Handling Operation

Any grain-handling operation the construction or modification of which is commenced on or after the effective date of Rule 203(d)(9).

#### One Hundred Percent Acid

Acid with a specific gravity of 1.8205 at 30°C in the case of sulfuric acid and 1.4952 at 30°C in the case of nitric acid.

#### One-Turn Storage Space

That space used to store grain with a total annual throughput not in excess of the total bushel storage of that space.

#### Opacity

A condition which renders material partially or wholly impervious to transmittance of light and causes obstruction of an observer's view. For the purposes of these regulations, the following equivalence between opacity and Ringelmann shall be employed:

<u>Opacity Percent</u>	<u>Ringelmann</u>
10	0.5
20	1
30	1.5
40	2
60	3
80	4
100	5

#### Organic Material

Any chemical compound of carbon including diluents and thinners which are liquids at standard conditions and which are used as solvers, viscosity reducers or cleaning agents, but excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbonic acid, metallic carbide, metallic carbonates, and ammonium carbonate.

#### Organic Vapor

Gaseous phase of an organic material or a mixture of organic materials present in the atmosphere.

#### Particulate Matter

Any solid or liquid material, other than water, which exists in finely divided form.

### Photochemically Reactive Material

Any organic material with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified below or the composition of which exceeds any of the following individual percentage composition limitations:

1. A combination of hydrocarbons, alcohols, aldehydes, esters, ethers or ketones having an olefinic or cyclo-olefinic type of unsaturation: 5 percent. This definition does not apply to perchloroethylene or trichloroethylene.
2. A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: 8 percent.
3. A combination of ethylbenzene, ketones having branched hydrocarbon structures or toluene: 20 percent.

Whenever any photochemically reactive material or any constituent of any organic material may be classified from its chemical structure into more than one of the above groups of organic materials numbered (1), (2), (3), it shall be considered as a member of the most reactive group, that is, that group having the least allowable percent of the total organic materials.

### Polybasic Organic Acid Partial Oxidation Manufacturing Process

### Portable Grain-Handling Equipment

Any equipment (excluding portable grain dryers) that is designed and maintained to be movable primarily for use in a none-continuous operation for loading and unloading one-turn storage space, and is not physically connected to the grain elevator, provided that the manufacturer's rated capacity of the equipment does not exceed 10,000 bushels per hour.

### Portland Cement Process

Any facility manufacturing portland cement by either the wet or dry process.

### PPM (Vol) - (Parts Per Million) (Volume)

A volume/volume ratio which expresses the volumetric concentration of gaseous air contaminant in a million unit volumes of gas.

### Pressure Tank

A tank in which fluids are stored at a pressure greater than atmospheric pressure.

### Process

Any stationary emission source other than a fuel combustion emission source or an incinerator.



#### Process Weight Rate

The actual weight or engineering approximation thereof of all materials except liquid and gaseous fuels and combustion air, introduced into any process per hour. For a cyclical or batch operation, the process weight rate shall be determined by dividing such actual weight or engineering approximation thereof by the number of hours of operation excluding any time during which the equipment is idle. For continuous processes, the process weight rate shall be determined by dividing such actual weight or engineering approximation thereof by the number of hours in one complete operation, excluding any time during which the equipment is idle.

#### Residual Fuel Oil

Fuel oils of grade No. 4, 5, and 6 as specified in detailed requirements for fuel oils A.S.T.M. D 396-69 (1971).

#### Restricted Area

The area within the boundaries of any "municipality" as defined in the Illinois Municipal Code, plus a zone extending one mile beyond the boundaries of any such municipality having a population of 1,000 or more according to the latest Federal census.

#### Ringelmann Chart

The chart published and described in the Bureau of Mines, U.S. Department of Interior, Information Circular 8333 (Revision of IC7718) May 1, 1967, or any adaptation thereof which has been approved by the Agency.

#### Safety Relief Valve

A valve which is normally closed and which is designed to open in order to relieve excessive pressures within a vessel or pipe.

#### Sandblasting

The use of a mixture of sand and air at high pressures for cleaning and/or polishing any type of surface.

#### Set of Safety Relief Valves

One or more safety relief valves designed to open in order to relieve excessive pressures in the same vessel or pipe.

#### Submerged Loading Pipe

A loading pipe the discharge opening of which is entirely submerged when the liquid level is six inches above the bottom of the tank. When applied to a tank which is loaded from the side, any loading pipe the discharge of which is entirely submerged when the liquid level is 18 inches or two times the loading pipe diameter, whichever is greater, above the bottom of the tank. This definition shall also apply to any loading pipe which is continuously submerged during loading operations.

#### Sulfuric Acid Mist

Sulfuric acid mist as measured according to the method specified in Rule 204 (g) (2).

#### Unregulated Safety Relief Valve

A safety relief valve which cannot be actuated by a means other than high pressure in the pipe or vessel which it protects.

#### Volatile Organic Material

Any organic material which has a vapor pressure of 2.5 pounds per square inch absolute (psia) or greater at 70°F.

#### Weak Nitric Acid Manufacturing Process

Any acid producing facility manufacturing nitric acid with a concentration of less than 70 percent by weight.

#### Woodworking

The shaping, sawing, grinding, smoothing, polishing and making into products of any form or shape of wood.

#### Rule 202: VISUAL EMISSION STANDARDS AND LIMITATIONS

For purposes of this Rule 202, all visual emission opacity standards and limitations shall be considered equivalent to corresponding Ringelmann Chart readings, as described under the definition of opacity.

- a. Visual Emission Standards and Limitations for Certain New Emission Sources

ii. Shotblasting

The use of a mixture of any metallic or non-metallic substance and air at high pressures for cleaning and/or polishing any type of surface.

jj. Smoke

Small gas-borne particles resulting from incomplete combustion, consisting predominantly but not exclusively of carbon, ash and other combustible material, that form a visible plume in the air.

kk. Smokeless Flare

A combustion unit and the stack to which it is affixed in which organic material achieves combustion by burning in the atmosphere such that the smoke or other particulate matter emitted to the atmosphere from such combustion does not have an appearance, density, or shade darker than No. 1 of the Ringelmann Chart.

ll. Splash Loading

A method of loading a tank, railroad tank car, tank truck or trailer by use of other than a submerged loading pipe.

mm. Stack

A flue or conduit, free-standing or with exhaust port above the roof of the building on which it is mounted, by which air contaminants are emitted into the atmosphere.

nn. Standard Conditions

A temperature of 70°F and a pressure of 14.7 pounds per square inch absolute (psia).

oo. Standard Cubic Foot (SCF)

The volume of one cubic foot of gas at standard conditions.

pp. Startup

The setting in operation of an emission source for any purpose.

qq. Stationary Emission Source

An emission source which is not self-propelled.

1. New Fuel Combustion Emission Sources With Actual Heat Input Greater than 250 Million BTU per Hour

No person shall cause or allow the emission of smoke or other particulate matter into the atmosphere from any new fuel combustion emission source with actual heat input greater than 250 million BTU per hour, having an opacity greater than 20 percent.

Exception: The emissions of smoke or other particulate matter from any such emission source may have an opacity greater than 20 percent but not greater than 40 percent for a period or periods aggregating 3 minutes in any 60 minute period, providing that such more opaque emission permitted during any 60 minute period shall occur from only one such emission source located within a 1,000 foot radius from the center point of any other such emission source owned or operated by such person, and provided further that such more opaque emissions permitted from each such fuel combustion emission source shall be limited to 3 times in any 24 hour period.

2. New Portland Cement Processes

No person shall cause or allow the emission of smoke or other particulate matter from any new portland cement process into the atmosphere having an opacity greater than 10 percent.

b. Visual Emission Standards and Limitations For All Other Emission Sources

No person shall cause or allow the emission of smoke or other particulate matter from any other emission source into the atmosphere of an opacity greater than 30 percent.

Exception: The emission of smoke or other particulate matter from any such emission source may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such more opaque emissions permitted during any 60 minute period shall occur from only one such emission source located within a 1,000 foot radius from the center point of any other such emission source owned or operated by such person, and provided further that such more opaque

emissions permitted from each such emission source shall be limited to 3 times in any 24 hour period.

c. Exceptions to Rules 202 (a) and 202 (b)

1. Startup

Rules 202 (a) and 202 (b) shall apply during times of startup except as provided in the Operating Permit in Rules 103 and 105.

2. Emissions of Water and Water Vapor

Rules 202 (a) and 202 (b) shall not apply to emissions of water or water vapor from an emission source.

3. Compliance with Rule 203 a Defense.

Rules 202 (a) and 202 (b) shall not apply if it is shown that the emission source was, at the time of such emission, in compliance with the applicable mass emission limitations of Rule 203.

d. Determination of Violations of Rule 202

Violations of Rule 202 (a) and 202 (b) shall be determined:

1. By visual observations; or
2. By the use of a calibrated smoke evaluation device approved by the Agency as specified in Rule 106 of Part I of this Chapter; or
3. By the use of a smoke monitor located in the stack and approved by the Agency as specified in Rule 106 of Part I of this Chapter.

e. Compliance Dates

1. Every owner or operator of a new emission source shall comply with the emission standards and limitations of this Rule 202 on the effective date of Part 2 of this Chapter.
2. Every owner or operator of an existing emission source shall comply with the emission standards and limitations of this Rule 202 by December 31, 1972; except that every owner or operator of an emission source

subject to paragraph (g) of Rule 203, shall comply with the emission standards and limitations of this Rule 202 by May 30, 1975.

Rule 203: PARTICULATE EMISSION STANDARDS AND LIMITATIONS

a. Particulate Emission Standards and Limitations for New Process Emission Sources

Except as further provided in this Rule 203, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission source which, either alone or in combination with the emission of particulate matter from all other similar new process emission sources at a plant or premises, exceeds the allowable emission rates specified in Table 2.1 and in Figure 2.1.

TABLE 2.1

STANDARDS FOR NEW PROCESS EMISSION SOURCES

Process Weight Rate Pounds Per Hour	Process Weight Rate Tons Per Hour	Allowable Emission Rate Pounds Per Hour
100	0.05	0.55
200	0.10	0.77
400	0.20	1.10
600	0.30	1.35
800	0.40	1.58
1,000	0.50	1.75
1,500	0.75	2.40
2,000	1.00	2.60
4,000	2.00	3.70
6,000	3.00	4.60
8,000	4.00	5.35

Process Weight Rate Pounds Per Hour	Process Weight Rate Tone Per Hour	Allowable Emission Rate Pounds Per Hour
10,000	5.00	6.00
20,000	10.00	8.70
30,000	15.00	10.80
40,000	20.00	12.50
50,000	25.00	14.00
60,000	30.00	15.60
70,000	35.00	17.00
80,000	40.00	18.20
90,000	45.00	19.20
100,000	50.00	20.50
200,000	100.00	29.50
300,000	150.00	37.00
400,000	200.00	43.00
500,000	250.00	48.50
600,000	300.00	53.00
700,000	350.00	58.00
800,000	400.00	62.00
900,000	450.00	66.00
1,000,000	500.00	67.00

Interpolated and extrapolated (up to process weight rates of 450 tons per hour) values of the data in Table 2.1 shall be determined by using the equation:

$$E = 2.54 (P)^{0.534}$$

Where:

E = Allowable emission rate in pounds per hour;

and

P = Process weight rate in tons per hour.

Interpolated and extrapolated value of the data of Table 2.1 for process weight greater or equal to 450 tons per hour shall be determined using the equation:

$$E = 24.8 (P)^{0.16}$$

Where

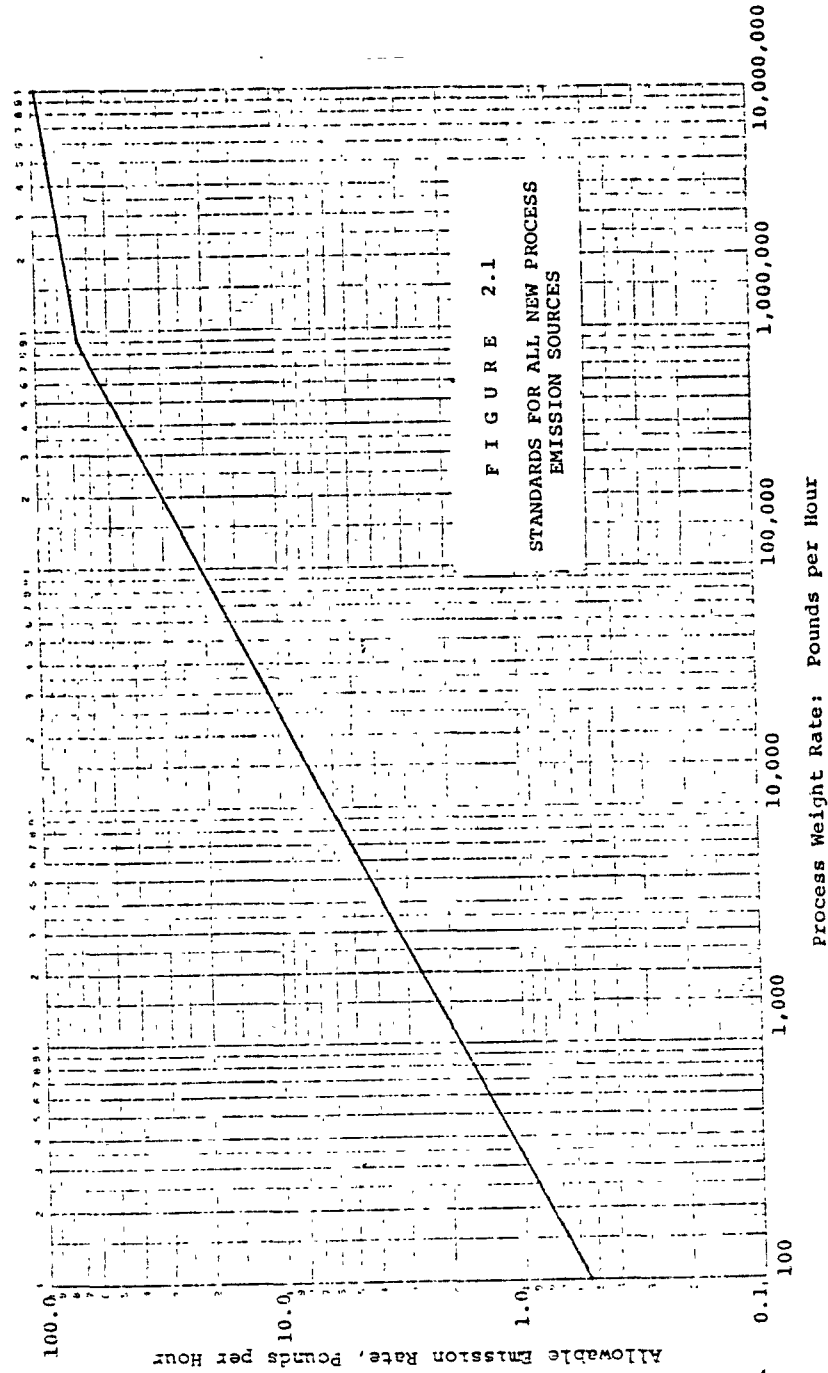
E = Allowable emission rate in pounds per hour;

and

P = Process weight rate in tons per hour.



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b. Particulate Emission Standards and Limitations For Existing Process Emission Sources

Except as further provided in this Rule 203, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any existing process emission source which, either alone or in combination with the emission of particulate matter from all other similar new or existing process emission sources at a plant or premises, exceeds the allowable emission rates specified in Table 2.2 and in Figure 2.2.

TABLE 2.2

Standards for Existing Process Emission Sources

Process Weight Rate Pounds Per Hour	Process Weight Rate Tons Per Hour	Allowable Emission Rate Pounds Per Hour
100	0.05	0.55
200	0.10	0.87
400	0.20	1.40
600	0.30	1.83
800	0.40	2.22
1,000	0.50	2.58
1,500	0.75	3.38
2,000	1.00	4.10
4,000	2.00	6.52
6,000	3.00	8.56
8,000	4.00	10.40
10,000	5.00	12.00
20,000	10.00	19.20
30,000	15.00	25.20
40,000	20.00	30.50

Process Weight Rate Pounds Per Hour	Process Weight Rate Tons Per Hour	Allowable Emission Rate Pounds Per Hour
50,000	25.00	35.40
60,000	30.00	40.00
70,000	35.00	41.30
80,000	40.00	42.50
90,000	45.00	43.60
100,000	50.00	44.60
200,000	100.00	51.20
300,000	150.00	55.40
400,000	200.00	58.60
500,000	250.00	61.00
600,000	300.00	63.10
700,000	350.00	64.90
800,000	400.00	66.20
900,000	450.00	67.70
1,000,000	500.00	69.00

Interpolated and extrapolated values of the data in Table 2.2 for process weight rates up to 30 tons per hour shall be determined by using the equation:

$$E = 4.10 (P)^{0.67}$$

and interpolated and extrapolated values of the data for process weight rates in excess of 30 tons per hour shall be determined by using the equation:

$$E = 55.0 (P)^{0.11} - 40.0$$

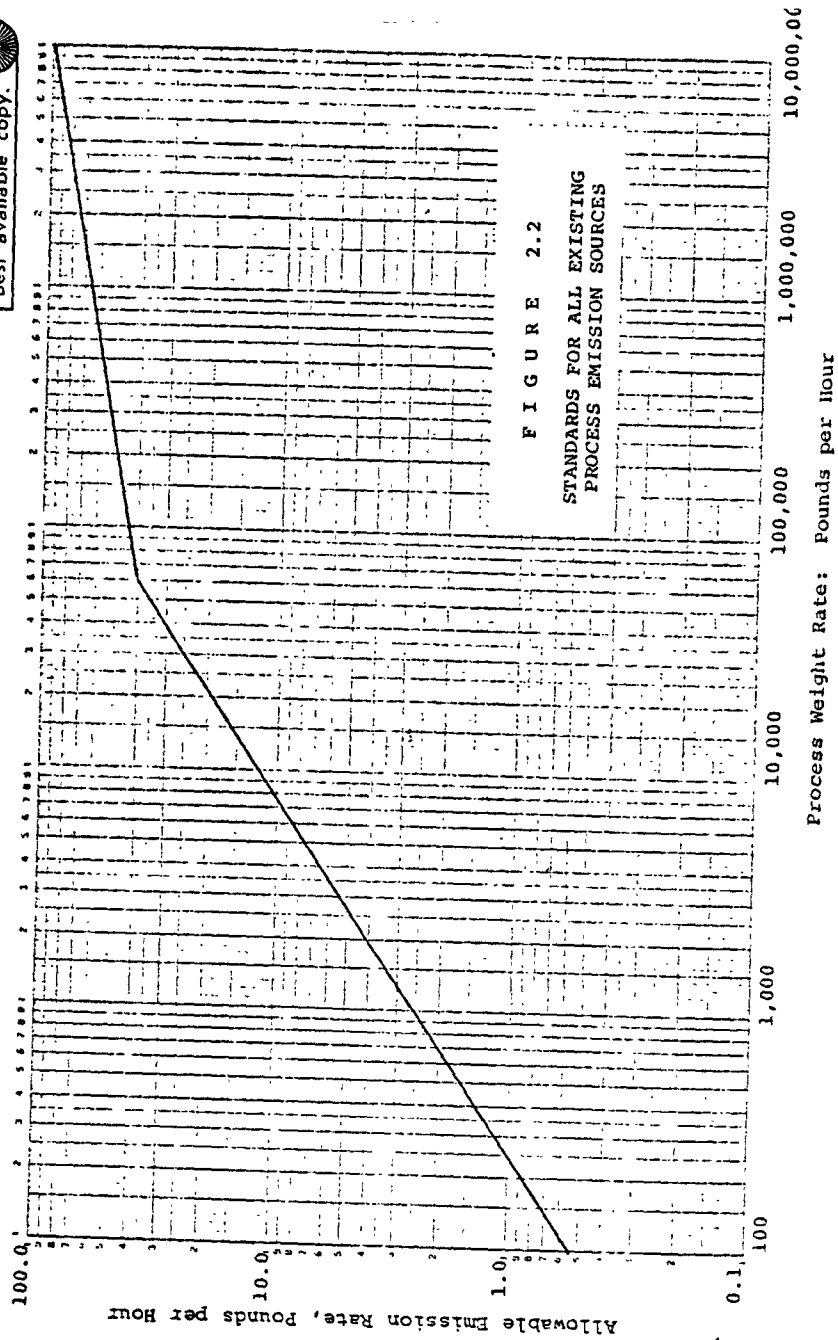
Where:

E = Allowable emission rate in pounds per hour,

and

P = Process weight rate in tons per hour.

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c. Compliance by Existing Process Emission Sources

Except as otherwise provided in this Rule 203, every existing process emission source that is not in compliance with paragraph (b) of this Rule 203 as of the effective date of Part 2 of this Chapter, shall comply with paragraph (a) of this Rule 203, unless both the following conditions are met:

1. The source is in compliance, as of the effective date of Part 2 of this Chapter, with the terms and conditions of a variance granted by the Pollution Control Board, or, within sixty (60) days of the effective date of this Chapter, the source is the subject of a variance petition filed with the Pollution Control Board, which variance is subsequently granted by the Board; and,
2. As of the effective date of Part 2 of this Chapter, construction has commenced on equipment or modifications sufficient to achieve compliance with paragraph (b) of this Rule 203.

d. Exceptions to Rules 203 (a), 203 (b), and 203 (c)

1. Catalyst Regenerators of Fluidized Catalytic Converters

Rules 203 (a), 203 (b), and 203 (c) shall not apply to catalyst regenerators of fluidized catalytic converters. No person shall cause or allow the emission rate from new and existing catalyst regenerators of fluidized catalytic converters to exceed in any one hour period the rate determined using the following equations:

$$E = 4.10 (P)^{0.67} \quad \text{for } P \text{ less than or equal to 30 tons per hour.}$$

$$E = \left[ 55.0 (P)^{0.11} \right] - 40.0 \quad \text{for } P \text{ greater than 30 tons per hour.}$$

Where,

E = Allowable emission rate in pounds per hour

P = Catalyst recycle rate, including the amount of fresh catalyst added, in tons per hour.

### 3. Portland Cement Manufacturing Processes

Rules 203 (a) and 203 (c) shall not apply to the kilns and coolers of portland cement manufacturing processes.

- (A) The kilns and clinker coolers of existing portland cement manufacturing processes shall comply with the emission standards and limitations of Rule 203 (b).
- (B) The kilns and clinker coolers of new portland cement manufacturing processes shall comply with the following emission standards and limitations:
  - (i) No person shall cause or allow the emission of particulate matter into the atmosphere from any such kiln to exceed 0.3 pounds per ton of feed to the kiln.
  - (ii) No person shall cause or allow the emission of particulate matter into the atmosphere from any such clinker cooler to exceed 0.1 pounds per ton of feed to the kiln.

### 4. Corn Wet Milling Processes

Rules 203 (a), 203 (b), and 203 (c) shall not apply to feed and gluten dryers in corn wet milling processes, where the exit gases have a dew point higher than the ambient temperature and the specific gravity of the material processed is less than 2.0. No person shall cause or allow the emission of particulate matter into the atmosphere from any such process:

- (A) After the effective date of Part 2 of this Chapter, so as to exceed 0.3 grain per standard cubic foot of effluent gas; and

- (B) On or after May 30, 1975, so as to exceed the emission standards and limitations specified in Rule 203 (b).

5. Grinding, Woodworking, Sandblasting and Shotblasting

Rule 203 (a), 203 (b), and 203 (c) shall not apply to the following industries, which shall be subject to Rule 203 (f):

- (A) Grinding,
- (B) Woodworking,
- (C) Sandblasting or Shotblasting

7. Certain Small Foundries

Rules 203 (a), 203 (b), and 203(c) shall not apply to foundry cupolas if all the following conditions are met:

- (A) The cupola was in existence prior to April 15, 1967; and,
- (B) The cupola process weight rate is less than or equal to 20,000 lb/hr.; and,
- (C) The cupola as of the effective date of Part 2 of this Chapter, either;
  - (i) Is in compliance with the following Table 2.3; or,
  - (ii) Is in compliance with the terms and conditions of a variance granted by the Pollution Control Board and, construction has commenced on equipment or modifications sufficient to achieve compliance with Table 2.3.

TABLE 2.3  
Allowable Emissions From Small Foundries  
Covered by Rule 203 (d) (7)

Process Weight Rate Pounds Per Hour	Allowable Emission Rate Pounds Per Hour
1,000	3.05
2,000	4.70
3,000	6.35
4,000	8.00
5,000	9.58
6,000	11.30
7,000	12.90
8,000	14.30
9,000	15.50
10,000	16.65
12,000	18.70
16,000	21.60
18,000	23.40
20,000	25.10

For process weight rates not listed in Table 2.3, straight line interpolation between two consecutive process weight rates shall be used to determine allowable emission rates.

8. Stock Piles

Rules 203 (a), 203 (b), and 203 (c) shall not apply to emission sources, such as stock piles or particulate matter, to which, because of the disperse nature of such emission sources, such rules cannot reasonably be applied.



9. Grain-Handling and Grain-Drying Operations.

Rules 203(a), 203(b), 203(c), and 203(f)(2) shall not apply to grain-handling and grain-drying operations, portable grain-handling facilities, and one-turn storage space.

(A) All grain-handling and grain-drying operations, regardless of size, must implement and use the following Housekeeping Practices:

(i) Air Pollution Control devices shall be checked daily and cleaned as necessary to insure proper operation.

(ii) Cleaning and Maintenance

(a) Floors shall be kept swept and cleaned from boot pit to cupola floor. Roof or bin decks and other exposed flat surfaces shall be kept clean of grain and dust that would tend to rot or become airborne.

(b) Cleaning shall be handled in such a manner as not to permit dust to escape to the atmosphere.

(c) The yard and surrounding open area, including but not limited to ditches and curbs, shall be cleaned to prevent the accumulation of rotting grain.

(iii) Dump Pit

(a) Aspiration equipment shall be maintained and operated.

(b) Dust control devices shall be maintained and operated.

(iv) Head House

The head house shall be maintained in such a fashion that visible quantities of dust or dirt are not allowed to escape to the atmosphere.

(v) Property

The yard and driveway of any facility shall be asphalted, oiled, or equivalently treated to control dust.

(vi) Housekeeping Check List

Housekeeping check lists to be developed by the Agency shall be completed by the manager and maintained on the premises for inspection by Agency personnel.

- (B) Unless otherwise exempted pursuant to Rules 203(d)(9)(D) or Rule 203(d)(9)(E), or allowed to use alternate control according to Rule 203(d)(9)(K), existing grain-handling operations with a total annual grain throughput of 300,000 bushels or more shall apply for an operating permit pursuant to Rule 103 of Part I, and shall demonstrate compliance with the following:

(i) Cleaning and Separating Operations

- (a) Particulate matter generated during cleaning and separating operations shall be captured to the extent necessary to prevent visible particulate matter emissions directly into the atmosphere.

- (b) For grain-handling facilities having a grain throughput of not more than 2 million bushels per year or located outside a major population area, air contaminants collected from cleaning and separating operations shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 98% by weight prior to release into the atmosphere.

- (c) For grain-handling facilities having a grain throughput exceeding 2 million bushels per year and located within a major population area, air contaminants collected from cleaning and separating operations shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 90% by weight prior to release into the atmosphere.

(ii) Major Dump-Pit Area

- (a) Induced Draft

- (1) Induced draft shall be applied to major dump pits and their associated equipment

(including, but not limited to, boots, hoppers, and legs) to such an extent that a minimum face velocity is maintained, at the effective grate surface, sufficient to contain particulate emissions generated in unloading operations. The minimum face velocity at the effective grate surface shall be at least 200 fpm, which shall be determined by using the equation:

$$V_f = \frac{Q}{A}$$

where:  $V_f$  = face velocity  
and  $Q$  = induced draft volume in scfm  
and  $A$  = effective grate area in ft<sup>2</sup>

and

(2) The induced draft air stream for grain-handling facilities having a grain throughput of not more than 2 million bushels per year or located outside a major population area shall be confined and conveyed through air pollution control equipment which has an overall rated and actual particulate collection efficiency of not less than 90% by weight; and

(3) The induced draft air stream for grain-handling facilities having a grain throughput exceeding 2 million bushels per year and located in a major population area shall be confined and conveyed through air pollution control equipment which has an overall rated and actual particulate collection efficiency of not less than 98% by weight; and

(4) Means or devices (including, but not limited to, quick-closing doors, air curtains, or wind deflectors) shall be employed to prevent a wind velocity in excess of 50% of the induced draft face velocity at the pit; provided, however, that such means or devices do not have to achieve the same degree of prevention when the ambient air wind exceeds 25 mph. The wind velocity shall be measured, with the induced draft system not operating, at a point midway between the dump-pit area walls at the point where the wind exits the dump-pit area, and at a height above the dump-pit area floor of approximately two (2) feet; or

- (b) Any equivalent method, technique, system, or combination thereof adequate to achieve, at a minimum, a particulate matter emission reduction equal to the reduction which could be achieved by compliance with subpart (ii)(a) herein.

(iii) Internal Transferring Area

- (a) Internal transferring areas shall be enclosed to the extent necessary to prohibit visible particulate matter emissions directly into the atmosphere.
- (b) Air contaminants collected from internal transfer operations for grain-handling facilities having a grain throughput of not more than 2 million bushels per year or located outside a major population area shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 90% by weight prior to release into the atmosphere.
- (c) Air contaminants collected from internal transfer operations for grain-hauling facilities having a grain throughput exceeding 2 million bushels per year and located in a major population area shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 98% by weight prior to release into the atmosphere.

(iv) Load-Out Area

- (a) Truck and hopper car loading shall employ socks, sleeves, or equivalent devices which extend 6 inches below the sides of the receiving vehicle, except for topping off. Choke loading shall be considered an equivalent method as long as the discharge point is no more than 12 inches above the sides of the receiving vehicle.
- (b) Box car loading shall employ means or devices to prevent the emission of particulate matter into the atmosphere to the fullest extent which is technologically and economically feasible.

(c) Watercraft Loading

(1) Particulate emissions generated during loading for train-handling facilities having a grain throughput of not more than 2 million bushels per year or located outside a major population area shall be captured in an induced draft air stream, which shall be ducted through air pollution control equipment that has a rated and actual particulate removal efficiency of not less than 90% by weight prior to release into the atmosphere.

(2) Particulate emissions generated during loading for grain-handling facilities having a grain throughput exceeding 2 million bushels per year and located in a major population area shall be captured in an induced draft air stream, which shall be ducted through air pollution control equipment that has a rated and actual particulate removal efficiency of not less than 98% by weight prior to release into the atmosphere; except for the portion of grain loaded by trimming machines for which particulate matter emission reductions, at a minimum, shall equal the reduction achieved by compliance with subpart (iv)(c)(1) herein.

(C) Unless otherwise exempted pursuant to Rule 203(d)(9)(D) or Rule 203(d)(9)(E) or allowed to use alternate control according to Rule 203(d)(9)(K), existing grain-drying operations with a total grain-drying capacity in excess of 750 bushels per hour for 5% moisture extraction at manufacturer's rated capacity (using the American Society of Agricultural Engineers Standard 248.2, Section 9, Basis for Stating Drying Capacity of Batch and Continuous-Flow Grain Dryers) shall be operated in such a fashion as to preclude the emission of particulate matter larger than 300 microns mean particle diameter, shall apply for an operating permit pursuant to Rule 103 of Part I, and shall comply with the following:

(i) Column Dryers

The largest effective circular diameter of transverse perforations in the external sheeting of a column dryer shall not exceed 0.094 inch, and the grain inlet and outlet shall be enclosed.

