

Minnesota Attorney General: Administrative Rules Proceedings

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Version 3
August 20, 2018

MINNESOTA STATE REGULATIONS

Notice of filing by the Commissioner of Administration

We have received on this date, stamped and filed 2 copies of Rules and Regulations pertaining to the Pollution Control (Agency or Board)

Regulation No. APC 2, APC 21, APC 25, APC 26, APC 27.

Subject: Definitions, abbreviations, applicability of standards, access to premises, Variances, Circumvention, Severability, Emission source monitoring, performance tests, Reports, Shutdown & Breakdown, Standard of Performance for Secondary Lead-smelters, Standards of Performance for Brass and Bronze ingot plants and for Iron & Steel plants

Department of Administration
Publication, Central Services Division
Documents Section
140 Centennial Office Building
St. Paul, Minnesota 55155
Telephone: (612) 296-2874

FILED
RICHARD L. BRUBACHER
Commissioner of Administration

MAY 7 1976

BY Eda Standeman
AUTH. SIGNATURE

Stamped and filed with the Secretary of State May 7, 1976 11:00AM PJ 11:30AM

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221

Alan R. Mitchell
Special Assistant
Attorney General

May 7, 1976

APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, & 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 & 32.

PCA EXH 1
4-17-75 J.T.K.

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

ORDER FOR HEARING

To effectively implement Minn. Stat. chs. 115 and 116 (1974) and federal law, the Minnesota Pollution Control Agency deems it necessary to consider adoption of the proposed regulations and amendments captioned above pursuant to authority vested in the Agency by law. The Agency authorized the holding of a public hearing on these regulations and amendments by resolutions passed on June 18, 1974, August 20, 1974, and December 17, 1974. A Certificate that the Agency adopted these resolutions is attached hereto and incorported herein.

NOW, THEREFORE, IT IS ORDERED this 13th day of March, 1975, that a public hearing on the proposed regulations and amendments captioned above be held in the Board Room of the offices of the Minnesota Pollution Control Agency, 1935 W. County Road B-2, Roseville, Minnesota, on April 17 and 18, 1975, in Duluth, Minnesota, on April 23, 1975, in the City Council chambers, in Moorhead, Minnesota, on April 29, 1975, in the City Council chambers, and in Mankato, Minnesota, on May 1, 1975, in the Law Enforcement Center, and that the hearing continue until all interested persons, representatives, organizations, or groups have had an opportunity to be heard.

IT IS FURTHER ORDERED that notice of said hearing be given to all representatives of associations or other interested groups or persons who have registered their names with the Secretary of State for that purpose.

MINNESOTA POLLUTION CONTROL AGENCY

Harold D. Field, Jr.
Chairman

Grant J. Merritt
Executive Director

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION

CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

CERTIFICATE OF AGENCY'S AUTHORIZING RESOLUTIONS

I, Grant J. Merritt, do hereby certify that I am the Executive Director of the Minnesota Pollution Control Agency, an agency duly authorized under the laws of the State of Minnesota, and that a resolution was adopted at the meeting of the Agency duly and properly called on the 18th day of June, 1974, and that the resolution authorized the holding of a public hearing on APC 20 and APC 11; that a resolution was adopted at the meeting of the Agency duly and properly called on the 20th day of August, 1974, and that the resolution authorized the holding of a public hearing on APC 15; and that a resolution was adopted at the meeting of the Agency duly and properly called on the 17th day of December, 1974, and that the resolution authorized the holding of a public hearing on all the regulations and amendments captioned above.

I further certify that a quorum was present at each of the above meetings; that the resolutions were passed by a majority of the Agency members; that the resolutions are set forth in the Agency minutes; and that the resolutions have not been rescinded or modified.

IN WITNESS WHEREOF, I have hereunto subscribed my name this 13th day of March, 1975.

Grant J. Merritt
Executive Director

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

NOTICE OF HEARING

PLEASE TAKE NOTICE that a public hearing will be held pursuant to Minnesota Statutes sections 15.0412 and 116.07 to consider adoption of amendments to existing air pollution control regulations and adoption of new air pollution control regulations. The hearing will begin at 9:00 a.m. on Thursday, April 17, 1975, in the Board Room of the Minnesota Pollution Control Agency at 1935 W. County Road B2, Roseville, Minnesota, and will continue at 7:00 p.m. on Thursday, April 17, and at 9:00 a.m. on Friday, April 18, in the Board Room. The hearing will also convene in Duluth, Minnesota, at 9:00 a.m. on Wednesday, April 23, 1975, at the City Council chambers in City Hall, and in Moorhead, Minnesota, at 9:00 a.m. on Tuesday, April 29, 1975, at the City Council chambers in City Hall, and in Mankato, Minnesota, at 9:00 a.m. on Thursday, May 1, 1975, at the Law Enforcement Center, 710 South Front Street.

The hearing will be held on the following amendments and new regulations:

APC 2 Definition, Abbreviations, Applicability of Standards, Access to Premises, Variances, Circumvention, Severability

APC 3 Permits

APC 4 Standards of Performance for Fossil Fuel-Burning Equipment Used for Indirect Heating

APC 5 Restriction of Emissions of Particulate Matter from Industrial Processes

APC 7 Standards of Performance for Incinerators

APC 8 Open Burning Restrictions

APC 11 Restriction of Emission of Visible Air Contaminants

APC 12 Standards of Performance for Motor Vehicles and Stationary Internal Combustion Engines

APC 13 Standards of Performance for Storage Vessels for Petroleum Liquids

APC 15 Sulfuric Acid Plant Emissions

APC 16 Standards of Performance for Nitric Acid Plants

APC 20 Control of Emissions During Coking Processes

APC 21 Emission Source Monitoring, Performance Tests, Shutdowns and Breakdowns

APC 22 Standards of Performance for Portland Cement Plants

APC 23 Standards of Performance for Asphalt Concrete Plants

APC 24 Standards of Performance for Petroleum Refineries

APC 25 Standards of Performance for Secondary Lead Smelters

APC 26 Standards of Performance for Secondary Brass and Bronze Ingot Production Plants

APC 27 Standards of Performance for Iron and Steel Plants

APC 28 Standards of Performance for Sewage Sludge Incinerators

APC 29 Standards of Performance for Grain Handling Facilities

APC 30 Emission Standards for Beryllium

APC 31 Emission Standards for Mercury

APC 32 Standards of Performance for Fossil Fuel-Burning Equipment Used for Direct Heating

The hearing will continue until all interested persons, representatives, and organizations have had an opportunity to be heard concerning the adoption of the proposed regulations and amendments captioned above, by submitting oral or written data, statements, comments, or arguments. Oral testimony shall be given under oath or affirmation. Written statements may be mailed to the Agency at the address below for submission into the record at any time prior to the close of the record. The record will remain open until at least May 23, 1975. The address for mailing written statements is:

Minnesota Pollution Control Agency
Division of Air Quality
1935 W. County Road B2
Roseville, Minnesota 55113
Attention: Edward M. Wiik

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

STATEMENT OF EXPLANATION

Section 111 of the Clean Air Act authorizes the United States Environmental Protection Agency (EPA) to promulgate regulations establishing standards of performance for new stationary sources. Pursuant to this authority EPA has promulgated new source performance standards for several kinds of facilities including steam generators, incinerators, portland cement plants, nitric acid plants, sulfuric acid plants, asphalt concrete plants, petroleum refineries, storage vessels for petroleum liquids, secondary lead smelters, secondary brass and bronze ingot production plants, iron and steel plants, and sewage sludge incinerators. These standards are found in Title 40, Code of Federal Regulations, Part 60.

Section 112 of the Clean Air Act authorizes EPA to identify hazardous air pollutants and promulgate emission standards for such pollutants. EPA has promulgated standards for asbestos, beryllium, and mercury. These standards are found in Title 40, Code of Federal Regulations, Part 61. The Minnesota Pollution Control Agency (PCA) has already adopted an asbestos regulation (APC 17). The berryllium and mercury standards are incorporated into APC 30 and 31.

The Clean Air Act recognizes that the States have the primary responsibility for prevention and control of air pollution and that the States should implement and enforce new source performance standards and hazardous air pollution standards promulgated by EPA. Presently these standards are federal law enforceable by the federal government, and sources in Minnesota are required to comply with them. Adoption of state regulations will make these standards enforceable by the State. In addition, federal grant monies are available to States which have an acceptable program for enforcing these standards.

The starting point, then, for these proposed amendments and regulations is the federal new source performance standards and hazardous air pollutant standards. When the PCA began incorporating these standards into the State regulations, which resulted in extensive additions to the PCA air pollution

regulations, it appeared appropriate to propose at the same time various other changes to the existing regulations. Rather than have a regulation which applied only to new petroleum refineries, for example, it was decided that it would be appropriate to include the standards for existing petroleum refineries in the same regulation (APC 24). The present requirements, of course, for existing petroleum refineries and other existing facilities are found in such regulations as APC 4, 5, 6, 11, 15 and 16. In some cases, when amending the regulation to provide standards for both new and existing facilities, the present requirements for existing sources have been made more stringent (APC 25 and 26, for example) while in other cases the requirements for existing facilities are relaxed (APC 15 and 16). Other changes are proposed to remove outdated language from certain regulations (a June 1, 1972, deadline in APC 4, for example). Also, several new, specific regulations are proposed for certain facilities such as coke plants and grain handling facilities to specify exactly what standards these sources are required to meet.

Without describing specific numbers and requirements, the provisions of the proposed regulations and amendments can be summarized as follows:

APC 2 DEFINITION, ABBREVIATIONS, APPLICABILITY OF STANDARDS, ACCESS TO PREMISES, VARIANCES, CIRCUMVENTION, SEVERABILITY

Definitions: These are the words and phrases which are used throughout the air pollution regulations. Many of these definitions, including performance test methods and monitoring specifications are taken from EPA. The abbreviations are used throughout all the regulations, too.

Applicability: Since different standards often apply if a facility is a new source, provisions for distinguishing an existing facility from a new one must be provided. The critical date is the effective date of the federal new source standard.

Modifications: These are taken from EPA.

Other Provisions: The other provisions are already in APC 2, although some language changes may be proposed.

APC 3 PERMITS

This regulation is amended only to change the title and eliminate three provisions which now are proposed as a part of APC 21.

APC 4 STANDARDS OF PERFORMANCE FOR FOSSIL FUEL-BURNING EQUIPMENT USED FOR INDIRECT HEATING

The provisions for existing indirect heating equipment are taken from the present APC 4 and APC 11. A new SO_2 standard

Persons who desire to present oral statements at any of the hearing locations are requested to contact Mr. Wiik at least three days in advance of the hearing and notify him of such intention to testify and of the regulations which will be the subject of the testimony.

The amendments and regulations proposed here are intended primarily to adopt the federal new source performance standards which have been promulgated by the United States Environmental Protection Agency. These new source performance standards contain emission limitations, monitoring and reporting requirements, and performance test methods and procedures for various facilities such as petroleum refineries and steam generators. The federal standards are found in Title 40, Code of Federal Regulations, Part 60. In addition, federal standards for hazardous air pollutants, beryllium and mercury, have been incorporated into proposed regulations APC 30 and 31. The federal hazardous air pollutant standards are found in Title 40, Part 61. It is necessary to adopt all these federal standards to allow the State to assume responsibility for implementing and enforcing them. Other amendments which will be considered at this hearing, such as amendments to the open burning regulation and amendments to various emission requirements for existing sources, are proposed to improve and revise and update existing language and requirements consistent with experience with the current regulations.

Copies of the regulations may be obtained by contacting Mr. Wiik (612-296-7332). Copies are also available for inspection at the following locations:

PCA Offices in Roseville

PCA Regional Offices

Duluth - 1015 Torrey Building
Brainerd - 502 Washington Street
Fergus Falls - 115 South Vine
Marshall - Cline Pharmacy Building
Rochester - 921 3rd Avenue, S.E.,
Kings Row Building

St. Cloud
St. Cloud Health Department
303 South 1st Street

Mankato
Law Enforcement Center
710 South Front Street

Moorhead
City Clerk's Office
City Hall

Rochester
Olmsted County Health Department
415 4th Street, S.E.

These regulations and amendments to be considered at this hearing are proposed regulations only and are subject to alteration or modification as the Agency deems necessary and appropriate from its consideration of all the evidence adduced at the public hearing and all statements and exhibits introduced into the record.

Dated this 13th day of March, 1975.

Grant J. Merritt
Executive Director

which uses the pounds of sulfur in the fuel as the criterion has been proposed. The requirements for large new sources and the monitoring and testing requirements are taken from EPA standards. (In addition to 40 C.F.R. Part 60, see 39 Fed. Reg. 32871 (September 11, 1974) for EPA proposed monitoring requirements for existing sources.) Please note that while EPA applies its new source performance standard only to steam generators, the proposed PCA regulation applies to all indirect heating equipment.

APC 5 RESTRICTION OF EMISSIONS OF PARTICULATE MATTER FROM INDUSTRIAL PROCESSES

This regulation has no EPA counterpart. However, the PCA has proposed a more stringent standard for new industrial processes. Note that APC 5 applies only to facilities for which a specific regulation does not exist. A major proposal is the elimination of Table 1 (process weight table) in the current APC 5, although the source gas volume table is retained.

APC 7 STANDARDS OF PERFORMANCE FOR INCINERATORS

This amendment incorporates the present standards for existing incinerators but proposes more stringent standards for new incinerators which are smaller than the incinerators regulated by EPA. Some obsolete provisions have been eliminated.

APC 8 OPEN BURNING RESTRICTIONS

The amended regulation eliminates provisions which are no longer applicable because of outdated compliance schedules. A definition section has been added. The amendment recognizes that the existence of refuse collection service is the key to the allowing of open burning for limited purposes. The amendment clarifies the purposes for which one can obtain an open burning permit and the persons who are authorized to issue such permits. Additional controls over salvage operations are proposed.

APC 11 RESTRICTION OF EMISSION OF VISIBLE AIR CONTAMINANTS

This regulation now applies only to those sources which are not covered by a specific regulation. Facilities which are covered by a specific regulation will have an opacity standard in that regulation. Since facilities such as boilers are now covered in specific regulations, the opacity standards are more stringent in the proposed amendment than in the existing regulation. It is proposed to eliminate the Ringlemann reading and use instead the more popular percent opacity. Also, elimination of exemptions for certain processes is proposed.

APC 12 STANDARDS OF PERFORMANCE FOR MOTOR VEHICLES AND STATIONARY INTERNAL COMBUSTION ENGINES

Motor vehicles and stationary internal combustion engines are distinguished. A new provision to prohibit the transfer of motor vehicles which have had pollution control devices removed has been added.

APC 13 STANDARDS OF PERFORMANCE FOR STORAGE VESSELS FOR PETROLEUM LIQUIDS

This regulation would now apply to the storage of petroleum liquids and not just gasoline, which is all the present regulation covers. The EPA standards are proposed for both new and existing sources.

APC 15 SULFURIC ACID PLANT EMISSIONS

This amendment is the result of a proceeding between the PCA, North Star Chemical, and several intervenors. The amendment would relax the standard for the only existing sulfuric acid plant in the state, but would impose the EPA standard for new plants. Monitoring requirements, however, would apply to the existing plant.