(ii) Rack Dryers

No portion of the exhaust air of rack dryers shall be emitted to the ambient atmosphere without having passed through a particulate collection screen having a maximum opening of 50 mesh, U.S. Sieve Series.

(a) All such screens will have adequate self-cleaning mechanisms, the exhaust gas of which for grain-handling facilities having a grain throughput of not more than 2 million bushels per year or located outside a major population area shall be ducted through air pollution control equipment which has a rated and actual particulate removal efficiency of 90% by weight prior to release into the atmosphere.

(b) All such screens will have adequate self-cleaning mechanisms, the exhaust gas of which for grain-handling facilities having a grain throughput exceeding 2 million bushels per year and located in a major population area shall be ducted through air pollution control equipment which has a rated and actual particulate removal efficiency of 98% by weight prior to release into the atmosphere.

(iii) Other Types of Dryers

All other types of dryers shall be controlled in a manner which shall result in the same degree of control required for rack dryers pursuant to subpart (C)(ii) herein.

(D) Exemptions

Any existing grain-handling operation having a grain throughput of not more than 2 million bushels per year and located inside a major population area and any existing grain-handling operation or existing grain-drying operation located outside of a major population area which is required to apply for a permit pursuant to Rule 203(d)(9)(B) and Rule 203(d)(9)(C), respectively, shall receive such permit notwithstanding the control requirements of those respective Rules provided said operation can demonstrate that the following conditions exist upon application for, or renewal of, an operating permit:

- (i) The requirements of Rule 203(d)(9)(A) are being met; and
- (ii) No certified investigation is on file with the Agency indicating that there is an alleged violation prior to issuance of the permit.
  - (a) If a certified investigation is on file with the Agency indicating an alleged violation, any applicant may obtain an exemption for certain operations if said applicant can prove to the Agency that those parts of his operation for which he seeks exemption are not the probable cause of the alleged violation.
  - (b) Applicants requesting an exemption in accordance with the provisions of Rule 203(d)(9)(D) may be granted an operating permit for a limited time, not to exceed 12 months in duration, if an objection is on file with the Agency on which a certified investigation has not been made prior to issuance of the permit.
  - (c) An applicant may consider denial of an exemption under this Rule as a refusal by the Agency to issue a permit. This shall entitle the applicant to appeal the Agency's decision to the Board pursuant to Section 40 of the Act.

(E) Loss of Exemption

Any existing grain-handling operation or existing grain-drying operation that has received an operating permit pursuant to the provisions of Rule 203(d)(9)(D) shall apply for an operating and/or construction permit pursuant to Rule 103 of Part I within sixty (60) days after receipt of written notice from the Agency that a certified investigation is on file with the Agency indicating that there is an alleged violation against the operation. The construction permit application shall include a compliance plan and project completion schedule showing the grain-handling operation's or grain-drying operation's program for complying with the standards and limitations of Rule 203(d)(9)(B), or Rule 203(d)(9)(C) as the case may be, within a reasonable time after the date on which notice of a certified investigation indicating alleged pollution was received by said operation; provided, however, any such operation shall not be required to reduce emissions from those parts of the operation that the applicant can prove to the Agency are not the probable cause of the pollution alleged in the certified investigation.

- (i) The written notice of loss of exemption is not a final action of the Agency appealable to the Board.
- (ii) Denial of a permit requested pursuant to this Rule 203(d)(9)(E) is a final action appealable to the Board under Section 40 of the Act.

(F) New and Modified Grain-Handling Operations

New and modified grain-handling operations shall file applications for construction and operating permits pursuant to Rule 103 of Part I, and shall comply with the control equipment requirements of Rule 203(d)(9)(B), except for new and modified grain-handling operations which will handle an annual grain throughput of less than 300,000 bushels; provided, however, that for the purpose of this Rule 203(d)(9), an increase in the annual grain throughput, without physical alterations or additions to the grain-handling operation, shall not be considered a modification unless such increase exceeds 30% of the annual grain throughput on which the operation's original construction and/or operating permit was granted. If the grain-handling operation has been operating lawfully without a permit, its annual grain throughput shall be determined as set forth in the definition of the term "annual grain throughput."

(G) New and Modified Grain-Drying Operations

New and modified grain-drying operations shall file applications for construction and operating permits pursuant to Rule 103 of Part I, and shall comply with the control equipment requirements of Rule 203(d)(9)(C), except for new and modified grain-drying operations which do not result in a total grain-drying capacity in excess of 750 bushels per hour for 5% moisture extraction at manufacturer's rated capacity, using the American Society of Agricultural Engineers Standard 248.2, Section 9, Basis for Stating Drying Capacity of Batch and Continuous-Flow Grain Dryers.

(H) Circumvention

It shall be a violation of this Regulation for any person or persons to attempt to circumvent the requirements of this Regulation by establishing a pattern of ownership or facility development which, except for such pattern of ownership or facility development, would otherwise require application of Rule 203(d)(9)(B) or Rule 203(d)(9)(C).



(I) Standard on Appeal to Board

In ruling on any appeal of a permit denial under Rule 203(d)(9)(D) or Rule 203(d)(9)(E), the Board shall not order the permit to be issued by the Agency unless the applicant who has appealed the permit denial has proved to the Board that the grain-handling operation or grain-drying operation which is the subject of the denied application is not injurious to human, plant, or animal life, to health, or to property, and does not unreasonably interfere with the enjoyment of life or property.

(J) Compliance Dates

- (i) Existing grain-handling and grain-drying operations subject to Rule 203(d)(9)(B), Rule 203(d)(9)(C), and Rule 203(d)(9)(D) shall achieve compliance on or before April 30, 1977, except that all grain-handling and grain-drying operations must comply with Rule 203(d)(9)(A) upon the effective date of this Rule 203(d)(9).
- (ii) New grain-handling and grain-drying operations shall comply with Rule 203(d)(9) upon its effective date.

(K) Alternate Control of Particulate Emissions

Grain-handling or grain-drying operations, which were in numerical compliance with Rule 203(b) of Chapter 2, as of the effective date of Part 2 of this Chapter (April, 1972), and continue to be in compliance with Rule 203(b) need not comply with the provisions under Rule 203(d)(9) herein, except the Housekeeping Practices in Rule 203(d)(9)(A) and this Rule 203(d)(9)(K).

Grain-handling or grain-drying operations, which were not in numerical compliance with Rule 203(b) of Chapter 2, as of the effective date of Part 2 of this Chapter, but which came into compliance with Rule 203(a) prior to the effective date of Rule 203(d)(9), and continue to be in compliance with Rule 203(a) need not comply with the provisions under Rule 203(d)(9) herein, except the Housekeeping Practices in Rule 203(d)(9)(A) and this Rule 203(d)(9)(k).

Proof of compliance with said Rule shall be made by stack sampling and/or material balance results obtained from actual testing of the subject facility or process and be submitted at the time of an application for, or renewal of, an operating permit.

(L) Severability

If any provision of these rules and regulations is adjudged invalid, such invalidity shall not affect the validity of this Chapter as a whole or of any part, subpart, sentence or clause thereof not adjudged invalid.

e. Particulate Emission Standards and Limitations for Incinerators

1. No person shall cause or allow the emission of particulate matter into the atmosphere from any incinerator burning more than 60,000 pounds of refuse per hour to exceed 0.05 grains per standard cubic foot of effluent gases corrected to 12 percent carbon dioxide.
2. No person shall cause or allow the emission of particulate matter into the atmosphere from any incinerator burning more than 2,000 pounds of refuse per hour to exceed 0.08 grain per standard cubic foot of effluent gases corrected to 12 percent carbon dioxide.
3. No person shall cause or allow the emission of particulate matter into the atmosphere from all other existing incinerators to exceed 0.2 grains per standard cubic foot of effluent gases corrected to 12 percent carbon dioxide.
4. No person shall cause or allow the emission of particulate matter into the atmosphere from all other new incinerators to exceed 0.1 grains per standard cubic foot of effluent gases corrected to 12 percent carbon dioxide.
5. Exception:

Subparagraphs (1), (2), and (4) of this Rule 203 (e) shall not apply to incinerators which burn wood wastes exclusively, if all the following conditions are met:

- (A) The emission of particulate matter from such incinerator does not exceed 0.2 grains per standard cubic foot of effluent gases corrected to 12 percent carbon dioxide; and,
- (B) The location of such incinerator is not in a restricted area, and is more than 1,000 feet from residential or other populated areas; and,
- (C) When it can be affirmatively demonstrated that no economically reasonable alternative method of disposal is available.

f. Fugitive Particulate Matter\*

1. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the emission source.

2. Except for Rules 203(f)(1) and (5) and except for those operations subject to Rule 203(d)(9)(Grain-Handling and Grain-Drying Operations), this Rule 203(f) shall apply to all mining operations (SIC major groups 10 through 14), manufacturing operations (SIC major groups 20 through 39), and electric generating operations (SIC group 491) which are located in the following counties:

Cook: All townships

Lake: Shields, Waukegan, Warren

DuPage: Addison, Winfield, York

Will: DuPage, Plainsfield, Lockport, Channahon, Peotone, Florence

Peoria: Richwoods, Limestone, Hollis, Peoria

Tazewell: Fondulac, Pekin, Cincinnati, Groveland, Washington

Macon: Decatur, Hickory Point

Rock Island: Blackhawk, Coal Valley, Hampton, Moline, South Moline, Rock Island, South Rock Island

LaSalle: LaSalle, Utica

Madison: Alton, Chouteau, Collinsville, Edwardsville, Fort Russell, Godfrey, Granite City, Nameoki, Venice, Wood River

St. Clair: Canteen, Caseyville, Centerville, St. Clair, Stites, Stookey, Sugar Loaf, Millstadt

3. Potential sources of fugitive particulate matter shall be maintained and operated as follows:

- (A) All storage piles of materials with uncontrolled emissions of fugitive particulate matter in excess of 50 tons/year

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\* The "equivalent methods" as mentioned in this section must receive USEPA approval.

which are located within a facility whose potential particulate emissions from all sources exceed 100 tons/year shall be covered or sprayed with surfactants or water on a regular basis, or treated by an equivalent method, in accordance with the operating program required by Rule 203(f)(3)(G).

- (B) All conveyor loading operations to storage piles specified in Rule 203(f)(3)(A) shall utilize spray systems, telescopic chutes, stone ladders, or other equivalent methods in accordance with the operating program required by Rule 203(f)(3)(G).
- (C) Emissions of fugitive particulate matter from all conveying operations shall not exceed 10% opacity.
- (D) All normal traffic pattern access areas surrounding storage piles specified in Rule 203(f)(3)(A) and all normal traffic pattern roads and parking facilities which are located on mining or manufacturing property shall be paved or treated with water, oils, or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils, or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program required by Rule 203(f)(3)(G).
- (E) All unloading and transporting operations of materials collected by pollution control equipment shall be enclosed or shall utilize spraying, pelletizing, screw conveying, or other equivalent methods.
- (F) Crushers, grinding mills, screening operations, bucket elevators, conveyor transfer points, bagging operations, storage bins, and fine product truck and railcar loading operations shall be sprayed with water or surfactants, utilize choke-feeding, or be treated by an equivalent method in accordance with an operating program.
  - i. Exception: Subparagraph (F) of this Rule 203(f)(3) shall not apply to high-lines at steel mills.
- (G) The sources described in paragraphs (f)(3)(A) through (f)(3)(F) shall be operated under the provisions of an operating program prepared by the owner or operator and submitted to the Agency for its review. Such operating program shall be designed to significantly reduce fugitive particulate emissions.

As a minimum the operating program shall include the following:

1. the name and address of the facility;
2. the name and address of the owner or operator responsible for execution of the operating program;
3. a map or diagram of the facility showing approximate locations of storage piles, conveyor loading operations, normal traffic pattern access areas surrounding storage piles and all normal traffic patterns within the facility;
4. location of unloading and transporting operations with pollution control equipment;
5. a detailed description of the best management practices utilized to achieve compliance with Rule 203(f), including an engineering specification of particulate collection equipment, application systems for water, oil, chemicals, and dust suppressants utilized and equivalent methods utilized;
6. estimated frequency of application of dust suppressants by location of materials;
7. and such other information as may be necessary to facilitate the Agency's review of the operating program.

The operating program shall be amended from time to time by the owner or operator so that the operating program is current. Such amendments shall be consistent with this Rule 203(f) and shall be submitted to the Agency for its review.

4. If particulate collection equipment is used, emissions from such equipment operated pursuant to Rule 203(f) shall not exceed 0.03 gr/dscf.
5. No person shall cause or allow the operation of a vehicle of the second division, as defined by Ill. Rev. Stat., Chapter 95-1/2, Section 1-217, as revised, or a semi-trailer as defined by Ill. Rev. Stat., Chapter 95-1/2, Section 1-187, as revised, without a covering sufficient to prevent the release of fugitive particulate matter into the atmosphere, provided that this paragraph (f)(5) shall not pertain to automotive exhaust emissions.

6. Measurement Method: Except as provided in Rule 203(f)(7), measurement of opacity levels shall be made according to the procedure published in 40 CFR Part 60, Appendix A, Method 9, or by measurement procedures specified by the Agency pursuant to Rule 106 of this Chapter. In situations where the durations of the operation is such that the time constraints of Method 9 are not applicable (i.e., the operation lasts for less than six minutes), opacity readings will be made following the procedures specified in Method 9 for the duration of the operation.
7. Rules 203(f)(1) and 203(f)(3)(C) shall not apply when the wind speed is greater than 25 miles per hour. Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of one site wind speed instrument measurements.
8. Compliance Dates
  - (A) All emission sources or pollution control equipment subject to Rule 203(f) shall achieve compliance on or before December 31, 1982.
- g. Particulate Emission Standards and Limitations for Fuel Combustion Emission Sources
  1. Fuel Combustion Emission Sources Using Solid Fuel Exclusively

(A) Existing Fuel Combustion Emission Sources Using Solid Fuel Exclusively Located in the Chicago Major Metropolitan Area

No person shall cause or allow the emission of particulate matter into the atmosphere from any existing fuel combustion source using solid fuel exclusively, located in the Chicago major metropolitan area, to exceed 0.1 pounds of particulate matter per million BTU of actual heat input in any one hour period except as provided in sub-paragraph (C) of this Rule 203 (g) (1).

(B)\* Existing Fuel Combustion Emission Sources Using Solid Fuel Exclusively Located Outside the Chicago Major Metropolitan Area

No person shall cause or allow the emission of particulate matter into the atmosphere from any existing fuel combustion source using solid fuel exclusively, located outside the Chicago major metropolitan area, to exceed the limitations specified in Table 2.4 and Figure 2.3 in any one hour period except as provided in sub-paragraph (c) of this Rule 203 (g) (1):

TABLE 2.4

<u>Fuel Combustion Emission Source</u> <u>Actual Heat Input</u> <u>million BTU per hour</u>	<u>S<sub>s</sub></u> <u>Allowable Emission Standard</u> <u>Pounds per million BTU</u>
less than or equal to 10	1.0
greater than 10 but smaller than 250	<u>5.18</u>
	(H <sub>s</sub> ) 0.715
greater than or equal to 250	0.1

S<sub>s</sub> = Allowable emission standard in pounds per million BTU of actual heat input

H<sub>s</sub> = Actual heat input, million BTU per hour

\*Variance for Commonwealth Edison Company's Kincaid Station see noncompliance schedules. Federal Register Publication 12/6/79.



(C) Existing Controlled Fuel Combustion Emission Sources Using Solid Fuel Exclusively

- (i) The emission source has an emission rate based on original design or equipment performance test conditions, whichever is stricter, which is less than 0.2 pounds per million BTU of actual heat input, and the emission control of such source is not allowed to degrade more than 0.05 pounds per million BTU from such original design or acceptance performance test conditions; or,
- (ii) The source is in full compliance with the terms and conditions of a variance granted by the Pollution Control Board sufficient to achieve an emission rate less than 0.2 pounds per million BTU, and construction has commenced on equipment or modifications prescribed under that program; and emission control of such source is not allowed to degrade more than 0.05 pounds per million BTU from original design or equipment performance test conditions, whichever is stricter.

(D) New Fuel Combustion Emission Sources Using Solid Fuel Exclusively

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new fuel combustion emission source using solid fuel exclusively, to exceed 0.1 pounds of particulate matter per million BTU of actual heat input.

PROVISO: Nothing in this Rule 203 (g) (1) shall be construed to apply in any manner inconsistent with the following paragraph 8 (B) of an order of the Circuit Court of Cook County dated April 13, 1972 in case no. 72 CH 1484:

"The defendants, and each of them their agents, employees, and attorneys, are hereby restrained for a period of ten days from the date hereof from (1) adopting or from (2) holding or conducting, scheduling or rescheduling public hearings pertaining to the adoption of proposed Rule 203 (g) (1) (A) of the Illinois Pollution Control Board and so much of

proposed Rule 203 (g) (1) (C) of the Illinois Pollution Control Board as pertains to proposed Rule 203 (g) (1) (A), insofar as such rules pertain to the use of coal as a source of fuel in residential and commercial buildings in the Chicago Major Metropolitan Area, or from (1) adopting or from (2) holding or conducting public hearings to adopt a rule which would eliminate or ban the use of coal as a source of fuel in residential and commercial buildings in the Chicago Major Metropolitan Area as such area is defined by the Illinois Pollution Control Board, unless there is a provision in said proposed rule for just compensation to owners of businesses in the class represented by plaintiffs and to owners of commercial and residential buildings whose property rights would be affected by said rule wherever said rule is effective."

And such further orders as may be entered by the Court.

2. Fuel Combustion Emission Sources Using Liquid Fuel Exclusively

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period to exceed 0.10 pounds of particulate matter per million BTU of actual heat input from any fuel combustion emission source using liquid fuel exclusively.

3. Fuel Combustion Emission Sources Using More Than One Type of Fuel

No person, while simultaneously burning more than one type of fuel in a fuel combustion emission source, shall cause or allow the emission of particulate matter into the atmosphere in any one hour period in excess of the following equation:

$$E = S_s H_s + 0.10 H_l$$

Where:

E = Allowable particulate emission rate in pounds per hour;

S<sub>s</sub> = Solid fuel particulate emission standard which is applicable, pounds per million BTU of actual heat input;

$H_s$  = Actual heat input from solid fuel in  
million BTU per hour; and

$H_l$  = Actual heat input from liquid fuel in  
million BTU per hour.

#### 4. Aggregation of Existing Fuel Combustion Sources

Rule 203 (g) (3) may be applied to the aggregate of all fuel combustion emission sources vented to a common stack provided that after January 26, 1972:

- (A) Ductwork has not been modified so as to interconnect such existing fuel combustion emission sources;
- (B) The actual heat input to any such existing fuel combustion emission source is not increased; and,
- (C) No new fuel combustion emission source is added to reduce the degree of control of emissions of particulate matter required by paragraph (g) of this Rule 203.

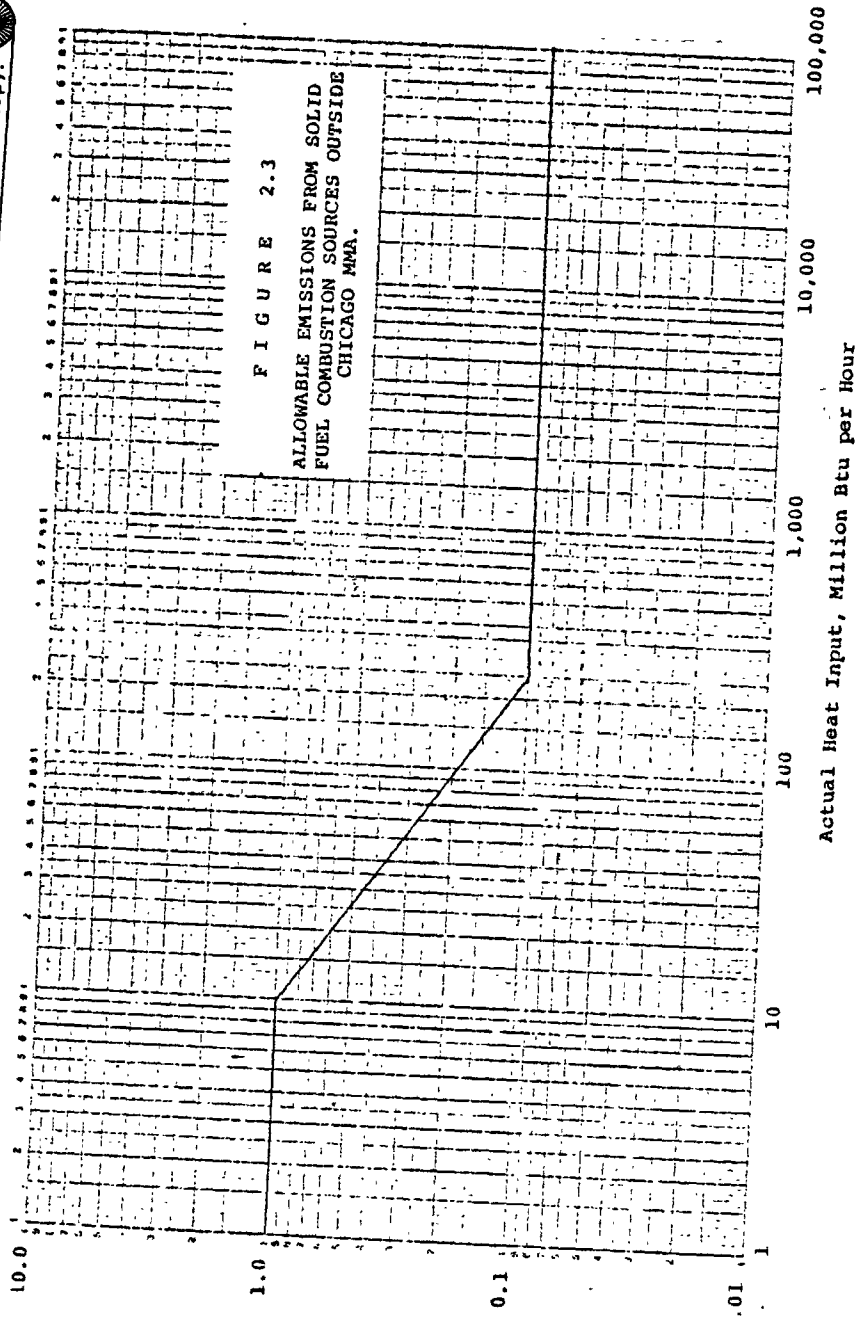
#### h. Measurement Methods

Particulate emissions from stationary emission sources subject to Rule 203, shall be determined by the procedures described in the ASME Power Test Code 27-1957 as revised from time to time, or by any other equivalent procedures approved by the Agency.

#### i. Compliance Dates

1. Every owner or operator of a new emission source shall comply with the standards and limitations of Rule 203 of the effective date of Part 2 of this Chapter.
2. Except as otherwise provided in paragraph (d) (4), (d) (6), (i) (3), (i) (4), and (i) (5) of this Rule 203, every owner or operator of an existing emission source shall comply with the standards and limitations of Rule 203 by December 31, 1973.
3. Every owner or operator of an existing emission source subject to paragraph (f) of this Rule 203 shall comply with the standards and limitations of this Rule 203:

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- (A) Six months after the effective date of Part 2 of this Chapter when the emissions from such source are caused by the stockpiling of materials;
  - (B) Six months after the effective date of Part 2 of this Chapter for emission sources subject to paragraph (f) (4) of this Rule 203; and
  - (C) One year after the effective date of Part 2 of this Chapter for all other emission sources subject to paragraph (f) of this Rule 203.
4. Every owner or operator of an existing emission source subject to paragraph (g) of this Rule 203 shall comply with the standards and limitations of Rule 203 by May 30, 1975.
5. Notwithstanding any other provisions of Rule 203 of this Part 2, every owner or operator of an existing emission source which:
- (A) Is required to comply with Rules 2-2.51, 2-2.52, 2-2.54, 3-3.111, 3-2110, 3-3.2130 and 3-3.220 of Rules and Regulations Governing the Control of Air Pollution as amended August 19, 1969; and
  - (B) Which is in compliance with such rules, as of the effective date of this Chapter, or is in compliance with paragraphs 203 (c) (1) and (2) of this Chapter.
- shall comply with the applicable emission standards and limitations of this Rule 203, by May 30, 1975.

\*Rule 204: SULFUR STANDARDS AND LIMITATIONS

- a. Sulfur Dioxide Emission Standards and Limitations For New Fuel Combustion Emission Sources with Actual Heat Input Greater Than 250 Million BTU per Hour

1. Solid Fuel Burned Exclusively\*\*

No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion emission source greater than 250 million BTU per hour, burning solid fuel exclusively, to exceed 1.2 pounds of sulfur dioxide per million BTU of actual heat input.

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\* Rules ++ shall apply to the following companies only:

<u>County</u>	<u>Name</u>
Boone	Chrysler
Champaign	Chanute Air Base
Crawford	CIPS
Douglas	USI Chemicals
Fulton	Freeman Coal
LaSalle	Del Monte
Massac	EEI Joppa
Montgomery	CIPS
Morgan	CIPS
Putnam	Illinois Power
Randolph	Illinois Power
Rock Island	International Harvester
Williamson	Marion Correctional

\*\*204a(1) was remanded by the Illinois Appellate Court on 9/24/78. Illinois Chemical Company v. Pollution Control Board [No. 77-362], 25ILL. App. 3d 271, 323 N.E. 2d 84]

2. Liquid Fuel Burned Exclusively

No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion emission source greater than 250 million BTU per hour, burning liquid fuel exclusively;

- (A) To exceed 0.8 pounds of sulfur dioxide per million BTU of actual heat input when residual fuel oil is burned; and,
- (B) To exceed 0.3 pounds of sulfur dioxide per million BTU of actual heat input when distillate fuel oil is burned.

b. Sulfur Dioxide Emission Standards and Limitations for New Fuel Combustion Emission Sources With Actual Heat Input Smaller Than, or Equal to, 250 Million BTU per Hour

1. Solid Fuel Burned Exclusively

No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion source with actual heat input smaller than, or equal to, 250 million BTU per hour, burning solid fuel exclusively, to exceed 1.8 pounds of sulfur dioxide per million BTU of actual heat input.

2. Liquid Fuel Burned Exclusively

No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion source with actual heat input smaller than, or equal to, 250 million BTU per hour, burning liquid fuel exclusively;

- (A) To exceed 1.0 pounds of sulfur dioxide per million BTU of actual heat input when residual fuel oil is burned; and,
- (B) To exceed 0.3 pounds of sulfur dioxide per million BTU of actual heat input when distillate fuel oil is burned.

c. Sulfur Dioxide Emission for Existing Fuel Combustion Sources

1. Solid Fuel Burned Exclusively

**\*(A) Existing Fuel Combustion Sources Located in The Chicago, St. Louis (Illinois) and Peoria Major Metropolitan Areas**

No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any existing fuel combustion source, burning solid fuel exclusively, located in the Chicago, St. Louis (Illinois) and Peoria major metropolitan areas, to exceed 1.8 pounds of sulfur dioxide per million BTU of actual heat input, on or after May 30, 1975.

**(B) Existing Fuel Combustion Sources Located Outside the Chicago, St. Louis (Illinois) and Peoria Major Metropolitan Areas**

No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any existing fuel combustion source, burning solid fuel exclusively, located outside the Chicago, St. Louis (Illinois) and Peoria major metropolitan areas, to exceed the following:

- (i) 6.0 pounds of sulfur dioxide per million BTU of actual heat input, on and after May 30, 1975; and
- (ii) 1.8 pounds of sulfur dioxide per million BTU of actual heat input for all such fuel combustion emission sources located within any MMA other than Chicago, Peoria, and St. Louis (Illinois) which, according to any one ambient air monitoring station operated by or under supervision and control of the Agency within such MMA, has an annual arithmetic average sulfur dioxide level greater than;

60 ug/m<sup>3</sup> (0.02 ppm) for any year ending prior to May 30, 1976, or

45 ug/M<sup>3</sup> (0.015 ppm) for any year ending on or after May 30, 1976.

Compliance with this paragraph (ii) of Rule 204 (c) (1) (B) shall be on and after three years from the date upon which the Board promulgates an Order for Compliance.

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\*Rule 204(c)(1)(A) was remanded, see footnote for Rule 204(a)(1).



Before promulgation of such Order for Compliance, the Board shall:

- (aa) Publish in the Board Newsletter, within 21 days of receipt from the Agency, a proposed Order for Compliance along with the data used to obtain said annual arithmetic average sulfur dioxide level; and,
  - (bb) Serve a copy of such proposed order and supporting data, within 21 days of receipt from the Agency, upon the owner or operator of each such emission source located within the MMA: and,
  - (cc) Defer promulgation of the Order for Compliance for at least 45 days from the date of publication to allow submission and consideration of additional written comments.
- ++(B) Existing Fuel Combustion Sources with Actual Heat Input Less Than, Or Equal To, 250 Million BTU Per Hour Located Outside the Chicago, St. Louis (Illinois) and Peoria Major Metropolitan Areas. No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any existing fuel combustion source with actual heat input less than, or equal to, 250 million btu per hour, burning solid fuel exclusively, located outside the Chicago, St. Louis (Illinois) and Peoria major metropolitan areas, to exceed either of the following, whichever such person determines shall apply:
- ++(i) 6.8 pounds of sulfur dioxide per million btu of actual heat input or
  - ++(ii) the emission limit provided by Rule 204(e).
- ++(C) Existing Fuel Combustion Sources with Actual Heat Input Greater Than 250 Million BTU Per Hour Located Outside the Chicago, St. Louis (Illinois) and Peoria Major Metropolitan Areas. No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any existing fuel combustion source with actual heat input greater than 250 million BTU per hour, burning solid fuel exclusively, located outside the Chicago, St. Louis (Illinois) and Peoria major metropolitan areas, to exceed the emission limit provided by Rule 204(e).

## 2. Liquid Fuel Burned Exclusively

No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any existing fuel combustion emission source, burning liquid fuel exclusively;

- (A) To exceed 1.0 pounds of sulfur dioxide per million BTU of actual heat input when residual fuel oil is burned; and,
- (B) To exceed 0.3 pounds of sulfur dioxide per million BTU of actual heat input when distillate fuel oil is burned.
- (C) To exceed 2.5 pounds of  $\text{SO}_2$  per million BTU of actual heat input when residual fuel oil is burned and further provided that this Rule 204(c)(2)(C) shall only apply to sources other than electrical utility generating facilities, as follows:
  - (i) Only during the period February 3, 1977 through March 7, 1977; and, further provided that thereafter Rule 204(c)(2)(A) shall apply to all existing sources when residual fuel oil is burned; and
  - (ii) Only in the counties of Cook, DuPage, Lake, and Will; and
  - (iii) Only after the Agency receives notice of intent in accordance with procedures which shall be adopted by the Agency pertaining to the requirements for the contents and addressee of such notice and filed with the Index Division of the Office of the Secretary of State as required by "An Act concerning administrative rules," approved June 14, 1951, as amended.