APC 16 STANDARDS OF PERFORMANCE FOR NITRIC ACID PLANTS

The amendment proposes to relax the standard for existing nitric acid plants (St. Paul Ammonia operates the only plant in the state) but adopts the EPA standard for new plants. Monitoring requirements, however, would apply to the existing plant.

APC 20 CONTROL OF EMISSIONS DURING COKING PROCESSES

This regulation has no counterpart in the EPA new source performance standards. It is based on regulations from other agencies around the country, the present state of abatement technology, and on what the PCA has maintained existing regulations already require.

APC 21 EMISSION SOURCE MONITORING, PERFORMANCE TESTS, SHUTDOWNS AND BREAKDOWNS

This is a procedural regulation based on requirements already in APC 3 and on requirements imposed on new sources by EPA. It provides procedures for monitoring when monitoring is required, for running performance tests when tests are required, and for submitting data on shutdowns and malfunctions. Test methods which are presently scattered throughout the existing regulations would all be compiled in APC 21.

APC 22 STANDARDS OF PERFORMANCE FOR PORTLAND CEMENT PLANTS

This regulation incorporates existing standards for existing plants and EPA standards for new plants.

APC 23 STANDARDS OF PERFORMANCE FOR ASPHALT CONCRETE PLANTS

This regulation incorporates existing standards for existing plants and EPA standards for new plants.

APC 24 STANDARDS OF PERFORMANCE FOR PETROLEUM REFINERIES

This regulation establishes standards for existing petroleum refineries and proposes the EPA standards for new refineries. The monitoring requirements are EPA's, although the requirement for existing refineries has only been proposed by EPA (39 Fed. Reg. 32871 (September 11, 1974)).

APC 25 STANDARDS OF PERFORMANCE FOR SECONDARY LEAD SMELTERS

No distinction is made between new and existing lead smelters. The proposed standards are those promulgated by EPA.

APC 26 STANDARDS OF PERFORMANCE FOR SECONDARY BRASS AND BRONZE INGOT PRODUCTION PLANTS

This regulation does not distinguish new sources from existing sources but it does distinguish size. In some cases for existing sources the proposal is more stringent than the existing standards. A definition of "brass or bronze ingot production plant" has been added since EPA did not provide one.

APC 27 STANDARDS OF PERFORMANCE FOR IRON AND STEEL PLANTS

The proposal contains those standards adopted by EPA. There is not an iron and steel plant in the State so no distinction between existing and new plants has been made.

APC 28 STANDARDS OF PERFORMANCE FOR SEWAGE SLUDGE INCINERATORS

The proposed standards for existing incinerators are those found in APC 7. The proposed standards for new incinerators are taken from the EPA regulation.

APC 29 STANDARDS OF PERFORMANCE FOR GRAIN HANDLING FACILITIES

This is a new regulation prepared by the PCA. The old standards in APC 5 and APC 6 have been difficult to apply and a new specific regulation will be helpful. The proposed regulation provides different standards, depending on the size and location of the facility, and whether it is new or existing. In some cases the standards have been relaxed from what is presently required.

APC 30 EMISSION STANDARDS FOR BERYLLIUM

This regulation is very similar to the EPA standards. See 40 C.F.R. Part 61.

APC 31 EMISSION STANDARDS FOR MERCURY

This regulation is very similar to the EPA standards. See 40 C.F.R. Part 61.

APC 32 STANDARDS OF PERFORMANCE FOR FOSSIL FUEL-BURNING EQUIPMENT USED FOR DIRECT HEATING

This regulation corresponds closely to APC 4 (indirect heating equipment), although EPA has not promulgated standards for direct heating equipment. APC 32 applies only to direct heating equipment for which a specific regulation does not apply. The regulation proposes different standards depending on size and location of the equipment. This regulation will apply to such equipment as kilns in a taconite plant, for example.

Dated this 14th day of March, 1975.

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION

CONTROL AGENCY

In the Matter of the Adoption of
Amendments to Air Pollution Control
Regulations APC 2, 3, 4, 5, 7, 8, 11,
12, 13, 15, and 16 and New Regulations
APC 20, 21, 22, 23, 24, 25, 26, 27,
28, 29, 30, 31 and 32

STATEMENT OF NEED

The above-captioned regulations are both amendments to existing regulations and new regulations for the Minnesota Pollution Control Agency. The need to adopt these amendments and regulations arises for the following reasons:

1. Section 111 of the Clean Air Act (42 U.S.C. §1857c-6) authorizes the United States Environmental Protection Agency (EPA) to promulgate regulations establishing standards of performance for new stationary souces within certain categories published by EPA. Pursuant to this authority EPA has promulgated new source performance standards for the following stationary sources: steam generators, incinerators, portland cement plants, nitric acid plants. sulfuric acid plants, asphalt concrete plants, petroleum refineries, storage vessels for petroleum liquids, secondary lead smelters, secondary brass and bronze ingot production plants, iron and steel plants, and sewage sludge incinerators. These standards are found in Title 40, Code of Federal Regulations, Part 60.

2. Section 112 of the Clean Air Act (42 U.S.C. §1857c-7) authorizes EPA to identify and to promulgate emission standards for hazardous air pollutants. Pursuant to this authority EPA has promulgated standards for asbestos, mercury, and beryllium. These standards are found in Title 40, Code of Federal Regulations, Part 61.

3. The new source performance standards and the hazardous air pollutant standards promulgated by EPA contain emission limitations, monitoring and reporting requirements, and performance test methods and procedures. These EPA regulations are federal law and are enforceable by the federal government against persons who install and operate stationary sources in Minnesota.

4. The Clean Air Act (42 U.S.C. §1857) recognizes that the States have the primary responsibility for prevention and control of air pollution. Sections 111 and 112 of the Clean Air Act both recognize that each State may develop and submit to EPA

a procedure for implementing and enforcing new source performance standards and hazardous air pollutant standards promulgated by EPA. EPA has encouraged the States to assume responsibility for implementation and enforcement of these standards and has made grant monies available to States which adopt an acceptable procedure for doing so.

5. The PCA does intend to assume responsibility for implementation and enforcement of the federal standards in Minnesota. The procedure to be used is the adoption of state regulations which impose the same or similar requirements as the federal standards. Adoption of state regulations will make these standards enforceable by the State. The need, then, for adoption of these regulations is to allow the State to assume responsibility for implementation and enforcement of federal new source performance standards and federal hazardous air pollutant standards.

6. The PCA has already adopted regulations which apply to all kinds of stationary sources, including the kinds of sources for which EPA has promulgated a federal standard. (These regulations include air pollution control regulations APC 4, 5, 6, 7, 11, 13, 15 and 16.) In most cases, however, the PCA has not adopted a specific regulation for a certain, identifiable source, i.e., there is not a specific regulation for secondary lead smelters or petroleum refineries, but instead APC 5, which applies to all industrial processes, is applicable. It would be undesirable to adopt one specific regulation for new sources and maintain the present, general regulation for old sources of the same kind. Therefore, there is a need to adopt one specific regulation which provides standards for existing sources based on the existing PCA regulation and standards for new sources based on the federal regulation.

7. In some instances where no specific regulation exists for a particular stationary source, some confusion and difficulty has arisen in applying the general regulation. There is a need to adopt a specific regulation for such sources as coke plants, grain elevators, and recovery boilers to eliminate any ambiguities in applying APC 5 and 6. (Specific regulations for coke plants (APC 20), grain handling facilities (APC 29), and direct heating equipment (APC 32) have been proposed.)

8. Pollution control technology and expertise have continued to expand in the years since the present regulations were first adopted. The federal new source performance standards indicate that improved technology is available in many areas. There is a need to amend existing regulations in cases where more stringent emission restrictions are reasonable and feasible. Also, the proposal of specific regulations for particular sources, which sources presently fall under the general regulations such as APC 5, 6, and 11, requires amendment of the general regulations to allow for the removal of certain sources from the requirements of these general regulations.

9. In some cases, however, experience and research have indicated that present regulations may contain emission limitations that cannot be reasonably achieved for existing facilities. For example, on August 20, 1974 the PCA signed a stipulation agreement with North Star Chemicals Company which provided for reduction of emissions to a level which is in excess of the levels in APC 15. The proposed amendment to APC 15 relaxes the present requirements and provides for control of emissions in accordance with the provisions of the stipulation agreement. There is a need then, too, to amend existing regulations to relax those requirements which no longer appear to be reasonable and feasible.

10. Many of the present regulations contain provisions and time schedules that have become obsolete. For example, APC 4 contains a June 1, 1972, effective date for a sulfur content restriction and APC 8 requires municipalities to report to the PCA within three months of the effective date of the regulation, which was June 5, 1970. There is a need to amend several of the present regulations to remove obsolete provisions.

11. Further, there is a need to provide certain housekeeping changes in the regulations. For example, amendments to APC 8 are necessary to clarify who is entitled to issue open burning permits.

Dated this 14th day of March, 1975.

MINNESOTA POLLUTION CONTROL AGENCY

By Grant J. Merritt

Grant J. Merritt
Executive Director

FINAL

bruary 6, 1976

CHAPTER 2: APC 2

APC 2 DEFINITIONS, ABBREVIATIONS, APPLICABILITY OF STANDARDS, ACCESS TO PREMISES, VARIANCES, CIRCUMVENTION, SEVERABILITY

(a) Definitions

As used in the air pollution control regulations the following words shall have the meanings defined herein:

(1) "Agency" means the Minnesota Pollution Control Agency as constituted pursuant to Minn. Stat. §116.02 subd. 1.

(2) "Alternative method" means any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to the Agency's satisfaction to, in specific cases, produce results adequate for its determination of compliance.

(3) "Breakdown" means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered breakdowns.

(4) "Construction" means fabrication, erection, or installation of an affected facility or an emission facility of which an affected facility is a part.

(5) "Continuous monitoring system" means the total equipment used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

(6) "Commenced" means that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

(7) "Control equipment" means an "air containment treatment facility" or a "treatment facility" as those terms are defined in Minn. Stat. §116.06 subd. 6.

(8) "Director" means the Executive Director and Chief Executive Officer of the Agency.

(9) "Emission facility" means any building, facility, installation, structure work, equipment, machinery, device, apparatus or other means whereby an emission is caused to occur.

(10) "Equivalent method" means any method of sampling and analyzing for an air pollutant which has been demonstrated to the Agency's satisfaction to have under specified conditions a consistent and quantitatively known relationship to the Reference Methods set forth in 40 C.F.R. Part 60, Appendix A.

(11) "Isokinetic sampling" means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

(12) "Method 1" means the test method for Sample and Velocity Traverses for Stationary Sources, set forth in 40 C.F.R. Part 60, Appendix A - Reference Methods.

(13) "Method 2" means the test method for Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube), set forth in 40 C.F.R. Part 60, Appendix A - Reference Methods.

(14) "Method 3" means the test method for Gas Analysis for Carbon Dioxide, Excess Air, and Dry Molecular Weight, set forth in 40 C.F.R. Part 60, Appendix A - Reference Methods.

(15) "Method 4" means the test method for Determination of Moisture in Stack Gases, set forth in 40 C.F.R. Part 60, Appendix A - Reference Methods.

(16) "Method 5" means the test method for Determination of Particulate Emissions from Stationary Sources, set forth in 40 C.F.R. Part 60, Appendix A - Reference Methods.

(17) "Method 6" means the test method for Determination of Sulfur Dioxide Emissions from Stationary Sources, set forth in 40 C.F.R. Part 60, Appendix A - Reference Methods.

(18) "Method 7" means the test method for Determination of Nitrogen Oxide Emissions from Stationary Sources, set forth in 40 C.F.R. Part 60, Appendix A - Reference Methods.

(19) "Method 8" means the test method for Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources, set forth in 40 C.F.R. Part 60, Appendix A - Reference Methods.

(20) "Method 9" means the test method for Visual Determination of the Opacity of Emissions from Stationary Sources, set forth in 40 C.F.R. Part 60, Appendix A - Reference Methods.

(21) "Method 10" means the test method for Determination of Carbon Monoxide Emissions from Stationary Sources, set forth in 40 C.F.R. Part 60, Appendix A - Reference Methods.

(22) "Method 11" means the test method for Determination of Hydrogen Sulfide Emissions from Stationary Sources, set forth in 40 C.F.R. Part 60, Appendix A - Reference Methods.

(23) "Minneapolis-St. Paul Air Quality Control Region" means the territorial area encompassed by the boundaries of the following counties: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington. See 40 C.F.R. §81.27.

(24) "Monitoring device" means the total equipment used to measure and record (if applicable) process parameters.

(25) "New source performance standard" means a standard of performance for a new affected facility.

(26) "Nitrogen oxides" means all oxides of nitrogen except nitrous oxide.

(27) "One-hour period" means any 60 minute period commencing on the hour.

(28) "Opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

(29) "Owner or operator" means any person who owns, leases, operates, controls, or supervises an affected facility or an emission facility of which an affected facility is a part.

(30) "Particulate matter" means material, except uncombined water, which exists at standard conditions in a finely divided form as a liquid or solid.

(31) "Performance Specification 1" means Performance Specifications and Specification Test Procedures for Transmission Systems for Continuous Measurement of the Opacity of Stack Effluents, set forth in 40 C.F.R. Part 60, Appendix B - Performance Specifications.

(32) "Performance Specification 2" means Performance Specifications and Specification Test Procedures for Monitors of SO_2 and NO_x from Stationary Sources, set forth in 40 C.F.R. Part 60, Appendix B - Performance Specifications.

(33) "Performance Specification 3" means Performance Specifications and Specification Test Procedures for Monitors of CO and 0_2 from Stationary Sources, set forth in 40 C.F.R. Part 60, Appendix B - Performance Specifications.

(34) "Person" means person as defined in Minn. Stat. §116.06 subd. 8.

(35) "Proportional sampling" means sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

(36) "Shutdown" means the cessation of operation of an emission facility, an affected facility or process equipment for any purpose.

(37) "Six minute period" means any one of the ten equal parts of a one-hour period.

(38) "Smoke" means small gas-borne particles resulting from incomplete combustion, consisting predominantly, but not exclusively of carbon and other combustible material, or ash, that form a visible plume in the air.

(39) "Startup" means the setting in operation of an emission facility, an affected facility or process equipment for any purpose.

(40) "Standard Conditions" means a temperature of 20°C (68°F) and a pressure of 760 mm of Hg (29.92 in. of Hg).

(41) "Standard of Performance" means a restriction on the amount of air pollutants which may be emitted by an affected facility.