For purposes of rule 103 of Part i of this Chapter, no facility or equipment which changes its operations within the provision of this Rule 204(c)(2)(C) shall be deemed to be modified as otherwise provided

in Rule 101 Definitions, Modification and any existing valid permit issued pursuant to Rule 103 shall continue in full force and effect so long as the facility or equipment remains otherwise in compliance with the terms and conditions of said permit.

d. Combination of Fuels

No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any fuel combustion emission source burning simultaneously any combination of solid, liquid and gaseous fuels to exceed the allowable emission rate determined by the following equation:

$$E = S_S H_S + 0.3 H_d + S_R H_R$$

Where:

E = Allowable sulfur dioxide emission rate, in pounds per hour;

$S_S$  = Solid fuel sulfur dioxide emission standard, in pounds per million BTU, which is applicable;

$S_R$  = Residual fuel oil sulfur dioxide emission standard, in pounds per million BTU, which is applicable;

$H_S$  = Actual heat input from solid fuel, in million BTU per hour;

$H_R$  = Actual heat input from residual fuel oil, in million BTU per hour;

$H_d$  = Actual heat input from distillate fuel oil, in million BTU per hour;

and where that portion of the actual heat input that is derived:

1. From the burning of gaseous fuels produced by the gasification of solid fuels shall be included in  $H_S$ ;
2. From the burning of gaseous fuels produced by the gasification of distillate fuel oil shall be included in  $H_d$ ;
3. From the burning of gaseous fuels produced by the gasification of residual fuel oil shall be included in  $H_R$ ;
4. From the burning of gaseous fuels produced by the gasification of any other liquid fuel shall be included in  $H_R$ ; and,

5. From the burning of by-product gases such as those produced from a blast furnace or a catalyst regeneration unit in a petroleum refinery shall be included in  $H_R$ .

e. Combination of Fuel Combustion Emission Sources

No person shall cause or allow the total emissions of sulfur dioxide into the atmosphere in any one hour period from all fuel combustion emission sources owned or operated by such person and located within a 1 mile radius from the center point of any such fuel combustion emission source to exceed the emissions determined by the following equations:

$$E = 20,000 \frac{H_s^2}{300}$$

$$H_s = \frac{P_1 H_1 + P_2 H_2 + \dots + P_n H_n}{100}$$

(Note:  $P_1 P_2 + \dots + P_n = 100$ )

Where:

$E$  = Total emission of sulfur dioxide, in pounds per hour, into the atmosphere in any one hour period from all fuel combustion emission sources owned or operated by such person and located within a 1 mile radius from the center point of any such emission source.

$P_i$  = 1, 2, . . . . ,  $n$  = percentage of total emissions  $E$  emitted from source  $i$ ;

$H_i$  = 1, 2, . . . . ,  $n$  = physical height in feet above grade of stack  $i$ .

++e. Fuel Combustion Emission Sources Located Outside of the Chicago, St. Louis (Illinois), and Peoria Major Metropolitan Areas.

No person shall cause or allow the total emissions of sulfur dioxide into the atmosphere in any one hour period from all fuel combustion emission sources owned or operated by such person and located within a 1 mile radius (1.6 Km) from the center point of any such fuel combustion emission source to exceed the emissions determined by the following Rules 204(e)(2), or 204 (e)(3), whichever is applicable.

$$* \text{ ++1. } E = \frac{(H_A)^{0.11}(H_E)^2}{128}$$

where: E = Total allowable emission of sulfur dioxide in pounds per hour into the atmosphere in any one hour period from all fuel combustion emission sources owned or operated by such person and located within a 1 mile radius from the center point of any such emission source.

H<sub>A</sub> (feet) = Average actual stack height as determined by method outlined below.

H<sub>E</sub> (feet) = Effective height of effluent release as determined by method outlined below.

Method used to determine H<sub>A</sub> and H<sub>E</sub>:

Q<sub>H</sub> (btu/sec) = Heat emission rate as determined by method outlined below.

ΔH (feet) = Plume rise.

H = Physical height in feet, above grade of each stack, except that for purposes of this calculation the value used for such stack height shall not exceed good engineering practice as defined by Section 123 of the Clean Air Act and Regulations promulgated thereunder, unless the owner or operator of the source demonstrates to the Agency that a greater height is necessary to prevent downwash or fumigation conditions.

T (Degrees Rankine) = Exit temperature of stack gases from each source during operating conditions which would cause maximum emissions.

V (feet/sec) = Exit velocity of stack gases from each source under operating conditions which would cause maximum emissions.

D (feet) = Diameter of stack.

P = Percentage of total emissions expressed as decimal equivalents, emitted from each source. Example: 21% = 0.21.

NOTE: the sum of P<sub>1</sub> + P<sub>2</sub> . . . + P<sub>n</sub> = 1.

The emission values to be used are those which occur during operating conditions which would cause maximum emissions.

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\*10/24/80 Federal register notice approves a 105,162 pound (as determined by this rule) per hour site specific sulfur dioxide limit for the Kincaid generating station of Commonwealth Edison Company of South Fork Township, Christian County.

STEP 1: Determine weighted average stack parameters utilizing the following formulae:

$$D = P_1 D_1 + P_2 D_2 + \dots + P_n D_n$$

$$V = P_1 V_1 + P_2 V_2 + \dots + P_n V_n$$

$$T = P_1 T_1 + P_2 T_2 + \dots + P_n T_n$$

$$H_A = P_1 H_1 + P_2 H_2 + \dots + P_n H_n$$

NOTE:

$P_1$ ,  $D_1$ ,  $V_1$ ,  $T_1$ , and  $H_1$ , are the percentage of total emissions, stack diameter, exit velocity of gases, exit temperature of stack gases, and physical stack height, respectively, for the first source;  $P_2$ ,  $D_2$ ,  $V_2$ ,  $T_2$ , and  $H_2$  are the respective values for the second source; similarly,  $P_n$ ,  $D_n$ ,  $V_n$ ,  $T_n$ , and  $H_n$  are the respective values for the nth source, where n is the number of the last source.

STEP 2: Calculate heat emission rate utilizing the following formula and the weighted average stack parameters obtained in Step 1:

$$Q_H = 7.45 D^2 V \frac{(T - 515)}{T}$$

STEP 3: Calculate plume rise utilizing the appropriate formula given below and the total heat emission rate obtained in Step 2:

$$\Delta H = \frac{2.58 (Q_H)^{0.6}}{(H_A)^{0.11}} \text{ for } Q_H \geq 6000 \text{ btu/sec.}$$

$$\Delta H = \frac{0.718 (Q_H)^{0.75}}{(H_A)^{0.11}} \text{ for } Q_H < 6000 \text{ btu/sec.}$$

STEP 4: Calculate the weighted average facility effective height of effluent release utilizing the plume rise obtained in Step 3, the average stack height obtained in Step 1 and the formula given below:

$$H_E = H_A + \Delta H$$

STEP 5: Calculate the total facility hourly emission limitation utilizing the weighted actual stack height obtained in step 1, the effective stack height given in Step 4, and the following formula:

$$E = \frac{(H_A)^{0.11}(H_E)^2}{128}$$

- ++2. If the maximum total emissions of sulfur dioxide into the atmosphere in any one hour period from all fuel combustion emission sources owned or operated by any person located within a 1 mile (1.6 Km.) radius from the center point of any such fuel combustion emission sources exceed, during normal cyclical variations in firing rate and fuel, the emissions allowed under Rule 204(e)(1) but, as of April 1, 1978, were in compliance with either the formula detailed below or a Board Order, then the owner or operator of the emission sources shall not cause or allow such emissions to exceed the emissions allowed under Rule 204(e)(1) or the formula detailed below, whichever the owner or operator of the emission sources determines shall apply.

$$E = 20,000 \left( \frac{H_S}{300} \right)^2$$

$$H_S = \frac{P_1 H_1 + P_2 H_2 + \dots + P_n H_n}{100}$$

(Note:  $P_1 + P_2 \dots P_n = 100$ )

Where:

E = total emission of sulfur dioxide, in pounds per hour, into the atmosphere in any one hour period from all fuel combustion emission sources owned or operated by such person and located within a 1 mile radius from the center point of any such emission source,

$P_i$ ,  $i = 1, 2, \dots, n$  = percentage of total emissions E emitted from source i, and

$H_i$ ,  $i = 1, 2, \dots, n$  = physical height in feet above grade of stack i.

3. Any owner or operator of a fuel combustion emission source may petition the Board for approval of an emission rate applicable to any one hour period for all fuel combustion emission sources owned or operated by such person and located within a one mile radius from the center point of any such fuel combustion emission source. Such person shall prove in an adjudicative hearing before the Board that the proposed emission rate will not under any foreseeable operating conditions cause or contribute to a violation of any applicable Primary or Secondary

Sulfur Dioxide Ambient Air Quality Standard or violate any applicable PSD increment. An emission rate approved pursuant to this paragraph shall be a substitute for that standard determined by Rule 204(e)(1) or Rule 204(e)(2)1

- (A) Every owner or operator of a fuel combustion emission source petitioning the Board for approval of an emission standard pursuant to Rule 204(e)(3) shall follow the applicable procedures described in the Procedural Rules, Chapter 1 of the Board's Rules and Regulations.
- (B) Any emission standard approved pursuant to Rule 204(e)(3) shall be included as a condition to operating permits issued pursuant to Rule 103 of this Chapter. Any owner or operator of a fuel combustion emission source who receives Board approval of an emission standard pursuant to this Rule 204(e)(3) shall apply to the Agency within 30 days of approval of such standard for a revision of its operating permit for such source.
- (C) The Agency shall impose as a condition to a permit to operate a source pursuant to an emission standard approved pursuant to Rule 204(e)(3) an ambient sulfur dioxide monitoring and dispersion modeling program designed to verify that such emission standard will not cause or contribute to violations of any applicable Primary or Secondary Sulfur Dioxide Ambient Air Quality Standard. Such ambient monitoring and dispersion modeling program shall be operated for at least one year commencing no later than 6 months after the date of approval of an emission rate pursuant to Rule 204(e)(3).
- (D) No more than fifteen (15) months after the commencement of the ambient monitoring and dispersion modeling program of Rule 204(e)(3)(C) the owner or operator shall apply for a new operating permit. The owner or operator shall submit, at the time of the application, a report containing the results of the ambient monitoring and dispersion modeling program.

\*f. Sulfur Standards and Limitations For Process Emission Sources

1. Sulfur Dioxide Standards and Limitations

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\*Variance for Shell Oil Company's Wood River, Madison County, petroleum refinery. See NonRegulatory text. Federal Register Publication 1/3/80.



- (A) Except as further provided by paragraphs (f)(1)(B), (f)(1)(C), and (f)(1)(D) of this Rule 204, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2,000 ppm.
- (B) Paragraph (f)(1)(A) of this Rule 204 shall not apply to new sulfuric acid manufacturing processes. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any new sulfuric acid manufacturing plant to exceed 4.0 pounds of sulfur dioxide per ton of acid produced.
- (C) Paragraph (f)(1)(A) of this Rule 204 shall not apply to processes designed to remove sulfur compounds from the flue gases of fuel combustion emission sources.
- (D) Paragraph (f)(1)(A) of this Rule 204 shall not apply to existing processes designed to remove sulfur compounds from the flue gases of petroleum and petrochemical processes, providing that the sulfur dioxide emissions from such removal processes do not exceed the emissions determined by the equations of Rule 204(f)(1)(E).

## 2. Sulfur Dioxide Measurement

No person shall cause or allow the emission of sulfuric acid mist into the atmosphere from any process emission source to exceed 0.15 pounds of acid mist per ton of acid used or manufactured.

## g. Measurement Methods

### 1. Sulfur Dioxide Measurement

Measurement of sulfur dioxide emissions from stationary sources shall be made according to the procedure published in 36 Fed. Reg. 24890, Method 6, or by measurement procedures specified by the Agency according to the provisions of Part 1 of this Chapter and application of standard emission factors as published in Public Health Service Publication 299-AP-42, Compilation of Air Pollutant Emission Factors, as revised from time to time.

### 2. Sulfuric Acid Mist and Sulfur Trioxide Measurement

Measurement of sulfuric acid mist and sulfur trioxide shall be according to the Barium-thorin titration method as published in 36 Fed. Reg. 24893.

### 3. Solid Fuel Averaging Measurement

If low sulfur solid fuel is used to comply with subparagraphs (a), (b), (c), and (d) of this Rule 204, the applicable solid fuel sulfur dioxide standard shall be met by a two month average of daily samples with 95 percent of the samples being no greater than 20 percent above the average. A.S.T.M. procedures shall be used for solid fuel sampling, sulfur and heating value determinations.

#### h. Compliance Dates

1. Every owner or operator of a new emission source shall comply with the standards and limitations of Rule 204 by the effective date of Part 2 of this Chapter.
2. Every owner or operator of an existing fuel combustion emission source shall comply with the standards and limitations of Rules 204(c)(1)(A), 204(c)(2), 204(d) and 204(e) by May 30, 1975.
3. Every owner or operator of an existing process emission source shall comply with the standards and limitations of Rule 204(f) by December 31, 1973.

#### ++h. Compliance Dates

Every owner or operator of an emission source subject to Rule 204 shall comply with the standards and limitations thereof in accordance with the dates shown in the table below:

Table of Compliance Dates

<u>Rule</u>	<u>Type of Source</u>	<u>Compliance Date</u>
204(a) and 204(b)	New Fuel combustion emission sources	April 14, 1972
204(c)(1)(A)	Existing sources in Chicago, St. Louis (Illinois) and Peoria	May 30, 1975
204(c)(1)(B)	Existing sources outside the Chicago, St. Louis (Illinois) and Peoria MMA's with actual heat input less than, or equal to, 250 million btu per hour	

	(a) Sources determining that the 6.8 lbs/MMBTU standard shall apply	December 14, 1978
	(b) Sources determining that Rule 204(e) shall apply,	See Rule 204(e)
204(e)(1)(C)	Existing sources outside the Chicago, St. Louis (Illinois) and Peoria MMA's with actual heat input greater than 250 million btu per hour	December 14, 1978
204(e)(1)(D)	Existing sources in MMA's other than Chicago, St. Louis (Illinois) and Peoria complying with Pollution Control Board Order to limit emissions to 1.8 lbs/million btu	Three years after Board Order
204(d)	Combination of Fuels Sources	April 14, 1978
204(e)(1) and (2)	Fuel combustion sources located outside Chicago, St. Louis (Illinois) and Peoria MMA's	December 14, 1978
204(e)(3)	Fuel combustion sources located outside Chicago, St. Louis (Illinois) and Peoria MMA's which obtain an alternate emission rate	
	(1) If source is in compliance with the previous Rule 204(e) (effective April 14, 1978) until December 14, 1978 prior to December 14, 1978	Date of completion of monitoring and modeling under Rule 204(e)
	(2) If source is not in compliance with the previous Rule 204(e) (effective from April 14, 1978 until December 14, 1978) prior to December 14, 1978	Date of adoption of alternate standard

204(f)

Sulfur Standards and Limitations for Process  
Emission Sources

Existing Sources

December 31, 1973

New Sources

December 14, 1978

i. Dispersion Enhancement Techniques

No owner or operator of an existing fuel combustion emission source shall comply with the emission standard of Rule 204(e)(1), Rule 204(e)(2), or Rule 204(e)(3) by the use of dispersion enhancement techniques. For the purpose of this rule, dispersion enhancement techniques shall include, but not be limited to, an intermittent control system or an increase of: stack height in excess of good engineering practice necessary to prevent downwash or fumigation conditions, stack diameter, exit gas velocity, or exit gas temperature, except as provided by Section 123 of the Clean Air Act and Regulations promulgated thereunder. Flue gas may be reheated where air pollution control equipment results in a reduction of flue gas temperature, provided that the degree of reheat does not exceed the temperature drop across such air pollution control equipment.

Rule 205: ORGANIC MATERIAL EMISSION STANDARDS AND LIMITATIONS

a. Storage

No person shall cause or allow the storage of any volatile organic material in any stationary tank, reservoir or other container of more than 40,000 gallons capacity unless such tank, reservoir or other container:

1. is a pressure tank capable of withstanding the vapor pressure of such materials, so as to prevent vapor or gas loss to the atmosphere at all times; or,
2. is designed and equipped with one of the following vapor loss control devices:
  - (A) A floating roof which rests on the surface of the volatile organic material and is equipped with a closure seal or seals to close the space between the roof edge and the tank wall. Such floating roof shall not be permitted if the volatile organic material has a vapor pressure of 12.5 pounds per square inch absolute or greater at 70°F. No person shall cause or allow the emission of air contaminants into the atmosphere from any gauging or sampling devices attached to such tanks, except during sampling.
  - (B) A vapor recovery system consisting of:
    - (i) A vapor gathering system capable of collecting 85% or more of the uncontrolled volatile organic material that would be otherwise emitted to the atmosphere; and,

- (ii) A vapor disposal system capable of processing such volatile organic material so as to prevent their emission to the atmosphere. No person shall cause or allow the emission of air contaminants into the atmosphere from any gauging or sampling devices attached to such tank, reservoir or other container except during sampling.
  - (C) Other equipment or means of equal efficiency approved by the Agency according to the provisions of Part 1 of this Chapter 3; or,
- 3. Is an existing cone roof tank used exclusively for the storage of Illinois crude oil, if all the following conditions are met:
  - (A) The vapor pressure of such crude oil is less than 5 pounds per square inch absolute (psia); and,
  - (B) The location of such tank is outside a major metropolitan area; and,
  - (C) Such tank is equipped with positive pressure tank vent valves and vacuum breakers.
- b. Loading

- 1. No person shall cause or allow the discharge of more than 8 pounds per hour of organic material into the atmosphere during the loading of any organic material from the aggregate loading pipes of any loading facility having a throughput of greater than 40,000 gallons per day into any railroad tank car, tank truck or trailer, unless each such loading pipe is equipped with air pollution control equipment capable of reducing by 85 percent or more the uncontrolled organic material that would be otherwise emitted to the atmosphere if splash loading were employed.
- 2. No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 250 gallons, unless such tank is equipped with a permanent submerged loading pipe or an equivalent device approved by the Agency according to the provisions of Part 1 of this Chapter, or unless such tank is a pressure tank as described in Rule 205 (a) (1) or is fitted with a recovery system as described in Rule 205 (a) (2) (B).

3. Exception:

If no odor nuisance exists, the limitations of subparagraph (b) of this Rule 205 shall only apply to volatile organic material.

c. Organic Material- Water Separation

1. No person shall use any single or multiple compartment effluent water separator which received effluent water containing 200 gallons a day or more of organic material from any equipment processing, refining, treating, storing, or handling organic material unless such effluent water separator is equipped with air pollution control equipment capable of reducing by 85 percent or more the uncontrolled organic material emitted to the atmosphere.

Exception:

If no odor nuisance exists, the limitations of this Rule 205 (c) (1) shall only apply to volatile organic material.

2. Rule 205 (c) (1) shall not apply to water and crude oil separation in the production of Illinois crude oil, if both the following conditions are met:

- (A) The vapor pressure of such crude oil is less than 5 pounds per square inch absolute (psia); and,
- (B) The location of such tank is outside a major metropolitan area.

d. Pumps and Compressors

No person shall cause or allow the discharge of more than two cubic inches of liquid volatile organic material into the atmosphere from any pump or compressor in any 15 minute period at standard conditions.

e. Architectural Coatings

No person shall cause or allow the sale or use in the Chicago or St. Louis (Illinois) Major Metropolitan Areas of any architectural coating containing more than 20 percent by volume of photochemically reactive material in containers having a capacity of more than one gallon.

f. Use of Organic Material

No person shall cause or allow the discharge of more than 8 pounds per hour of organic material into the atmosphere from any emission source, except as provided in paragraphs (f) (1) and (f) (2) of this Rule 205 and the following:

Exception:

If no odor nuisance exists, the limitation of this Rule 205 (f) shall apply only to photochemically reactive material.

1. Alternative Standard

Emissions of organic material in excess of those permitted by Rule 205 (f) are allowable if such emissions are controlled by one of the following methods:

- (A) Flame, thermal or catalytic incineration so as either to reduce such emissions to 10 ppm equivalent methane (molecular weight 16) or less, or to convert 85 percent of the hydrocarbons to carbon dioxide and water; or,
- (B) A vapor recovery system which adsorbs and/or absorbs and/or condenses at least 85 percent of the total uncontrolled organic material that would otherwise be emitted to the atmosphere; or,
- (C) Any other air pollution control equipment approved by the Agency capable of reducing by 85 percent or more the uncontrolled organic material that would be otherwise emitted to the atmosphere.

2. Exceptions

The provisions of Rule 205 (f) shall not apply to:

- (A) The spraying or use of insecticides, herbicides, or other pesticides;
- (B) Fuel combustion emission sources;
- (C) The application of paving asphalt and pavement marking paint from sunrise to sunset and when air pollution watch, alert or emergency conditions are not declared;



- (D) Any owner, operator, user or manufacturer of paint, varnish, lacquer, coatings or printing ink whose Compliance Program and Project Completion Schedule, as required by Part 1 of this Chapter, provides for the reduction of organic material used in such process to 20 percent or less of total volume by May 30, 1975.

2. Volatile Gas Disposal

1. Petroleum Refinery and Petrochemical Manufacturing Process Emissions

No person shall cause or allow the discharge of organic materials into the atmosphere from:

- (A) Any catalyst regenerator of a petroleum cracking system; or,
- (B) Any petroleum fluid coker; or,
- (C) Any other waste gas stream from any petroleum or petrochemical manufacturing process;

in excess of 100 ppm equivalent methane (molecular weight 16.0).

2. Vapor Blowdown

No person shall cause or allow the emission of organic material into the atmosphere from any vapor blowdown system or any safety relief valve, except such safety relief valves not capable of causing an excessive release, in respect to which emission is controlled:

- (A) To 10 ppm equivalent methane (molecular weight 16.0) or less; or
- (B) By combustion in a smokeless flare; or,
- (C) By other air pollution control equipment approved by the Agency according to the provisions of Part 1 of this Chapter.

3. Sets of Unregulated Safety Relief Valves Capable of Causing Excessive Releases.

Rule 205 (g) (2) shall not apply to any set of unregulated safety relief valves capable of causing excessive releases.

provided that the owner or operator thereof, by October 1, 1972, provides the Agency with the following:

- (A) An historical record of each such set (or, if such records are unavailable, of similar sets which, by virtue of operation under similar circumstances, may reasonably be presumed to have the same or greater frequency of excessive releases) for a three-year period immediately preceding October 1, 1972, indicating:
    - (i) Dates on which excessive releases occurred from each such set; and,
    - (ii) Duration in minutes of each such excessive release; and,
    - (iii) Quantities (in pounds) of mercaptans and/or hydrogen sulfide emitted into the atmosphere during each such excessive release.
  - (B) Proof, using such three-year historical records, that no excessive release is likely to occur from any such set either alone or in combination with such excessive releases from other sets owned or operated by the same person and located within a ten-mile radius from the center point of any such set, more frequently than 3 times in any 12 month period; and
  - (C) Accurate maintenance records pursuant to the requirements of paragraph (g) (3) (A) of this Rule 205 of this Chapter; and
  - (D) Proof, at three-year intervals, using such three-year historical records, that such set conforms to the requirement of paragraph (g) (3) (C) of this Rule 205.
- h. Emissions During Clean-up Operations and Organic Material Disposal

Emissions of organic material released during clean-up operations and disposal shall be included with other emissions of organic material from the related emission source or air pollution control equipment in determining total emissions.

(i) Testing Method for Determination of Emissions of Organic Material. The total organic material concentrations in an effluent stream shall be measured by a Flame Ionization Detector, or by other methods approved by the Agency according to the provisions of Part 1 of this Chapter.

(j) Compliance Dates.

~~(1) Every owner or operator of a new emission source shall comply with the standards and limitations of Rule 205 on the effective date of Part 2 of this Chapter.~~

~~(2) Every owner or operator of an existing emission source shall comply with the standards and limitations of Rule 205 by December 31, 1973.~~

Every owner or operator of an emission source shall comply with the standards and limitations of Rule 205 in accordance with the dates shown in the following table:

<u>Rule</u>	<u>Type of Source</u>	<u>Final Compliance Date</u>
<u>Rule 205(a) through (i)</u>	<u>New Emission Sources</u>	<u>April 14, 1972</u>
<u>Rule 205(a) through (i)</u>	<u>Existing Emission Sources</u>	<u>December 31, 1973</u>
<u>Rule 205(k)</u>	<u>All Emission Sources</u>	<u>July 1, 1980</u>

<u>Rule 205(l)</u>	<u>All Emission Sources</u>	<u>July 1, 1980</u>
<u>Rule 205(n)</u>	<u>All Emission Sources</u>	<u>December 31, 1982</u>
<u>Rule 205(o)*</u>	<u>All Emission Sources</u>	<u>July 1, 1981</u>
<u>Rule 205(p)</u>	<u>All Emission Sources</u>	<u>See Rule 205(m)</u>
<u>Rule 205(q)</u>	<u>All Emission Sources</u>	<u>December 31, 1980</u>

Notwithstanding the above, final compliance for all sources must be achieved by December 31, 1982, except for automobile and light duty truck manufacturing plants achieving final compliance under a footnote to Rule 205(n)(1).

(k) Solvent Cleaning

- (1) Except for the provisions of Rules 205 (k)
  - (2) (A)(i), 205(k)(2)(B)(viii), and 205(k)(2)
  - (C)(iii), the requirements of Rules 205(k)
  - (2) and (3) shall not apply:
    - (A) to sources whose emissions of volatile organic material do not exceed 6.8 kilograms (15 pounds) in any one day, nor 1.4 kilograms (3 pounds) in any one hour; or
    - (B) to sources used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance, provided that:
      - (i) the operation of the source is not an integral part of the production process;
      - (ii) the emissions from the source do not exceed 363 kilograms (800 pounds) in any calendar month; and,

\*For federal enforcement, sources not previously covered by Rule 205(b), as federally approved in 1972, were to be in compliance by Dec. 31, 1973. Sources not previously covered by Rule 205(b), but which are newly covered under Rule 205(j) shall be in compliance by July 1, 1981.

- (iii) the exemption is approved in writing by the Agency.

12) Operating Procedures

A) Cold Cleaning

No person shall operate a cold cleaning degreaser unless:

- (i) waste solvent is stored in covered containers only and not disposed of in such a manner that greater than 20% of the waste solvent (by weight) is allowed to evaporate into the atmosphere;
- (ii) the cover of the degreaser is closed when parts are not being handled; and
- (iii) parts are drained until dripping ceases.

B) Open Top Vapor Degreasing

No person shall operate an open top vapor degreaser unless:

- (i) the cover of the degreaser is closed when workloads are not being processed through the degreaser;
- (ii) solvent carryout emissions are minimized by:
  - (a) racking parts to allow complete drainage;
  - (b) moving parts in and out of the degreaser at less than 3.3 meters per minute (11 feet per minute);
  - (c) holding the parts in the vapor zone until solvent emission ceases;

- (d) tipping out any pools of solvent on the cleaned parts before removal from the vapor zone; and,
- (e) allowing parts to dry within the degreaser until visually dry;
- (iii) porous or absorbant materials, such as cloth, leather, wood, or rope are not degreased;
- (iv) less than half of the degreaser's open top area is occupied with a workload;
- (v) the degreaser is not loaded to the point where the vapor level would drop more than 10 centimeters (4 inches) when the workload is removed from the vapor zone;
- (vi) spraying is done below the vapor level only;
- (vii) solvent leaks are repaired immediately;
- (viii) waste solvent is stored in covered containers only and not disposed of in such a manner that greater than 20% of the waste solvent (by weight) is allowed to evaporate into the atmosphere;
- (ix) water is not visually detectable in solvent exiting from the water separator; and
- (x) exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of degreaser open area is not used, unless necessary to meet the requirements of the Occupational Safety and Health Act (29 U.S.C. §5631 et seq.)

(C) Convevorized Decreasing. No person shall operate a convevorized decreaser unless:

- (i) exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of area of loading and unloading opening is not used, unless necessary to meet the requirements of the Occupational Safety and Health Act;
- (ii) solvent carrvout emissions are minimized by:
  - (a) racking parts for best drainage; and
  - (b) maintaining the vertical conveyor speed at less than 3.3 meters per minute (11 feet per minute);
- (iii) waste solvent is stored in covered containers only and not disposed of in such a manner that greater than 20% of the waste solvent (by weight) is allowed to evaporate into the atmosphere;
- (iv) solvent leaks are repaired immediately;
- (v) water is not visually detectable in solvent exiting from the water separator; and
- (vi) downtime covers are placed over entrances and exits of convevorized degreasers immediately after the conveyors and exhausts are shut down and not removed until just before start-up.

(3) Equipment Requirements

- (A) Cold Cleaning. No person shall operate a cold cleaning degreaser unless:

- (i) the degreaser is equipped with a cover which is closed whenever parts are not being handled in the cleaner. The cover shall be designed to be easily operated with one hand or with the mechanical assistance of springs, counterweights, or a powered system if

  - (a) the solvent vapor pressure is greater than 2 kilopascals (15 millimeters of mercury or 0.3 pounds per square inch) measured at 38°C (100°F);
  - (b) the solvent is agitated; or
  - (c) the solvent is heated above ambient room temperature;
- (ii) the degreaser is equipped with a facility for draining cleaned parts. The drainage facility shall be constructed so that parts are enclosed under the cover while draining unless

  - (a) the solvent vapor pressure is less than 4.3 kilopascals (32 millimeters of mercury or .6 pounds per square inch) measured at 38°C (100°F); or
  - (b) an internal drainage facility cannot be fitted into the cleaning system, in which case the drainage facility may be external;
- (iii) the degreaser is equipped with one of the following control devices if the vapor pressure of the solvent is greater than 4.3 kilopascals (32 millimeters of mercury or 0.6 pounds per



square inch) measured at 38°C (100°F) or if the solvent is heated above 50°C (120°F) or its boiling point:

- (a) a freeboard height of 7/10 of the inside width of the tank or 36 inches, whichever is less; or
  - (b) any other equipment or system of equivalent emission control as approved by the Agency. Such a system may include a water cover, refrigerated chiller, or carbon adsorber;
  - (iv) a permanent conspicuous label summarizing the operating procedure is affixed to the degreaser; and
  - (v) if a solvent spray is used, the degreaser is equipped with a solid fluid stream spray, rather than a fine, atomized, or shower spray.
- (B) Open Top Vapor Degreasing. No person shall operate an open top vapor degreaser unless:
- (i) the degreaser is equipped with a cover designed to open and close easily without disturbing the vapor zone;
  - (ii) the degreaser is equipped with the following switches:
    - (a) a device which shuts off the sump heat source if the amount of condenser coolant is not sufficient to maintain the designed vapor level; and
    - (b) a device which shuts off the spray pump if the vapor

level drops more than 10 centimeters (4 inches) below the bottom condenser coil; and

- (c) a device which shuts off the sump heat source when the vapor level exceeds the design level;
- (iii) a permanent conspicuous label summarizing the operating procedure is affixed to the degreaser;
- (iv) the degreaser is equipped with one of the following control devices:

  - (a) a freeboard height of 3/4 the inside width of the degreaser tank or 36 inches, whichever is less, and, if the degreaser opening is greater than 1m<sup>2</sup> (10.8 ft.<sup>2</sup>), a powered or mechanically assisted cover; or
  - (b) any other equipment or system of equivalent emission control as approved by the Agency. Such equipment or system may include a refrigerated chiller, an enclosed design, or a carbon adsorption system.
- (C) Conveyorized Degreasing. No person shall operate a conveyorized degreaser unless:

  - (i) the degreaser is equipped with a drying tunnel, rotating (tumbling) basket or other equipment sufficient to prevent cleaned parts from carrying out solvent liquid or vapor;

- (ii) the degreaser is equipped with the following switches:
  - (a) a device which shuts off the sump heat source if the amount of condenser coolant is not sufficient to maintain the designed vapor level;
  - (b) a device which shuts off the spray pump or the conveyor if the vapor level drops more than 10 centimeters (4 inches) below the bottom condenser coil; and,
  - (c) a device which shuts off the sump heat source when the vapor level exceeds the design level
- (iii) the degreaser is equipped with openings for entrances and exits that silhouette workloads so that the average clearance between the parts and the edge of the degreaser opening is less than 10 centimeters (4 inches) or less than 10 percent of the width of the opening;
- (iv) the degreaser is equipped with downtime covers for closing off entrances and exits when the degreaser is shut down; and
- (v) the degreaser is equipped with one of the following control devices, if the air/vapor interface is larger than 2.0 m<sup>2</sup> (21.6 square feet):
  - (a) a carbon adsorption system with ventilation greater than or equal to 15 m<sup>3</sup>/min. per m<sup>2</sup> (50 cfm/ft.<sup>2</sup>) of air/vapor area (when downtime covers are open), and

exhausting less than 25 ppm  
of solvent by volume averaged  
over a complete adsorption  
cycle; or

- (b) any other equipment or system  
of equivalent emission control  
as approved by the Agency. Such  
equipment or system may include  
a refrigerated chiller.