(42) "Run" means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

(b) Abbreviations

The abbreviations used in these air pollution control regulations have the following meanings:

(1) avg. - average

(2) A.S.T.M. - American Society for Testing and Materials

(3) Be - Beryllium

(4) Btu - British thermal unit

(5) °C - degree Celsius (centigrade)

(6) cal - calorie

(7) CdS - cadmium sulfide

(8) cfm - cubic feet per minute

(9) CO - carbon monoxide

(10) CO_2 - carbon dioxide

(11) dscm - dry cubic meter(s) at standard conditions

(12) dscf - dry cubic feet at standard conditions

(13) eq - equivalents

(14) °F - degree Fahrenheit

(15) ft^2 - square feet

(16) ft^3 - cubic feet

(17) g - gram(s)

(18) gal - gallon(s)

(19) g eq - gram equivalents

(20) gr - grain(s)

(21) hr - hour(s)

(22) HCl - hydrochloric acid

(23) Hg - mercury

(24) H_2O - water

(25) H_2S - hydrogen sulfide

(26) H_2SO_4 - sulfuric acid

(27) I.D. - inside diameter

(28) in. - inch(es)

(29) in. H_2O - inches of water

(30) in. Hg - inches of mercury

(31) °K - degree Kelvin

(32) k - 1,000

(33) kg - kilogram(s)

(34) l - liter(s)

(35) lpm - liter(s) per minute

(36) lb - pound(s)

(37) M - molar

(38) m - meter(s)

(39) m^3 - cubic meter(s)

(40) meq - milliequivalent(s)

(41) mg - milligram(s)

(42) min - minute(s)

(43) ml - milliliter(s)

(44) mm - millimeter(s)

(45) mol.wt. - molecular weight

(46) mV - millivolt

(47) N - normal

(48) N_2 - nitrogen

(49) nm - nanometer(s) - 10^{-9} meter

(50) NO - nitric oxide

(51) NO_2 - nitrogen dioxide

(52) NO_x - nitrogen oxides

(53) O_2 - oxygen

(54) O.D. - outside diameter

(55) oz - ounce(s)

(56) ppb - parts per billion

(57) ppm - parts per million

(58) psia - pounds per square inch absolute

(59) °R - degree Rankine

(60) s - at standard conditions

(61) sec - second

(62) SO_2 - sulfur dioxide

(63) SO_3 - sulfur trioxide

(64) ug - microgram(s) - 10^{-6} gram

(65) v/v - volume per volume

(66) w.g. - water gauge

(67) yd^2 - square yard(s)

(c) Applicability of Standards of Performance

(1) Affected Facilities. An "affected facility" is any equipment, apparatus, or process to which a standard of performance set forth in these air pollution control regulations is applicable. An affected facility may be an individual unit of process equipment, e.g., the clinker cooler in a portland cement plant, or an entire process, e.g., a nitric acid production unit. An affected facility may be an emission facility for which a permit is required under Minnesota Regulation APC 3.

(2) Existing Facilities. An affected facility is an existing facility if:

(aa) It was in operation on the effective date of the applicable new source performance standard; or

(bb) The owner or operator of the affected facility commenced construction or modification of the affected facility prior to the effective date of the applicable new source performance standard for the affected facility.

(3) New Facilities. An affected facility which is not an existing facility is a new facility.

(4) Effective Date. The effective date for new source performance standards for affected facilities shall be as follows:

(aa) Fossil Fuel-Fired Steam Generators (APC 4) - August 17, 1971.

(bb) Incinerators (APC 7) - August 17, 1971.

(cc) Storage Vessels for Petroleum Liquids (APC 13) - June 11, 1973.

(dd) Sulfuric Acid Plants (APC 15) - August 17, 1971

(ee) Nitric Acid Plants (APC 16) - August 17, 1971

(ff) Portland Cement Plants (APC 22) - August 17, 1971

(gg) Asphalt Concrete Plants (APC 23) - June 11, 1973

(hh) Petroleum Refineries (APC 24) - June 11, 1973

(ii) Secondary Lead Smelters (APC 25) - June 11, 1973

(jj) Secondary Brass and Bronze Ingot Production Plants (APC 26) - June 11, 1973

(kk) Iron and Steel Plants (APC 27) - June 11, 1973

(ll) Sewage Sludge Incinerators (APC 28) - June 11, 1973

(mm) All others - the date the applicable new source performance standard became law.

(5) Modifications

(aa) A modification to an existing affected facility is any physical change in, or change in the method of operation of, an affected facility which increases the amount of emissions into the atmosphere of any air pollutant to which a new source performance standard applies or which results in the emission of any air pollutant not previously emitted, to which a new source performance standard applies.

(bb) Any owner or operator who modifies an existing affected facility after the effective date of an applicable new source performance standard shall comply with the new source performance standard for the affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

(cc) Emission rate shall be expressed as kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable. The Agency shall use the following to determine emission rate:

(i) Emission factors as specified in the latest issue of "Compilation of Air Pollutant Emission Factors," EPA Publication No. AP-42, or other emission factors determined by the Agency to be superior to AP-42 emission factors, in cases where utilization of

emission factors demonstrate that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.

(ii) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in paragraph (i) does not demonstrate to the Agency's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Agency's satisfaction that there are reasonable grounds to dispute the result obtained by the Agency utilizing emission factors as referenced in paragraph (i). When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in Appendix C - Determination of Emission Rate Change, set forth in 40 C.F.R. Part 60, shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Agency shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.

(dd) The requirements of subsection (5)(bb) shall not apply if the owner or operator who modifies an existing affected facility can demonstrate to the Agency that modification of the affected facility will not result in an increase in total emissions from all existing emission sources in the process. The required reduction may be accomplished through the installation or improvement of a control system or through physical or operational changes to facilities including reducing the production of a facility or closing a facility. The Director may require the submission of such information as the Director deems necessary to a determination whether there will be an increase in total emissions.

(ee) The owner or operator of an existing affected facility may undertake any of the following modifications without being required to comply with the new source performance standard for the affected facility:

(i) Maintenance, repair, and replacement which the Agency determines to be routine.

(ii) An increase in production rate, if that increase can be accomplished without a major capital

expenditure. "Capital expenditure" means an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in Internal Revenue Service Publication 534 and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code.

(iii) An increase in the hours of production.

(iv) Use of an alternative fuel or raw material if, prior to the effective date of the applicable new source performance standard, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if provisions for that use were included in the final construction specifications.

(v) Conversion to coal required by state or federal law for energy considerations.

(vi) The addition or use of any control equipment, except when control equipment is replaced with other control equipment which the Agency determines to be less environmentally beneficial.

(vii) The relocation or change in ownership of an existing facility.

(ff) The modification of an affected facility or the addition of a new affected facility shall not by itself require the owner or operator to comply with the new source performance standards for other existing facilities.

(gg) Any owner or operator who modifies a new affected facility shall comply with the new source performance standard.

(hh) Nothing in this subsection (c) shall affect the requirement of Minnesota Regulation APC 3(e) that a permit be obtained from the Agency to undertake certain alterations and modifications to emission facilities and control equipment.

(6) Reconstruction

(aa) The owner or operator of an existing affected facility who reconstructs the facility shall comply with the applicable new source performance standard for the reconstructed affected facility.

(bb) "Reconstruction" means the replacement of components of an existing facility to such an extent that:

(i) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and

(ii) It is technologically and economically feasible to meet the applicable standards set forth in this part.

(iii) "Fixed capital cost" means the capital needed to provide all the depreciable components.

(iv) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Agency of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:

1. Name and address of the owner or operator.

2. The location of the existing facility.

3. A brief description of the existing facility and the components which are to be replaced.

4. A description of the existing air pollution control equipment and the proposed air pollution control equipment.

5. An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.

6. The estimated life of the existing facility after the replacements.

7. A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.

(cc) The Agency shall consider the following in determining whether an existing facility has been reconstructed:

(i) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;

(ii) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;

(iii) The extent to which the components being replaced cause or contribute to the emissions from the facility; and

(iv) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.

(d) Access to Premises and Information

(1) The owner or operator of an emission facility shall allow the Agency, or any authorized employee or agent of the Agency, upon presentation of proper credentials, to examine and copy any books, papers, records or memoranda pertaining to the operation of the emission facility.

(2) The owner or operator of an emission facility shall allow the Agency, or any authorized employee or agent of the Agency, upon presentation of proper credentials, to enter upon the property of the owner or operator for the purpose of obtaining information or examining records or conducting surveys or investigations, whenever such entrance is necessary for the purpose of these regulations.

(e) Variances

Whereupon written application of the responsible person or persons the Agency finds that by reason of exceptional circumstances strict conformity with any provisions of the emission standards contained herein would cause undue hardship, would be unreasonable, impractical or not feasible under the circumstances, the Agency may permit a variance from these emission standards upon such conditions and within such time limitations as it may prescribe for prevention, control or abatement of air pollution in harmony with the intent of the State and any applicable Federal laws.

(f) Circumvention

No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminant which would otherwise violate an air pollution control regulation.

(g) Severability

If any provision of any regulation or the application thereof to any person or circumstances is held to be invalid, such invalidity shall not affect other provisions or application of any other part of such regulation or any other regulation which can be given effect without the invalid provision or application, and to this end the provisions of all regulations and the various applications thereof are declared to be severable.

APC 21 EMISSION SOURCE MONITORING, PERFORMANCE TESTS, REPORTS, SHUTDOWNS AND BREAKDOWNS

(a) Continuous Monitoring

(1) Monitoring Requirement. The owner or operator of any emission facility, whether or not continuous monitoring is required by another regulation, may be required to establish a continuous monitoring system, upon order of the Director, when in his judgment other methods of measurement or calculation do not provide adequate information on the level or variation of emissions to assure compliance with applicable regulations.

(2) Monitoring System Qualifications. Any owner or operator of an emission facility who is required by applicable regulation or by order of the Director to install a continuous monitoring system shall install a system which meets the following performance evaluations:

(aa) Continuous monitoring systems for measuring opacity of emissions shall comply with Performance Specification 1.

(bb) Continuous monitoring systems for measuring nitrogen oxides emissions shall comply with Performance Specification 2.

(cc) Continuous monitoring systems for measuring sulfur dioxide emissions shall comply with Performance Specification 2.

(dd) Continuous monitoring systems for measuring the oxygen content or carbon dioxide content of effluent gases shall comply with Performance Specification 3.

(3) Performance Evaluation. The Agency or the Director may order any owner or operator who has installed a continuous monitoring system to conduct performance evaluations of the system. The performance evaluations shall be conducted under such conditions as the Agency or the Director may impose.

(4) Old Monitoring Systems. Any owner or operator of an emission facility who installed or entered into a binding contract to purchase a specific continuous monitoring system prior to September 11, 1974, may be exempt from meeting the performance evaluations set forth in paragraph (2) provided the following requirements are met:

(aa) Continuous monitoring systems for measuring opacity of emissions shall be capable of measuring emission levels within $\pm$20 percent of the correct value with a confidence

level of 95 percent. The Calibration Error Test and associated calculation procedures set forth in Performance Specification 1 shall be used for demonstrating compliance with this specification.

(bb) Continuous monitoring systems for measurement of nitrogen oxides or sulfur dioxide shall be capable of measuring emission levels within +20 percent of the correct value with a confidence level of 95 percent. The Calibration Error Test, the Field Test for Accuracy (Relative), and associated operating and calculation procedures set forth in Performance Specification 2 shall be used for demonstrating compliance with this specification.

All continuous monitoring systems installed under this paragraph shall be upgraded or replaced with new continuous monitoring systems which comply with the performance evaluations set forth in paragraph (2) by September 11, 1979.

(5) Zero and Span Drift. Owners or operators who are required to install continuous monitoring systems shall check the zero and span drift at least once daily in accordance with the method prescribed by the manufacturer of such systems unless the manufacturer recommends adjustments at shorter intervals, in which case such recommendations shall be followed. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour calibration drift limits of the performance specifications in Performance Specification 1, 2, or 3, whichever is applicable, are exceeded. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero or span drift adjustments except that for systems using automatic zero adjustments, the optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds four percent opacity. Unless otherwise approved by the Agency, the following procedures, as applicable, shall be followed:

(aa) For extractive continuous monitoring systems measuring gases, minimum procedures shall include introducing applicable zero and span gas mixtures into the measurement system as near the probe as is practical. Span and zero gases certified by their manufacturer to be traceable to National Bureau of Standards reference gases shall be used whenever these reference gases are available. The span and zero gas mixtures shall be the same composition as specified in Performance Specification 1, 2, or 3, whichever is applicable. Every six months from date of manufacture, span and zero gases shall be reanalyzed by conducting triplicate analyses with Reference Methods 6 for SO_2, Reference Method 7 for NO_x, and Reference Method 3 for O_2 and CO_2, respectively. The gases may be analyzed at less frequent intervals if longer shelf lives are guaranteed by the manufacturer.

(bb) For non-extractive continuous monitoring systems measuring gases, minimum procedures shall include upscale check(s) using a certified calibration gas cell or test cell which is functionally equivalent to a known gas concentration. The zero check may be performed by computing the zero value from upscale measurements or by mechanically producing a zero condition.

(cc) For continuous monitoring systems measuring opacity of emissions, minimum procedures shall include a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photodetector assembly.

(6) Operation Requirements. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(aa) Opacity. All continuous monitoring systems for measuring opacity of emissions shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 10-second period.

(bb) Other pollutants.

(i) All continuous monitoring systems except those old systems installed under paragraph (4), for measuring oxides of nitrogen, sulfur dioxide, carbon dioxide, or oxygen shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(ii) All old continuous monitoring systems installed under paragraph (4) for measuring oxides of nitrogen, sulfur dioxide, carbon dioxide, or oxygen shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive one-hour period.

(7) Location of System. All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications shall be used.

(8) Number of Sources of Emissions. When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install applicable continuous monitoring systems on each separate effluent unless the installation of fewer systems is approved by the Agency.

(9) Monitoring Data. Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to one-minute averages and for systems other than opacity to one-hour averages respectively. one-minute opacity averages shall be calculated from 4 or more data points equally spaced over each one-minute period. For systems other than opacity, one-hour averages shall be computed from four or more data points equally spaced over each one-hour period. Data recorded during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data output of all continuous monitoring systems may be recorded in reduced or nonreduced form (e.g. ppm pollutant and percent O_2 or lb/million Btu of pollutant). All excess emissions shall be converted into units of the standard using the conversion procedures specified in the applicable regulation. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the regulation to specify the applicable standard (e.g. rounded to the nearest one percent opacity).

(10) Exceptions. Upon written application by an owner or operator, the Director may approve alternatives to any monitoring procedures or requirements including, but not limited to, the following:

(aa) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances with the effluent gases.

(bb) Alternative monitoring requirements when the affected facility is infrequently operated.

(cc) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.

(dd) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.

(ee) Alternative methods of converting pollutant concentration measurements to units of the standards.

(ff) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.

(gg) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any regulation.

(hh) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1 but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Director may require that such demonstration be performed for each affected facility.

(ii) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities are released to the atmosphere through more than one point.

(b) Performance Tests

(1) Testing Requirements. The Agency or the Director may order the owner or operator of an emission facility to conduct or have conducted performance tests to determine the characteristics and amount of emissions of air contaminants from any affected facility.

(2) Test Method. Unless another method is specified in an applicable regulation, any owner or operator required to conduct performance tests shall utilize the following methods:

(aa) Method 1 for sample and velocity traverses.

(bb) Method 2 for stack gas velocity and volumetric flow rate.

(cc) Method 3 for gas analysis for carbon dioxide, excess air, and dry molecular weight.

(dd) Method 4 for moisture in stack gases.

(ee) Method 5 for concentration of particulate matter and associated moisture content.

(ff) Method 6 for concentration of sulfur dioxide.

(gg) Method 7 for concentration of nitrogen oxides.

(hh) Method 8 for concentration of sulfuric acid mist and sulfur dioxide.

(ii) Method 9 for opacity.

(jj) Method 10 for concentration of carbon monoxide.

(kk) Method 11 for concentration of hydrogen sulfide.

(ll) Method 101-Reference Method for Determination of Particulate and Gaseous Mercury Emissions from Stationary Sources (Air Streams), Method 102-Reference Method for Determination of Particulate and Gaseous Mercury Emissions from Stationary Sources (Hydrogen Streams), or Reference Method 105-Method for Determination of Mercury in Wastewater Treatment Sewage Sludges, set forth in 40 C.F.R. Part 61, Appendix B, whichever is applicable, for mercury emissions.

(mm) Method 103-Beryllium Screening Method or Method 104-Reference Method for Determination of Beryllium Emissions from Stationary Sources, set forth in 40 C.F.R. Part 61, Appendix B, whichever is applicable.

(3) Alternative Test Methods. In lieu of the test method described in paragraph (2), the Director may:

(aa) Specify or approve minor changes in the Reference Method set forth in paragraph (2) or the applicable regulation; or

(bb) Approve the use of an equivalent method; or

(cc) Approve the use of an alternative method the results of which he has determined to be adequate for indicating whether an affected facility is in compliance.

(4) Testing Conditions. Performance tests shall be conducted under such conditions as the Director shall specify. The owner or operator shall make available to the Director such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions of performance tests unless otherwise specified in an applicable regulation.

(5) Test Runs. Each performance test shall consist of three separate runs using the applicable test method. However, the Director reserves the right to require more than three runs under unusual circumstances. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the two other runs.

(6) Notification. The owner or operator shall notify the Director not less than 30 days prior to conducting any performance tests, unless a shorter time is accepted by the Director.

(7) Opacity.

(aa) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Reference Method 9. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the owner or operator shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1, has been properly maintained and (at the time of the alleged violation) calibrated, and that the resulting data have not been tampered with in any way.

(bb) The opacity standards set forth in a regulation shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.

(8) Agency Tests. Upon order of the Agency or the Director, the owner or operator of an emission facility shall allow the Agency, or any authorized employee or agent of the Agency, to enter upon the premises of the owner or operator for purposes of conducting performance tests. The owner or operator shall provide performance testing facilities which will enable the Agency or its agents or employees to conduct performance tests. Such performance testing facilities shall include:

(aa) Sampling ports adequate for test methods applicable to such facility.

(bb) Safe sampling platform(s).

(cc) Safe access to sampling platform(s).

(dd) Utilities for sampling and testing equipment.

(9) Additional Requirements. The owner or operator shall meet any other requirements imposed by the Agency or the Director in ordering the running of the performance tests.

(c) Reports

(1) Excess Emissions. Any owner or operator of an affected facility who is required to install a continuous monitoring system shall submit a written report of excess emissions for every calendar quarter.

(aa) The report shall be submitted to the Director of the Division of Air Quality of the Agency.

(bb) The report shall be submitted in accordance with the following requirements:

(i) The report shall be postmarked by the 30th day following the end of each calendar quarter; and

(ii) The report shall contain the following information:

1. The magnitude of excess emissions, any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions.

2. Specific identification of each period of excess emissions that occurred during startups, shutdowns, and malfunctions of the affected facility, the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

3. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

4. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(2) Other Data. The owner or operator of any affected facility shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by any regulation and shall keep that file in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

(3) Breakdowns. The owner or operator of an affected facility shall maintain records of the occurrence and duration of any startup, shutdown, breakdown, or malfunction in operation of the facility or any air pollution control equipment. The owner or operator shall maintain records of any periods of time in which a continuous monitoring system or monitoring device is inoperative. These records shall be retained for at least two years following the date of such shutdown, startup, breakdown, malfunction, or inoperation. These records shall be submitted to the Agency at such times as the Director may require.

(4) Emission Inventory. All owners or operators of emission facilities which emit more than 25 tons per year of particulate matter, sulfur oxides, nitrogen oxides, carbon monoxide, or hydrocarbons shall submit on or before April 1st of each year an emission inventory report covering the previous calendar year.

(d) Shutdowns and Breakdowns

(1) Shutdown. The owner or operator of an emission facility shall notify the Director at least 24 hours in advance of shutdown of any control equipment and, if the shutdown would cause an increase in the emission of air contaminants, of a shutdown or any process equipment. At the time of notification, the owner or operator shall also notify the Director of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Director when the shutdown is over.

(2) Breakdown. The owner or operator of an emission facility shall notify the Director immediately of a breakdown of more than one hour duration of any control equipment and, if the breakdown causes an increase in the emission of air contaminants, of a breakdown of any process equipment. At the time of notification or as soon thereafter as possible, the owner or operator shall also notify the Director of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Director when the breakdown is over.

(3) Operation Changes. In any shutdown or breakdown covered by subparagraph (1) or (2) above, the owner or operator shall immediately take all practical steps to modify operations to reduce the emission of air contaminants. The Director may require feasible and practical modifications in the operation to reduce emissions of air contaminants. No affected facility which has an unreasonable breakdown frequency of control equipment shall be permitted to operate. Nothing in this regulation shall permit the operation of an affected facility which may cause an immediate public health hazard.

(4) Monitoring Equipment. The owner or operator of a continuous monitoring system or monitoring device shall notify the Director of any breakdown or malfunction of such system or device.

FINAL

March 14, 1975

APC 25 STANDARD OF PERFORMANCE FOR SECONDARY LEAD SMELTERS

(a) Definitions

As used in this regulation the following words shall have the meanings defined herein:

(1) "Reverberatory furnace" includes the following types of reverberatory furnaces: stationary, rotating, rocking, and tilting.

(2) "Secondary lead smelter" means any facility producing lead from a lead-bearing scrap material by smelting to the metallic form.

(3) "Lead" means elemental lead or alloys in which the predominant component is lead.

(b) Standards of Performance for Secondary Lead Smelters

(1) No owner or operator of a secondary lead smelter shall cause to be discharged into the atmosphere from a blast (cupola) furnace or reverberatory furnace any gases which:

(a) Contain particulate matter in excess of 50 mg/dscm (0.022 gr/dscf).

(b) Exhibit 20 percent opacity or greater.

(2) No owner or operator of a secondary lead smelter shall cause to be discharged into the atmosphere from any pot furnace of more than 250 kg (550 lb) any gases which exhibit 10 percent opacity or greater.

(c) Performance Test Methods

Unless another method is approved by the Agency, any owner or operator required to submit performance tests for a

secondary lead smelter shall utilize the following test methods:

(1) Method 5 for the concentration of particulate matter and the associated moisture content.

(2) Method 1 for sample and velocity traverses,

(3) Method 2 for velocity and volumetric flow rate, and

(4) Method 3 for gas analysis.

(d) Performance Test Procedures

In testing for the concentration of particulate matter and the associated moisture content, the minimum sampling time for each run shall be at least 60 minutes and the sampling rate shall be at least 0.9 dscm/hr (0.53 dscf/min) except that shorter sampling times, when necessitated by process variables or other factors, may be approved by the Agency. Particulate sampling shall be conducted during representative periods of furnace operation, including charging and tapping.

FINAL

March 14, 1975

APC-26 STANDARDS OF PERFORMANCE FOR SECONDARY BRASS AND BRONZE INGOT PRODUCTION PLANTS

(a) Definitions

As used in this regulation the following words shall have the meanings defined herein:

(1) "Brass or bronze ingot production plant" means any facility producing brass or bronze from a copper alloy-bearing scrap material by smelting to the metallic form.

(2) "Brass or bronze" means any metal alloy containing copper as its predominant constituent, and lesser amounts of zinc, tin, lead, or other metals.

(3) "Reverberatory furnace" includes the following types of reverberatory furnaces: Stationary, rotating, rocking, and tilting.

(4) "Electric furnace" means any furnace which uses electricity to produce over 50 percent of the heat required in the production of refined brass or bronze.

(5) "Blast furnace" means any furnace used to recover metal from slag.

(b) Standards of Performance for Secondary Brass and Bronze Ingot Production Plants

(1) No owner or operator of a secondary brass or bronze ingot production plant shall cause to be discharged into the atmosphere from a reverberatory furnace any gases which:

(aa) Contain particulate matter in excess of 50 mg/dscm (0.022 gr/dscf).

(bb) Exhibit 20 percent opacity or greater.

(2) No owner or operator of a secondary brass or bronze ingot production plant shall cause to be discharged into the atmosphere from any electric furnace of 1,000 kg (2,205 lbs) or greater production capacity any gases which exhibit 10 percent opacity or greater.

(3) No owner or operator of a secondary brass or bronze ingot production plant shall cause to be discharged into the atmosphere from any blast (cupola) furnace of 250 kg/hr (550lb/hr) or greater production capacity any gases which exhibit 10 percent opacity or greater.

(4) No owner or operator of a secondary brass or bronze ingot production plant shall cause to be discharged into the atmosphere from any electric furnace of less than 1,000 kg (2,205 lbs) production capacity or any blast (cupola) furnace of less than 250 kg/hr (550 lb/hr) production capacity any gases which exceed the limits of APC-5 for particulate emissions, and exhibit 20 percent opacity or greater.

(c) Performance Test Methods

Unless another method is approved by the Agency, any owner or operator required to submit performance tests for a brass or bronze ingot production plant shall utilize the following test methods:

(1) Method 5 for the concentration of particulate matter and the associated moisture content.

(2) Method 1 for sample and velocity traverses.

(3) Method 2 for velocity and volumetric flow rate.

(4) Method 3 for gas analysis.

(d) Performance Test Procedures

In testing for the concentration of particulate matter and the associated moisture content, the minimum sampling time for each run shall be at least 120 minutes and the sampling rate shall be at least 0.9 dscm/hr (0.53 dscf/min) except that shorter sampling times, when necessitated by process variables or other factors, may be approved by the Agency. Particulate matter sampling shall be conducted during representative periods of charging and refining, but not during pouring of the heat.

FINAL

March 14, 1975

APC 27 STANDARDS OF PERFORMANCE FOR IRON AND STEEL PLANTS

(a) Definitions

As used in this regulation the following words shall have the meanings defined herein:

(1) "Basic oxygen process furnace" (BOPF) means any furnace producing steel by charging scrap steel, hot metal, and flux materials into a vessel and introducing a high volume of an oxygen-rich gas.

(2) "Steel production cycle" means the operations required to produce each batch of steel and includes the following major functions: Scrap charging, preheating (when used), hot metal charging, primary oxygen blowing, additional oxygen blowing (when used), and tapping.

(b) Standards of Performance for Iron and Steel Plants

No owner or operator of an iron and steel plant shall cause to be discharged into the atmosphere from any basic oxygen process furnace any gases which contain particulate matter in excess of 50 mg/dscm (0.022 gr/dscf).

(c) Performance Test Methods

Unless another method is approved by the Agency, any owner or operator required to submit performance tests for an iron and steel plant shall utilize the following test methods:

(1) Method 5 for concentration of particulate matter and associated moisture content.

(2) Method 1 for sample and velocity traverses.

(3) Method 2 for volumetric flow rate.

(4) Method 3 for gas analysis.

STATE OF MINNESOTA
DEPARTMENT OF STATE
FILED
MAY - 7 1976 - 11:00 am
Joan Anderson Growe
Secretary of State

(d) Performance Test Procedures

In testing for the concentration of particulate matter and the associated moisture content, the sampling for each run shall continue for an integral number of steel production cycles with total duration of at least 60 minutes. The sampling rate shall be at least 0.9 dscm/hr (0.53 dscf/min) except that shorter sampling times, when necessitated by process variables or other factors, may be approved by the Agency. A cycle shall start at the beginning of either the scrap preheat or the oxygen blow and shall terminate immediately prior to tapping.

FILED
RICHARD L. BRUBACHER
Commissioner of Administration
MAY 7 1976
BY Eda Staudenmayer
AUTH. SIGNATURE
11:30 AM

APPROVED AS TO FORM AND LEGALITY
MAY 7 1976 19
WARREN S. ANNAUS, ATTORNEY GENERAL
BY /s/ Michael B. Miller
SPECIAL ASSISTANT ATTORNEY GENERAL

Proposed

March 14, 1975

APC 2 DEFINITIONS, ABBREVIATIONS, APPLICABILITY OF STANDARDS, ACCESS TO PREMISES, VARIANCES, CIRCUMVENTION, SEVERABILITY

(a) Definitions

As used in these air pollution control regulations the following words shall have the meanings defined herein:

(1) "Agency" means the Minnesota Pollution Control Agency as constituted pursuant to Minn. Stat. § 116.02 subd. 1.

(2) "Breakdown" means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner.

(3) "Continuous monitoring system" means the total equipment for sampling, conditioning, and analyzing emissions or process parameters and for recording data.

(4) "Control equipment" means an "air containment treatment facility" or a "treatment facility" as those terms are defined in Minn. Stat. § 116.06 subd. 6.

(5) "Director" means the Executive Director and Chief Executive Officer of the Agency.

(6) "Emission facility" means any building, facility, installation, structure, work, equipment, machinery, device, apparatus or other means whereby an emission is caused to occur.

(7) "Isokinetic sampling" means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

(8) "Method 1" means Appendix A - Reference Methods, Method 1 - Sample and Velocity Traverses for Stationary Sources, set forth in 40 C.F.R. Part 60.

(9) "Method 2" means Appendix A - Reference Methods, Method 2 - Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube), set forth in 40 C.F.R. Part 60.

(10) "Method 3" means Appendix A - Reference Methods, Method 3 - Gas Analysis for Carbon Dioxide, Excess Air, and Dry Molecular Weight, set forth in 40 C.F.R. Part 60.

(11) "Method 4" means Appendix A - Reference Methods, Method 4 - Determination of Moisture in Stack Gases, set forth in 40 C.F.R. Part 60.

(12) "Method 5" means Appendix A - Reference Methods, Method 5 - Determination of Particulate Emissions from Stationary Sources, set forth in 40 C.F.R. Part 60, as amended by paragraph (h) herein.

(13) "Method 6" means Appendix A - Reference Methods, Method 6 - Determination of Sulfur Dioxide Emissions from Stationary Sources, set forth in 40 C.F.R Part 60.

(14) "Method 7" means Appendix A - Reference Methods, Method 7 - Determination of Nitrogen Oxide Emissions from Stationary Sources, set forth in 40 C.F.R. Part 60.

(15) "Method 8" means Appendix A - Reference Methods, Method 8 - Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources, set forth in 40 C.F.R. Part 60.

(16) "Method 9" means Appendix A - Reference Methods, Method 9 - Visual Determination of the Opacity of Emissions from Statitonary Sources, set forth in 40 C.F.R Part 60.

(17) "Method 10" means Appendix A - Reference Methods, Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources, set forth in 40 C.F.R. Part 60.

(18) "Method 11" means Appendix A - Reference Methods, Method 11 - Determination of Hydrogen Sulfide Emissions from Stationary Sources, set forth in 40 C.F.R. Part 60.

(19) "Minneapolis-St. Paul Air Quality Control Region" means the territorial area encompassed by the boundaries of the following counties: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington. See 40 C.F.R. § 81.27.

(20) "New source performance standard" means a standard of performance for a new affected facility.

(21) "Nitrogen oxides" means all oxides of nitrogen except nitrous oxide.

(22) "Opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

(23) "Owner or operator" means any person who owns, leases, operates, controls, or supervises an emission facility.

(24) "Particulate matter" means material, except uncombined water, which exists at standard conditions in a finely divided form as a liquid or solid.

(25) "Performance Specification 1" means Appendix B - Performance Specifications, Performance Specifications 1 - Performance Specifications and Specification Test Procedures for Transmission Systems for Continuous Measurement of the Opacity of Stack Effluents, set forth in 39 Fed. Reg. 32860-32864 (1974).