(1) Petroleum Refineries

(1) Vacuum Producing Systems

No owner or operator of a petroleum refinery  
shall cause or allow the operation of any  
vacuum producing system unless the condensers,  
hot wells, and accumulators of any such  
system are equipped with vapor loss control  
equipment including, but not limited to,  
piping, valves, flame arrestors and hot  
well covers to vent any volatile organic  
material to a heater, fire box, flare,  
refinery fuel gas system, or other equip-  
ment or system of equal emission control  
as approved by the Agency. This rule  
shall not apply to vacuum producing systems  
on lube units.

(2) Wastewater (Oil/Water) Separator

No owner or operator of a petroleum refinery  
shall operate any wastewater (oil/water)  
separator at a petroleum refinery unless  
the separator is equipped with air pollution  
control equipment capable of reducing by  
85 percent or more the uncontrolled organic  
material emitted to the atmosphere. If no  
odor nuisance exists, the limitation of  
this Rule 205(1)(2) shall only apply to  
volatile organic material.

(3) Process Unit Turnarounds

- (A) No owner or operator of a petroleum  
refinery shall cause or allow a

refinery process unit turnaround  
except in compliance with an operating  
procedure as approved by the Agency.

(B) Unless a procedure is already on file  
with the Agency as part of an approved  
operating permit no later than April 1,  
1979, the owner or operator of a petro-  
leum refinery shall submit to the Agency  
for approval a detailed procedure for  
reducing emissions of volatile organic  
material during refinery process unit  
turnarounds. The Agency shall not  
approve the procedure unless it provides  
for:

(i) depressurization of the refinery  
process unit or vessel to a flare,  
refinery fuel gas system or other  
equipment or system of equal  
emission control, as approved by the  
Agency, until the internal pressure  
from the vessel or unit is less  
than 5.0 pounds per square inch  
gauge before allowing the vessel  
to be vented to the atmosphere;

(ii) recordkeeping of the following  
items:

(a) each date that a refinery  
unit or vessel is shut down;  
and

(b) the total estimated quantity of  
volatile organic material emitted  
to the atmosphere and the  
duration of the emission in  
hours.

(m) Compliance Schedules

The requirements of this section shall not apply  
to any source for which a Project Completion Schedule  
has been submitted to and approved by the Agency  
under Rule 104. The owner of any emission source  
subject to the requirements of this section shall

certify to the Agency by January 15 of each year beginning January 15, 1980, whether increments of progress required to be met in the previous year have been met. Notwithstanding the following, final compliance must be achieved by December 31, 1982.

(1) Coating Lines

The owner or operator of coating lines subject to the requirements of Rule 205(n) shall take the following actions:

- (A) Submit to the Agency a Compliance Program that meets the requirements of Rule 104(b)(1) by January 1, 1980.
- (B) For sources that, under the approved Compliance Plan, will comply with Rule 205(n) by use of low solvent coating technology the following increments of progress shall be met:
  - (i) Submit to the Agency by July 1, 1980 and every six months thereafter a report describing in detail the progress in the previous six months in the development, application testing, product quality, customer acceptance and FDA or other government agency approval of the low solvent coating technology.
  - (ii) Initiate process modifications to allow use of low solvent coatings by April 1, 1982.
  - (iii) Complete process modifications to allow use of low solvent coatings by October 1, 1982.
  - (iv) Achieve final compliance by December 31, 1982.
- (C) For sources that, under the approved Compliance Plan, will comply with Rule 205(n) by installing emission control

equipment the following increments of progress shall be met:

- (i) Award contracts for the emission control equipment or issue orders for the purchase of component parts by July 1, 1980.
- (ii) Initiate on site construction or installation of the emission control equipment by July 1, 1982.

(2) Bulk Gasoline Plants, Bulk Gasoline Terminals, Petroleum Liquid Storage Tanks

The owner of an emission source subject to requirements of Rule 205(o) shall take the following actions:

- (A) Submit to the Agency a Compliance Program that meets the requirements of Rule 104(b)(1) by the date specified in Rule 104(g);
- (B) Award contracts for emission control systems or issue orders for the purchase of component parts by July 1, 1980.
- (C) Initiate on site construction or installation of the emission control system by January 1, 1981.
- (D) Complete on site construction or installation of the emission control system and achieve final compliance by July 1, 1981.

(3) Gasoline Dispensing Facilities

Owners of gasoline dispensing facilities subject to the requirements of Rule 205(b) shall take the following actions:

- (A) Submit to the Agency a Compliance Program that meets the requirements of Rule 104(b)(1) by the date specified in Rule 104(g);

- (B) Achieve final compliance for 33 percent of all gasoline dispensing facilities owned by the owner by July 1, 1980.
- (C) Achieve final compliance for 66 percent of all gasoline dispensing facilities owned by the owner by July 1, 1981.
- (D) Achieve final compliance for 100 percent of all gasoline dispensing facilities owned by the owner by July 1, 1982.

(n) Surface Coating

- (1) No owner or operator of a coating line shall cause or allow the emission of volatile organic material to exceed the following limitations on coating materials, excluding water, delivered to the coating applicator:

(A) Automobile or Light Duty Kg/l(lb/gal)  
Truck Manufacturing Plants

(i) in Cook County

<u>Prime Coat</u>	<u>0.14 (1.2)</u>
<u>Prime surface</u>	
<u>Coat</u>	<u>0.34 (2.8)<sup>1</sup></u>
<u>Top Coat</u>	<u>0.34 (2.8)<sup>2</sup></u>
<u>Final repair</u>	
<u>Coat</u>	<u>0.58 (4.8)<sup>3</sup></u>

(ii) in Boone County

<u>Prime Coat</u>	<u>0.14 (1.2)</u>
<u>Prime surface</u>	
<u>coat</u>	<u>0.34 (2.8)<sup>4</sup></u>
<u>Top Coat</u>	<u>0.34 (2.8)<sup>4</sup></u>
<u>Final repair</u>	
<u>coat</u>	<u>0.58 (4.8)</u>

(iii) in the remaining counties

<u>Prime coat</u>	<u>0.14 (1.2)</u>
<u>Prime surface</u>	
<u>coat</u>	<u>0.34 (2.8)</u>
<u>Top coat</u>	<u>0.34 (2.8)</u>
<u>Final repair</u>	
<u>coat</u>	<u>0.58 (4.8)</u>



<u>(B) Can Coating</u>		
<u>(i)</u>	<u>Sheet basecoat and overvarnish</u>	<u>0.34 (2.8)</u>
<u>(ii)</u>	<u>Exterior basecoat and overvarnish</u>	<u>0.34 (2.8)</u>
<u>(iii)</u>	<u>Interior body spray coat</u>	<u>0.51 (4.2)</u>
<u>(iv)</u>	<u>Exterior end coat</u>	<u>0.51 (4.2)</u>
<u>(v)</u>	<u>Side seam spray coat</u>	<u>0.66 (5.5)</u>
<u>(vi)</u>	<u>End sealing compound coat</u>	<u>0.44 (3.7)</u>
<u>(C)</u>	<u>Paper Coating</u>	<u>0.35 (2.9)<sup>5</sup></u>
<u>(D)</u>	<u>Coil Coating</u>	<u>0.31 (2.6)</u>
<u>(E)</u>	<u>Fabric Coating</u>	<u>0.35 (2.9)</u>
<u>(F)</u>	<u>Vinyl Coating</u>	<u>0.45 (3.8)</u>
<u>(G)</u>	<u>Metal Furniture Coating</u>	<u>0.36 (3.0)</u>
<u>(H)</u>	<u>Large Appliance Coating</u>	<u>0.34 (2.8)<sup>6</sup></u>
<u>(I)</u>	<u>Magnet Wire Coating</u>	<u>0.20 (1.7)</u>

<sup>1</sup> The limitation shall not apply if by December 31, 1982 a limitation of 0.38 kg/l (3.2 lb/gal) is achieved and the prime surface coat is applied with a transfer efficiency of not less than 55 percent.

<sup>2</sup> The limitation shall not apply if by December 31, 1985 a limitation of 0.43 kg/l (3.6 lb/gal) is achieved and the top coat is applied with a transfer efficiency of not less than 65 percent.

<sup>3</sup> The limitation shall not apply until December 31, 1985.

4 The limitation shall not apply if by December 31, 1984 a limitation of 0.43 kg/l (3.6 lb/gal) is achieved and the top coat is applied with a transfer efficiency of not less than 55 percent and by December 31, 1986, the top coat is applied with a transfer efficiency of not less than 65 percent.

5 The limitation shall not apply to equipment used for both printing and paper coating.

6 The limitation shall not apply to the use of quick-drying lacquers for repair of scratches and nicks that occur during assembly, provided that the volume of coating does not exceed 0.95 liters (1 quart) in any one eight-hour period.

(2) Alternative Compliance

Owners or operators of coating lines subject to Rules 205(n)(1) may comply with this subparagraph (n)(2), rather than with Rule 205(n)(1). Emissions of volatile organic material from sources subject to Rule 205(n)(1), are allowable, notwithstanding the limitations in Rule 205(n)(1), if such emissions are controlled by one of the following methods:

(A) an afterburner system, provided that 75 percent of the emissions from the coating line and 90 percent of the nonmethane volatile organic material (measured as total combustible carbon) which enters the afterburner are oxidized to carbon dioxide and water; or

(B) a system demonstrated to have control efficiency equivalent to or greater than that provided under the applicable provision of Rule 205(n)(1) or Rule 205(n)(2)(A), as approved by the Agency.

(3) Exemptions

The limitations of Rule 205(n) shall not apply to:

- (A) Coating plants whose capability to emit volatile organic material at maximum rated capacity, in the absence of air pollution control equipment, does not exceed 25 tons per year, or
- (B) sources used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance provided that:
  - (i) the operation of the source is not an integral part of the production process;
  - (ii) the emissions from the source do not exceed 363 kilograms (800 pounds) in any calendar month; and,
  - (iii) the exemption is approved in writing by the Agency.

(4) Internal Offsets

- (A) After December 31, 1982, no person shall cause or allow the emission of volatile organic material from any coating line to exceed any limitation contained in Rule 205(n)(1) unless the combined actual emission rate ( $E_{ACT}$ ) from all coating lines at the coating plant, but not including coating lines or other sources constructed or modified after July 1, 1979, is less than or equal to the combined allowable emission rate ( $E_{ALL}$ ) as determined by the following equations:

$$E_{ALL} = \sum_{j=1}^m \sum_{i=1}^n (A_i B_i)_j$$


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$$E_{ACT} = \sum_{j=1}^m \sum_{i=1}^n (C_i B_i (1 - D_i))_j$$

where

$E_{ALL}$  = the allowable emission rate from the coating plant in kilograms per day (pounds per day).

$A_i$  = the allowable emission rate for each coating pursuant to Rule 205(n)(1) in kilograms per liter (pounds per gallon) of coating, excluding water, delivered to the coating applicator.

$B_i$  = the volume of each coating in liters per day (gallons per day), excluding water, delivered to the coating applicator.

$m$  = the number of coating lines included in the combined emission rate.

$n$  = the number of types of coatings delivered to the coating applicator.

$E_{ACT}$  = the actual emission rate from the coating plant in kilograms per day (pounds per day)

$C_i$  = the weight of volatile organic material per volume of coating in kg/l (lb/gal) for each coating applied

$D_i$  = the control efficiency by which emissions of volatile organic material from the coating are reduced

(B) The owner or operator of the coating plant shall maintain records of the quantity and solvent content of each coating applied and the line to which

it is applied in such a manner so as to assure compliance with E<sub>ALL</sub>.

- (C) Except for sources subject to Rule 205(f), credits for offsets from sources at the coating plant that are subject to Rule 205, other than coating lines, may be given, but only to the extent that they represent reductions from the allowable emission limits for such sources contained in either Rule 205, or any existing operating permit, whichever limit is less.

(5) Testing Methods

- (A) The following methods of analyzing the solvent content of coatings, as revised from time to time, or any other equivalent procedure approved by the Agency, shall be used as applicable:

- (i) ASTM D 1644-59 Method A
- (ii) ASTM D 1475-60
- (iii) ASTM D 2369-73
- (iv) Federal Standard 141a, Method 4082.1

- (B) Transfer efficiency shall be determined by a method, procedure or standard approved by the United States Environmental Protection Agency (USEPA), under the applicable New Source Performance Standard or until such time as USEPA has approved and published such a method, procedure or standard, by any appropriate method, procedure or standard approved by the Agency.

- (6) No coating line subject to the limitations of Rule 205(n)(1) is required to meet Rule 205(f) after the date by which the coating line is required to meet Rule 205(n)(1).

(o) Bulk Gasoline Plants, Bulk Gasoline Terminals,  
and Petroleum Liquid Storage Tanks

(1) Bulk Gasoline Plants

(A) Subject to Rule 205(o)(1)(F), no person may cause or allow the transfer of gasoline from a delivery vessel into a stationary storage tank located at a bulk gasoline plant unless:

- (1) the delivery vessel and the stationary storage tank are each equipped with a vapor balance system that meets the requirements of Rule 205(o)(1)(C);
- (2) each vapor balance system is operating;
- (3) delivery vessel hatches are closed at all times during loading operations, unless a top loading vapor recovery system is used;
- (4) the pressure relief valve(s) on the stationary storage tank and the delivery vessel are set to release at no less than 0.7 psi or the highest pressure allowed by state or local fire codes or the guidelines of the National Fire Prevention Association; and
- (5) the stationary storage tank is equipped with a submerged loading pipe.

(B) Subject to Rule 205(o)(1)(G), no person may cause or allow the transfer of gasoline from a stationary storage tank located at a bulk gasoline plant into a delivery vessel unless:

- (1) the requirements set forth in Rule 205(o)(1)(A) (1)-(4) are met; and
- (2) equipment is available at the bulk gasoline plant to provide for the

submerged filling of the delivery vessel or the delivery vessel is equipped for bottom loading.

(C) A vapor balance system shall include the following components:

- (1) a vapor space connection on the stationary storage tank that is equipped with fittings which are vapor tight;
- (2) a connecting pipe or hose that is equipped with fittings which are vapor tight; and
- (3) a vapor space connection on the delivery vessel that is equipped with fittings which are vapor tight.

(D) Subject to Rule 205(o)(1)(F), each owner of a stationary storage tank shall:

- (1) equip each stationary storage tank with a vapor control system that meets the requirements of Rule 205(o)(1)(A) or (B), whichever is applicable;
- (2) provide instructions to the operator of the bulk gasoline plant describing necessary maintenance operations and procedures for prompt notification of the owner in case of any malfunction of a vapor control system; and
- (3) repair, replace or modify any worn out or malfunctioning component or element of design.

(E) Subject to Rule 205(o)(1)(F), each operator of a bulk gasoline plant shall:

- (1) maintain and operate each vapor control system in accordance with the owner's instructions;





- (1) the bulk gasoline terminal is equipped with a vapor control system that limits emission of volatile organic material to 80 milligrams per liter (0.0067 pounds per gallon) of gasoline loaded;
- (2) the vapor control system is operating and all vapors displaced in the loading of gasoline to the delivery vessel are vented only to the vapor control system;
- (3) there is no liquid drainage from the loading device when it is not in use; and
- (4) all loading and vapor return lines are equipped with fittings which are vapor tight.

(B) Emissions of volatile organic material from bulk gasoline terminals shall be determined by the procedure described in EPA-450/2-77-026, Appendix A, as revised from time to time, or by any other equivalent procedure approved by the Agency.

(3) Petroleum Liquid Storage Tanks

(A) The requirements of Rule 205(o)(3)(B) shall not apply to any stationary storage tank:

- (1) equipped before January 1, 1979 with one of the vapor loss control devices specified in Rule 205(a)(2);
- (2) with a capacity of less than 40,000 gallons;
- (3) with a capacity of less than 422,675 gallons (1,600,000 liters) used to store produced crude oil and condensate prior to custody transfer;
- (4) with a capacity of less than 9000 barrels (378,000 gallons) if used to store crude oil or condensate in crude oil gathering;

- (5) subject to new source performance standards for storage vessels of petroleum liquid (40 CFR Part 60, Subpart K); or
  - (6) in which volatile petroleum liquid is not stored.
- (B) Subject to Rule 205(o)(3)(A) no owner or operator of a stationary storage tank shall cause or allow the storage of any volatile petroleum liquid in the tank unless:
  - (1) the tank is equipped with one of the vapor loss control devices specified in Rule 205(a)(2);
  - (2) there are no visible holes, tears, or other defects in the seal or any seal fabric or material of any floating roof;
  - (3) all openings of any floating roof deck, except stub drains, are equipped with covers, lids, or seals such that:
    - (i) the cover, lid or seal is in the closed position at all times except when petroleum liquid is transferred to or from the tank;
    - (ii) automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and
    - (iii) rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting;

- (4) routine inspections of floating roof seals are conducted through roof hatches once every six months;
- (5) a complete inspection of the cover and seal of any floating roof tank is made whenever the tank is emptied for reasons other than the transfer of petroleum liquid during the normal operation of the tank, or whenever repairs are made as a result of any semi-annual inspection or incidence of roof damage or defect; and
- (6) a record of the results of each inspection conducted under paragraph (B)(4) or (B)(5) of this subsection is maintained.

(p) Gasoline Dispensing Facility

- (1) Subject to Rule 205(p)(2), no person shall cause or allow the transfer of gasoline from any delivery vessel into any stationary storage tank at a gasoline tank at a gasoline dispensing facility unless:
  - (A) the tank is equipped with a submerged loading pipe; and
  - (B) the vapors displaced from the storage tank during filling are processed by a vapor control system that includes one or more of the following:
    - (1) a vapor balance system that meets the requirements of Rule 205(p)(6); or
    - (2) a refrigeration-condensation system or any other system approved by the Agency that recovers at least 90 percent by weight of all vaporized volatile organic material from the equipment being controlled.
- (2) The requirements of (p)(1)(B) shall not apply to transfers of gasoline to a stationary storage tank at a gasoline dispensing facility if:

- (A) the tank is equipped with a floating roof or other system of equal or better emission control as approved by the Agency;
  - (B) the tank has a capacity of less than 2000 gallons and is in place and operating before January 1, 1979;
  - (C) the tank has a capacity of less than 575 gallons; or
  - (D) the tank is not located in any of the following counties: Boone, Cook, DuPage, Kane, Lake, Madison, McHenry, Peoria, Rock Island, St. Clair, Tazewell, Will, or Winnebago.
- (3) Subject to Rule 205(p)(2), each owner of a gasoline dispensing facility shall;
  - (A) install all control systems and make all process modifications required by section (p)(1);
  - (B) provide instructions to the operator of the gasoline dispensing facility describing necessary maintenance operations and procedures for prompt notification of the owner in case of any malfunction of a vapor control system; and
  - (C) repair, replace or modify any worn out or malfunctioning component or element of design.
- (4) Subject to Rule 205(p)(2), each operator of a gasoline dispensing facility shall:
  - (A) maintain and operate each vapor control system in accordance with the owner's instructions;
  - (B) promptly notify the owner of any scheduled maintenance or malfunction requiring replacement or repair of a major component of a vapor control system; and

- (C) maintain gauges, meters, or other specified testing devices in proper working order.
- (5) Any delivery vessel equipped for vapor recovery by use of a vapor control system shall be designed and maintained to be vapor tight at all times during normal operation and shall not be refilled in Illinois at other than:
  - (A) a bulk gasoline terminal that complies with the requirements of Rule 205(o)(2); or
  - (B) a bulk gasoline plant that complies with the requirements of Rule 205(o)(1)(3).
- (6) A vapor balance system shall include the following components:
  - (A) a vapor space connection on the stationary storage tank that is equipped with fittings which are vapor tight;
  - (B) a connecting pipe or hose that is equipped with fittings which are vapor tight and equipment that ensures that the pipe or hose is connected before gasoline can be transferred; and
  - (C) a vapor space connection on the delivery vessel that is equipped with fittings which are vapor tight.
- (a) Cutback Asphalt. After December 31, 1980, no person shall cause or allow the use or application of cutback asphalt for paving, resurfacing, reconditioning, repairing, or otherwise maintaining a roadway unless:
  - (1) the use or application of the cutback asphalt commences on or after October 1st of any year and such use or application is completed by April 30th of the following year; or
  - (2) the cutback asphalt is a long-life stockpile material which remains in stock after April

30th of each year and as such it may be used until depleted for patching potholes and for other similar repair work; or

(3) the cutback asphalt is to be used solely as an asphalt prime coat.

(z) Operation of Oil Fired and Natural Gas Fired Afterburners: The operation of any oil fired or natural gas fired afterburner and capture system used to comply with Rule 205 or any section thereof is not required during the period of November 1 of any year to April 1 of the following year provided that:

(1) the operation of such devices is not required for purposes of occupational safety or health, or for the control of toxic substances, odor, nuisances or other regulated pollutants; and,

(2) such devices are operated for the duration of any period for which an Ozone Advisory, Alert or Emergency has been declared pursuant to Part IV: Episodes of the Air Pollution Control Regulations.

Rule 206: CARBON MONOXIDE EMISSION STANDARDS AND LIMITATIONS

- a. Fuel Combustion Emission Sources With Actual Heat Input Greater Than 10 Million BTU per Hour

No person shall cause or allow the emission of carbon monoxide into the atmosphere from any fuel combustion emission source with actual heat input greater than 10 million BTU per hour to exceed 200 ppm, corrected to 50 percent excess air.

- b. Incinerators

No person shall cause or allow the emission of carbon monoxide into the atmosphere from any incinerator to exceed 500 ppm, corrected to 50 percent excess air.

Exception:

This Rule 206 (b) shall not apply to existing incinerators burning less than 2,000 pounds of refuse per hour which are in compliance with Rule 203 (e) (3).

- c. Petroleum and Petrochemical Processes

No person shall cause or allow the emission of a carbon monoxide waste gas stream into the atmosphere from a petroleum or petrochemical process unless such waste gas stream is burned in a direct flame afterburner or carbon monoxide boiler so that the resulting concentration of carbon monoxide in such waste gas stream is less than or equal to 200 ppm corrected to 50 percent

excess air, or such waste gas stream is controlled by other equivalent air pollution control equipment approved by the Agency according to the provisions of Part 1 of this Chapter.

d. Sintering Plants, Blast Furnaces and Basic Oxygen Furnaces

No person shall cause or allow the emission of gases containing carbon monoxide into the atmosphere from any sintering plant, from any blast furnace, or from any basic oxygen furnace to exceed a concentration of 200 ppm, corrected to 50 percent excess air.

Exception:

This Rule 206 (d) shall not apply to blast furnaces during abnormal movement of the furnace burden when it is necessary to relieve pressure for safety reasons.

e. Cupolas

No person shall cause or allow the emission of gases containing carbon monoxide into the atmosphere from any cupola with a manufacturer's rated melt rate in excess of 5 tons per hour, unless such gases are burned in a direct flame afterburner so that the resulting concentration of carbon monoxide in such gases is less than or equal to 200 ppm corrected to 50 percent excess air or such gas streams are controlled by other equivalent pollution control equipment approved by the Agency according to the provisions of Part 1 of this Chapter.

f. Measurement Methods

Carbon monoxide concentrations in an effluent stream shall be measured by the Non-dispersive Infrared Method or by other methods approved by the Agency according to the provisions of Part 1 of this Chapter.

g. Compliance Dates

1. Every owner or operator of a new emission source shall comply with the standards and limitations of Rule 206 by the effective date of Part 2 of this Chapter.
2. Every owner or operator of an existing emission source shall comply with the standards and limitations of Rule 206 by December 31, 1973.



Rule 207: NITROGEN OXIDES EMISSION STANDARDS AND LIMITATIONS

a. New Fuel Combustion Emission Sources

No person shall cause or allow the emission of nitrogen oxides into the atmosphere in any one hour period from any new fuel-combustion emission source with an actual heat input equal to or greater than 250 million BTU per hour to exceed the following standards and limitations:

1. For gaseous fossil fuel firing, 0.20 pounds per million BTU of actual heat input;
2. For liquid fossil fuel firing, 0.30 pounds per million BTU of actual heat input;
3. For dual gaseous and liquid fossil fuel firing, 0.30 pounds per million BTU of actual heat input;
4. For solid fossil fuel firing, 0.7 pounds per million BTU of actual heat input; and
5. For fuel combustion emission sources burning simultaneously any combination of solid, liquid and gaseous fossil fuels an allowable emission rate shall be determined by the following equation:

$$E = \left( \frac{0.3 (P_g + P_i) + 0.7 P_s}{P_g + P_i + P_s} \right) Q$$

Where: E = Allowable nitrogen oxides emission rate in pounds per hour;

P<sub>g</sub> = Percent of actual heat input derived from gaseous fossil fuel;

P<sub>i</sub> = Percent of actual heat input derived from liquid fossil fuel;

P<sub>s</sub> = Percent of actual heat input derived from solid fossil fuel;

Q = Actual heat input derived from all fossil fuels in million BTU per hour.

Note: P<sub>i</sub> + P<sub>s</sub> + P<sub>g</sub> = 100.0

b. Existing Fuel-Combustion Emission Sources in the Chicago and St. Louis MMA

No person shall cause or allow the emission of nitrogen oxides into the atmosphere in any one hour period from any existing fuel-combustion emission source with an actual heat input equal to or greater than 250 million BTU per hour, located in the Chicago and St. Louis (Illinois) major metropolitan areas to exceed the following limitations:

1. For gaseous and/or liquid fossil fuel firing, 0.3 pounds per million BTU of actual heat input;
2. For solid fossil fuel firing, 0.9 pounds per million BTU of actual heat input;
3. For fuel combustion emission sources burning simultaneously any combination of solid, liquid and gaseous fuel the allowable emission rate shall be determined by the following equation:

$$E = \left( \frac{0.3 (P_g + P_i) + 0.9 (P_s)}{P_g + P_i + P_s} \right) Q$$

E = Allowable nitrogen oxides emission in pounds per hour;

P<sub>g</sub> = Percent of actual heat input derived from gaseous fossil fuel;

P<sub>i</sub> = Percent of actual heat input derived from liquid fossil fuel;

P<sub>s</sub> = Percent of actual heat input derived from solid fossil fuel;

Q = Actual heat input derived from all fossil fuels in million BTU per hour.

Note: P<sub>i</sub> + P<sub>s</sub> + P<sub>g</sub> = 100.0

c. Exceptions to Rule 207 (b)

Paragraph (b) of this Rule 207 shall not apply to existing fuel combustion sources which are either cyclone fired boilers

burning solid or liquid fuel, or horizontally opposed fired boilers burning solid fuel.

d. Nitric Acid Manufacturing Processes

1. New Weak Nitric Acid Processes

No person shall cause or allow the emission of nitrogen oxides into the atmosphere from any new weak nitric acid manufacturing process to exceed the following standards and limitations:

- (A) 3.0 Pounds of nitrogen oxides (expressed as NO<sub>2</sub>) per ton of acid produced (100 percent acid basis);
- (B) Visible emissions in excess of 5 percent opacity;
- (C) 0.1 pounds of nitrogen oxides (expressed as NO<sub>2</sub>) per ton of acid produced (100 percent acid basis) from any acid storage tank vents.

2. Existing Weak Nitric Acid Processes

No person shall cause or allow the emission of nitrogen oxides into the atmosphere from any existing weak nitric acid manufacturing process to exceed the following standards and limitations:

- (A) 5.5 pounds of nitrogen oxides (expressed as NO<sub>2</sub>) per ton of acid produced (100 percent acid basis);
- (B) Visible emissions in excess of 5 percent opacity;
- (C) 0.2 pounds of nitrogen oxides (expressed as NO<sub>2</sub>) per ton of acid produced (100 percent acid basis) from any acid storage tank vents.

3. Concentrated Nitric Acid Processes

No person shall cause or allow the emission of nitrogen oxides into the atmosphere from any concentrated nitric acid manufacturing process to exceed the following standards and limitations:

- (A) 3.0 pounds of nitrogen oxides (expressed as NO<sub>2</sub>) per ton of acid produced (100 percent acid basis);
- (B) 225 ppm of nitrogen oxides (expressed as NO<sub>2</sub>) in any effluent gas stream emitted into the atmosphere;

(C) Visible emissions in excess of 5 percent opacity.

4. Nitric Acid Concentrating Processes

No person shall cause or allow the emission of nitrogen oxides into the atmosphere from any nitric acid concentrating process to exceed the following limitations:

(A) 3.0 pounds of nitrogen oxides (expressed as  $\text{NO}_2$ ) per ton of acid produced (100 percent acid basis);

(B) Visible emissions in excess of 5 percent opacity.

e. Industrial Processes: General

1. New Industrial Processes

No person shall cause or allow the emission of nitrogen oxides into the atmosphere from any new process producing products of organic nitrations and/or oxidations using nitric acid to exceed the following standards and limitations:

(A) 5.0 pounds of nitrogen oxides (expressed as  $\text{NO}_2$ ) per ton of nitric acid (100 percent acid basis) used in such new process.

(B) Visible emissions in excess of 5 percent opacity.

2. Existing Industrial Processes

No person shall cause or allow the emission of nitrogen oxides into the atmosphere from any existing process producing products of organic nitrations and/or oxidations using nitric acid to exceed 10.0 pounds of nitrogen oxides (expressed as  $\text{NO}_2$ ) per ton of nitric acid (100 percent acid basis) used in such process.