(26) "Performance Specification 2" means Appendix B - Performance Specifications, Performance Specification 2 - Performance Specifications and Specification Test Procedures for Monitors of SO_2 and NO_x from Stationary Sources, set forth in 39 Fed. Reg. 32864-32869 (1974).

(27) "Performance Specification 3" means Appendix B - Performance Specifications, Performance Specification 3 - Performance Specifications and Specification Test Procedures for Monitors and Oxygen from Stationary Sources, set forth in 39 Fed. Reg. 32869-32871 (1974).

(28) "Person" means person as defined in Minn. Stat. § 116.06 subd. 8.

(29) "Proportional sampling" means sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

(30) "Shutdown" means the cessation of operation of an emission facility or process equipment for any purpose.

(31) "Smoke" means 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.

(32) "Startup" means the setting in operation of an emission facility or process equipment for any purpose.

(33) "Standard Conditions" means a temperature of 20°C (68°F) and a pressure of 760 mm of Hg (29.92 in. of Hg).

(34) "Standard of Performance" means a restriction on the amount of air pollutants which may be emitted by an affected facility.

(35) "Run" means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

(b) Abbreviations

The abbreviations used in these air pollution control regulations have the following meanings:

(1) A.S.T.M.--American Society for Testing and Materials
(2) Btu--British thermal unit
(3) °C--degree Celsius (centigrade)
(4) cal--calorie
(5) CdS--cadmium sulfide
(6) cfm--cubic feet per minute
(7) CO--carbon monoxide
(8) CO_2--carbon dioxide
(9) dscm--dry cubic meter(s) at standard conditions
(10) dscf--Dry cubic feet at standard conditions
(11) eq--equivalents
(12) °F--degree Fahrenheit
(13) g--gram(s)

(14) gal--gallon(s)
(15) g eq-- gram equivalents
(16) gr--grain(s)
(17) hr--hour(s)
(18) HCl--hydrochloric acid
(19) Hg--mercury
(20) H_2O--water
(21) H_2S--hydrogen sulfide
(22) H_2SO_4--sulfuric acid
(23) in.--inch(es)
(24) °K--degree Kelvin
(25) k-1,000
(26) kg--kilogram(s)
(27) l--liter(s)
(28) lpm--liter(s) per minute
(29) lb--pound(s)
(30) m--meter(s)
(31) meq--milliequivalent(s)
(32) min--minute(s)
(33) mg--milligram(s)
(34) ml--milliliter(s)
(35) mm--millimeter(s)
(36) mol.wt.--molecular weight
(37) mV--millivolt
(38) N_2--nitrogen
(39) nm--nanometer(s)--10^{-9} meter
(40) NO--nitric oxide
(41) NO_2--nitrogen dioxide
(42) NO_x--nitrogen oxides
(43) O_2--oxygen
(44) ppb--parts per billion
(45) ppm--parts per million
(46) psia--pounds per square inch absolute
(47) °R--degree Rankine
(48) s--at standard conditions
(49) sec--second
(50) SO_2--sulfur dioxide
(51) SO_3--sulfur trioxide
(52) µg--microgram(s)--10^{-6}gram

(c) Applicability of Standards of Performance

(1) Affected Facilities. An "affected facility" is any equipment, apparatus, or process to which a standard of performance set forth in these air pollution control regulations is applicable. An affected facility may be an individual unit of process equipment, e.g., the clinker cooler in a portland cement plant, or an entire process, e.g., a nitric acid production unit. An affected facility may be an emission facility for which a permit is required under Minnesota Regulation APC 3.

(2) Existing Facilities. An affected facility is an existing facility if:

(aa) It was in operation on the effective date of the applicable new source performance standard; or

(bb) The owner or operator of the affected facility obtained from the Agency prior to the effective date of the applicable new source performance standard an installation permit which authorized installation of the affected facility.

(3) New Facilities. An affected facility which is not an existing facility is a new facility.

(4) Effective Date. The effective date for new source performance standards shall be as follows:

(aa) Fossil Fuel-Fired Steam Generators (APC 4)- August 17, 1971.

(bb) Incinerators (APC 7) - August 17, 1971.

(cc) Storage Vessels for Petroleum Liquids (APC 13) - June 11, 1973.

(dd) Sulfuric Acid Plants (APC 15) - August 17, 1971

(ee) Nitric Acid Plants (APC 16) - August 17, 1971.

(ff) Portland Cement Plants (APC 22) - August 17, 1971

(gg) Asphalt Concrete Plants (APC 23) - June 11, 1973

(hh) Petroleum Refineries (APC 24)-June 11, 1973

(ii) Secondary Lead Smelters (APC 25)-June 11, 1973

(jj) Secondary Brass and Bronze Ingot Production Plants (APC 26)-June 11, 1973

(kk) Iron and Steel Plants (APC 27)-June 11, 1973

(ll) Sewage Sludge Incinerators (APC 28)-June 11, 1973

(mm) All others-the effective date of the applicable new source performance standard

APC 2

(5) Modifications

(aa) Any owner or operator who modifies an existing affected facility after the effective date of an applicable new source performance standard shall comply with the new source performance standard for the affected facility.

(bb) A modification to an existing affected facility is any physical change in, or change in the method of operation of, an existing facility which increases the amount of emissions into the atmosphere of any air pollutant to which a new source performance standard applies or which results in the emission of any air pollutant not previously emitted to which a new source performance standard applies.

(cc) The owner or operator of an existing affected facility may undertake any of the following modifications without being required to comply with the new source performance standard for the affected facility:

(i) Maintenance, repair, and replacement of a routine nature.

(ii) An increase in production rate, if that increase can be accomplished without a major capital expenditure.

(iii) An increase in the hours of production.

(iv) Use of an alternative fuel or raw material if, prior to the effective date of the applicable new source performance standard, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if provisions for that use were included in the final construction specifications.

(v) Conversion to coal required by state or federal law for energy considerations.

(vi) The addition or use of any control equipment.

(dd) The modification of an affected facility or the addition of a new affected facility shall not by itself require the owner or operator to comply with new source performance standards for other existing facilities.

(ee) The requirements of subsection (5)(aa) shall not apply if the owner or operator who modifies an existing facility can demonstrate to the Agency that modification of the affected facility will not result in an increase in total emissions from all existing emission sources in the process.

(ff) Any owner or operator who modifies a new affected facility shall comply with the new source performance standard.

(gg) Nothing in this subsection (c) shall affect the requirement of Minnesota Regulation APC 3(e) that a permit be obtained from the Agency to undertake certain alterations and modifications to emission facilities and control equipment.

(d) Access to Premises and Information

(1) The owner or operator of an emission facility shall allow the Agency, or any authorized employee or agent of the Agency, upon presentation of proper credentials, to examine and copy any books, papers, records or memoranda pertaining to the operation of the emission facility.

(2) The owner or operator of an emission facility shall allow the Agency, or any authorized employee or agent of the Agency, upon presentation of proper credentials, to enter upon the property of the owner or operator for the purpose of obtaining information or examinining records or conducting surveys or investigations, whenever such entrance is necessary for the purpose of these regulations.

(e) Variances.

Whereupon written application of the responsible person or persons the Agency finds that by reason of exceptional circumstances strict conformity with any provisions of the emission standards contained herein would cause undue hardship, would be

unreasonable, impractical or not feasible under the circumstances, the Agency may permit a variance from these emission standards upon such conditions and within such time limitations as it may prescribe for prevention, control or abatement of air pollution in harmony with the intent of the State and any applicable Federal laws.

(f) Circumvention

No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminant which would otherwise violate an air pollution control regulation.

(g) Severability

If any provision of any regulation or the application thereof to any person or circumstances is held to be invalid, such invalidity shall not affect other provisions or application of any other part of such regulation or any other regulation which can be given effect without the invalid provision or application, and to this end the provisions of all regulations and the various applications thereof are declared to be severable.

(h) Method 5 Amendment

(1) Paragraph 4.2 (Sample Recovery) in Appendix A-Reference Methods, Method 5 - Determination of Particulate Emissions from Stationary Sources, set forth in 40 C.F.R. Part 60 is amended to read as follows:

4.2 Sample Recovery. Exercise care in moving the collection train from the test site to the sample recovery area so as to minimize the loss of collected sample or the gain of extraneous particulate matter. Set aside a portion of the acetone and water used in the sample recovery as a blank for analysis. Place the samples in containers as follows:

Container #1. Remove the filter from its holder, place in this container, and seal.

Container #2. Place loose particulate matter and water and acetone washings from all sample-exposed surfaces preceding the filter in this container and seal. The probe and nozzle should be scrubbed with a stiff brush and distilled water, followed by an acetone rinse. If these solvents do not do a good cleaning job, an adequate solvent must be found and used. Use a razor blade or rubber policeman to loosen adhering particles if necessary.

Container #3. Measure the volume of water from the first three impingers and place the water in this container. Place water rinsings of all sample-exposed surfaces between the filter and fourth impinger in this container prior to sealing.

Container #4. Transfer the silica gel from the fourth impinger to the original container and seal. Use a rubber policeman as an aid in removing silica gel from the impinger.

Container #5. Thoroughly rinse all sample-exposed surfaces between the filter and fourth impinger with acetone, place the washings in this container and seal.

(2) Paragraph 4.3 (Analysis) in Appendix A-Reference Methods, Method 5 - Determination of Particulate Emissions from Stationary Sources, set forth in 40 C.F.R. Part 60, is amended to read as follows:

4.3 Analysis. Record the data required on the example sheet shown in figure 5-3. Handle each sample container as follows:

Container #1. Transfer the filter and any loose particulate matter from the sample container to a tared glass weighing dish, desiccate, and dry to a constant weight. Report results to the nearest 0.5 mg.

Container #2. Transfer the washings to a tared beaker and evaporate to dryness at ambient temperature and pressure. Desiccate and dry to a constant weight. Weigh to the nearest 0.5 mg.

Container #3. Extract organic particulate from the impinger solution with three 25 ml portions of chloroform. Complete the extraction with three 25 ml portions of ethyl ether. Combine the ether and chloroform extracts, transfer to a tared beaker and evaporate at 70°F until no solvent remains. Desiccate, dry to a constant weight, and report the results to the nearest 0.5 mg.

Container #4. Weigh the spent silica gel and report to the nearest gram.

Container #5. Transfer the acetone washings to a tared beaker and evaporate to dryness at ambient temperature and pressure. Desiccate, dry to a constant weight, and report the results to the nearest 0.5 mg.

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION

CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

FINDINGS OF FACT
APC 2

The above-entitled matter came on for hearing before the Minnesota Pollution Control Agency (hereinafter Agency) on the 17th day of April, 1975, at 9:00 a.m. and again at 7:00 p.m. and again on the 18th day of April, 1975, at 9:00 a.m., and again on the 10th day of June, 1975, at 9:00 a.m. in the Board Room of the Agency offices, 1935 West County Road B2, Roseville, Minnesota, and again on April 23 at 9:00 a.m. in the Duluth, Minnesota, City Council Chambers in City Hall, and again on April 20, 1975, at 9:00 a.m. in the Moorhead, Minnesota, City Council Chambers in the City Hall, and again on May 1, 1975, at 9:00 a.m. at Mankato, Minnesota, at the Law Enforcement Center, 710 South Front Street, after proper notice required by Minnesota Statutes §15.0412 (1974) was served upon all persons, associations and other interested groups registered with the Secretary of State for that purpose.

After affording all interested persons an opportunity to present written and oral data, statements and arguments, having considered all of the testimony, having considered all evidence adduced and upon the records, files and proceedings herein, the Agency finds the following:

1. There are numerous words and phrases which are used throughout the air pollution regulations which require a consistent definition.

2. Many of these words and phrases are already defined in existing APC 2. Some are defined in Minn. Stat. §116.06 (1974). In addition, the United States Environmental Protection Agency has promulgated various definitions which are used in the federal new source performance standards (40 C.F.R. Part 60) and in the federal hazardous air pollutant standards (40 C.F.R. Part 61).

3. There are also numerous abbreviations used throughout the air pollution regulations which require definition.

4. Since the standards of performance which the Agency has adopted for new facilities are those promulgated by the United States Environmental Protection Agency (40 C.F.R. Part 60), it is reasonable that the facilities to which these new source standards apply be the same under the state law as it is under the federal law. Some facilities which commenced construction before the effective date of the applicable new source standard, as the term commenced is defined in 40 C.F.R. §60.2(i) (1974), had not obtained an installation permit under APC 3 from the Agency. (April 17, 1975, Transcript at pp. 18-19, 82-83; April 23, 1975, Transcript at pp. 32-33; June 10, 1975, Transcript at pp. 23, 78, 151-152; Public Exhibit 17 at p. 2; Public Exhibit 21 at pp. 9-11; Statement of Minnesota Power & Light Company, dated June 27, 1975, at pp. 5-7.)

5. Not all facilities which emit air pollutants emit the kinds of pollutants which condense at standard conditions of temperature and pressure with a resultant potential odor problem. Therefore, it is reasonable that any modification in the Performance Test Method for measuring particulate emissions promulgated by the United States Environmental Protection Agency be provided for in the specific regulation for those facilities which must use a method which will measure those condensibles. (April 17, 1975, Transcript at pp. 32-33; April 23, 1975, Transcript at pp. 17-18; April 29, 1975, Transcript at pp. 22-23; June 10, 1975, Transcript at pp. 105-106; Statement of United States Steel Corporation, dated June 24, 1975, at p. 3; Statement of Lake Superior Industrial Bureau, dated June 27, 1975, at p. 1; Statement of Pickands Matter & Co., dated June 27, 1975, at p.1.)

6. The United States Environmental Protection Agency has promulgated regulations which establish standards of performance for sources which are modified. (40 Fed. Reg. 58416-58420 (Dec. 16, 1975)) It is reasonable to adopt these federal requirements as state law. In addition, it is necessary that any person who modifies a stationary source comply with state permitting requirements. (Minn. Stat. §116.081 subd. 3 (1974) and Minn. Reg. APC 3(e)).

7. The United States Environmental Protection Agency has also promulgated regulations which establish standards of performance for sources which are reconstructed. (40 Fed. Reg.

58416-58420 (Dec. 16, 1975)). It is reasonable to adopt these federal requirements as state law.

MINNESOTA POLLUTION CONTROL AGENCY

Marion E. Watson
Chairwoman

Peter L. Gove
Executive Director

DATED: February 13, 1976

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION

CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

ORDER ADOPTING REGULATION APC 2

The above-entitled matter came on for hearing before the Minnesota Pollution Control Agency (hereinafter Agency) on the 17th day of April, 1975, at 9:00 a.m. and again at 7:00 p.m. and again on the 18th day of April, 1975, at 9:00 a.m., and again on the 10th day of June, 1975, at 9:00 a.m. in the Board Room of the Agency offices, 1935 West County Road B2, Roseville, Minnesota, and again on April 23 at 9:00 a.m. in the Duluth, Minnesota, City Council Chambers in City Hall, and again on April 20, 1975, at 9:00 a.m. in the Moorhead, Minnesota, City Council Chambers in the City Hall, and again on May 1, 1975, at 9:00 a.m. at Mankato, Minnesota, at the Law Enforcement Center, 710 South Front Street, after proper notice required by Minnesota Statutes §15.0412 (1974) was served upon all persons, associations and other interested groups registered with the Secretary of State for that purpose.

After affording all interested persons an opportunity to present written and oral data, statements and arguments, having considered all of the testimony, having considered all evidence adduced and upon the records, files and proceedings herein, and having confirmed the need for the above-captioned regulation:

NOW, THEREFORE, IT IS ORDERED that the amendments dated February 6, 1976, with the amendments presented to the Agency on February 24, 1976, to this regulation identified as APC 2, entitled "Definitions, Abbreviations, Applicability of Standards, Access to Premises, Variances, Circumvention, Severability" is adopted this 24th day of February, 1976, pursuant to authority vested in the Minnesota Pollution Control Agency by Minnesota Statutes §116.07 subd. 4 (1974).

MINNESOTA POLLUTION CONTROL AGENCY

Marion E. Watson
Chairwoman

Peter L. Gove
Executive Director

DATED: February 24, 1976

CERTIFICATE OF AGENCY'S

ADOPTION OF RULES RESOLUTION

I, Peter L. Gove, do hereby certify that I am the Executive Director of the Minnesota Pollution Control Agency, an agency duly authorized under the laws of the State of Minnesota, and that the following is a true, complete, and correct copy of a resolution adopted at a meeting of the Agency duly and properly called and held on the 24th day of February, 1976; that a quorum was present at said meeting; and that said resolution is set forth in the minutes of said meeting and has not been rescinded or modified.

RESOLVED, that pursuant to authority vested in the Minnesota Pollution Control Agency by Minn. Stat. §116.07 subd. 4 (1974) the amendments to Minnesota Regulation APC 2, entitled Definitions, Abbreviations, Applicability of Standards, Access to Premises, Variances, Circumvention, Severability, dated February 6, 1976, be and they hereby are approved and adopted pursuant to Minn. Stat. §116.07 subd. 4 (1974) with the following changes:

1. Paragraph (a)(38) is amended to read:

(38) "Smoke" means small gas-borne particles resulting from incomplete combustion, consisting predominantly, but not exclusively of carbon and other combustible material, or ash, that form a visible plume in the air.

2. Paragraph (a)(39) is amended to read:

(39) "Startup" means the setting in operation of an emission facility, an affected facility or process equipment for any purpose.

BE IT FURTHER RESOLVED that the Findings of Fact submitted by the staff are hereby adopted as the Findings of Fact of the Agency.

IN WITNESS WHEREOF, I have hereunto subscribed my name

this 25th day of February, 1976.

Peter L. Gove
Executive Director

Subscribed and sworn to before
me this 25th day of
February, 1976:

MARY E. WYATT
NOTARY PUBLIC — MINNESOTA
DAKOTA COUNTY
My Commission Expires July 30, 1981

Mary E. Wyatt
Notary Public

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION

CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

STATEMENT OF COMPLIANCE WITH RULEMAKING PROCEDURES
APC 2

I, Special Assistant Attorney General Alan R. Mitchell, do hereby declare that I have examined the proposed rules entitled "Definitions, Abbreviations, Applicability of Standards, Access to Premises, Variances, Circumvention, Severability," and all related documents and that, based on them and my personal familiarity with the applicable procedures, the Manual of Rulemaking Procedures has been followed.

Alan R. Mitchell

Alan R. Mitchell
Special Assistant
Attorney General

Dated: March 31, 1976

Proposed

March 14, 1975

APC 21 EMISSION SOURCE MONITORING, PERFORMANCE TESTS, SHUTDOWNS AND BREAKDOWNS

(a) Continuous Monitoring

(1) The owner or operator of any emission facility, whether or not continous monitoring is required by another regulation, may be required to establish an emission source monitoring system, upon order of the Director, when in his judgment other methods of measurement or calculation do not provide adequate information on the level or variation of emissions to assure compliance with applicable regulations.

(2) All continuous monitoring systems installed shall meet minimum frequency of operation requirements as follows:

(aa) Continuous monitoring systems for measuring opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 1-minute period.

(bb) Continuous monitoring systems for measuring oxides of nitrogen, sulfur dioxide, or oxygen shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(cc) Continuous monitoring systems for measuring emissions or process parameters not listed under section (aa) or (bb) of this section shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive hourly period.

(3) All continuous monitoring systems shall be installed such that a representative measurement of process parameters or emissions from the emission facility can be obtained.

(4) The following continuous monitoring systems shall be used, unless another system is approved by the Director:

(aa) Continuous monitoring systems for measuring opacity of emissions shall comply with Performance Specification 1.

(bb) Continuous monitoring systems for measuring nitrogen oxides emissions shall comply with Performance Specification 2.

(cc) Continuous monitoring systems for measuring sulfur dioxide emissions shall comply with Performance Specification 2.

(dd) Continuous monitoring systems for measuring the oxygen content of effluent gases shall comply with Performance Specification 3.

(ee) Any owner or operator of an emission facility who is required to monitor emissions for which a monitoring system is not specified in subsection (aa), (bb), (cc), or (dd) of this section, shall obtain the approval of the Director of the monitoring system which is proposed to be used.

(5) Section (a)(4) of this regulation shall not apply to continous monitoring systems for which owners or operators have prior to October 1, 1974, entered into binding contractural obligations to purchase specific monitoring equipment, provided the system meets the requirements of section (a)(6).

(6) The Director shall approve a monitoring system which is capable of monitoring emission levels to ± 20 percent with a confidence level of 95 percent. The capability of the monitoring system shall be determined by subjecting the system to evaluation with a variety of known opacity neutral density filters or a variety of known calibration gases as applicable.

(7) All continuous monitoring systems installed in accordance with the requirements of this regulation shall be calibrated in accordance with the method(s) prescribed by the manufacturer(s) of such instruments. The instruments shall be subjected to the manufacturer's recommended zero adjustment and calibration procedures at least once daily unless the manufacturer(s) of the monitoring system equipment specifies or recommends calibration at shorter intervals, in which case such specifications or recommendations shall be followed.

(8) Owners or operators of all continuous monitoring systems installed in accordance with the requirements of this regulation shall record the zero and span drift in accordance with the method prescribed by the manufacturer of such instruments. The instruments shall be subjected to the manufacturer's recommended zero and span adjustment at least once daily unless the manufacturer recommends adjustments at shorter intervals, in which case such recommendations shall be followed. As a minimum, the following procedure shall be followed:

(aa) For extractive monitoring systems measuring nitrogen oxides, sulfur dioxide, or oxygen, minimum procedures shall include using zero and span gases introduced into the measurement system as near to the probe as is practical. If an alternate method can be demonstrated to be adequate, then the Director can approve procedures that do not include use of span gases.

(bb) For non-extractive monitoring systems that measure nitrogen oxides, sulfur dioxide, or oxygen, minimum procedures shall include upscale adjustment using a certified calibration gas cell or a test cell which is optically equivalent to a known gas concentration.

(9) Upon written request the Agency may waive the requirements under this part for installing a continuous monitoring system when the installation of such system would not provide accurate determinations (e.g., condensed, uncombined water vapor may prevent an accurate determination of opacity using commercially available continuous monitoring systems). Upon approval of that request, the Agency may prescribe other monitoring requirements.

(10) Should any continuous monitoring system be replaced in its entirety or portions of any of these systems be replaced, including but not limited to replacement of major subassemblies or critical components such as the pollutant sampler pollutant analyzer, or photocell, the applicable performance evaluations under paragraphs (d) and (f) of this section shall be repeated, or upon written request the Agency may waive the requirements or performing these tests and prescribe other testing or information reporting requirements necessary to demonstrate that the performance of the continuous monitoring system is not reduced to levels below applicable specifications. The owner or operator shall notify the Agency not less than 15 days before replacement components or systems are installed.

(11) When the effluent from two or more affected facilities is ducted to a single stack, then applicable continuous monitoring systems are required only on the single stack.

(12) If any continuous monitoring systems (except opacity) installed and operated under this part yield results on a wet basis, the owner or operator shall correct such dates to a dry basis.

(13) The owner or operator of an emission facility who is required to establish an emission source monitoring system shall notify the Agency not less than 15 days prior to conducting any evaluation pursuant to subsection (6) or any operational test period required by this regulation.

(14) Owners and operators of all continuous monitoring systems shall reduce all data monthly to one-minute integrated averages (opacity) or one-hour integrated averages (all data except opacity). Conversion factors which are approved by the Agency shall be developed to convert the integrated averaged data into units of the applicable standards.

(15) All monitoring data gathered by an owner or operator shall be recorded daily and summarized monthly. The record of any such measurements and summary shall be retained for at least two years following the date of such measurements and summaries. These measurements and summaries shall be submitted to the Agency at such times as the Director may require.

(b) Performance Tests

(1) The Agency or the Director may order the owner or operator of an emission facility to conduct or have conducted performance tests to determine the characteristics and amount of emissions of air contaminants from any emission facility.

(2) Any owner or operator who is required to conduct performance tests shall meet the following requirements in conducting such tests:

(aa) Performance tests shall be conducted and data reduced in accordance with test methods and procedures contained in applicable regulations for the affected facility, unless the Agency or the Director approves and specifies an alternative method or procedure.

(bb) Performance tests shall be conducted under such conditions as the Agency or the Director shall specify. The owner or operator shall make available to the Agency and the Director such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions of performance tests unless otherwise specified in an applicable regulation.

(cc) The owner or operator shall notify the Agency not less than 15 days prior to conducting any performance tests, unless a shorter time is accepted by the Agency or the Director.

(dd) Each performance test shall consist of three separate runs using the applicable test method and test procedures. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the three runs shall apply. The Director may accept the arithmetic mean of less than three runs.

(ee) The owner or operator shall meet any other requirements imposed by the Agency or the Director in ordering the running of the performance tests.

(3) Unless another method is approved by the Agency or the Director, any owner or operator required to submit performance tests shall utilize the following methods:

(aa) Method 1 for sample and velocity traverses.

(bb) Method 2 for stack gas velocity and volumetric flow rate.

(cc) Method 3 for gas analysis for carbon dioxide, excess air, and dry molecular weight.

(dd) Method 4 for moisture in stack gases.

(ee) Method 5 for concentration of particulate matter and associated moisture content.

(ff) Method 6 for concentration of sulfur dioxide.

(gg) Method 7 for concentration of nitrogen oxides.

(hh) Method 8 for concentration of sulfuric acid mist and sulfur dioxide.

(ii) Method 9 for opacity.

(jj) Method 10 for concentration of carbon monoxide.

(kk) Method 11 for concentration of hydrogen sulfide.

(4) All performance test data gathered by an owner or operator shall be recorded and retained for at least two years following the date of such performance tests. The results shall be submitted to the Agency at such times as the Director may require.

(5) Upon order of the Agency or the Director, the owner or operator of an emission facility shall allow the Agency, or any authorized employee or agent of the Agency, to enter upon the premises of the owner or operator for purposes of conducting performance tests. The owner or operator shall provide performance testing facilities which will enable the Agency or its agents or employer to conduct performance tests. Such performance testing facilities shall include:

(aa) Sampling ports adequate for test methods applicable to such facility.

(bb) Safe sampling platform(s).

(cc) Safe access to sampling platform(s).

(dd) Utilities for sampling and testing equipment.

(c) Submission of Data

(1) All owners or operators of emission facilities who are required to install a continuous monitoring system and all owners or operators of a new emission facility, regardless of whether a continuous monitoring system is required, shall submit a written quarterly report to the Agency. All quarterly reports shall be submitted to the Director, Division of Air Quality, and shall be postmarked by the 30th day following the end of each calendar quarter. The report shall contain the following information:

(aa) For all affected facilities, the date, duration, nature, and cause (if known) of any malfunction, and the corrective action taken or preventative measures adopted.

(bb) For affected facilities for which continuous monitoring systems are required, the report shall include the following:

(i) The magnitude of emissions reported in terms of the applicable standard.

(ii) A summary of periods of excess emissions as defined in applicable regulations, including the magnitude of excess emissions, the date, the time of commencement and completion of each period of excess emissions, and the date and time identifying each period during which the continuous monitoring system was inoperative. Periods of excess emissions due to startup, shutdown, and malfunction shall be specifically identified.

(2) All owners or operators of emission facilities which emit more than 25 tons per year of particulate matter, sulfur oxides, nitrogen oxides, carbon monoxide, or hydrocarbons shall submit on or before January 30th of each year an emission inventory report covering the previous calendar year.

(d) Shutdowns and Breakdowns

(1) Shutdown. The operator of an emission facility shall notify the Dirctor at least 24 hours in advance of shutdown of any control equipment and, if the shutdown would cause an increase in the emission of air contaminants, of a shutdown or any process equipment. At the time of notification, the operator shall also notify the Director of the cause of the shutdown and the estimated duration. The operator shall notify the Director when the shutdown is over.

(2) Breakdown. The operator of an emission facility shall notify the Director immediately of a breakdown of more than one hour duration of any control equipment and, if the breakdown causes an increase in the emission of air contaminants, of a breakdown of any process equipment. At the time of notification or as soon thereafter as possible, the operator shall also notify the Director of the cause of the breakdown and the estimated duration. The operator shall notify the Director when the breakdown is over.

(3) Operation Changes. In any shutdown or breakdown covered by subparagraph (1) or (2) above, the operator shall immediately take all practical steps to modify operations to reduce the emission of air contaminants. The Director may require feasible and practical modifications in the operation to reduce emissions of air contaminants. No emission facility which has an unreasonable breakdown frequency of control equipment shall be permitted to operate. Nothing in this regulation shall permit the operation of an emission facility which may cause an immediate public health hazard.

(4) Records. The owner or operator of an emission facility shall maintain records of the occurrence and duration of any startup, shutdown, breakdown, or malfunction in operation of the facility or of air pollution control equipment. These records shall be retained for at least two years following the date of such shutdown, startup, breakdown, or malfunction. These records shall be submitted to the Agency at such times as the Director may require.

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION

CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

FINDINGS OF FACT
APC 21

The above-entitled matter came on for hearing before the Minnesota Pollution Control Agency (hereinafter Agency) on the 17th day of April, 1975, at 9:00 a.m. and again at 7:00 p.m. and again on the 18th day of April, 1975, at 9:00 a.m., and again on the 10th day of June, 1975, at 9:00 a.m. in the Board Room of the Agency offices, 1935 West County Road B2, Roseville, Minnesota, and again on April 23 at 9:00 a.m. in the Duluth, Minnesota, City Council Chambers in City Hall, and again on April 20, 1975, at 9:00 a.m. in the Moorhead, Minnesota, City Council Chambers in the City Hall, and again on May 1, 1975, at 9:00 a.m. at Mankato, Minnesota, at the Law Enforcement Center, 710 South Front Street, after proper notice required by Minnesota Statutes §15.0412 (1974) was served upon all persons, associations and other interested groups registered with the Secretary of State for that purpose.

After affording all interested persons an opportunity to present written and oral data, statements and arguments, having considered all of the testimony, having considered all evidence adduced and upon the records, files and proceedings herein, the Agency finds the following:

1. The Minnesota Pollution Control Agency (Agency) first promulgated a regulation providing for the installation of a monitoring system upon order of the Director in April, 1972. Minn. Reg. APC 3(b) (1972). That regulation continues in effect today. Minn. Reg. APC 3(k).