3. Exemption

Paragraphs (e) (1) and (e) (2) of this Rule 207 shall not apply to any industrial process using less than 100 tons of nitric acid (100 percent acid basis) annually or which produces less than 1 ton of nitrogen oxides (expressed as  $\text{NO}_2$ ) per year.

f. Measurement Method

Measurement of nitrogen oxides shall be according to the Phenol Disulfonic Acid Method as published in 36 Fed. Reg. 15718, Method 7.

g. Compliance Dates

1. Every owner or operator of a new emission source shall comply with the standards and limitations of Rule 207 by the effective date of Part 2 of this Chapter.
2. Except as otherwise provided in paragraph (g) (3) of this Rule 207, every owner or operator of an existing emissions source shall comply with the standards and limitations of Rule 207 by December 31, 1973.
3. Every owner or operator of an existing coal fired fuel combustion emission source shall comply with the applicable standards and limitations of Rule 207 by May 30, 1975.

Rule 208: COMPLIANCE DATES

Notwithstanding the issuance of an Operating Permit, no person shall cause or allow the operation of an emission source which is not in compliance with the standards and limitations set forth in the Part 2 after December 31, 1973, unless otherwise provided by a compliance date specifically set forth for a particular category of emission source in this Part 2.

PART III - AIR QUALITY STANDARDS

Rule 303: NONDEGRADATION

Existing ambient air quality which is better than the established ambient air quality standards at the date of their adoption will be maintained in its present high quality. Such ambient air quality shall not be lowered unless and until it is proved to the Agency that such change is justifiable as a result of necessary economic and social development and will not interfere with or become injurious to human health or welfare.

PART IV - EPISODES

Rule 401: DEFINITIONS

All terms defined in Part I and Part II of this Chapter which appear in Part IV of this Chapter have the definitions specified by Rule 101 of Part I of this Chapter and by Rule 201 of Part II of this Chapter.

a. Air Stagnation Advisory

A special bulletin issued by the National Weather Service entitled "Air Stagnation Advisory", which is used to warn air pollution control agencies that stagnant atmospheric conditions are expected which could cause increased concentrations of air contaminants near the ground.

b. BTU

British Thermal Unit

c. COH:

Coefficient of Haze (per 1,000 linear feet). Particulate matter as measured by the automatic paper tape sampler method and reported as COH's. When particulate matter is recorded on a weight per unit volume basis, the conversion 1 COH = 125 micrograms per cubic meter shall be employed.

d. Director

The Director of the Illinois Environmental Protection Agency.

e. Episode

The period of time at a location in which an air pollution Watch, Yellow Alert, Red Alert, or Emergency has been declared.

f. Fleet Vehicle

Any one of three or more vehicles operated for the transportation of persons or property in the furtherance of any commercial or industrial enterprise, for-hire or not-for hire.

g. Indirect Source

Any building, facility, plant, auditorium or other structure or combinations thereof, or any street, road, or highway or airport, which causes or contributes to air pollution through the attraction of mobile air pollution emission sources.

h. Level

The magnitude of pollution (expressed as average concentration, COH, or product) during a specified time period.

i. Low Sulfur Fuel

Any fuel containing 1.0 percent or less sulfur by weight.

j. Parking Lots

Parking lots shall include all lots, areas, buildings, or facilities or portions of lots, areas, buildings or facilities whose primary purpose is for the temporary parking of motor vehicles.

k. Product

The arithmetic product of the average sulfur dioxide concentration in parts per million (ppm) during a specified time period and the average particulate concentration in COH'S during that same specified time period.

Rule 402: GENERAL PROVISIONS

a. Responsibility of the Agency

The Director or his designated representative has sole authority for the declaration of episode stages under these rules. The Illinois Environmental Protection Agency has primary responsibility for the conduct of air pollution episode operations, including but not limited to air contaminant monitoring, source surveillance, and enforcement activities during air pollution episodes which affect any portion of the State of Illinois. The Agency shall notify any local agency assigned a significant episode control role in the Illinois Air Pollution Implementation Plan prior to the initiation, alteration, or termination of any episode stage or control strategy in the jurisdictional area of any such local agency.



b. Determination of Required Actions

To the maximum degree practicable, emission control actions taken pursuant to these rules shall be consistent with the extent of any air pollution Alert or Emergency.

1. When the existence of any episode stage is caused by one or more specific emission sources, the Agency shall require emission control action steps applicable only to such source or sources to be taken.
2. When the existence of any episode stage is caused by one or more specific air contaminants, action shall be taken to reduce the concentration of such contaminant or contaminants.
3. When motor vehicle emission control actions are required, the Agency shall promptly declare the applicable episode stage and phase actions so as to allow reasonable notice and preparation for effective vehicle control actions.

c. Determination of Atmospheric Conditions

When determining expected atmospheric conditions, the Agency shall consider all available meteorological information, including but not limited to official National Weather Service observations, analyses, forecasts, and advisories, as well as meteorological data and reports from other sources. Atmospheric conditions shall include but not be limited to stagnation areas, weather fronts, pressure systems, inversions, precipitation and wind patterns and variations in solar insolation, temperature and atmospheric stability.

d. Determination of Expected Contaminant Emissions

When determining expected contaminant emissions, the Agency shall consider all available emission information, including but not limited to emission inventories for stationary sources, pertinent emissions summaries, motor vehicle traffic patterns, and known or estimated seasonal, daily, or hourly variations in emission rates or traffic patterns.

e. Monitoring

1. Monitoring stations used to determine Advisory, Watch, Alert, or Emergency levels shall be located according to Federal guidelines for establishment of air quality surveillance networks and shall use measurement methods

or equivalent methods as officially authorized by the United States Environmental Protection Agency.

2. Whenever any monitoring station registers air contaminant concentrations in excess of Watch or Alert levels, proper operation of the sampling equipment at such stations shall be verified by the Agency or local agency cooperating with the Agency before the concentrations are used to declare any Advisory, Watch, Alert, or Emergency stage.

f. Determination of Areas Affected

1. An Advisory or Watch shall be declared for the entire Illinois portion of any Air Quality Control Region if any part of such Region meets the Advisory or Watch criteria. When atmospheric conditions and contaminant emissions in a Region are such as to cause the Advisory or Watch criteria to be met in another Region, an Advisory or Watch shall be declared for both Regions.
2. An Alert or Emergency shall be declared for only those portions of an Advisory or Watch area which meet the applicable criteria of Rule 405 of this Part or cause such criteria to be met elsewhere. When such criteria have been met, sectors of the Advisory or Watch area requiring Alert or Emergency actions shall be defined depending upon expected atmospheric conditions, contaminant emissions, and dispersion analyses. Alerts or Emergencies shall then be declared for one or more of these sectors.

g. Failure to Comply With Episode Requirements

Failure to comply with an approved Episode Action Plan, required actions listed in Tables 1-2 (Omitted) of this Part, or the reasonable orders of the Director or his designated representative during any Alert or Emergency shall expose any person to the penalty provisions of the Illinois Environmental Protection Act. In all cases, the reasonable orders of the Director or his designated representative shall take precedence over Episode Action Plans or required actions listed in Tables 1-2 (Omitted) of this Part, provided, however, that such orders shall not exceed that which is authorized by these rules or by the Act.

h. Sealing of Offenders

To the extent allowed by the Act, the Agency may seal any facility, vehicle, vessel, aircraft, or equipment operated in violation of this Part during any Alert or Emergency or otherwise contributing to an immediate danger to health.

Rule 403: LOCAL AGENCY RESPONSIBILITIES

Local air pollution control agencies shall cooperate with the Agency in monitoring, surveillance, and enforcement activities to the extent of their capabilities during any air pollution episode. This cooperation shall meet the following specific conditions:

a. Operation of Monitoring Equipment

At any time other than during an episode, local agencies with real-time monitoring equipment shall operate all such monitoring equipment at a minimum level necessary to determine whether any level of air contaminants specified in this Part has been reached.

b. Reporting Levels to Agency

Such local agencies shall report to the Agency Emergency Action Center within thirty (30) minutes by either telephone or telemetry when any Advisory, Watch, Alert, or Emergency level specified in this Part has been reached as indicated on their air monitoring equipment.

c. Operation of Telemetry Equipment

Local agencies with air contaminant sampling networks connected by telemetry with the headquarters of the Agency shall conduct their operations in such a manner as to provide valid data to the Agency.

d. Agency Representatives at Local Agency Control Centers

In regions where local agencies are participating with the Agency in episode control activities, one or more Agency representatives may station themselves at the control center of the local agency during an air pollution episode. The Agency representatives shall have authority to cause data to be transmitted by telephone or other rapid form of communication to Agency headquarters and after consultation with said local agency to require the initiation, alteration, or termination of control strategy by persons required to take action under this Part as directed by the Director,

e. Local Agency Episode Operations Plan

Local agencies participating with the Agency in episode control activities shall file for approval with the Agency an episode operations plan which describes procedures for obtaining and processing Episode Action Plans, monitoring air contaminant levels during routine and episode operations, alerting the public, governmental officials, emission sources and other interested parties of episode stages, and performing surveillance and enforcement activities during episodes.

Rule 404: AIR POLLUTION EPISODE ACTION PLANS

a. Requirement for Plans

Within 180 days following the effective date of this Part, all persons responsible for the operation of a facility of a type set forth in Paragraph (b) of this Rule 404 shall have on file with the Agency written Episode Action Plans (hereafter called Plans), consistent with safe operating procedures, for reducing the levels of air contaminants during Yellow Alerts, Red Alerts, and Emergencies. These Plans shall be designed to reduce air contaminants in accordance with the provisions of these rules and shall be on forms designed by the Agency. Further guidelines interpreting these requirements may be developed by the Agency and shall be filed with the Index Division of the Office of the Secretary of State.

b. Facilities For Which Action Plans Are Required

1. Electric power generating stations burning fossil fuels.
2. Facilities having fuel combustion emission sources with a total rated heat input in excess of 10 million BTU/hr burning coal or fuel oil, other than those sources exempted from permit requirements by Rule 102 (i) (3) of Part 1 of this Chapter.
3. Facilities emitting more than 100 tons per year or 550 pounds per operating day of sulfur dioxide, carbon monoxide, nitrogen oxides, particulate matter, organic material, or of any other air contaminant designated by the Agency as harmful to human health.

4. Governmental or commercial installations established primarily for the burning of refuse.
5. Parking lots located in major metropolitan areas having spaces for more than 200 vehicles; except for those lots predominantly serving residences, medical facilities, rail, bus, and air transportation terminals, grocery stores and pharmacies, lots provided by employers primarily for their employees, and comparable lots as designated by the Agency.
6. Fleet vehicle operations of 50 or more vehicles in a major metropolitan area except those used for delivery of grocery, pharmaceutical and medical products.
7. Local, state, and federal government agencies employing more than 100 employees in a major metropolitan area.
8. State, county, and municipal offices which have responsibility for road repair in a major metropolitan area.
9. Other governmental, industrial, or commercial establishments or activities classified by the Agency as significant direct or indirect sources of air contaminant emissions.

c. Submission of Plans

1. Plans required by this Rule shall be submitted to:
  - (A) The Agency for facilities in Illinois located outside of Cook County.
  - (B) The Cook County Department of Environmental Control for facilities located in Cook County and outside of the City of Chicago.
  - (C) The Chicago Department of Environmental Control for facilities located within the City of Chicago.
2. At any time after the effective date of this Part, without regard to the 180-day limitation of Rule 404 (a), the Agency may request Plans from all persons required to submit Plans or a local agency specified above may request Plans from persons required to submit Plans to to such local agency. In such cases, Plans shall be submitted to the requesting agency within 30 days after receipt of written notification that such Plans, must be submitted.

3. If any person required to submit a Plan or revise a Plan fails to submit a Plan or revise a Plan satisfactory to the Agency, the Agency may file a formal complaint with the Board pursuant to applicable portions of the Act.
  4. Facilities having operational changes invalidating Plans shall within thirty (30) days of such changes submit a new plan for Agency approval.
- d. Contents of Plans

1. Plans shall list all significant sources of air contaminants within the facility; shall describe the manner in which contaminant emissions will be reduced during Yellow Alert, Red Alert, and Emergency; and shall specify the approximate magnitude of the reduction of emissions that will be achieved.
2. Plans for all electric power generating stations and for all facilities located in the Chicago, Peoria or St. Louis (Illinois) Major Metropolitan Areas having fuel combustion emission sources required to take action during Yellow Alert to reduce sulfur dioxide emissions shall specify either the means whereby a supply of low sulfur fuel adequate for at least four days operation will be assured, or an emissions reduction plan to lower sulfur dioxide emissions to those which would be discharged if a switch to such fuel were effected.
3. Plans for parking lots shall list the major facilities serviced by the lot, the total parking capacity and the estimated average number of vehicles utilizing the lot each day. Plans shall describe the manner in which an orderly curtailment of parking will be effected on the first day and closure on the second calendar day of the applicable alert, including a method by which unauthorized use of the lot will be prevented. If the lot services grocery stores, pharmacies, medical offices, or clinics, or other essential facilities as designated by the Agency, procedures for allowing use of the lot to employees and patrons of such facilities shall be included in the Plan.
4. Plans for fleet vehicle operations shall include the numbers and types of vehicles in the fleet and the estimated average number of vehicle miles operated in the major metropolitan area to which the Plan applies.

Plans shall describe the manner in which an orderly curtailment of operations will be effected on the first day and cessation on the second calendar day of the applicable alert. If fleet vehicle operations include delivery of food, medicine, or perishable goods or emergency or necessary maintenance services of any kind, Plans shall include procedures for exempting such services from curtailment and cessation.

5. Plans for government agencies shall include types of services rendered, number and location of employees engaged in such services, and the estimated number of employees driving to offices or driving in performance of the services. Plans shall include the methods by which orderly cessations of non-essential services will be effected to meet the requirements of Tables 1-2 (Omitted) of this part. Where government agencies are engaged in essential services. Plans shall indicate the nature and magnitude of the services and procedures to exempt such services from cessation during any Alert or Emergency.

e. Processing Procedures

1. Local Agencies designated to receive and evaluate Episode Action Plans required by this Rule shall file such Plans with the Agency within 30 days following their receipt.
2. If any Plan does not conform with or effectively implement the requirements of this Part, the Agency shall disapprove the Plan, state the reasons for disapproval, and require the Plan to be revised.
3. During Alerts or Emergencies, Plans required by this Part shall be made available at the facility in question to any person authorized to carry out the provisions of this Part.

Rule 405: CRITERIA FOR DECLARING EPISODE STAGES

a. Watch, Alert, and Emergency Levels

Pollutant	Averaging Time	Advisory	Watch	Yellow Alert	Red Alert	Emergency
Sulfur dioxide (ppm)	2-hour	-	0.30	-	-	-
	4-hour	-	-	0.30	0.35	0.40
Particulate Matter	2-hour	-	5.0	-	-	-
	24-hour	-	-	3.0	5.0	7.0
Product (SO <sub>2</sub> x Particulate Matter)	2-hour	-	1.0	-	-	-
	4-hour	-	-	1.0	2.0	2.4
	24-hour	-	-	0.20	0.80	1.20
Carbon Monoxide (ppm)	2-hour	-	30	-	-	-
	8-hour	-	-	15	30	40
Ozone (ppm)	2-hour	07	-	-	-	-
	1-hour	-	-	0.17	0.30	0.50
Nitrogen dioxide (ppm)	2-hour	-	0.40	-	-	-
	1-hour	-	-	0.60	1.20	1.60
	24-hour	-	-	0.15	0.30	0.40

b. Requirements for Declaring an Advisory or a Watch

The Director or his designated representative shall declare an air pollution Watch or in the case of ozone, an Advisory whenever:

1. An Air Stagnation Advisory is received for any area within the State, or
2. Any Advisory, Watch or Yellow Alert level is equaled or exceeded at any monitoring station; and



3. (A) Atmospheric conditions, or expected contaminant emissions, are such that concentrations can reasonably be expected to remain at or above the Watch or Yellow Alert level for twenty-four (24) or more hours; or
- (B) For ozone, atmospheric conditions, or expected contaminant emissions, are such that concentrations can reasonably be expected to reoccur at an Advisory, or Yellow Alert level on the following calendar day.

c. Requirements for Declaring a Yellow Alert

The Director or his designated representative shall declare a Yellow Alert whenever:

1. Any Yellow Alert level is equaled or exceeded at any monitoring station; and
2. An air pollution Advisory or Watch has been in effect for four (4) hours in the area for which the Yellow Alert is to be declared; and
3. (A) Atmospheric conditions, or expected contaminant emissions, are such that concentrations can reasonably be expected to remain at or above the Yellow Alert level for twelve (12) or more hours; or
- (B) For ozone, atmospheric conditions, or expected contaminant emissions, are such that concentrations can reasonably be expected to reoccur at a Yellow Alert level on the following calendar day.

d. Requirements for Declaring a Red Alert

The Director or his designated representative shall declare a Red Alert whenever:

1. Any Red Alert level is equaled or exceeded or any Yellow Alert level has been equaled or exceeded continuously for the preceding twenty-four (24) hour period at any monitoring station; and
2. A Yellow Alert has been in effect for four (4) hours in the area for which the Red Alert is to be declared; and
3. (A) Atmospheric conditions, or expected contaminant emissions, are such that concentrations can reasonably be expected to persist for twelve (12) or more hours; or

- (B) For ozone, atmospheric conditions, or expected contaminant emissions, are such that concentrations can reasonably be expected to reoccur at a Red Alert level on the following calendar day.

e. Requirements for Declaring an Emergency

The Director or his designated representative shall declare an Emergency whenever:

1. Any Emergency level is equaled or exceeded or any Red Alert level has been equaled or exceeded continuously for the preceding twenty-four (24) hour period at any monitoring station; and
2. A Red Alert has been in effect for twelve (12) hours in the area for which the Emergency is to be declared; and
3. (A) Atmospheric conditions, or expected contaminant emissions, are such that concentrations can reasonably be expected to persist or increase for twelve (12) or more hours; or  
(B) For ozone, atmospheric conditions, or expected contaminant emissions, are such that concentrations can reasonably be expected to reoccur at an Emergency level on the following calendar day.

f. Requirements for Terminating Watch, Alert, and Emergency Stages

The Director or his designated representative shall terminate any Watch, Alert, or Emergency stage when the applicable level specified in Rule 405 (a) of this Part no longer prevails and when in his judgment atmospheric conditions and expected contaminant emissions are such as to warrant discontinuance or lowering of that Watch, Alert, or Emergency stage.

Rule 406: DECLARATION OF STAGES

a. Public, Facilities, and Governmental Offices Notified

Whenever an Advisory, a Watch, Alert, or Emergency stage is declared or terminated, the Agency or local agency designated by the Agency shall notify:

1. Concerned personnel of the Agency and of federal, local, and other State agencies;
2. Facilities required to make preparations or take actions of major emission reducing consequence;

3. The public by radio, television, and other means of rapid communication.

b. Contents of Episode Stage Notifications

Notifications shall contain: time and date of issuance, the names of agencies or persons responsible for issuance, and the beginning and expected ending time of any Watch, Alert, or Emergency stage. Alert and Emergency notifications shall also contain details about the pollutant(s) for which notification is made, such as maximum pollutant levels reached and predicted, geographical areas affected, specific pollution-reducing instructions to the public and to direct or indirect sources of air contaminants, as well as advice to persons who may be affected by the elevated pollution levels.

Rule 407: ACTIONS DURING EPISODE STAGES

a. Watch and Advisory Actions

When an air pollution Advisory or Watch is in effect, the Agency and local agencies designated by the Agency shall:

1. Coordinate their activities and place their operational staffs in a state of increased readiness except that in the event of an Advisory the Agency need not monitor on a 24-hour basis.
2. Promptly verify the operation of their air monitoring instrument networks and monitor data from such instrument networks during all periods when there is reasonable likelihood of Yellow Alert levels occurring;
3. Evaluate atmospheric conditions and contaminant emissions data and monitor changes in such conditions and data during all periods when there is reasonable likelihood of Yellow Alert levels occurring.

b. Yellow Alert, Red Alert, and Emergency Actions

When a Yellow Alert, Red Alert, or Emergency is in effect, personnel of the Agency, local agencies designated by the Agency, direct and indirect emission sources, and such other persons as are required to take actions according to this Part shall take all actions required of them in Tables 1-2 (Omitted) insofar as such actions are applicable to the declared episode stage and contaminant or product for which the episode stage has been declared.

1. Actions by local agencies designated by the Agency shall be in accordance with their Episode Action Plan if such Plan has been approved by the Agency.
2. Actions by direct or indirect sources of emissions shall be in accordance with their Episode Action Plan if such Plan has been approved by the Agency.

TABLE 1  
REQUIRED EMISSION REDUCTION ACTIONS  
- OZONE -

1. GENERAL

Yellow Alert - All Advisory Actions continue.  
Government officials, public and submitters of Action Plans notified.

Red Alert - All Advisory and Yellow Alert actions continue.  
Government officials, public, and submitters of Action Plans notified.

Emergency - All Advisory, Yellow Alert, and Red Alert actions continue.  
Government officials, public, and submitters of Action Plans notified.

2. VEHICLES PARKING LOTS ROAD REPAIRS

Yellow Alert - Public requested to avoid the unnecessary use of automobiles.

Red Alert - Fleet vehicles, other than mass transit vehicles and vehicles used for the delivery of grocery and pharmaceutical products, essential fuel, for emergency medical services and for such comparable uses as designated by the Agency, immediately curtail operations to the greatest extent possible in or into the area affected by the Red Alert and cease operations on the second calendar day of the Alert.

Parking lots for more than 200 vehicles, except for lots predominately serving residences, grocery stores, medical facilities, rail, bus and air transportation terminals, lots provided by employers primarily for employees, and comparable lots as designated by the Agency shall immediately curtail operations and close on the second calendar day of the Alert.

Road repair and maintenance not necessary for immediate safety and which, if suspended, will expedite the flow of vehicular traffic is prohibited.

Emergency - Motor vehicle operation in or into the area affected by the Emergency is prohibited except for essential uses such as police, fire, and health services, and comparable uses designated by the Illinois Emergency Highway Traffic Regulation Plan. All aircraft flights leaving the area of the Emergency are forbidden except for reasons of public health or safety.

3. MANUFACTURING AND OTHER FACILITIES HAVING PROCESS EMISSION SOURCES

Yellow Alert - Facilities engaged in manufacturing review operations and Action Plans, inspect emission control devices, determine areas of delayable operations; and from such steps revise operations so as to cause greatest feasible reduction in emissions short of adversely affecting normal production.

Red Alert - All facilities with process or fuel combustion emission sources emitting a total of more than 100 tons per year or 550 pounds per operating day of organic material or of nitrogen oxides, and all other facilities not in compliance with the organic material and nitrogen oxides emissions standards of Part 2 of this Chapter, curtail all such sources to the greatest extent possible short of causing injury to persons, severe damage to equipment, or an increase in emissions.

Emergency - All operations curtailed to the greatest extent possible short of causing injury to persons or severe damage to equipment.

4. ELECTRIC POWER GENERATORS AND USERS

Yellow Alert - Electric Power generating stations burning fossil fuels requested to reduce emissions in and into the affected area to the greatest extent practicable by adjusting operations system wide or by any other means approved by the Agency.

Public request to avoid unnecessary use of electricity.

Red Alert - Electric power generating stations burning fossil fuels required to take all Yellow Alert Actions and in addition discontinue power generation for economy sales and service to interruptable customers, and maximize purchase of available power.

Unnecessary use of electricity, such as for decorative or advertising purposes is prohibited.

Emergency - Electric power generating stations burning fossil fuel continue Yellow Alert and Red Alert actions and in addition, effect the maximum feasible reduction or emissions by reducing voltage 2.5% system wide, purchase all available emergency power, and requesting large customers (500 kw) to reduce their electric demand or by any other means approved by the Agency.

5. OFFICES, BUILDINGS, AND OTHER COMMERCIAL & SERVICES OPERATIONS

Yellow Alert - Public requested to limit space heating to 65°F; air conditioning to 80°F.

Red Alert - Public, industrial and commercial space heating limited to 65°F, air conditioning to 80°F except for hospitals and for other buildings approved by the Agency.

Government agencies except those needed to administer essential programs close.

Schools close except elementary schools, which close at the end of the normal school day and do not reopen until the Alert is terminated.

The loading of more than 250 gallons of volatile organic material into any stationary tank, railroad tankcar, tank truck, or tank trailer is prohibited except where an integral part of an industrial operation allowed during Red Alert.

Emergency - All facilities or activities listed below immediately cease operations; mining & quarrying, contract construction work, wholesale trade establishments, retail trade stores except those dealing primarily in the sale of food or pharmaceuticals, real estate agencies, insurance offices and similar businesses, laundries, cleaners and dryers, beauty and barber shops and photographic studios. Amusement & recreational service establishments such as motion picture theaters, automobile repair and automobile service garages. Advertising offices, consumer credit reporting, adjustment and collection agencies, printing and duplicating services, rental agencies and commercial testing laboratories.

6. REFUSE BURNERS

Yellow Alert - Governmental or commercial installations established primarily for the burning of refuse shall postpone delayable incinerations, all other incineration and all open burning prohibited.

Red Alert - All incineration prohibited.

Laundries, cleaners and dryers, beauty and barber shops and photographic studios.

Amusement and recreational service establishments such as motion picture theaters.

Automotive repair and automobile service garages.

Advertising offices, consumer credit reporting, adjustment and collecting agencies, printing and duplicating services, rental agencies, and commercial testing laboratories.



TABLE 2

REQUIRED EMISSION REDUCTION ACTIONS†

- SULFUR DIOXIDE, PARTICULATE, PRODUCT,  
NITROGEN DIOXIDE, AND CARBON MONOXIDE -

YELLOW ALERT

1. The Agency shall notify the public by radio and/or television that a Yellow Alert is in effect; that the public is required to take action in accordance with these regulations; that the public is requested to avoid the unnecessary use of automobiles and of electricity; and that persons suffering from respiratory or heart conditions should take appropriate precautions.
2. Electric power generating stations shall effect the maximum feasible reduction of emissions by utilizing fuels which have low ash content and less than 1.0% sulfur by weight (1.5% in the case of fuel oil), provided, however, that emissions from such stations shall not exceed the applicable emission standards and limitations of Rule 204 Part 11 of this Chapter; by limiting soot blowing and boiler lancing, where essential, to periods of maximum atmospheric turbulence; by diverting power generation to stations outside the area for which the Alert is in effect; or by any other means approved by the Agency. Such actions will be in accordance with the Yellow Alert Plan if such plan has been approved for that station.
3. Facilities having fuel combustion emission sources with a total rated capacity in excess of 10 million BTU/hr and burning coal and/or fuel oil shall reduce emissions by utilizing fuels which have low ash content and less than 1.0% sulfur weight (1.5% in the case of fuel oil) provided, however, that emissions from such facilities shall not exceed the applicable emission standards and limitations of Rule 204 Part 11 of this Chapter; by limiting soot blowing and boiler lancing, where essential, to periods of high atmospheric turbulence; or by any other means approved by the Agency. If fuels of low ash and sulfur content are not available, such facilities with the exemption of residences, hospitals, and other essential facilities as designated by the Agency, shall curtail fuel burning to the maximum degree consistent with avoiding injury to persons or severe damage to property. Such actions will be in accordance with the Yellow Alert Plan if such plan has been approved for that facility.

†During each stage only those actions which cause a reduction of emissions of contaminants for which such stage has been declared are required. c.f. Rules 402 and 407 b.

4. Facilities engaged in manufacturing required to submit Yellow Alert plans shall curtail or defer production and allied operations to the extent necessary to avoid emissions in excess of those which would be discharged if the facility were operated in accord with the limitations prescribed by the regulations limiting emissions, insofar as such reductions can be achieved without creating injury to persons or severe damage to property. Such reductions shall be made notwithstanding any variance or program of delayed compliance with the regulations, and shall be in accord with the Yellow Alert plan if such plan has been approved for that facility.
5. All open burning and all incineration except as provided below are provided. Certain burning of explosive or pathological wastes may be exempted from this restriction by the Agency in writing upon specific written application.
6. Incinerators meeting the emission standards and limitations of this Chapter may be operated only during the hours of maximum atmospheric turbulence as designated by the Agency.

#### RED ALERT

1. All actions required during the Yellow Alert shall be continued.
2. The Agency shall notify the public by radio and/or television that a Red Alert is in effect; that the public is required to take action in accordance with these regulations; that the public is requested to avoid the unnecessary use of automobiles and of electricity; and that persons suffering from respiratory or heart conditions should take appropriate precautions.
3. All incineration and all open burning are prohibited. Certain burning of explosive or pathological wastes may be exempted from these restrictions by the Agency in writing upon specific written application.
4. Facilities engaged in manufacturing and required to submit Red Alert Plans shall curtail any production, including the generation of process steam, which emits contaminants into the atmosphere, to the greatest extent possible without causing injury to persons or severe damage to equipment. Such action shall be in accordance with the Alert Plan if such plan has been approved for that facility.

### EMERGENCY

1. All actions required during the Yellow Alert and Red Alert shall be continued.
2. The unnecessary use of electricity, such as for decorative or amusement purposes, is prohibited.
3. The use of motor vehicles is prohibited except for essential uses such as police, fire and health services, delivery of food or essential fuel, waste collection, utility or pollution control emergency repairs, and such comparable uses as may be designated by authorized Highway and Law Enforcement Officials in accordance with the Illinois Emergency Highway Traffic Regulation Plan.
4. All aircraft flights leaving the area of the Emergency are forbidden except for reasons of public health or safety as approved by the Agency in advance.
5. Buildings shall be maintained at temperatures no greater than 65°F. except for hospitals and for other buildings approved by the Agency for reasons of health or severe damage to property.
6. All manufacturing activities shall be curtailed to the greatest extent possible without causing injury to persons or severe damage to equipment.
7. All facilities or activities listed below shall immediately cease operations:

Mining and quarrying, contract construction work, and wholesale trade establishments.

Schools, except elementary schools which shall close at the end of the normal school day and not re-open until the Emergency is terminated.

Government agencies except those needed to administer air pollution alert programs and other essential agencies determined by Agency to be vital for public safety and welfare.

Retail trade stores except those dealing primarily in the sale of food or pharmacies.

Real estate agencies, insurance offices and similar business.

## \*1.0 Statutory Authority

These rules are promulgated pursuant to authority conferred on the Environmental Protection Agency (Agency) by Sections 4 and 39 of the Environmental Protection Act, Ill. Rev. Stat., Ch. 111 1/2, Sections 1004, 1039, and by Rule 103 of the Pollution Control Board Rules and Regulations, Chapter 2: Air Pollution.

## 2.0 Purpose

These rules establish the requirements for the issuance of permits to major stationary sources desiring to locate in nonattainment areas or at sites where such sources may significantly affect the air quality of nonattainment areas. These rules are designed to allow the construction of new emission sources and modification of existing emission sources while assuring progress towards achievement of ambient air quality standards.

The Agency will examine each proposed new or modified source subject to these rules to determine if such source will meet all applicable statutory requirements, Illinois Pollution Control Board Rules and Regulations, and the applicable provisions of these rules (See Section 5.0, 6.0 and 8.0). If the Agency determines that a proposed new or modified source cannot meet the applicable requirements and emission standards or the provisions of these rules, the permit will be denied.