2. The United States Environmental Protection Agency (EPA) has promulgated regulations which require the owners or operators of certain stationary sources to install and operate continuous monitoring systems. 40 Fed. Reg. 46240 - 46271 (Oct. 6, 1975). It is reasonable to adopt these requirements as state law. (June 10, 1975, Transcript at pp. 162-163.)

3. The Agency first promulgated a regulation providing for the running of performance tests upon order of the Director in July, 1969. Minn. Reg. APC 3(b) (1969). A similar regulation is in effect today. Minn. Reg. APC 3(l). In addition, in 1969 the Agency promulgated a regulation which requires the owners or operators of stationary sources to apply for installation and operating permits and provide the Agency with information regarding the amount of pollutants being emitted into the air. Minn. Reg. APC 3(a)(2)(aa) (1969.) A similar regulation is in effect today. Minn. Reg. APC 3(a)(2)(aa) and 3(b)(2)(aa) and MPCA 5(b).

4. EPA has promulgated a regulation which requires the states to have the authority to require owners or operators of stationary sources to conduct performance tests. 40 C.F.R. §51.19(a) (1974). Owners or operators of new facilities to which a federal new source performance standard is applicable are also required to conduct performance tests. 40 C.F.R. §60.8 (1974).

5. EPA has promulgated specific test methods for conducting performance tests. 40 C.F.R. Appendix A (1974). It is reasonable to adopt these test methods as state law.

6. EPA requires those owners and operators who install continuous monitoring systems to report periods of excess emissions. 40 C.F.R. §60.7 (1974) and 40 Fed. Reg. 46254-46255 (Oct. 6, 1975). It is reasonable to adopt these requirements as state law.

7. Presently APC 3(1)(3) requires all owners or operators of stationary sources in Minnesota who emit more than 25 tons of pollutants per year to submit a yearly emission inventory report by January 30th of each year. It is reasonable to allow these owners and operators until April 1st to submit these reports. (Public Exhibit 21 at p. 58.)

8. The Agency first promulgated a regulation providing for the reporting of breakdowns and shutdowns of control equipment in April, 1972. Minn. Reg. APC 3(a)(5) (1972). A similar regulation is in effect today. Minn. Reg. APC 3(j).

MINNESOTA POLLUTION CONTROL AGENCY

Marion E. Watson
Chairwoman

Peter L. Gove
Executive Director

DATED: March 24, 1976

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION

CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

ORDER ADOPTION REGULATION APC 21

The above-entitled matter came on for hearing before the Minnesota Pollution Control Agency (hereinafter Agency) on the 17th day of April, 1975, at 9:00 a.m. and again at 7:00 p.m. and again on the 18th day of April, 1975, at 9:00 a.m., and again on the 10th day of June, 1975, at 9:00 a.m. in the Board Room of the Agency offices, 1935 West County Road B2, Roseville, Minnesota, and again on April 23 at 9:00 a.m. in the Duluth, Minnesota, City Council Chambers in City Hall, and again on April 20, 1975, at 9:00 a.m. in the Moorhead, Minnesota, City Council Chambers in the City Hall, and again on May 1, 1975, at 9:00 a.m. at Mankato, Minnesota, at the Law Enforcement Center, 710 South Front Street, after proper notice required by Minnesota Statutes §15.0412 (1974) was served upon all persons, associations and other interested groups registered with the Secretary of State for that purpose.

After affording all interested persons an opportunity to present written and oral data, statements and arguments, having considered all of the testimony, having considered all evidence adduced and upon the records, files and proceedings herein, and having confirmed the need for the above-captioned regulation:

NOW, THEREFORE, IT IS ORDERED that this regulation identified as APC 21, entitled Emission Source Monitoring, Performance Tests, Reports, Shutdowns and Breakdowns, dated February 6, 1975, as amended on March 23, 1976, is hereby adopted this 23rd day of March, 1976, pursuant to authority vested in the Minnesota Pollution Control Agency by Minnesota Statutes §116.07 subd. 4 (1974).

MINNESOTA POLLUTION CONTROL AGENCY

Marion E. Watson
Chairwoman

Peter L. Gove
Executive Director

DATED: March 24, 1976

CERTIFICATE OF AGENCY'S

ADOPTION OF RULES RESOLUTION

I, Peter L. Gove, do hereby certify that I am the Executive Director of the Minnesota Pollution Control Agency, an agency duly authorized under the laws of the State of Minnesota, and that the following is a true, complete, and correct copy of a resolution adopted at a meeting of the Agency duly and properly called and held on the 23rd day of March, 1976; that a quorum was present at said meeting; and that said resolution is set forth in the minutes of said meeting and has not been rescinded or modified.

RESOLVED, that pursuant to authority vested in the Minnesota Pollution Control Agency by Minn. Stat. §116.07 subd. 4 (1974) the amendments to Minnesota Regulation APC 21, entitled Emission Source Monitoring, Performance Tests, Reports, Shutdowns and Breakdowns, dated February 6, 1976, be and they hereby are approved and adopted pursuant to Minn. Stat. §116.07 subd. 4 (1974) with the following changes:

1. The first sentence in Section (a)(4)(aa) is amended to read:

> Continuous monitoring systems for measuring opacity of emissions shall be capable of measuring emission levels within ± 20 percent <u>of the correct value</u> with a confidence level of 95 percent.

2. The first sentence in Section (a)(4)(bb) is amended to read:

> Continous monitoring systems for measurement of nitrogen oxides or sulfur dioxide shall be capable of measuring emission levels within ± 20 percent <u>of the correct value</u> with a confidence level of 95 percent.

3. The first two sentences in Section (a)(9) are amended to read:

> Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to <u>one-minute</u> averages and for systems other than opacity

to one-hour averages respectively. One-minute opacity averages shall be calculated from 4 or more data points equally spaced over each one-minute period.

4. A new sentence between the first and third sentences of Section (b)(5) is added to read:

However, the Director reserves the right to require more than three runs under unusual circumstances.

5. A title on Section (d)(4) is added to read:

(4) Monitoring Equipment.

BE IT FURTHER RESOLVED that the Findings of Fact submitted by the staff are hereby adopted as the Findings of Fact of the Agency.

IN WITNESS WHEREOF, I have hereunto subscribed my name this 25th day of March, 1976.

Peter L. Gove
Executive Director

Subscribed and sworn to before me
this 25th day of March, 1976.

WILLIAM DONOHUE
NOTARY PUBLIC — MINNESOTA
RAMSEY COUNTY
My Commission Expires April 29, 1982

Notary Public

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION

CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

STATEMENT OF COMPLIANCE WITH RULEMAKING PROCEDURES
APC 21

I, Special Assistant Attorney General Alan R. Mitchell, do hereby declare that I have examined the proposed rules entitled "Emission Source Monitoring, Performance Tests, Reports, Shutdowns and Breakdowns," and all related documents and that, based on them and my personal familiarity with the applicable procedures, the Manual of Rulemaking Procedures has been followed.

Alan R. Mitchell

Alan R. Mitchell
Special Assistant
Attorney General

Dated: March 31, 1976

Proposed

March 14, 1975

APC 25 STANDARD OF PERFORMANCE FOR SECONDARY LEAD SMELTERS

(a) Definitions

As used in this regulation the following words shall have the meanings defined herein:

(1) "Reverberatory furnace" includes the following types of reverberatory furnaces: stationary, rotating, rocking, and tilting.

(2) "Secondary lead smelter" means any facility producing lead from a lead-bearing scrap material by smelting to the metallic form.

(3) "Lead" means elemental lead or alloys in which the predominant component is lead.

(b) Standards of Performance for Secondary Lead Smelters

(1) No owner or operator of a secondary lead smelter shall cause to be discharged into the atmosphere from a blast (cupola) furnace or reverberatory furnace any gases which:

(a) Contain particulate matter in excess of 50 mg/dscm (0.022 gr/dscf).

(b) Exhibit 20 percent opacity or greater.

(2) No owner or operator of a secondary lead smelter shall cause to be discharged into the atmosphere from any pot furnace of more than 250 kg (550 lb) any gases which exhibit 10 percent opacity or greater.

(c) Performance Test Methods

Unless another method is approved by the Agency, any owner or operator required to submit performance tests for a

secondary lead smelter shall utilize the following test methods:

(1) Method 5 for the concentration of particulate matter and the associated moisture content.

(2) Method 1 for sample and velocity traverses,

(3) Method 2 for velocity and volumetric flow rate, and

(4) Method 3 for gas analysis.

(d) Performance Test Procedures

In testing for the concentration of particulate matter and the associated moisture content, the minimum sampling time for each run shall be at least 60 minutes and the sampling rate shall be at least 0.9 dscm/hr (0.53 dscf/min) except that shorter sampling times, when necessitated by process variables or other factors, may be approved by the Agency. Particulate sampling shall be conducted during representative periods of furnace operation, including charging and tapping.

STATE OF MINNESOTA

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In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

FINDINGS OF FACT
APC 25

The above-entitled matter came on for hearing before the Minnesota Pollution Control Agency (hereinafter Agency) on the 17th day of April, 1975, at 9:00 a.m. and again at 7:00 p.m. and again on the 18th day of April, 1975, at 9:00 a.m., and again on the 10th day of June, 1975, at 9:00 a.m. in the Board Room of the Agency offices, 1935 West County Road B2, Roseville, Minnesota, and again on April 23 at 9:00 a.m. in the Duluth, Minnesota, City Council Chambers in City Hall, and again on April 20, 1975, at 9:00 a.m. in the Moorhead, Minnesota, City Council Chambers in the City Hall, and again on May 1, 1975, at 9:00 a.m. at Mankato, Minnesota, at the Law Enforcement Center, 710 South Front Street, after proper notice required by Minnesota Statutes §15.0412 (1974) was served upon all persons, associations and other interested groups registered with the Secretary of State for that purpose.

After affording all interested persons an opportunity to present written and oral data, statements and arguments, having considered all of the testimony, having considered all evidence adduced and upon the records, files and proceedings herein, the Agency finds the following:

1. The proposed regulation, APC-25 was promulgated to restrict particulate emissions from secondary lead smelters. The regulation

sets forth mass emission rates and visible emission standards for new and existing secondary lead smelters.

2. For existing plants, both the mass emission standards and the opacity standard are currently being met (Hearing transcript of April 17, 1975, page 54).

3. Pursuant to Section 111 of the Clean Air Act, the United States Environmental Protection Agency has promulgated standards of performance for certain new facilities, including new asphalt concrete plants. (40CFR Part 60 Subpart 1). These new source performance standards are based on results of source tests conducted by the Environmental Protection Agency and local agencies, on data derived from available technical literature, on information gathered during visits by the Environmental Protection Agency to pollution control agencies and plants in the United States and abroad, and comments and suggestions solicited from experts (PCA exhibit 16 and various issues of the Federal Register promulgating the standards).

4. Emission control systems capable of meeting the federal standards have been adequately demonstrated and these standards are achievable at reasonable costs (various issues of the Federal Register promulgating the standards).

5. Adoption of the federal new source performance standards as state regulations and administration and enforcement of these standards by the state is justified (April 17, 1975, Transcript at page 54, Public Exhibit 17 at p. 31, Public Exhibit 18 at p. 41).

Dated this 25th day of February, 1975.

MINNESOTA POLLUTION CONTROL AGENCY

Marion E. Watson

Marion Watson
Chairwoman

Peter L. Gove
Executive Director

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION

CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

ORDER ADOPTING REGULATION APC 25

The above-entitled matter came on for hearing before the Minnesota Pollution Control Agency (hereinafter Agency) on the 17th day of April, 1975, at 9:00 a.m. and again at 7:00 p.m. and again on the 18th day of April, 1975, at 9:00 a.m., and again on the 10th day of June, 1975, at 9:00 a.m. in the Board Room of the Agency offices, 1935 West County Road B2, Roseville, Minnesota, and again on April 23 at 9:00 a.m. in the Duluth, Minnesota, City Council Chambers in City Hall, and again on April 20, 1975, at 9:00 a.m. in the Moorhead, Minnesota, City Council Chambers in the City Hall, and again on May 1, 1975, at 9:00 a.m. at Mankato, Minnesota, at the Law Enforcement Center, 710 South Front Street, after proper notice required by Minnesota Statutes §15.0412 (1974) was served upon all persons, associations and other interested groups registered with the Secretary of State for that purpose.

After affording all interested persons an opportunity to present written and oral data, statements and arguments, having considered all of the testimony, having considered all evidence adduced and upon the records, files and proceedings herein, and having confirmed the need for the above-captioned regulation:

NOW, THEREFORE, IT IS ORDERED that this regulation identified as APC 25, entitled Standards of Performance for Secondary Lead Smelters, dated March 14, 1975, is adopted this 24th day of February, 1976, pursuant to authority vested in the Minnesota Pollution Control Agency by Minnesota Statutes §116.07 subd. 4 (1974).

MINNESOTA POLLUTION CONTROL AGENCY

By Marion E. Watson
Marion Watson
Chairwoman

and
Peter L. Gove
Executive Director

CERTIFICATE OF AGENCY'S

ADOPTION OF RULES RESOLUTION

I, Peter L. Gove, do hereby certify that I am the Executive Director of the Minnesota Pollution Control Agency, an agency duly authorized under the laws of the State of Minnesota, and that the following is a true, complete, and correct copy of a resolution adopted at a meeting of the Agency duly and properly called and held on the 24th day of February, 1976; that a quorum was present at said meeting; that said resolution is set forth in the minutes of said meeting and has not been rescinded or modified.

> RESOLVED, that Minnesota Regulations APC 25, entitled Standards of Performance for Secondary Lead Smelters, dated March 14, 1975, APC 26, entitled Standards of Performance for Secondary Brass and Bronze Ingot Production Plants, dated March 14, 1975, and APC 27, entitled Standards of Performance for Iron and Steel Plants, dated March 14, 1975, be and hereby are approved and adopted, pursuant to authority vested in the Minnesota Pollution Control Agency by Minn. Stat. §116.07 subd. 4 (1974) and the Findings of Fact submitted by the staff are hereby adopted as the Findings of Fact of the Agency

IN WITNESS WHEREOF, I have hereunto subscribed my name this 25th day of February, 1976.

Peter L. Gove
Executive Director

Subscribed and sworn to before me
this 25th day of February, 1976:

MARY E. WYATT
NOTARY PUBLIC — MINNESOTA
DAKOTA COUNTY
My Commission Expires July 30, 1981

Mary E. Wyatt
Notary Public

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION

CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

STATEMENT OF COMPLIANCE WITH RULEMAKING PROCEDURES
APC 25

I, Special Assistant Attorney General Alan R. Mitchell, do hereby declare that I have examined the proposed rules entitled "Standards of Performance for Secondary Lead Smelters," and all related documents and that, based on them and my personal familiarity with the applicable procedures, the Manual of Rulemaking Procedures has been followed.

Alan R. Mitchell

Alan R. Mitchell
Special Assistant
Attorney General

Dated: March 31, 1976

Proposed

March 14, 1975

APC-26 STANDARDS OF PERFORMANCE FOR SECONDARY BRASS AND BRONZE INGOT PRODUCTION PLANTS

(a) Definitions

As used in this regulation the following words shall have the meanings defined herein:

(1) "Brass or bronze ingot production plant" means any facility producing brass or bronze from a copper alloy-bearing scrap material by smelting to the metallic form.

(2) "Brass or bronze" means any metal alloy containing copper as its predominant constituent, and lesser amounts of zinc, tin, lead, or other metals.