These rules do not include the requirements for major sources affecting attainment areas, i.e. regulations for Prevention of Significant Deterioration of Air Quality (PSD). Persons planning a new or modified source which may be subject to these regulations should discuss them with the Agency. Public participation for permit applications, i.e. public notice, is not contained in these rules. The requirements and methods for public notice, as discussed in the State Implementation Plan and other Agency procedures apply generally to the construction of major new or modified sources.

\* On 5/26/81 the Seventh Circuit Court (80-1531) invalidated these NSR Rules. See 47FR5015.

### 3.0 Background

These rules are promulgated to fulfill the requirements of the federal Clean Air Act, as amended, (42 U.S.C. 7401 et seq.) Part D, Plan Requirements For Nonattainment Areas. Failure of the Agency to implement these rules would impose sanctions against industrial expansion in nonattainment areas and threaten sanctions against federal transportation and environmental funding. To avoid these sanctions these rules must be included in Illinois' State Implementation Plan (SIP).

These rules are based in part on regulations of the United States Environmental Protection Agency (USEPA), including the Emission Offset Interpretative Ruling (40 CFR Part 51 Appendix S.) The Agency reserves the right to modify these rules, following the Illinois Administrative Procedure Act, as the requirements of the Clean Air Act are interpreted through either the federal judicial process or rulemaking by the USEPA. These rules are included in the SIP as a commitment by the Agency to maintain rules fulfilling the nonattainment area requirements of the Clean Air Act.

### 4.0 Definitions

The following definitions are applicable only for the purposes of these rules. Differences between these definitions and definitions used by the USEPA or those contained in the Pollution Control Board Rules and Regulations are discussed in Appendix 1.

All other terms used in these rules shall have the same definitions as those found in Pollution Control Board Rules and Regulations, Chapter 2: Air Pollution.

#### 4.1 Nonattainment Area

A nonattainment area is, for a particular air contaminant, an area which is shown by monitored data or air quality modeling methods to exceed an applicable National Ambient Air Quality Standard. The extent of a nonattainment area is specifically described as a county, township, or other subcounty area. All such areas shall be designated by the Administrator of the United States Environmental Protection Agency (USEPA), in accordance with Section 107 of the Clean Air Act, as amended. These county and subcounty areas, as originally designated by

the Administrator on March 3, 1978, subsequently revised on October 5, 1978, and as may be revised in the future are available from the Agency upon request (see Appendix 3).

#### 4.2 Source

A source is any structure, building, facility, or installation (or combination thereof) which is located on one or more contiguous or adjacent properties and which is owned or operated by the same persons (or persons under common control). A source may be composed of one or more air contaminant emitting operations or items of equipment.

#### 4.3 New Source

A new source is a source the construction of which is commenced on or after the effective date of these rules.

#### 4.4 Modified Source

The modified source is that part of the equipment or operations at a source which has undergone modification since the effectiveness of this definition or the date the last construction permit was issued pursuant to section 5.1(a) or 6.1 of these rules, whichever is later.

#### 4.5 Modification

A modification is 1) any addition or reconstruction of equipment or operations at a source, or

2) any physical change to, or any change in the running or functioning of a particular item of equipment or operation at a source which increases the actual or uncontrolled emission rate of any air contaminant (regardless of any emission reductions achieved elsewhere at the source).

The following activities are specifically not considered to be modifications, provided that they do not interfere with reasonable further progress toward attainment of air quality standards:

- 1) Routine maintenance, routine repair and routine replacement of components and of equipment;
- 2) Any change incorporated within the operating design of an item of equipment and described in its permit application unless specifically limited by a condition to a permit;
- 3) Increase in hours of operation, unless specifically limited by a condition to a permit;
- 4) Use of an alternative fuel, if on December 21, 1976, the source was capable of accommodating such fuel;
- 5) Use of an alternative fuel or raw material by reason of an order in effect under Sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or by any superceding legislation), or by reason of a natural gas curtailment plan in effect pursuant to the Federal Power Act;
- 6) Use of alternative fuel by reason of an order or rule under Section 125 of the Clean Air Act, as amended;
- 7) Use of refuse derived fuel generated from municipal solid waste; and,
- 8) Any change, including the addition or replacement of equipment, which is primarily due to the application of a more stringent environmental regulation to an item of equipment or operation which was in compliance with previously applicable environmental regulation provided that there shall be no increase in overall process capacity.

Normal cyclical variations in emission rates, minor variations in emissions due to changes in fuel or raw material characteristics and change in ownership of a source shall not be considered modifications.

#### 4.6 State Implementation Plan (SIP)

The State Implementation Plan (SIP) is the plan by which the State of Illinois provides for the implementation, maintenance, and enforcement of National Ambient Air Quality Standards.

#### 4.8 Reasonable Further Progress

Reasonable further progress means annual incremental reductions in the emissions of an applicable air contaminant sufficient to provide for attainment of the National Ambient Air Quality Standards as expeditiously as practicable. In the case of the National Primary Ambient Air Quality Standards attainment shall not be later than either December 31, 1982 or

#### 4.9 Major Source

A major source is a source which has or will have uncontrolled emissions of particulate matter, sulfur dioxide, nitrogen oxides, organic material, or carbon monoxide equal to or greater than 100 tons per year and allowable emissions of the air contaminant equal to or greater than 50 tons per year or 1000 pounds per day or 100 pounds per hour.

The 1000 pounds per day and 100 pounds per hour criteria apply only if a National Ambient Air Quality Standard exists for the air contaminant for 24 hours, and less than 24 hours respectively.

#### 4.10 Uncontrolled Emissions

Uncontrolled emissions are the greatest pollutant emissions from a source, operating with normal procedures without air pollution control equipment. Annual uncontrolled emissions are determined from the maximum hourly capacity of the equipment or operations at a source and continuous functioning through a year's time, unless the equipment or the operations, or the hours of functioning are limited by enforceable permit conditions.

Enforceable permit conditions which limit hourly capacity, type or amount of material processed, fuel, manner of working, etc., or hours of functioning shall be used in determining the uncontrolled emissions from a source when an applicant requests that such conditions be placed upon a permit to reduce the uncontrolled emissions from a source.

Notwithstanding the above, where it is improper to characterize equipment or operations with an hourly emission rate, annual uncontrolled emissions shall be determined from the maximum annual rated capacity of the equipment or operations, unless limited by enforceable permit conditions.



Uncontrolled emissions are determined from stack test data on similar equipment or using standard air pollution control practices or reference materials, e.g. Compilation of Air Pollutant Emission Factors, United States Environmental Protection Agency, Research Triangle Park, A.P. 42. Use of nonstandard techniques to determine uncontrolled emissions must be approved by the Agency. Use of nonstandard techniques to determine uncontrolled emissions shall be acceptable upon a demonstration by the applicant of their scientific and engineering validity.

Air pollution control equipment is considered to be equipment which, aside from air pollution control laws and regulations, is not vital to the production of the normal product of the source or its normal operation.

#### 4.11 Allowable Emissions

Allowable emissions are the pollutant emissions for which a source is issued a permit(s). Allowable emissions are determined from the most stringent of the following at the maximum hourly capacity of the equipment or operation:

- 1) the applicable New Source Performance Standard or National Emission Standard for Hazardous Air Pollutants,
- 2) the applicable Illinois Pollution Control Board emission standard, or
- 3) the emission rate specified by a permit condition,

and from the functioning of the equipment or operations through the applicable time period, i.e. a year (8760 hours), a day (24 hours), or one hour.

Enforceable permit conditions which limit the hours of functioning shall be used in determining the allowable emissions from a source, when an applicant requests that permit

conditions limiting the emission rate or the hours of operation be placed upon a permit to reduce the allowable emissions from a source.

Notwithstanding the above, where it is improper to characterize equipment or operations with an hourly emission rate, allowable emissions shall be calculated using the maximum rated capacity for the time period, and the most stringent of the above three items.

#### 4.12 Significant Contributor

A significant contributor is a new source or modified source whose contribution to ambient air quality in a nonattainment area exceeds a concentration specified in Appendix 2 to these rules, as shown through dispersion modeling acceptable to the Agency.

(The contribution from a modified source is determined from the emissions from new (or reconstructed) equipment or operations and from the increase in emissions resulting from the individual modifications of existing equipment or operations.)

#### 4.13 Acceptable dispersion modeling

Acceptable dispersion modeling is dispersion modeling which is demonstrated to be in accordance with generally accepted scientific principles; compatible with the size and nature of the project; and consistent with any available air quality or meteorological data for the area, previous modeling studies in the area and USEPA guidance, as published in Guidelines On Air Quality Models or other similar documents..

#### 4.14 Lowest Achievable Emission Rate (LAER)

The lowest achievable emission rate (LAER) is the lowest rate of contaminant emissions achievable through the application of constant emission control technology, as determined by the applicant and approved by the Agency. LAER will reflect the more stringent of either:

- 1) The most stringent emission limitation which is contained in the implementation plan of any state for such class or category of source, unless the owner or operator demonstrates that such emission limitations are not achievable, or
- 2) The most stringent emission limitation which is achieved in practice or is achievable by such a class or category of source.

In no event will the application of LAER to an operation or item of equipment allow emissions to exceed the emission limitations of any applicable New Source Performance Standard established under Section 111 of the Clean Air Act.

5.0 Conditions for Issuance of Permits to New or Modified Sources of Particulate Matter (TSP), Sulfur Dioxide (SO<sub>2</sub>), Nitrogen Oxides\* (NOX) or Carbon Monoxide (CO) Emissions.

5.1 For new or modified sources which will be a major source of a particular air contaminant

- (a) If the source will be located in a nonattainment area for the contaminant or may be a significant contributor located in an attainment or unclassified area, the applicant shall for the contaminant:
  - (1) Install constant emission control technology on the new or modified source so that the lowest achievable emission rate (LAER) results;
  - (2) Provide either (i) equal or greater emission reductions (emission offset) for the allowable emissions from the new or modified source and demonstrate a net air quality improvement in the nonattainment area as a result of the operation of the new or modified source, or,

\*For simplicity in measurement and air quality modeling, all emissions of nitrogen oxides are expressed as equivalent nitrogen dioxide.

- 1) The most stringent emission limitation which is contained in the implementation plan of any state for such class or category of source, unless the owner or operator demonstrates that such emission limitations are not achievable, or
- 2) The most stringent emission limitation which is achieved in practice or is achievable by such a class or category of source.

In no event will the application of LAER to an operation or item of equipment allow emissions to exceed the emission limitations of any applicable New Source Performance Standard established under Section 111 of the Clean Air Act.

5.0 Conditions for Issuance of Permits to New or Modified Sources of Particulate Matter (TSP), Sulfur Dioxide (SO<sub>2</sub>), Nitrogen Oxides\* (NOX) or Carbon Monoxide (CO) Emissions.

5.1 For new or modified sources which will be a major source of a particular air contaminant

- (a) If the source will be located in a nonattainment area for the contaminant or may be a significant contributor located in an attainment or unclassified area, the applicant shall for the contaminant:
  - (1) Install constant emission control technology on the new or modified source so that the lowest achievable emission rate (LAER) results;
  - (2) Provide either (i) equal or greater emission reductions (emission offset) for the allowable emissions from the new or modified source and demonstrate a net air quality improvement in the nonattainment area as a result of the operation of the new or modified source, or,

\*For simplicity in measurement and air quality modeling, all emissions of nitrogen oxides are expressed as equivalent nitrogen dioxide.

(3) Certify that all major sources of any air contaminant owned or operated by the applicant (or by any person controlling, controlled by, or under common control with the applicant) which are located in the State of Illinois are in compliance with all applicable Illinois Pollution Control Board Rules and Regulations, Chapter 2, except as provided by Section 11.0.

(b) If the source will be located in an attainment or unclassified area for the contaminant and will not be a significant contributor the requirements of "Procedures for Determining the Impact on Air Quality of Proposed New Emission Sources", originally filed with the Secretary of State, Index Division on December 30, 1977, as amended from time to time, shall apply for the contaminant.

5.2 For new or modified sources which will not be a major source of a particular contaminant, the applicant need not comply with these rules for the contaminant.

#### 6.0 Conditions for Issuance of Permits to New or Modified Sources of Organic Material Emissions

6.1 If a new or modified source which will be a major source of organic material will be located in a nonattainment area for photochemical oxidants (ozone), the applicant shall, for organic material:

- (a) Install constant emission control technology on the new or modified source so that the lowest achievable emission rate (LAER) results;
- (b) Obtain actual emission reductions (emission offsets) in accordance with Section 10. Such emission reductions must exceed the allowable emissions which will result from operation of the new or modified source; and
- (c) Certify that all major sources of any air contaminant owned or operated by the applicant (or by any person controlling, controlled by, or under common control with the applicant) which are located in the State of Illinois are in compliance with all applicable Illinois Pollution Control Board Rules and Regulations, Chapter 2, except as provided by Section 11.0.

6.2 If a new or modified source will not be a major source of organic material or if a new or modified source of organic material will be located in an attainment or unclassified area for photochemical oxidants (ozone), the applicant need not comply with these rules for organic material.

## 7.0 Geographical Applicability And Effective Dates

The applicability of these rules to a particular new or modified source is dependent upon the proposed geographic location of the source, in either 1) a nonattainment area, 2) an unclassified area, or 3) an attainment area for a particular air contaminant.

These rules shall not be applicable to a new or modified source if the construction permit application for the source, upon which the permit is issued, is received prior to the effective date of these rules.

### 7.1 For organic material emission sources located in:

- (a) Counties designated as nonattainment areas for photochemical oxidants (ozone), the effective date of these rules is April 24, 1979 or the date on which the designation of nonattainment counties for oxidants (ozone) made by USEPA is published in the Federal Register, whichever is later.

- (b) Counties designated as attainment areas or unclassified areas for photochemical oxidants (ozone), these rules shall not apply.
  - (c) Counties designated as unclassified areas for photochemical oxidants (ozone), when an applicant requests that a source be made subject to these rules, these rules shall immediately become effective for that source. (An applicant might make this request if it is felt that ambient air monitoring required by the regulations for the Prevention of Significant Deterioration of Air Quality would lead to a redesignation of an area as nonattainment.)
- 7.2 For particulate matter (TSP), sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and carbon monoxide (CO), emission sources located in or significantly contributing to:
- (a) Areas designated as nonattainment areas on March 3, 1978 or October 5, 1978 (see Appendix 3), the effective date of these rules is April 24, 1979.
  - (b) Areas designated as nonattainment areas after October 5, 1978, the effective date of these rules is the date a given area is identified as a nonattainment area by the Administrator.
  - (c) Areas designated as attainment areas or unclassified areas, if the source is not subject to Part (a) or (b), these rules shall not apply, subject to the provision of Part (e).
  - (d) Areas prescribed in Part (a) or (b), the effectiveness of these rules shall be restricted to a limited part of a given nonattainment area when it is demonstrated, by acceptable dispersion modelling conducted by the Agency or an applicant, that the magnitude and extent of violations of air quality standards do not merit the application of these rules throughout a given nonattainment area. The date when the effectiveness of these rules is restricted to a limited part of the nonattainment area is the date that such a study is completed by the Agency or the date such study by an applicant is approved by the Agency.

Applicants may conduct such studies on their own initiative, or the Agency may conduct such studies if performance of such studies is part of the Agency's work plan for further ambient air modeling for the pollutant involved for that area.

- (e) Areas designated as unclassified or attainment, when an applicant requests that a source be made subject to these rules, these rules shall become effective for such source on the date the Agency finds that air quality standards in the area might be violated with the construction of such source. (An applicant might make this request if it is felt that ambient air monitoring required by the regulations for Prevention of Significant Deterioration of Air Quality would lead to a redesignation of an area as nonattainment.)

#### 8.0 Special Conditions for Issuance of Permits to New or Modified Sources of Organic Material or Carbon Monoxide Emissions

A source of carbon monoxide emissions subject to the requirement of Section 5.1(a) or a source of organic material emissions subject to the requirements of Section 6.1 must fulfill the requirements for analysis of alternatives pursuant to Section 172(b)(11)(A) of the Clean Air Act as amended (42 U.S.C. 7401 et seq., as amended, August 7, 1977).

Section 172(b)(11)(A) of the Clean Air Act requires that such a permit application include " . . . an analysis of alternative sites, sizes, production processes, and environmental control techniques for such proposed source which demonstrates that benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification."

#### 9.0 Procedures for Determination of Lowest Achievable Emissions Rate (LAER)

LAER and the technology associated with LAER, shall be based on information reasonably available at the time the construction permit application for the new or modified source is submitted to the Agency; or for a multi-phase project or a project whose construction



is not commenced on schedule, on information reasonably available at the time detailed planning for the operation or equipment must begin. The time by which construction of a project must commence in order to be considered on schedule will be contained, either as a standard or special condition, in the construction permit. If construction is not commenced within this time period, e.g. 12 months in the standard permit condition, the LAER determination must be reevaluated.

A multi-phase project is one in which individual phases of continuous on-site construction are separated by prolonged periods during which construction does not take place. For multi-phase projects, separate construction permits shall be required for phased equipment construction for the purposes of determining LAER if the Agency determines that LAER technology may develop between phases. This Agency determination will be based upon the times projected for the phases, the types of controls and the status of technology development (for example, other projects underway which may demonstrate improved technology).

The Agency strongly encourages persons who are planning sources which may be subject to these rules to contact the Agency early in the preliminary planning to discuss LAER, among other matters, so as to expedite the permit application process. This is particularly important so that an applicant is fully aware of the information that the Agency considers reasonably available.

The Agency may require a demonstration in a permit application showing that the emission rate which will be achieved by the proposed source is LAER, as compared to the emission rate which may be achieved by other possible source technologies or control systems. The demonstration shall include a description of the manner in which the proposed LAER was selected, including a detailed listing of information resources. The Agency shall require such a demonstration unless this information is already available to the Agency for that class or category of source. The Agency suggests that in preparing such a demonstration an applicant review the following items:

- 1) the LAER Clearinghouse, as operated by the USEPA;
- 2) general technical works concerning air pollution emission equipment, operations and control technology;

- 3) the Agency files for plants in Illinois;
- 4) information from pollution control agencies regulating areas in Illinois or elsewhere where the equipment under consideration is in use;
- 5) current air pollution control literature;
- 6) information from persons currently operating the equipment under consideration;
- 7) information published by control equipment suppliers and other similar manufacturers; and
- 8) specific observations of the operation of equipment, similar to the equipment under consideration, in Illinois or elsewhere.

The Agency will consider information from the above resources in determining possible emission limitation which may constitute LAER, making determinations as to emission limitations being achievable or having been achieved in practice and reviewing LAER as determined by a permit applicant.

When determining whether a particular emission limitation is achievable or has been achieved in practice, the following issues shall be considered, to the extent allowed by the Clean Air Act and USEPA regulations: cost, energy requirements, health environmental impacts, adequacy of the demonstration of performance in practice, and similarities of the proposed technology to demonstrated technology achieving an emission limitation in terms of gas stream, scale, economics, etc. These considerations do not necessarily prevent a requirement that technology be transferred from one type of equipment or operation to another, or innovative technology be developed to attain a particular emission limitation.

When construction of equipment or an operation has legally begun prior to the applicability of a LAER requirement (and LAER becomes applicable due to a modification or incremental growth), or when equipment may be connected to an existing control system, the stage of construction and the feasibility of further reductions in emissions shall be considered in determining LAER. In such instances incremental improvement in overall efficiency of the existing control system may be equivalent to the achievement of LAER by a particular item of equipment or operation, based upon consideration of the relevant issues.

## 10.0 Procedure For Determination Of Emission Offsets

### 10.1 Baseline And Source Of Emission Offsets

Reductions in emissions from any source, including fugitive sources, e.g., stockpiles, unpaved roads, etc., are acceptable as emission offsets provided that they are not significantly less hazardous to human health than the emissions from the new or modified source.

The baseline for determining emission offsets for particulate matter (TSP), sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO) shall be the applicable emission standard or emission level contained in the Pollution Control Board Rules or Regulations, Chapter 2, in effect at the time the application is submitted, unless this is greater than the uncontrolled emission rate. In such cases, the baseline for emission offsets shall be the uncontrolled emission rate. If no emission limitation is contained in the Pollution Control Board Rules and Regulations, Chapter 2, the baseline for emission offsets for TSP, SO<sub>2</sub>, NO<sub>x</sub> and CO shall be the actual emission rate.

The baseline for emission offsets for organic material, for a particular operation or item of equipment, shall be the actual emissions rate or the allowable emission rate, whichever is lower.

An emission offset must be obtained from a source which is in operation prior to the operation of the new or modified source. If a source which is providing an emission offset is subject to permit requirements, the operating permit application for such source must be submitted to the Agency so that the permit may be withdrawn or a new operating permit may be issued for such "offsetting" source with the reduced emission rate as a condition of the permit. If a source providing an emission offset is not subject to permit requirements, the offset will be made a condition of the permit for the new or modified source. Such a permit must be issued by the Agency and accepted by the applicant and such an emission reduction must be achieved prior to the operation of the new or modified source.

## 10.2 Location of Emission Offsets

All offsets for emissions of particulate matter, sulfur dioxide, nitrogen oxides, or carbon monoxide must be obtained from sources which are significant contributors to or are located in the nonattainment area affected by the new or modified source.

Offsets for emissions of organic material must be greater than the allowable emissions from the new or modified source. Such offsets must generally be provided by sources located within 100 miles of the new or modified organic material source. If the offsets are to be provided from sources located more than 100 miles from the new or modified source, the applicant must demonstrate, using generally accepted engineering and scientific principles, that the effect of the proposed offsets on air quality is at least as great as if the source of the offsets were located within 100 miles of the new or modified source.

#### 10.4 Reduction of Available Emission Offset by a "Replacement Equipment Effectiveness" Rule

The allowable emission standard for sources of particulate matter may be reduced pursuant to a "replacement equipment effectiveness" rule (a rule restricting particulate emissions from sources in certain nonattainment areas to the emission levels resulting from the installation of control equipment with a particular effectiveness). Such a rule would lower the baseline for emission offsets. If such a rule is promulgated by the Illinois Pollution Control Board, the owners or operators of sources subject to the rule will have first claim upon any remaining growth allowance in the SIP as provided by Section 13.1 for use as emission offsets accompanying the operation of new or modified sources. This claim is not transferrable from one person to another, except where ownership of the source limited by such rule is transferred. In such case the new owner shall be entitled to exercise claim to an offset from the growth allowance to the same extent as the former owner.

Following the promulgation of a "replacement equipment effectiveness" rule, actual reductions in emissions (below the allowable emission level or standard) made by installation of additional or improved air pollution control equipment on equipment or operations subject to the rule, may be banked as emission offset.

#### 11.0 Procedure For Certification of Compliance by Other Sources

Certification required by these rules must be made in writing and state that all major sources of particulate matter, sulfur dioxide, nitrogen oxides, organic material or carbon monoxide, owned or operated by the applicant, (or by any person controlling, controlled by, or under common control with the applicant), which are located in the state of Illinois are in compliance with all applicable Pollution Control Board Rules and Regulations Chapter 2. If other information available to the Agency contradicts a certification of compliance provided by the applicant, the Agency shall request appropriate information sufficient to verify such certification. Failure to supply such information will result in denial of the permit application for the new or modified source.

The Agency shall waive this requirement if the applicant is actively following an acceptable Board-ordered or court-ordered program. To be acceptable, a Board-ordered or court-ordered compliance program must provide that an otherwise noncomplying source will be in compliance with the applicable provisions of the Illinois Environmental Protection Act and the Pollution Control Board Rules and Regulations, Chapter 2.

#### 12.0 Procedure For Demonstration Of Improvement In Air Quality

An applicant who is required to demonstrate an improvement in air quality in a nonattainment area where such improvement is due to the operation of a new or modified source shall make such a showing using dispersion modeling techniques acceptable to the Agency or other techniques using generally accepted engineering or scientific principles.

The improvement shall be shown using allowable emission rates from the new or modified source, and actual emissions or actual emissions reductions from existing equipment or operations. The demonstration shall not include "paper offsets", offsets from the allowable emissions where no actual reductions in emission occur. The applicant may use any means acceptable to the Agency and allowable under the Illinois Environmental Protection Act, Pollution Control Board Rules and Regulations, Chapter 2: Air Pollution, and the Clean Air Act (emission offsets, so far as they represent actual reductions in emissions or a portion of the growth allowance contained in the SIP; physical changes in existing sources; improvement of stack design to good engineering practice; etc.) as a basis for air quality improvement.

The air quality improvement demonstration shall be made for each applicable time period for which the air quality standards have been exceeded. A net air quality improvement demonstration need not show that air quality improves at every location in the nonattainment area, but only that, on the balance, air quality is improved and that at no location is air quality substantially worsened. An absolute air quality improvement demonstration shall show constant or improved air quality at every location which the new or modified source affects.

### 13.0 Alternatives to Emission Offsets

#### 13.1 State Implementation Plan Growth Allowance

The Illinois State Implementation Plan (SIP) includes a limited allowance for growth. This growth allowance is essential to compensate for increases in emissions at sources not subject to the requirements of these rules.

A person planning a source subject to these rules may petition the Agency for use of some portion of this growth allowance as a required emission offset. A person making such a petition must show that possible emission offsets were investigated and no offsets were reasonably available at the time. The Agency shall grant the petition if (1) it does not interfere with reasonable further progress and (2) the permit applicant enters into an enforceable program to provide the required emission offset at some future time.

This enforceable program shall provide for the return of the growth allowance to the SIP, as emission offsets become available to the permittee, through the normal shut down of operations or other actions initiated by the permittee, or when the equipment or operation, for which the growth allowance was given, ceases operation.

#### 13.2 Attainment Area Credit

A person may prepare an air quality study showing that emissions or some portion of the emissions from the new or modified source subject to these rules does not affect the nonattainment area, or, in other words, that a certain fraction of the emissions solely impacts attainment areas. If such an air quality study is submitted, using acceptable dispersion modeling approved by the Agency, the Agency will waive the emission offset requirement for such fraction of emissions, provided that such emissions are subject to permit conditions, which are essentially equivalent in effect to the USEPA regulations for the Prevention of Significant Deterioration of Air Quality (40 CFR 51.24), notwithstanding any applicability criteria contained in those regulations.

### 13.3 Nonattainment In Rural Areas Attributable to Rural Fugitive Emissions

(Reserved.)

### 14.0 Temporary Emission Sources

Temporary emission sources, such as pilot plants and construction activity, and temporary operation of portable emission sources, e.g., concrete batch plants and asphalt plants, are not subject to emission offset or air quality improvement provisions of these rules. (Such sources are subject to the other provisions of these rules.) Generally for the operation of a source to be considered temporary, the emissions must occur for less than two years. A source with emissions for a longer period of time will be dealt with on a case-by-case basis by the Agency for determining whether such source may be considered temporary.

The Agency shall determine that a source is temporary based upon limitations of materials, terms of relevant contracts, experimental or noncommercial nature of the project, its dependence upon other activities and any other factors unique to the source or site.



COOK COUNTY AIR POLLUTION  
CONTROL ORDINANCE

ARTICLE I - TITLE

This ordinance shall be hereafter known, cited, and referred to as:

The Cook County Air Pollution Control Ordinance

## ARTICLE II - INTENT AND PURPOSE

This Air Pollution Control Ordinance is adopted for the following purposes:

1. To promote and to protect the public health, safety, comfort, convenience, and the general welfare of the people.
2. To protect residential, business, and manufacturing areas alike from the harmful effects of air-borne pollutants.
3. To insure high standards of light and air in areas where people live and work.
4. To maintain and improve accepted air pollution control practices.
5. To control emissions from all potential hazards or nuisances.
6. To define the powers and duties of the administrative officers and bodies, as provided hereinafter.
7. To provide for the establishment of a schedule of fees.

### ARTICLE III - RULES AND DEFINITIONS

In the construction of this ordinance the rules and definitions contained in this Article shall be observed and applied, except when the context clearly indicates otherwise.

#### 3.1 Rules

3.1-1 Words used in the present tense shall include the future tense, and words used in the singular number shall include the plural number, and the plural the singular.

3.1-2 The word "shall" is mandatory and not discretionary.

3.1-3 The word "may" is permissive.

3.1-4 The masculine gender include the feminine and the neuter.

3.1-5 The phrase "used for" shall include the phrases "arranged for", "designed for", "intended for", "maintained for", and "occupied for".

#### 3.2 Definitions

##### a. Air Contaminant

Air contaminant means and includes, but is not limited to, the following: dust, soot, mist, smoke, fumes, fly ash, vapor, corrosive gas, or other discharge, and any other airborne material or substance that is offensive, nauseous, irritating, or noxious to humans or other animal life.

##### b. Ashes

Ashes shall include cinders, fly ash, or any other solid material resulting from combustion, and may include unburned combustibles.

##### c. Atmospheric Pollution

Atmospheric Pollution is the discharging from stacks, chimneys, exhausts, vent, ducts, openings, buildings, structures, premises, open fires, portable boilers, vehicles, processes, or any other source of any smoke, soot, fly ash, dust, cinders, dirt, noxious or obnoxious acids, fumes, oxides, gases, vapors, odors, toxic or radioactive substances, waste, particulate, solid, liquid or gaseous matter, or any other materials in such place, manner, or concentration as to cause injury, detriment, nuisance,

or annoyance to the public, or to endanger the health, comfort, safety, or welfare of the public, or in such a manner as to cause injury or damage to business property.

d. Boat

Boat shall include all ships, vessels, boats, floating equipment, floating structures, or any device operating, existing, anchored, or moored upon the surface of the water.

e. Bureau

Bureau, as used in this ordinance, shall mean the Cook County Air Pollution Control Bureau.

f. Cinders

Cinders are particles not ordinarily considered as fly ash or dust because of their greater size; and consisting essentially of fused ash and/or unburned matter.

g. Cook County

Cook County, as used in this ordinance (with the exception of the use of said words to describe or identify the Government or Board of Commissioners thereof), shall mean all the territory in said County exclusive of the City of Chicago and such municipalities certified as exempt from State regulation by the Illinois State Air Pollution Control Board.

h. Director

Director, as used in this ordinance, shall mean the Director of the Bureau, enforcing officer of the ordinance.

i. Dust

Dust is solid particulate matter released into the air by natural forces, or by any fuel burning, combustion, or process equipment, or device, or by construction work, or by mechanical or industrial processes, such as crushing, grinding, milling, drilling, demolishing, shoveling, bagging, sweeping, covering, conveying, transferring, transporting, and the like.

j. Equivalent Opacity

Equivalent Opacity is the light obscuration of smoke other than

gray or black, that corresponds to the obscuration as described on the Ringelmann Chart.

k. Fly Ash

Fly Ash is solid particulate matter from a combustion process capable of being gas-borne or air-borne and consisting essentially of fused ash and/or burned or unburned material.

l. Fuel

Fuel shall include any form of combustible matter - solid, liquid, vapor, or gas.

m. Fuel-Burning, Combustion, or Process Equipment or Device

Fuel-Burning, Combustion, or Process Equipment or Device is any furnace, incinerator, fuel-burning equipment, refuse-burning equipment, boiler, apparatus, device, mechanism, fly ash collector, electrostatic precipitator, smoke arresting or prevention equipment, stack, chimney, breeching, or structure, used for the burning of fuel or other combustible material, or for the emission of products of combustion, or used in connection with any process which generates heat and may emit products of combustion; and shall include process furnaces, such as heat treating furnaces, by-product coke plants, core-baking ovens, mixing kettles, cupolas, blast furnaces, open hearth furnaces, heating and reheating furnaces, puddling furnaces, sintering plants, bessemer converters, electric steel furnaces, ferrous foundries, non-ferrous foundries, kilns, stills, dryers, roasters, and equipment used in connection therewith, and all other methods or forms of manufacturing, chemical, metallurgical, or mechanical processing which may emit smoke, or particulate, liquid, gaseous, or other matter.

n. Fumes

Fumes are gases, vapors, or particulate matter that are of such character as to cause atmospheric pollution.

o. Incinerator

Incinerator is a combustion apparatus designed for high temperature operation in which solid, semi-solid, liquid or gaseous combustible wastes are ignited and burned efficiently, and from which the solid residues contain little or no combustible material.

p. Internal Combustion Engine

Internal Combustion Engine is an engine in which combustion of gaseous, liquid, or pulverized solid fuel takes place within one or more cylinders.

q. Noxious Matter or Materials

Noxious Matter or Materials is matter or material which is capable of causing detrimental effects upon the physical or economic well-being of individuals.

r. Odorous Matter

Odorous Matter is any matter or material that yields an odor which is offensive in any way.

s. Open Burning

Open Burning is any fire or combustion process not conducted in an apparatus designed for efficient combustion.

t. Particulate Matter

Particulate Matter is material other than water, which is suspended in or discharged into the atmosphere in a finely divided form as a liquid or solid.

u. Person

Any individual, natural person, trustee, court appointed representative, syndicate, association, partnership, firm, club, company, corporation, business trust, institution, agency, government corporation, municipality, district or other political subdivision, department, bureau, agency or instrumentality of federal, state or local government, contractor, supplier, vendor, installer, operator, user or owner, or any officers, agents, employees, factors or any kind of representatives of any thereof, in any capacity, acting either for himself, or for any other person, under either personal appointment or pursuant to law, or other entity recognized by law as the subject of rights and duties. The masculine, feminine, singular or plural is included in any circumstances.

v. Ringelmann Chart

Ringelmann Chart is one which is described in the U.S. Bureau of Mines Information Circular 8333 Ringelmann Smoke Chart, and on which are illustrated graduated shades of gray for use in estimating the light-obscuring capacity of smoke.

w. Smoke Density

Smoke Density is the light-obscuring property of smoke measured on the Ringelmann Chart.

x. Ringelmann Number

Ringelmann Number is the number appearing on the Ringelmann Chart ascribed by the observer to the density or equivalent opacity of the smoke emission. Where the density or opacity of the smoke as observed falls between two consecutive Ringelmann Numbers, the lower Ringelmann Number shall be considered the density or equivalent opacity of the smoke observed.

y. Smoke

Smoke consists of small gas-borne particles, other than water, that form a visible plume in the air from a source of atmospheric pollution.

z. Smoke Unit

Smoke Unit is the number obtained when the smoke density in Ringelmann number is multiplied by the time of emission in minutes. For the purpose of this calculation, a Ringelmann density reading shall be made at least once a minute during the period of observation; each reading (the average of all readings made during any one minute) is then multiplied by the time in minutes during which it was observed. The various products are then added together to give the total number of smoke units observed during the entire observation period.

aa. Soot

Soot consists of agglomerated particles composed essentially of carbonaceous material.

bb. Standard Conditions

A gas temperature of 60 degrees Fahrenheit and a gas pressure of 30 inches of mercury.



cc. Toxic Matter or Materials

Toxic Matter or Materials are those materials which are capable of causing injury to living organisms by chemical means when present in relatively small amounts.

dd. Vehicle

Vehicle is a self-propelled mechanism, such as a truck, machine, tractor, roller, derrick, crane, trencher, portable hoisting engine, or automobile, or any conveyance used for carrying persons or things.

## ARTICLE IV - GENERAL PROVISIONS

### 4.1 Interpretation

- 4.1-1 In their interpretation and application, the provisions of this ordinance shall be held to be the minimum requirements for the promotion of the public health, safety, morals, and welfare.
- 4.1-2 Where the conditions imposed by any provision of this ordinance are either more restrictive or less restrictive than comparable conditions imposed by any other provision of this ordinance or of any other applicable law, ordinance, resolution, rule, or regulation, the regulations which are more restrictive (or which impose higher standards or requirements) shall govern.
- 4.1-3 This ordinance is not intended to abrogate any covenant or any other private agreement, provided that where the regulations of this ordinance are more restrictive (or impose higher standards or requirements) than such covenant or other private agreement, the requirements of this ordinance shall govern.
- 3.1-4 Nothing contained in this ordinance shall be deemed to be a consent, license, or permit to locate, construct, or maintain any building, structure, or facility, or to carry on any trade, industry, occupation, or activity.
- 4.1-5 The provisions in the Cook County Air Pollution Control Ordinance are accumulative and additional limitations upon all other laws and ordinances heretofore passed or which may be passed hereafter, covering any subject matter in this ordinance.

### 4.2 Separability

It is hereby declared to be the intention of the President and Board of Commissioners of Cook County that the several provisions of this ordinance be separable in accordance with the following:

- 4.2-1 If any court of competent jurisdiction shall adjudge any provision of this ordinance to be invalid, such judgment shall not affect any other provision of this ordinance not specifically included in said judgment.

- 4.2-2 If any court of competent jurisdiction shall adjudge invalid the application of any provision of this ordinance to a particular building, process, or source of emission, such judgment shall not affect the application of said provision to any other building, process, or source of emission not specifically included in said judgment.

#### 4.3 Scope of Regulation

The Cook County Air Pollution Control Ordinance shall be applicable to all new and existing sources of air pollution or contamination located in, or operated within, the boundaries of Cook County, except within the corporate limits of the City of Chicago and such municipalities certified as exempt from State regulation by the Illinois State Air Pollution Control Board. This ordinance is designed to lessen or prevent the discharge of air contaminants or pollutants through the regulation of

- a. The design and installation of accessory or appurtenant parts and equipment of buildings and structures, and the uses of land connected with the emission of air contaminants,
- b. The operation or use of equipment and appliances emitting air contaminants,
- c. The conduct or carrying on of uses of land which cause the emission of air contaminants,
- d. The abatement of an operation, activity, or use causing air contamination, and
- e. The rules and regulations for controlling air pollution episodes, as adopted by the State of Illinois Air Pollution Control Board, shall apply. In the case of overlapping or conflicting requirements, the more restrictive shall apply.

#### 4.4 Report of Equipment Breakdown

In the event of unavoidable failure or breakdown of any fuel-burning, combustion, or process equipment or device, or other circumstances beyond the control of any person owning or operating such equipment, including necessary shut-downs of smoke abatement or dust collection equipment for purposes of maintenance or repair, which tends to produce unlawful emission of smoke, particulate, or other matter, the owner or managing agent of such equipment or process shall immediately notify the Air Pollution Control Bureau of the County of Cook

of such failure, breakdown, or other circumstance together with all pertinent facts relating thereto, and a statement of the date upon which the condition will be rectified, and shall also report to it when such defect has been removed. Immunity from prosecution under such circumstances shall be at the discretion of the Director of the Bureau.

## ARTICLE V - ADMINISTRATION AND ENFORCEMENT

### 5.1 The Air Pollution Control Bureau

There is hereby created the Air Pollution Control Bureau of the County of Cook, as a subordinate and integral division of the Cook County Building Department. Said Bureau is hereby vested with the administration of this ordinance, and shall consist of the Director of the Bureau, Assistant Director, Chief Air Pollution Inspector, and such other officers and employees as the County Board of Commissioners may designate. The President of the Board of Commissioners of Cook County is hereby authorized to designate the County Building Commissioner as Director of the Bureau, the Deputy Building Commissioner as Assistant Director, and the Inspection Supervisor as Chief Air Pollution Inspector, who shall exercise the duties set forth in this ordinance and who shall serve in such capacities without additional compensation. In addition, the President of the Board is hereby authorized to designate existing Building Department personnel as employees of the Air Pollution Control Bureau.

#### 5.1-1 Duties of the Director of the Bureau

The duties or functions of the Director shall be:

- a. To supervise the execution of all laws, ordinances, rules, and regulations pertaining to smoke abatement and air pollution and contamination control;
- b. To institute necessary proceedings to prosecute violations of this ordinance and to compel the prevention and abatement of the issuance of smoke or gases, solids or liquids, or other matter causing air pollution, and nuisances arising therefrom;
- c. To examine and approve the plans of fuel-burning, combustion or process equipment or devices, furnaces, and smoke prevention and air pollution control devices installed, constructed, reconstructed, repaired, or added to, in any building, location, or on any premises as herein provided to assure that they are in accordance with the requirements of this ordinance;
- d. To cause inspections to be made of fuel-burning, combustion, or process equipment or devices, furnaces, and smoke prevention and air pollution control devices;

- e. To investigate complaints of violations of this ordinance;
- f. To encourage and conduct studies, investigations, and research relating to the physical, chemical, engineering, and meteorological aspects of air pollution, and its causes, prevention, control, and abatement as he may deem advisable and necessary;
- g. To develop plans and proposals for joint cooperative investigation and research with public and private agencies and organizations on methods for eliminating or reducing air pollution;
- h. To enlist voluntary cooperation by the public, municipalities, counties, communities, and civic, technical, scientific, and educational societies;
- i. To advise, consult, and cooperate with other governmental agencies in the furtherance of the purposes of this ordinance;
- j. To collect, publish, and disseminate appropriate educational literature and other information to the public for the purpose of advising of the necessity, purpose, and methods for smoke control and air pollution prevention and securing cooperation in the reduction of emission of smoke and other air pollutants;
- k. To institute such measures and prescribe such rules and regulations for the control and guidance of his officers and employees as shall secure maximum working efficiency, including the careful examination of drawings and plans and diligent inspection of all sources of emission;
- l. To issue all permits, certificates, notices, or other matters required under the provisions of this ordinance; and to notify all persons concerned of any decision he may render and to provide such persons with an opportunity to be heard.
- m. To promulgate and publish with the advice and consent of the Technical Advisory Committee SUGGESTED GUIDELINES for the purpose of abating pollution. These guidelines will provide, with clarity and in detail, any information by which an establishment is to be guided in the design and/or operation of equipment or process.

#### 5.1-2 Duties of the Assistant Director

The Assistant Director shall act as Director of the Bureau in the absence of the Director. While so acting he shall discharge all the duties and possess all the powers imposed upon, or vested in, the Director of the Bureau. The Assistant Director shall, under the direction of the Director, exercise general supervision of all matters pertaining to the work of the Air Pollution Control Bureau.

#### 5.1-3 Duties of the Chief Air Pollution Inspector

The Chief Air Pollution Inspector shall be in charge of supervising and coordinating all inspection activities of the Bureau. He shall make inspections of all newly installed, constructed, reconstructed, repaired, or altered fuel-burning, combustion, or process equipment or devices, furnaces, and smoke prevention and air pollution control devices and make annual or periodic inspections of all new and existing equipment and devices to determine compliance with the provision of this ordinance. He shall investigate complaints of violations of this ordinance and, in conjunction therewith, make inspections and observations of air pollution conditions.

### 5.2 Permits and Plans

#### 5.2-1 Application for Installation Permit

No person shall construct, install, or alter (except in accordance with paragraph 5-2-3, herein) any air pollution control equipment or any fuel-burning, combustion, or process equipment or any fuel equipment pertaining thereto having a potential or capability of emitting air contaminants, for use within Cook County, except within the corporate limits of the City of Chicago and such municipalities certified as exempt from State regulation by the Illinois State Air Pollution Control Board, until an application including suitable plans and specifications of the fuel-burning equipment or structures or buildings used in connection therewith has been filed in duplicate by the person or his agent in the office of, and has been approved by, the Director and an installation permit has been issued by him for such construction, installation, or alteration.

#### 5.2-2 Plans and Specifications

The above-mentioned plans and specifications shall show the form, dimensions, and sufficient detail to describe the

operating characteristics of all equipment set forth in Section 5.2-1 of this ordinance. More particularly, the proposed boiler, furnace, fuel burner, air pollution control equipment, stack, and ducts, together with the description and dimensions of the building or part thereof in which such equipment is to be located, including the means provided for admitting the air for combustion. The character of the fuel to be used, the maximum quantity of such fuel to be burned per hour, the operating requirements, and the use to be made of the equipment shall be stated.

#### 5.2-3 Minor Alterations and Emergency Repairs

##### a. Minor Alterations Exempted

Installation permits shall not be required for maintenance or minor alterations which do not change the capacity of any fuel burning, combustion, or process equipment, or adversely affect the emission of smoke, dust, or fumes therefrom.

##### b. Emergency Repairs

Emergency repairs which would change the capacity of any fuel burning, combustion, or process equipment, or which would involve a change in the method of combustion, or adversely affect the emission of smoke, dust, or fumes therefrom, may be made prior to the application for, and the issuance of, a required installation permit, in the event an emergency arises and serious consequences would result if the repairs were to be deferred. When such repair is made in emergency, application for the installation permit thereof shall be filed in duplicate by the person or his agency in the office of the Director on the first business day following the starting of such work.

#### 5.2-4 Action on Application

An application shall be approved or rejected within 10 days after it is filed in the office of the Director. Upon the approval of the application and upon the payment of the prescribed fees, the Director of the Bureau shall issue a permit for the construction, installation, or alteration of such equipment.

#### 5.2-5 Compliance with Approved Plans

Without the approval of the Director no construction, installation, or alteration shall be made which is not in



accordance with the plans, specifications, and other pertinent information upon which the installation permit was issued.

#### 5.2-6 Commencement of Work

If construction, installation, or alteration is not started within one year of the date of the installation permit, the permit shall become void and all fees shall be forfeited.

#### 5.2-7 Operating Permit

No person shall use or cause to be used any new or altered fuel-burning, combustion, or process equipment or any equipment pertaining thereto for which an installation permit was required or was issued until an operating permit has been issued by the Director, provided that where emergency repairs have been made without an installation permit, pursuant to paragraph 5.2-3, of this section, such equipment may be operated without securing an operating permit if serious consequences would result if the operation was deferred. The application for an installation permit following such emergency repair and operation shall be accompanied by an application for an operating permit.

#### 5.2-8 Subsequent Violation

The issuance by the Director of the Bureau of any installation permit or operating permit shall not be held to exempt the person to whom the permit has been issued or who is in possession of the same, from prosecution for the emission of smoke, dust, and fumes prohibited by this ordinance.

### 5.3 Enforcement

#### 5.3-1 General

No installation or operating permit shall be approved or issued until all applicable provisions of this ordinance have been complied with.

#### 5.3-2 Bureau Liability

In all cases where any action is taken by the Director of the Bureau, or his duly appointed representative, to enforce the provisions of this ordinance, such acts shall be

done in the name of and on behalf of Cook County, and the said Director or representative in so acting for the County shall not render himself liable personally. He is hereby relieved from all personal liability from any damage that may accrue to persons or property as a result of any such act committed in good faith in the discharge of his duties. Any suit brought against said Director or his representative by reason thereof shall be defended by the States Attorney's office. The director or his representative shall be save harmless from all costs or fees arising from such legal action.

### 5.3-3 Methods of Enforcement

#### a. Inspection

The Director of the Bureau shall provide for preliminary, final, and annual inspections of all equipment pertaining to air pollution.

##### 1. Preliminary Inspection

The director shall conduct preliminary inspections from time to time during construction of the work for which he has issued an installation permit; and he shall maintain a record of all such examinations and inspections and of all violations of this ordinance. The holder of the permit shall be notified of any violations found.

##### 2. Final Inspection

Upon completion of the equipment for which an installation permit was issued, and before issuance of the operating permit required in section 5.2, a final inspection shall be made and any violations of the approved plans and installation permit, if any, shall be noted and the holder of the permit shall be notified of the discrepancies. All violations shall be corrected before issuance of the operating permit.

##### 3. Annual Inspection

An annual inspection of all fuel-burning and combustion equipment exceeding 10 million (10,000,000) BTU input per hour, all incinerators with a capacity in excess of 500 pounds per hour, and all process equipment or devices under the jurisdiction of this

ordinance, whether or not a previous operating permit has been issued by the Director, shall be made to see that such equipment and plant can be operated within the provisions of the ordinance. Upon notice that the equipment has been found to comply with the provisions of the ordinance, and after payment of the prescribed fee, the Director shall issue a certificate of operation, which shall be posted in a conspicuous place within the plant. If, at the time of the annual inspection, it is found that the equipment is in such condition that it cannot be operated within the provisions of the ordinance, the Director shall give notice in writing to the person owning, operating, or in charge of such equipment of the defects found and order to correct, repair, or replace the defective equipment. Failure to comply with this order within 30 days from its date shall be a violation of this section and the Director is hereby authorized to seal the equipment. No person shall violate the seal on any equipment that has been sealed at the direction of the Director of the Bureau unless authorized by him in writing to do so.

b. Sealing of Equipment

1. Citation, Hearing and Sealing

- (a) After any person has been previously notified of three (3) or more violations of this ordinance within any consecutive 12 month period in respect to the emission of smoke, particulate, or other matter by the same piece of equipment in excess of the emission limitations herein provided or in respect to violations of other requirements provided in this ordinance, such a person shall be notified in writing to show cause before the Director on a day certain, not less than 20 days from date of service of such notice, why the equipment or process causing such violations should not be sealed. This last notice herein provided for may be given by mail, directed to the last known address of the person to be notified, or if such person or his whereabouts is unknown, then by posting a notice on or near the premises

at which the violations shall have occurred. Upon the date specified in the notice such person may appear at such hearing in person or by representative, with or without counsel. If such person fails to appear at such hearing or if upon such hearing the Director shall find and determine that the violations are due to defective equipment or equipment which is incapable of being operated with the maximum emission limitations established by or under this ordinance, or that corrective measures previously ordered by the Director have not been employed to eliminate the causes producing the violations, he may enter an order revoking any certificate or permit outstanding for such equipment or process and directing that the same be sealed by an inspector or other authorized agent of the Director. In making the finding and determination hereinabove referred to, the Director shall, in the case of smoke density or opacity measurements, take into consideration whether the equipment is capable of being operated within the particulate matter limitations provided in Table 6 of this ordinance.

- (b) Upon notice and hearing, if notice and hearing has not previously been provided, the Director may order that the use of any fuel-burning, combustion, or process equipment or device shall be discontinued and may seal such equipment or process:
  - (i) When a certificate of operation is refused in the case of any original, annual, or subsequent inspection, because the person required to procure such certificate has not complied with the provisions of this ordinance;
  - (ii) In the case of movable equipment, or portable boilers, or vehicles, when immediate correction of a condition causing a violation of this ordinance

is not made by the operator of such equipment, portable boiler, or vehicle when ordered to do so by the Director or his authorized representative.

2. Breaking of the Seal

Whenever, in connection with the enforcement of this ordinance, any fuel-burning, combustion, or process equipment or device, or any plant, building, structure, premises, portable boiler, or vehicle, has been sealed at the direction of the Director, the seal shall not be broken or removed except on written order of the Director. The breaking or removal of this seal without such order shall be a violation of this ordinance.

c. Right of Entry

1. In the discharge of his duties, the Director or his authorized inspector shall have the authority to enter, at any reasonable hour, any building, structure, or premises to enforce the provisions of this ordinance.
2. The Director shall adopt a badge of office for himself and his representatives which shall be displayed for the purpose of identification.
3. The assistance and cooperation of health, police, legal, and other officers shall be available to the Director as required in the performance of his duties.

d. Complaints and Reports

It shall be the duty of the Director of the Bureau to cause an investigation to be made of all complaints made to the Bureau which come within its jurisdiction. A record of such investigation shall be kept on file together with the reports and findings signed by the inspector or inspectors.

e. Persons Liable

Unless otherwise specifically provided, the owner, his agent for the purpose of managing, controlling or collecting rents, and any other person managing or

controlling a building or premises, in any part of which there is a violation of the provisions of this ordinance, shall be liable for any violation therein, existing or occurring, or which may have existed or occurred, at or during any time when such person is or was the person owning or managing, controlling, or acting as agent in regard to said buildings or premises. Wherever used in the provisions of this ordinance, the "owner" shall include any person entitled under any agreement to the control or direction of the management or disposition of the building or premises or of any part of the building or premises where the violation in question occurs.

The liabilities hereunder imposed on an owner shall attach to a trustee under a land trust, holding title to such building, structure, or premises without the right of possession, management, or control, unless said trustee in a proceeding under said provisions of this ordinance discloses in a verified pleading or in an affidavit filed with the court, the name and last known address of each person who was a beneficiary of the trust at the time of the alleged violation and of each person, if any, who was then acting as agent for the purpose of managing, controlling, or collecting rents, as the same may appear on the records of the trust.

f. Penalty Clause

Any person, firm or corporation, or agents, employees or contractors of such, who violate, disobey, omit, neglect, or refuse to comply with or who resist enforcement of any of the provisions of this ordinance, shall be subject to a fine of not more than five hundred dollars (\$500.00) of imprisonment for not more than six (6) months, or both, for each offense, and each day a violation continues to exist shall constitute a separate offense.

5.4 Variances

The Director of the Bureau is hereby given authority for the granting of individual variances for any fuel-burning, combustion, or process equipment or device, beyond the limitations prescribed in this ordinance whenever it is found, upon the presentation of adequate proof, that compliance with any provision of this ordinance or other ordinance

relating to atmospheric pollution, or any rule, regulation, requirement, or order of the Director, will result in an arbitrary and unreasonable taking of property or in the practical closing and elimination of any lawful business, occupation, or activity, in either case without a sufficient corresponding benefit or advantage to the people in the reduction of atmospheric pollution; in such case, there shall be prescribed other and different requirement, not more onerous, applicable to plants or equipment involved.

#### 5.5 Appeals

Any person taking exception to and affected by any final decision, ruling, requirement, rule, regulation, or order, or failure to act upon request within a reasonable period by the Director, may take an appeal to the Environmental Control Appeal Board. Such appeal shall be taken within 30 days after receiving notice of such decision, ruling, requirement, rule, regulation, or order, or failure to act upon request within a reasonable period, by filing with the Director a notice of appeal directed to the Environmental Control Appeal Board, specifying the grounds thereof and the relief prayed for. The Director shall forthwith furnish to the Appeal Board all the papers relating to the case. The Appeal Board shall set a date for the hearing, and shall give notice thereof by mail to the interested parties. At the hearing any party may appear in person or by agent or attorney, and present evidence, both written and oral, pertinent to the questions and issues involved, and may examine and cross-examine witnesses. The Appeal Board after the hearing shall affirm, modify, or reverse the decision, ruling, requirement, rule, regulation, or order of the Director, or order him to act. The decision of the Environmental Control Appeal Board shall be binding on the Director.

##### 5.5-1 Appeal Board

An Appeal Board, consisting of five members, is hereby established. The members shall be appointed for a term of two years, by the consent of the President of the County Board of Commissioners, and one of said members shall be designated as Chairman by the President of the County Board of Commissioners. A Secretary of the Board shall be designated by the Chairman. Of the initial appointed Appeal Board, two members shall serve for one year, two members for two years, and one member for three years. The compensation of each member of the Appeal Board shall be as set forth in the annual appropriation of the County of Cook.

a. Qualifications

The members of the Appeal Board shall be chosen from among the following professions and occupations: law; medicine; engineering; science; business; and labor. Each member shall have had no less than five years of experience in his particular profession or occupation and where licenses or permits are required in order to pursue said profession or occupation, he shall be the possessor of a current State of Illinois permit.

5.6 Period of Grace

In the event any person is compelled to, or deems it advisable to, install any new equipment, processes, or devices, appliances, means, or methods, including needed control equipment, in order to comply with any provision of this ordinance, and exemption from the operation of this ordinance is reasonably necessary in order to allow sufficient time for such installation, such exemption may be granted by the Director on good cause shown. Upon complaint in writing by any such person, setting forth that it is impossible in the operation of any plant, fuel-burning, combustion or process equipment or device, or apparatus, to operate the same in complete compliance with the requirements of this ordinance, and stating evidence satisfactory to the Director that such person has taken, or will take all steps necessary to provide for future compliance with the provisions of this ordinance, and giving assurance to the Director that the acquisition and installation of the proper equipment, process, device, or appliance, or control equipment, will be effected within a reasonable period of time, stating specifically by nature and extent thereof, and upon the finding by the Director on investigation by him of the facts, that said complaint is well grounded, the Director is authorized to permit the operation of such plant, fuel-burning, combustion or process equipment or device, or apparatus, for a reasonable period of time within which period necessary equipment, process, device, means or methods, or control equipment, is to be acquired and installed; provided, however, that the Director is empowered to grant further reasonable extensions of time upon proof of extenuating circumstances, and that an order of the Director denying a complaint for a period of grace or an extension of time shall be subject to review by the Appeal Board, as hereinabove provided. During any such granted period, such persons shall not be subject to the fines and penalties hereinafter provided for the non-compliance sought to be remedied; if, however, such person willfully fails in the time allowed to conform with the applicable provision or provisions of this ordinance, or to comply with his assurance and agreement, he shall be subject to all applicable fines and penalties herein provided dating from the date of the beginning of the said period or periods.



It shall be the duty of such person to notify the Director immediately of the completion of such installation.

## 5.7 Abatement of Nuisances

### 5.7-1 Nuisance - Abatement

- a. Any emission of smoke, particulate matter (gaseous, liquid, or solid) from any single source in excess of the limitations established in or pursuant to the provisions of this ordinance shall be deemed and is hereby declared to be a public nuisance, and may be summarily abated by the Director. Such abatement may be in addition to the administrative proceedings herein provided.
- b. The Director is further empowered to institute legal proceedings for the abatement or prosecution of emissions of smoke, particulate, or other matter which causes injury, detriment, nuisance, or annoyance to the public or endangers the health, comfort, safety, or welfare of the public, or causes or has a natural tendency to cause injury or damage to business property. Such abatement may be in addition to the administrative proceedings herein provided.

### 5.7-2 Nuisance - Preservation of Common Law Rights

Nothing in this ordinance shall be construed to impair any cause of action, or legal remedy therefor, of any person or the public for injury or damage arising from the discharge, emission, or release into the atmosphere from any source whatsoever of such quantities of smoke, soot, fly ash, dust, cinders, dirt, noxious or obnoxious acids, fumes, oxides, gases, vapors, odors, toxic or radioactive substances, waste, particulate, solid, liquid, or gaseous matter, or any other materials in such place, manner, or concentration as to constitute atmospheric pollution, or a common law nuisance.

## 5.8 Amendments

The Cook County Board of Commissioners may, from time to time, amend the provisions or regulations contained in this ordinance, for the purpose of promoting the public health, safety, morals, comfort, and general welfare.

#### 5.9 Fees

Fees required for permits, certificates, and inspection of equipment and other sources of emission shall be established by separate resolution of the Cook County Board of Commissioners. All fees shall be collected by the Director of the Bureau for deposit with the County Treasurer.

#### 5.10 Advisory Committee

There is hereby established an Advisory Committee to consult with, assist, and advise the Director of the Cook County Air Pollution Control Bureau on all matters relating to the jurisdiction and responsibility of this Bureau. The Advisory Committee shall consist of (9) members - one member shall be the Director of the Cook County Air Pollution Control Bureau, who shall be Chairman - one member shall be the Director of the Cook County Health Department - one member shall be the Director of the Cook County Civil Defense - one member shall be the Superintendent of the Forest Preserve District - one member shall be the Superintendent of the Cook County Highways - one member shall be the Chairman of the Cook County Zoning Board of Appeals, and three to be appointed by the President of the County Board, one of which must be an Engineer of Ecology.

All shall be residents of the County of Cook.

The Committee shall:

1. Aid and advise the Director with respect to obtaining the active support and cooperation of industry, commercial enterprises, municipal and governmental agencies and other organizations interested in or affected by the provisions of this section.
2. Advise and consult with the Director with respect to amendments to this section considered appropriate by reason of research conducted in accordance with section hereof, or as otherwise provided.
3. Advise and consult with the Director with respect to the membership of the Advisory Sub-committees.
4. Attend meetings called by the Chairman from time to time.
5. Institute, support, and encourage such programs

for research and education in the field of ambient air control.

6. With the Director, appoint appropriate sub-committees to carry out such research programs as is deemed appropriate.

## ARTICLE VI - SMOKE AND PARTICULATE MATTER

### 6.1 General

#### 6.1-1 Compliance With Performance Standards

Any use of equipment, devices, or processes which emit smoke and/or particulate matter into the atmosphere shall comply with the performance standards governing smoke and particulate matter set forth hereinafter for the control zone in which such use shall be located, as established in Table 6, herein.

#### 6.1-2 Compliance With Other Standards

In addition to the performance standards specified herein, the smoke and particulate matter emissions shall also meet the standards for toxic matter and noxious and odorous matter indicated in Articles VII and VIII, respectively.

#### 6.1-3 Compliance With State Standards

Smoke and particulate matter emissions shall comply with the "Rules and Regulations Governing the Control of Air Pollution" as issued by the State of Illinois Air Pollution Control Board. In case of overlapping or conflicting requirements, the more restrictive shall apply.

### 6.2 Smoke Density Opacity Standards

#### 6.2-1 Method of Measurement

Density or equivalent opacity of smoke shall be measured by the Ringelmann Chart, published and used by the United States Bureau of Mines. Measurements shall be observed at the point of greatest density, except where particulate matter is obscured by steam (condensed water vapor).

#### 6.2-2 Maximum Density Allowed

The emission of smoke or particulate matter of a density equal to or greater than No. 2 on the Ringelmann Chart is prohibited at all times, except as provided for hereinafter.

### 6.2-3 Performance Standards by Control Zone

Smoke density emission shall conform to the requirements of Table 6 according to the control zone location of the source.

## 6.3 Particulate Matter Standards

### 6.3-1 General

Particulate matter emission into the atmosphere shall be relative to lot size and location.

### 6.3-2 Size Limitations

The emission from all sources within any lot area of particulate matter containing more than 10 percent by weight of particles having a diameter larger than 44 microns is prohibited.

### 6.3-3 Maximum Weight of Emission

The total emission weight of particulate matter from all fuel-burning, combustion, or process equipment or devices within the boundaries of any lot shall not exceed those values given in Table 6. In addition, the State of Illinois Regulations relating to particulate matter shall be complied with. In the case of overlapping or conflicting requirements, the more restrictive shall apply.

### 6.3-4 Method of Measurement

Determination of the total net rate of emission of particulate matter within the boundaries of any lot shall be made as follows:

- a. Determine the maximum emission in pounds per hour from each source of emission and divide this figure by the number of acres of lot area - thereby obtaining the gross hourly rate of emission in pounds per acre.
- b. From each gross hourly rate of emission derived in (a), above, deduct the correction factor (interpolating as required) for height of emission set forth in the table, thereby obtaining the net rate of emission in pounds per acre per hour from each source of emission.

- c. Add together the individual net rates of emission derived in ( ), above, to obtain the total net rate of emission from all sources of emission within the boundaries of the lot. Such total shall not exceed the limitations established in Table 6.

TABLE 6

PERFORMANCE STANDARDS BY CONTROL ZONE

ZONE 1

In unincorporated areas includes all Residential and Business Districts and the M1 Manufacturing District, as established and defined in the Cook County Zoning Ordinance. In incorporated areas, includes Residential, Business and Restricted Manufacturing Districts, or, the most restrictive Manufacturing District as defined in the applicable local zoning ordinance.

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SMOKE DENSITY	In Zone 1, the emission of more than 20 smoke units per hour per stack is prohibited, including smoke of a density equal to or in excess of Ringelmann No. 2. However, once during any six-hour period each stack may emit up to 35 smoke units - not to exceed Ringelmann No. 2, - when blowing soot or cleaning fires. Only during fire-cleaning periods, however, shall smoke of up to Ringelmann No. 3 be permitted, and then for not more than four (4) minutes per period.
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PARTICULATE MATTER	The rate of emission of particulate matter from all sources within the boundaries of any lot shall not exceed a net figure of one pound per acre of lot area during any one hour, after deducting from the gross hourly emission per acre the correction factor set forth in the following table:
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Allowance for Height of Emission\*

<u>Height of Emission Above Grade (Feet)</u>	<u>Correction (Pounds Per Hour Per Acre)</u>
50	0.01
100	0.06
150	0.10
200	0.16
300	0.30
400	0.50

\* Interpolate for intermediate values not shown in table.

ZONE 2

In unincorporated areas includes the M2 and M4 Manufacturing Districts, as established and defined in the Cook County Zoning Ordinance. In incorporated areas includes any General Manufacturing District other than the most restrictive and most intensive Manufacturing District as defined in the applicable local zoning ordinance.

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SMOKE DENSITY In Zone 2, the emission of more than 50 smoke units per hour per stack is prohibited, including smoke of a density equal to or in excess of Ringelmann No. 2. However, once during any three-hour period each stack may emit up to 62 smoke units - not to exceed Ringelmann No. 2, - for blowing soot and for cleaning fires. Only during fire-cleaning periods, however, shall smoke up to Ringelmann No. 3 be permitted, and then for not more than four (4) minutes per period.

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PARTICULATE MATTER The rate of emission of particulate matter from all sources within the boundaries of any lot shall not exceed a net figure of three (3) pounds per acre of lot area during any one hour, after deducting from the gross hourly emission per acre the correction factor set forth in the following table:

Allowance for Height of Emission\*

<u>Height of Emission Above Grade (Feet)</u>	<u>Correction (Pounds Per Hour Per Acre)</u>
50	0
100	0.5
150	0.8
200	1.2
300	2.0
400	4.0

\* Interpolate for intermediate values not shown in table.

ZONE 3

In unincorporated areas includes the M3 Manufacturing District as established and defined in the Cook County Zoning Ordinance. In incorporated areas includes heavy Manufacturing Districts or the most intensive Manufacturing Districts as defined in the applicable local zoning ordinance.

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SMOKE DENSITY	In Zone 3, the emission of more than 76 smoke units per hour per stack is prohibited, including smoke of an intensity equal to or greater than Ringelmann No. 2. However, once during any two-hour period each stack may emit up to 92 smoke units - not to exceed Ringelmann No. 2 - for blowing soot and for cleaning fires. Only during fire-cleaning periods, however, shall smoke up to Ringelmann No. 3 be permitted, and then for not more than six (6) minutes per period.
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PARTICULATE MATTER	The rate of emission of particulate matter from all sources within the boundaries of any lot shall not exceed a net figure of eight (8) pounds per acre during any one hour, after deducting from the gross hourly emission per acre the correction factor set forth in the following table:
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Allowance for Height of Emission\*

<u>Height of Emission Above Grade (Feet)</u>	<u>Correction (Pounds Per Hour Per Acre)</u>
50	0
100	0.5
150	1.5
200	2.4
300	4.0
400	8.0

\*Interpolate for intermediate values not shown in table.

6.3-5 Tests of Fuel-Burning, Combustion or Process Equipment

The Director is hereby authorized to conduct, or cause to be conducted, any test or tests as may be necessary to determine the extent of particulate matter and/or any other discharge from any fuel-burning, combustion or process equipment or device, if and when, in his judgment, there is evidence that any such equipment, process or device is exceeding any emission limitation described by or under this Ordinance. Tests shall be made and the results calculated in accordance, where applicable, with American Society of Mechanical Engineers Power Test Codes, entitled "Determining Dust Concentration in a Gas Stream PTC-27-1957" procedures as revised from time to time or in accordance with modified procedures published by the Department. All tests and calculations shall be made under the direction of a competent engineer. Any test or tests to be conducted on the premises where such equipment or device is located shall be made after written notice to, and with the cooperation of, the owner or operator. The cost of any test or tests and calculations shall be a debt due the County from any person responsible as owner, operator or otherwise of such fuel-burning, combustion or process equipment or device in all cases when such test or tests shall have proved any emission of particulate matter in violation of any provision of this Ordinance, and such unpaid debt shall be recoverable in court of competent jurisdiction. If any such emission is shown by such test or tests within the limits of emission prescribed in this Ordinance, the cost of such test or tests shall be charge to the annual appropriation of the Department.

#### 6.4 Open Burning

The open burning of refuse, paint, oil, automobiles, debris, or any other combustible material within Cook County, except within the corporate limits of the City of Chicago and such municipalities certified as exempt from State regulation by the Illinois State Air Pollution Control Board, shall be prohibited; with the exception of fires, in conjunction with holiday and festive celebrations and other special occasions, or the burning of dead or diseased vegetation or similar debris when no other method of disposal is feasible, set and attended by personnel trained in fire-fighting techniques, fire containment, and the use of fire-fighting equipment. Such fires shall be allowed only in accordance with the Rules and Regulations Governing Air Pollution issued by the State of Illinois Air Pollution Control Board and authorized by a special permit issued by the Director of the Bureau.

#### 6.5 Materials Subject to Becoming Windborne

##### 6.5-1 General

Dusts and other types of air pollution borne by the wind from such sources as storage areas, yards, roads, and so forth within lot boundaries shall be kept to a minimum by such measures as wetting piles, landscaping, paving, oiling, or other acceptable means.

##### 6.5-2 Handling

It shall be unlawful for any person to cause or permit the handling, loading, unloading, reloading, storing, transferring, transporting, placing, depositing, throwing, discarding, or scattering of any ashes, fly ash, cinders, slag, or dust collected from any combustion process, any dust, dirt, chaff, wastepaper, trash, rubbish, waste, or refuse matter of any kind or any other substance or material whatever which is likely to be scattered by the wind, or is susceptible to being windborne without taking reasonable measures or precautions so as to minimize atmospheric pollution or nuisance to other property.

##### 6.5-3 Storage

It shall be unlawful for any person to operate or maintain or cause to be operated or maintained any building, structure, or premises, open area, right-of-way, storage pile of materials, vessel, or vehicle, or construction, alteration,

building, demolition or wrecking operation, or any other enterprise which has or involves any matter, material, or substance likely to be scattered by the wind or susceptible to being windborne, without taking reasonable precautions or measures so as to minimize atmospheric pollution nuisance to other property.

#### 6.5-4 Surfacing of Roads and Vehicle Areas

No person shall maintain or conduct, or cause to be maintained or conducted, any parking or automotive or machinery sales lot, or any private roadway unless such real property is covered or treated with a surface or substance or otherwise maintained in such manner as to minimize atmospheric pollution or nuisance to other property.

- 6.5-5 Trucks carrying material subject to becoming airborne shall be operated in such a manner as to keep such airborne material to a minimum by such measures as wetting the load, covering the load with canvas, lessening the load, or other acceptable means.

### 6.6 Incineration

The basic limitation on the average emission into the atmosphere of particulate matter from an incinerator shall be 0.20 grains per cubic foot of gas at standard conditions. These calculations are to be made at 50% excess air and are to be the result of tests conducted in the field under field conditions according to procedures prescribed by the Director, cost of which shall be assumed by the owners if emissions exceed allowable limits. All existing incinerators shall meet the limitations set forth in this section on and after 180 days after adoption of this section and all new equipment shall meet the limitations upon installation.

### 6.7 Condensible Emissions

Emissions other than water vapor from any sources that are liable to generate or evolve into particulate form through phase change or other transformation from a gas or liquid form shall be deemed to be particulate matter at the emission point.

#### ARTICLE VII - TOXIC MATTER

No activity or operation shall cause, at any time, the discharge of toxic matter into the atmosphere in such concentrations as to be detrimental to or endanger the public health, safety, or welfare, or cause injury or damage to property or business or be needlessly destructive of any insect, plant, or animal life which contributes to the general welfare.

ARTICLE VIII - NOXIOUS AND ODOROUS MATTER

8.1 General

The emission of noxious and odorous matter in such manner or quantity as to be detrimental to or endanger the public health, comfort, or welfare is prohibited.

8.2 Odor-Performance Standards

8.2-1 In addition to the requirements of Section 8.1, odorous matter shall meet the requirements of Table 8, below.

TABLE 8

EMISSION OF ODOROUS MATTER

By Control Zone

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ZONE 1

In unincorporated areas includes all Residential and Business Districts and the M1 Manufacturing District, as established and defined in the Cook County Zoning Ordinance. In incorporated areas, includes Residential Business and Restricted Manufacturing Districts, or, the most restrictive Manufacturing District as defined in the applicable local zoning ordinance.

The emission of matter in such quantities as to be readily detectible as odorous matter at any point at or beyond lot lines is prohibited.

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ZONE 2

In unincorporated areas, includes the M2 and M4 Manufacturing Districts, as established and defined in the Cook County Zoning Ordinance. In incorporated areas includes any General Manufacturing District other than the most restrictive and most intensive Manufacturing District as defined in the applicable local zoning ordinance.

The emission of matter in such quantities as to be readily detectible as odorous matter at any point at or beyond district boundary lines

when diluted in ratio of one (1) volume of odorous air to four (4) volumes of odor-free air is prohibited.

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### ZONE 3

In unincorporated areas includes the M3 Manufacturing District as established and defined in the Cook County Zoning Ordinance. In incorporated areas includes heavy Manufacturing Districts or the most intensive Manufacturing Districts as defined in the applicable local zoning ordinance.

The emission of matter in such quantities as to be readily detectible as odorous matter at any point at or beyond district boundary lines when diluted in ratio of one volume of odorous air to twenty (20) volumes of odor-free air is prohibited.

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8.2-2 The odor of growing trees, shrubs, plants, flowers, grass, and cut grass left in place shall be exempt from the provisions of Table 8.

### 8.3 Internal Combustion Engines

No person shall operate or cause to be operated upon any street, highway, public place, stream, or waterway, or any private premises, any internal combustion engine of any motor vehicle, boat, or other vehicle, while stationary or moving, which emits from any source unreasonable and/or excessive smoke, obnoxious, or noxious gases, fumes, or vapors.

CITY OF GRANITE CITY, ILLINOIS

AIR POLLUTION REGULATIONS

Section 1 - Definitions

The following terms as used in this Ordinance shall, unless the context otherwise requires, have the following meanings:

a. Air Contaminant

"Air Contaminant" is particulate matter, dust, fumes, gas, mist, smoke or vapor, or any combination thereof.

b. Air Contaminant Source

"Air Contaminant Source: is any and all sources of emission of air contaminants whether privately or publicly owned or operated. Without limiting the generality of the foregoing, this term includes all types of businesses, commercial and industrial plants, works, shops and stores, and heating and power plants and stations, building and other structures of all types, including single and multiple family residences, apartments, houses, office buildings, hotels, motels, restaurants, schools, hospitals, churches and other institutional buildings, automobiles, trucks, buses and other motor vehicles, garages and vending and service locations and stations, railroad locomotives, portable fuel burning equipment, incinerators of all types, indoor and outdoor, refuse dumps and piles, and all stack and other chimney outlets from any of the foregoing.

c. Air Pollution

"Air Pollution" is presence in the outdoor atmosphere of one or more air contaminants in sufficient quantities and of such characteristics and duration as to be injurious to human, plant or animal life or to property, or which unreasonably interfere with the enjoyment of life and property, or in excess of the specific limitations established herein.

d. ASME

"ASME" is the American Society of Mechanical Engineers.

e. Authorized Representative

"Authorized Representative" is any individual, firm, or corporation designated by a "person" who shall be given authority to act for such "person" in all matters pertaining to the Air Pollution Control Board. Such authorization must be transmitted to said Board in writing.

f. Board

"Board" is the Air Pollution Control Board of the City of Granite City, Illinois.

g. A new Fire

"A new fire" shall be held to mean the period during which a fresh fire is being started and does not mean the process of replenishing an existing fuel bed with additional fuel.

h. Chimney or Stack

"Chimney or Stack" is any conduit, duct, flue or opening of any kind whatsoever arranged to conduct any products of combustion to the atmosphere. It does not include breeching.

i. City

"City" is the City of Granite City and the term when used with reference to geographical area shall include land both within its municipal boundaries and to a distance of one-mile beyond such municipal limits.

j. Domestic Heating Plant

"Domestic Heating Plant" is a plant generating heat for a single family residence, or for two such residences either in duplex or double house form, or for multiple dwelling units in which such plant serves fewer than three apartments. Under this designation are also hot water heaters, stoves, and space heaters used in connection with the foregoing establishments or to heat temporary buildings, such as used by the railroad and construction industries, except when gas fired; provided, however, that like equipment used in multiple dwelling units other than herein described, or used in permanent buildings of commercial or industrial



establishments, is not to be construed as included under this designation.

k. Fuel-Burning, Combustion or Process Equipment or Device

"Fuel-Burning, Combustion or Process Equipment or Device" is any furnace, incinerator, boiler, fly-ash collector, electrostatic precipitator, smoke arresting or prevention equipment, stack, chimney, or structure used for the burning of fuel or other combustible materials, or for the emission of products of combustion, or used in connection with any process which generates heat which may emit products of combustion.

l. Person

"Person" is any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, political subdivision, or any other legal entity, or their legal representative, agent or assigns.

m. Open Air

"Open Air" is all spaces outside of buildings, stacks or exterior ducts.

n. Open Fire

"Open Fire" is any fire from which the products of combustion are emitted directly into the open air without passing through a stack or chimney.

o. Particulate Matter

"Particulate Matter" is material, other than water, which is suspended in or discharged into the atmosphere in a finely divided form as a liquid or solid at stack conditions.

p. Processes or Process Equipment

"Processes or Process Equipment" is any action, operation, or treatment embracing chemical, industrial, or manufacturing factors, such as heat treating furnaces, by-product coke plants, corebaking ovens, mixing kettles, cupolas, blast furnaces, open hearth furnaces, heating and reheating

furnaces, puddling furnaces, non-ferrous foundaries, kilns, stills, dryers, sprayers, roasters, and equipment used in connection therewith and all other methods or forms of manufacturing or processing which may emit air contaminants.

q. Radioactive Material

"Radioactive Material" is any material, solid, liquid, or gas, that emits ionizing radiation spontaneously.

r. Ringelmann Chart

"Ringelmann Chart" is a chart for grading the apperance, density, or shade of smoke, as currently published, with instructions for use, by the United States Bureau of Mines.

s. Smoke

"Smoke" is small gas-borne particles, other than water that form a visible plume in the air from an air contaminant source.

t. Standard Conditions

"Standard Conditions" is a gas temperature of 60 degrees Fahrenheit and a gas pressure of 30 inches mercury absolute.

u. Technical Secretary

"Technical Secretary" is the Technical Secretary of the Air Pollution Control Board.

Section 2 - Air Pollution Prohibited

The discharge into the outdoor atmosphere of air contaminants so as to cause air pollution and create a public nuisance is contrary to the public policy of the State of Illinois and of the City of Granite City, Illinois, and in violation of this Ordinance.

Section 3 - Air Pollution Control Board

An Air Pollution Control Board is hereby created, and its members shall be appointed by the Mayor with the approval of the City Council. The Air Pollution Control Board shall consist of nine (9) members. Not more than two (2) members of said Board shall hold any public office. Three (3) members shall be appointed for a term of one year; three (3) members shall be appointed for a term of

two years; and three (3) members shall be appointed for a term of three years. Upon expiration of any term, simple majority of the members of the Board.

#### Section 4 - Administration and Enforcement

##### a. General Policy

The administration and enforcement of this Ordinance shall be conducted by the Technical Secretary, with the study, appeal, and final determination functions being performed by the Air Pollution Control Board, all in accordance with the policies hereinafter provided:

1. It is the intent and purpose of this Ordinance to maintain purity of the air resources of the City of Granite City consistent with the protection of normal health, general welfare and physical property of the people, maximum employment and the full industrial development of the City. The Technical Secretary and the Board shall seek the accomplishment of these objectives through the prevention, abatement and control of air pollution by all practical and economically feasible methods.
2. The policy of the City of Granite City is further declared to be that through cooperative effort, the Technical Secretary and the Board shall continually strive in collaboration with representatives of all affected persons to diminish air pollution and promote sound air pollution control practices.
3. In making recommendations, orders and determinations hereunder, the Technical Secretary and the Board shall take into consideration all the facts and circumstances bearing upon the reasonableness of the emissions involved, including, but not limited to:
  - (a) The character and degree of injury to, or interference with the protection of the health, general welfare and physical property of the people;
  - (b) The social and economic value of the air pollution source;

- (c) The suitability or unsuitability of the air pollution source to the area in which it is located, including the question of priority of location in the area involved, and,
- (d) The technical practicability and economic reasonableness of reducing or eliminating the emissions resulting from such air pollution source.

b. Powers and Duties of the Technical Secretary

In addition to any other powers and duties vested in him by other provisions of this Ordinance, the Technical Secretary shall have the following powers and duties:

1. The Technical Secretary, or his authorized representative, shall attend all meetings of the Board.
2. The Technical Secretary, or his authorized representative shall, during the interim between meetings of the Board, handle such correspondence, make or arrange for such inspections and investigations, and obtain, assemble or prepare such reports and
3. The Technical Secretary shall exercise general supervision over all persons employed by the City engaged in air pollution abatement.
4. The Technical Secretary shall have the power to grant permits for the installation of new equipment capable of becoming a source of air pollution under the rules and regulations of this Ordinance. Upon the refusal of the Technical Secretary to grant such a permit after request therefor, any person requesting such an installation permit shall be entitled to a hearing before the Board, meeting the requirements of Section 4 (d) hereof.
5. The Technical Secretary shall be responsible for the investigation of complaints of alleged violation of this Ordinance, and for this purpose he may enter at reasonable hours upon and into any lands, buildings, establishments, premises and enclosures, except the administrative offices of any person and private residences, which he has reasonable cause to believe may be an air pollution source of emissions of air contaminants causing air pollution. In this connection, he

may make examinations and tests and take samplings in order to determine the extent to which air contaminants may be escaping from the suspected air pollution source into the outdoor atmosphere.

6. The Technical Secretary may request and receive the technical assistance of the Air Pollution Control Board of the State of Illinois, any State or City educational institution, experiment station, board, department or other agency when it is deemed reasonably necessary to carry out the provisions of this Ordinance.
7. The Technical Secretary may request the City Council for such additional consultants and technical assistants as may be reasonably necessary to carry out the provisions of this Ordinance.

c. Powers and Duties of the Board

In addition to any other powers and duties vested in it by other provisions of this Ordinance, the Board shall have the following powers and duties:

1. Prepare and develop a general comprehensive plan for the prevention, abatement or control of air pollution, recognizing varying requirements for different areas of the City.
2. Hold hearings upon petitions for variance, upon appeals from denial by the Technical Secretary of installation permits, and upon formal complaints of violations of this Ordinance, issued by the Board after filing by the Technical Secretary, as provided in Sections 6, 11, and 4 (d) respectively. In making final determinations and orders in these hearings, the Board shall have the power to overrule or uphold the recommendation or prior determination of the Technical Secretary.
3. Study the problem of air pollution control within the jurisdiction of the City and, from time to time, recommend to the Mayor and City Council appropriate means of air pollution abatement, including needed additions to or revisions of this Ordinance. In this regard, it shall be the duty of the Chairman of the Air Pollution Control Board to name members of the Board to act as Chairmen of technical subcommittees. The Chairmen of the technical subcommittees shall select their own subcommittee members to be drawn from the technical talent

of industry and science. Each subcommittee shall study one or more phases of air pollution control. The subcommittees shall make annual reports of their findings and recommendations to the Board. The Board shall submit an annual report to the Mayor and City Council.

4. Prior to making recommendations to the City Council on amendments to this ordinance, the Board shall hold a public hearing to determine the effect of such proposed amendments on the protection of normal health, general welfare and physical property of the people, maximum employment and the full industrial development of the city. Notice of the time and place of the hearing shall be given by publication in a newspaper published in the City of Granite City, Illinois, which notice shall be published not more than thirty nor less than fifteen days before such hearing.

d. Determination of Violations

If, in the opinion of the Technical Secretary, investigation discloses that a violation does exist in fact, he shall by conference, conciliation and persuasion endeavor to the fullest extent possible to eliminate such violation. In the case of failure by conference, conciliation, and persuasion to correct or remedy any claimed violation, and the filing by the Technical Secretary of a formal complaint with the Board, the Board may cause to have issued and served upon the person complained against a written notice, together with a copy of the formal complaint, which shall specify the provisions of this Ordinance which said person is said to be in violation, and a statement of the manner in, and the extent to which such persons is said to violate this Ordinance, and shall require the person so complained against to answer the charges of such formal complaint of a hearing before the Board at a time not less than 30 days after the date of notice. The respondent to such a formal complaint may file a written answer or reply thereto and may appear at such hearing in person or by representative, with or without counsel, and may make oral argument, offer testimony or cross-examine witnesses or take any combination of these actions. The Board at its expense shall provide a stenographer to take the testimony and preserve a record of all proceedings under this section.

The formal complaint, the notice of hearing, the answer or reply, the petition for variance, the request for permit, all other documents in the nature of investigation reports, statements, notices and motions filed in the proceedings, the transcript of testimony and the findings of fact and decisions shall be the record of the proceedings. The Board shall furnish a transcript of such record to any person interested as a party to such hearing upon payment thereof of seventy-five cents per page for each original transcript, and twenty-five cents per page for each carbon copy thereof. However, the charges of any part of such transcript ordered and paid for previous to the writing of the original record shall be twenty-five cents per page.

After due consideration of the written and oral statements, and testimony and arguments that shall be submitted at the hearing upon such complaint, or upon default in appearance of the respondent on the return day which shall be specified in the notice given as provided in this subsection, the Board shall make such final determination as it shall deem appropriate under the circumstances, giving due regard to the matters required to be considered in Section 4 (a) hereof. The Board shall recommend appropriate action to the Mayor and Technical Secretary and shall immediately notify the respondent of this recommendation in writing by registered mail. Any final order or determination or other final action by the Board shall be approved in writing by at least 5 members of the Board.

e. Failure of Technical Secretary or Board to Act.

Upon the failure of the Technical Secretary or the Board to take action within 60 days after a request for installation permit, petition for variance, or formal program of abatement or upon the failure of the Board to enter a final order or determination within 60 days after the final argument in any hearing under Section 4 (d), the person seeking any of such actions shall be entitled to treat for all purposes such failure to act as a grant of the requested permit, variance or formal program of abatement or of a finding favorable to the respondent in any hearing under Section 4 (d) hereof, as the case may be.

f. Air Pollution Solely Within Commercial and Industrial Plants

Nothing contained herein shall be deemed to grant to the Technical Secretary or the Board any jurisdiction or authority with respect to air pollution existing solely within commercial and industrial plants, works or shops or to affect the relations between employers and employees with respect to or arising out of any condition of air pollution.

g. No Fees by the Technical Secretary or Board

No fees shall be charged by the Technical Secretary or the Board for the performance of any of their respective functions under this Ordinance except as specified in Section 8.

Section 5 - Formal Programs of Air Pollution Abatement

In keeping with the General Policy of the Ordinance contained in Section 4 (a), all persons responsible for operating commercial or industrial plants, works, shops, facilities or equipment which were constructed prior to the enactment of this Ordinance may submit to the Board a formal program of air pollution abatement which shall schedule over a period of time, which is reasonable under the circumstances, either a continued installation of gas cleaning devices or the replacement of specified facilities. The Board shall review the formal program submitted by such affected persons, and after having considered all factors in Section 4 (a) above, shall approve or disapprove the program. After the board has approved the program by resolution, the owner of said facilities shall not be in violation of this Ordinance so long as said program is complied with. Reports of the status of these gas cleaning programs shall be submitted annually by the applicant to the Board."

Section 6 - Variances

The Board may grant individual variances beyond the limitations prescribed in this Ordinance whenever it is found, upon presentation of adequate proof, that compliance with any provisions of this Ordinance, or any rule or regulation, requirement or order of the Board, will result in an arbitrary and unreasonable taking of property or in the practical closing and elimination of any lawful business, occupation or activity, in either case without sufficient corresponding benefit or advantage to the people. Any variance granted pursuant to the provisions of this section shall be granted for a period of time, not exceeding one year, as shall be specified by the Board at the time of the grant of such variance. Such variance may be



extended from year to year by affirmative action of the Board. Any person seeking a variance shall do so by filing a petition for variance with the Board. While the Board may grant such a variance without a hearing, if the Board concludes that a hearing would be advisable or if the petition is denied, then a hearing shall be held as provided in Section 4 (d), hereof.

#### Section 7 - Rules and Regulations

'The Rules and Regulations Governing the Control of Air Pollution' as adopted by the State of Illinois Air Pollution Control Board on March 26, 1965, amended March 30, 1967, shall be and are the Rules and Regulations applicable in the administration and enforcement of this ordinance. And said 'Rules and Regulations Governing the Control of Air Pollution' as adopted by the State of Illinois Air Pollution Control Board on March 26, 1965, amended March 30, 1967, are hereby adopted by reference and are hereby incorporated in this ordinance in their entirety by reference as the Rules and Regulations applicable in the administration and enforcement of this ordinance, all in accordance with the provisions of an act of the legislature of the State of Illinois known as 'An Act Authorizing Municipalities to Incorporate by Reference the Provisions of Nationally Recognized Technical Codes and Public Records' approved July 16, 1953.

#### Section 8 - Permits and Fees

This section shall apply to the issuing of permits and charging of fees for:

- a. All types of fuel-burning equipment except vehicles.
- b. Radioactive emissions.

No person shall construct, install, alter, or operate any incinerator or any fuel-burning equipment rated at 200,000 BTU/hr. or more, or any equipment pertaining thereto for use within the jurisdiction of the City until he or his authorized representative shall have filed, in duplicate, an application for Installation and Operating Permits on forms supplied by the City, together with plans and specifications of the fuel-burning equipment, stack, structure, buildings, or portion of buildings used functionally therewith, and such other data and information as may be requested by the Technical Secretary. Upon failure to make such application, it shall be the duty of the Technical Secretary to seal such equipment against further use until the requirements of this section shall have been met. The Technical Secretary shall approve or

reject the application within ten days after it has been filed and after the fee has been paid to the City Clerk. Upon approval, the Technical Secretary shall issue an Installation Permit for construction, installation, or alteration; upon disapproval, the applicant shall make such modifications in his plans and specifications deemed necessary by the Technical Secretary. If a dispute arises between the Technical Secretary and the applicant, the applicant may appeal to the Board after first filing a \$15.00 nonreturnable appeal fee with the City Clerk. The Board shall act in accordance with Section 4, above. After construction, installation or alteration, the Technical Secretary shall be notified by the applicant; the Technical Secretary shall make an inspection, and if it is found that such construction, installation or alteration is in conformity with the application, the Technical Secretary shall issue an Operating Permit.

No inspections or Operating Permits shall be required in the case of domestic heating plants.

No inspections or Operating Permits shall be required for incinerators or fuel-burning equipment installed or operating or under construction or alteration before the effective date of this Ordinance.

This Section is suspended for any secret process, and the person responsible for the operation of such secret process shall file in lieu of plans and specifications an affidavit to the effect that such equipment is to be so used and that atmospheric pollution, as defined herein, shall be controlled.

When it becomes necessary for maintenance purposes to perform work on fuel-burning equipment which does not change its capacity or adversely affect the emission of air pollutants therefrom, no permit is required.

The approval of plans and specifications or the issuance of installation or Operating Permits shall not be held to exempt the owner from prosecution for violation of this provision of this Ordinance.

Fees payable in advance to the City Clerk for the issuance of installation and Operating Permits by the Technical Secretary shall be as follows:

- a. For all domestic incinerators, and for all domestic fuel-burning equipment rated at 200,000 BTU/hr. or more - \$2.50.

- b. For all other incinerators and fuel-burning equipment having the following furnace volume:

Up to and including 10 cu. ft.	\$ 2.50
Over 10 cu. ft. up to and including 50 cu. ft.	10.00
Over 50 cu. ft. up to and including 250 cu. ft.	20.00
Over 250 cu. ft.	40.00

- c. For air-borne radioactive material emission \$ 5.00

#### Section 9 - Emergency Orders

Whenever the Technical Secretary determines that an emergency exists which necessitates action to protect the public health, safety or welfare, he shall, without prior notice, issue a written order reciting the existence of the emergency and requiring whatever action he deems advisable to meet the emergency. Notwithstanding other provisions of this Ordinance, this order shall be effective upon service and shall be complied with immediately. Within a period of 48 hours the Technical Secretary shall call a special meeting of the Air Pollution Control Board and present reasons, in writing, for issuing an emergency order. The Board, with the consent of a majority of the members appointed to the Board, will determine immediately whether to approve or not to approve the action and whether to allow a hearing as provided in Section 4 (d) herein.

#### Section 10 - National Emergency

In the event of a national emergency or state of war, the City Council may adopt a resolution suspending this Ordinance, either in whole or in part, for the period of such national emergency or state of war.

#### Section 11 - Penalties

Any person violating any provision of this Ordinance shall be subject to a fine not to exceed \$200.00 for each violation thereof, and be subject to imprisonment not to exceed thirty (30) days, or both. Offenses on separate days shall be deemed to be separate offenses.

In the event the Board shall determine that any final order or determination made by it and not then the subject of judicial review is being violated, the Board may cause to have instituted a

civil action in any court of competent jurisdiction for injunctive relief to prevent any further violation of such order or determination.

#### Section 12 -

Neither the records of the Commission nor any determination by the Commission that air pollution exists or that any standard, rule or regulation has been violated, whether or not a proceeding or action is brought by the State, shall constitute evidence or be admitted in evidence in any action before the Courts of this State or create any presumption of law or finding of fact which shall inure to or for the benefit of any person other than the State or the Commission.

#### Section 13 - Judicial Review

All final orders or determinations of the Board hereunder shall be the subject of judicial review pursuant to the provisions of the "Administrative Review Act", approved May 9, 1945, as amended, and the rules adopted pursuant thereto. All final orders and determinations shall be deemed "administrative decisions" as that term is defined in Section 1, Administrative Review Act.

#### Section 14 - Severability

If any section, sub-section, sentence or clause of this Ordinance shall be adjudged invalid, such adjudication shall not affect the validity of the Ordinance as a whole or of any section, sub-section, sentence or clause hereof not adjudged invalid, the City Council hereby declaring that it would have passed the remaining portions of this Ordinance notwithstanding such invalidity.

Any clause, provision or section of this Ordinance may be opened separately for reconsideration, but the remainder of this Ordinance shall be in full force and effect, notwithstanding such reconsideration.

#### Section 15 - Repealer

Ordinance No. 1301, passed by the City Council on the 22nd day of November, A.D., 1948, and approved by the Mayor on that same date, is hereby repealed.

#### Section 16 - Effective Date

This Ordinance shall be in full force and effect from and after its passage, approved and publication as required by law.