(3) "Reverberatory furnace" includes the following types of reverberatory furnaces: Stationary, rotating, rocking, and tilting.

(4) "Electric furnace" means any furnace which uses electricity to produce over 50 percent of the heat required in the production of refined brass or bronze.

(5) "Blast furnace" means any furnace used to recover metal from slag.

(b) Standards of Performance for Secondary Brass and Bronze Ingot Production Plants

(1) No owner or operator of a secondary brass or bronze ingot production plant shall cause to be discharged into the atmosphere from a reverberatory furnace any gases which:

(aa) Contain particulate matter in excess of 50 mg/dscm (0.022 gr/dscf).

(bb) Exhibit 20 percent opacity or greater.

(2) No owner or operator of a secondary brass or bronze ingot production plant shall cause to be discharged into the atmosphere from any electric furnace of 1,000 kg (2,205 lbs) or greater production capacity any gases which exhibit 10 percent opacity or greater.

(3) No owner or operator of a secondary brass or bronze ingot production plant shall cause to be discharged into the atmosphere from any blast (cupola) furnace of 250 kg/hr (550lb/hr) or greater production capacity any gases which exhibit 10 percent opacity or greater.

(4) No owner or operator of a secondary brass or bronze ingot production plant shall cause to be discharged into the atmosphere from any electric furnace of less than 1,000 kg (2,205 lbs) production capacity or any blast (cupola) furnace of less than 250 kg/hr (550 lb/hr) production capacity any gases which exceed the limits of APC-5 for particulate emissions, and exhibit 20 percent opacity or greater.

(c) Performance Test Methods

Unless another method is approved by the Agency, any owner or operator required to submit performance tests for a brass or bronze ingot production plant shall utilize the following test methods:

(1) Method 5 for the concentration of particulate matter and the associated moisture content.

(2) Method 1 for sample and velocity traverses.

(3) Method 2 for velocity and volumetric flow rate.

(4) Method 3 for gas analysis.

(d) Performance Test Procedures

In testing for the concentration of particulate matter and the associated moisture content, the minimum sampling time for each run shall be at least 120 minutes and the sampling rate shall be at least 0.9 dscm/hr (0.53 dscf/min) except that shorter sampling times, when necessitated by process variables or other factors, may be approved by the Agency. Particulate matter sampling shall be conducted during representative periods of charging and refining, but not during pouring of the heat.

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION

CONTROL AGENCY

In the Matter of the Adoption of
Amendments to Air Pollution Control
Regulations APC 2, 3, 4, 5, 7, 8, 11,
12, 13, 15, and 16 and New Regulations
APC 20, 21, 22, 23, 24, 25, 26, 27,
28, 29, 30, 31 and 32

FINDINGS OF FACT

APC 26

The above-entitled matter came on for hearing before the Minnesota Pollution Control Agency (hereinafter Agency) on the 17th day of April, 1975, at 9:00 a.m. and again at 7:00 p.m. and again on the 18th day of April, 1975, at 9:00 a.m., and again on the 10th day of June, 1975, at 9:00 a.m. in the Board Room of the Agency offices, 1935 West County Road B2, Roseville, Minnesota, and again on April 23 at 9:00 a.m. in the Duluth, Minnesota, City Council Chambers in City Hall, and again on April 20, 1975, at 9:00 a.m. in the Moorhead, Minnesota, City Council Chambers in the City Hall, and again on May 1, 1975, at 9:00 a.m. at Mankato, Minnesota, at the Law Enforcement Center, 710 South Front Street, after proper notice required by Minnesota Statutes §15.0412 (1974) was served upon all persons, associations and other interested groups registered with the Secretary of State for that purpose.

After affording all interested persons an opportunity to present written and oral data, statements and arguments, having considered all of the testimony, having considered all evidence adduced and upon the records, files and proceedings herein, the Agency finds the following:

1. The proposed regulation APC 26 was promulgated to restrict particulate matter emissions from secondary brass and bronze ingot production

plants. The regulation sets forth mass emission rates and visible emission standards for new and existing secondary brass and bronze ingot production plants.

2. There are no existing brass and bronze ingot production plants in Minnesota. (Hearing transcript of April 17, 1975, page 54).

3. Pursuant to Section 111 of the Clean Air Act, the United States Environmental Protection Agency has promulgated standards of performance for certain new facilities, including secondary brass and bronze ingot production plants (40 CFR part 60 Subpart 1). These new source performance standards are based on results of source tests conducted by the Environmental Protection Agency and local agencies, on data derived from available technical literature, on information gathered during visits by the Environmental Protection Agency to pollution control agencies and plants in the United States and abroad, and comments and suggestions solicited from experts (PCA Exhibit 16 and various issues of the Federal Register promulgating the standards).

4. Emission control systems capable of meeting the federal standards have been adequately demonstrated and these standards are achievable at reasonable costs (various issues of the Federal Register promulgating the standards).

5. Adopted of the federal new source performance standards as state regulations and administration and enforcement of these standards by the state is justified (April 17, 1975, Transcript at p. 55, Public Exhibit 17 at p. 42, Public Exhibit 18 at p. 43).

Dated this 25th day of February, 1975

MINNESOTA POLLUTION CONTROL AGENCY

Marion E. Watson

Marion Watson
Chairwoman

Peter L. Gove
Executive Director

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION

CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

ORDER ADOPTING REGULATION APC 26

The above-entitled matter came on for hearing before the Minnesota Pollution Control Agency (hereinafter Agency) on the 17th day of April, 1975, at 9:00 a.m. and again at 7:00 p.m. and again on the 18th day of April, 1975, at 9:00 a.m., and again on the 10th day of June, 1975, at 9:00 a.m. in the Board Room of the Agency offices, 1935 West County Road B2, Roseville, Minnesota, and again on April 23 at 9:00 a.m. in the Duluth, Minnesota, City Council Chambers in City Hall, and again on April 20, 1975, at 9:00 a.m. in the Moorhead, Minnesota, City Council Chambers in the City Hall, and again on May 1, 1975, at 9:00 a.m. at Mankato, Minnesota, at the Law Enforcement Center, 710 South Front Street, after proper notice required by Minnesota Statutes §15.0412 (1974) was served upon all persons, associations and other interested groups registered with the Secretary of State for that purpose.

After affording all interested persons an opportunity to present written and oral data, statements and arguments, having considered all of the testimony, having considered all evidence adduced and upon the records, files and proceedings herein, and having confirmed the need for the above-captioned regulation:

NOW, THEREFORE, IT IS ORDERED that this regulation identified as APC 26, entitled Standards of Performance for Secondary Brass and Bronze Ingot Production Plants, dated March 14, 1975, is adopted this 24th day of February, 1976, pursuant to authority vested in the Minnesota Pollution Control Agency by Minnesota Statutes §116.07 subd. 4 (1974).

MINNESOTA POLLUTION CONTROL AGENCY

By Marion E. Watson
Marion Watson
Chairwoman

and
Peter L. Gove
Executive Director

CERTIFICATE OF AGENCY'S

ADOPTION OF RULES RESOLUTION

I, Peter L. Gove, do hereby certify that I am the Executive Director of the Minnesota Pollution Control Agency, an agency duly authorized under the laws of the State of Minnesota, and that the following is a true, complete, and correct copy of a resolution adopted at a meeting of the Agency duly and properly called and held on the 24th day of February, 1976; that a quorum was present at said meeting; that said resolution is set forth in the minutes of said meeting and has not been rescinded or modified.

> RESOLVED, that Minnesota Regulations APC 25, entitled Standards of Performance for Secondary Lead Smelters, dated March 14, 1975, APC 26, entitled Standards of Performance for Secondary Brass and Bronze Ingot Production Plants, dated March 14, 1975, and APC 27, entitled Standards of Performance for Iron and Steel Plants, dated March 14, 1975, be and hereby are approved and adopted, pursuant to authority vested in the Minnesota Pollution Control Agency by Minn. Stat. §116.07 subd. 4 (1974) and the Findings of Fact submitted by the staff are hereby adopted as the Findings of Fact of the Agency

IN WITNESS WHEREOF, I have hereunto subscribed my name this 25th day of February, 1976.

Peter L. Gove
Executive Director

Subscribed and sworn to before me
this 25th day of February, 1976:

MARY E. WYATT
NOTARY PUBLIC — MINNESOTA
DAKOTA COUNTY
My Commission Expires July 30, 1981

Notary Public

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION

CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

STATEMENT OF COMPLIANCE WITH RULEMAKING PROCEDURES APC 26

I, Special Assistant Attorney General Alan R. Mitchell, do hereby declare that I have examined the proposed rules entitled "Standards of Performance for Secondary Brass and Bronze Ingot Production Plants," and all related documents and that, based on them and my personal familiarity with the applicable procedures, the Manual of Rulemaking Procedures has been followed.

Alan R. Mitchell

Alan R. Mitchell
Special Assistant
Attorney General

Dated: March 31, 1976

Proposed
March 14, 1975

APC 27 STANDARDS OF PERFORMANCE FOR IRON AND STEEL PLANTS

(a) Definitions

As used in this regulation the following words shall have the meanings defined herein:

(1) "Basic oxygen process furnace" (BOPF) means any furnace producing steel by charging scrap steel, hot metal, and flux materials into a vessel and introducing a high volume of an oxygen-rich gas.

(2) "Steel production cycle" means the operations required to produce each batch of steel and includes the following major functions: Scrap charging, preheating (when used), hot metal charging, primary oxygen blowing, additional oxygen blowing (when used), and tapping.

(b) Standards of Performance for Iron and Steel Plants

No owner or operator of an iron and steel plant shall cause to be discharged into the atmosphere from any basic oxygen process furnace any gases which contain particulate matter in excess of 50 mg/dscm (0.022 gr/dscf).

(c) Performance Test Methods

Unless another method is approved by the Agency, any owner or operator required to submit performance tests for an iron and steel plant shall utilize the following test methods:

(1) Method 5 for concentration of particulate matter and associated moisture content.

(2) Method 1 for sample and velocity traverses.

(3) Method 2 for volumetric flow rate.

(4) Method 3 for gas analysis.

(d) Performance Test Procedures

In testing for the concentration of particulate matter and the associated moisture content, the sampling for each run shall continue for an integral number of steel production cycles with total duration of at least 60 minutes. The sampling rate shall be at least 0.9 dscm/hr (0.53 dscf/min) except that shorter sampling times, when necessitated by process variables or other factors, may be approved by the Agency. A cycle shall start at the beginning of either the scrap preheat or the oxygen blow and shall terminate immediately prior to tapping.

APC 27 STANDARDS OF PERFORMANCE FOR IRON AND STEEL PLANTS

(a) Definitions

As used in this regulation the following words shall have the meanings defined herein:

(1) "Basic oxygen process furnace" (BOPF) means any furnace producing steel by charging scrap steel, hot metal, and flux materials into a vessel and introducing a high volume of an oxygen-rich gas.

(2) "Steel production cycle" means the operations required to produce each batch of steel and includes the following major functions: Scrap charging, preheating (when used), hot metal charging, primary oxygen blowing, additional oxygen blowing (when used), and tapping.

(b) Standards of Performance for Iron and Steel Plants

No owner or operator of an iron and steel plant shall cause to be discharged into the atmosphere from any basic oxygen process furnace any gases which contain particulate matter in excess of 50 mg/dscm (0.022 gr/dscf).

(c) Performance Test Methods

Unless another method is approved by the Agency, any owner or operator required to submit performance tests for an iron and steel plant shall utilize the following test methods:

(1) Method 5 for concentration of particulate matter and associated moisture content.

(2) Method 1 for sample and velocity traverses.

(3) Method 2 for volumetric flow rate.

(4) Method 3 for gas analysis.

(d) Performance Test Procedures

In testing for the concentration of particulate matter and the associated moisture content, the sampling for each run shall continue for an integral number of steel production cycles with total duration of at least 60 minutes. The sampling rate shall be at least 0.9 dscm/hr (0.53 dscf/min) except that shorter sampling times, when necessitated by process variables or other factors, may be approved by the Agency. A cycle shall start at the beginning of either the scrap preheat or the oxygen blow and shall terminate immediately prior to tapping.

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

FINDINGS OF FACT APC 27

The above-entitled matter came on for hearing before the Minnesota Pollution Control Agency (hereinafter Agency) on the 17th day of April, 1975, at 9:00 a.m. and again at 7:00 p.m. and again on the 18th day of April, 1975, at 9:00 a.m., and again on the 10th day of June, 1975, at 9:00 a.m. in the Board Room of the Agency offices, 1935 West County Road B2, Roseville, Minnesota, and again on April 23 at 9:00 a.m. in the Duluth, Minnesota, City Council Chambers in City Hall, and again on April 20, 1975, at 9:00 a.m. in the Moorhead, Minnesota, City Council Chambers in the City Hall, and again on May 1, 1975, at 9:00 a.m. at Mankato, Minnesota, at the Law Enforcement Center, 710 South Front Street, after proper notice required by Minnesota Statutes §15.0412 (1974) was served upon all persons, associations and other interested groups registered with the Secretary of State for that purpose.

After affording all interested persons an opportunity to present written and oral data, statements and arguments, having considered all of the testimony, having considered all evidence adduced and upon the records, files and proceedings herein, the Agency finds the following:

1. The proposed regulation, APC-27, was promulgated to restrict particulate matter emissions from iron and steel plants. The regulation sets forth mass emission rates for new and existing iron and steel plants.

2. This regulation is applicable only to steel making by the basic oxygen process. There are no existing plants in Minnesota employing this process (April 17, 1975, Transcript at page 56).

3. Pursuant to Section 111 of the Clean Air Act, the United States Environmental Protection Agency has promulgated standards of performance for certain new facilities, including new iron and steel plants (40CFR Part 60 Subpart 1). These new source performance standards are based on results of source tests conducted by the Environmental Protection Agency and local agencies, on data derived from available technical literature on information gathered during visits by the Environmental Protection Agency to pollution control agencies and plants in the United States and abroad, and comments and suggestions solicited from experts (PCA Exhibit 16 and various issues of the Federal Register promulgating the standards).

4. Emission control systems capable of meeting the federal standards have been adequately demonstrated and these standards are achievable at reasonable costs (various issues of the Federal Register promulgating the standards).

5. Adoption of the federal new source performance standards as state regulations and administration and enforcement of these standards by the state is justified (April 17, 1975, Transcript at p. 56, Public Exhibit 17 at p. 52, and Public Exhibit 18 at p. 47.

Dated this 25th day of February, 1975

MINNESOTA POLLUTION CONTROL AGENCY

Marion E. Watson

Marion Watson
Chairwoman

Peter L. Gove
Executive Director

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION

CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

ORDER ADOPTING REGULATION APC 27

The above-entitled matter came on for hearing before the Minnesota Pollution Control Agency (hereinafter Agency) on the 17th day of April, 1975, at 9:00 a.m. and again at 7:00 p.m. and again on the 18th day of April, 1975, at 9:00 a.m., and again on the 10th day of June, 1975, at 9:00 a.m. in the Board Room of the Agency offices, 1935 West County Road B2, Roseville, Minnesota, and again on April 23 at 9:00 a.m. in the Duluth, Minnesota, City Council Chambers in City Hall, and again on April 20, 1975, at 9:00 a.m. in the Moorhead, Minnesota, City Council Chambers in the City Hall, and again on May 1, 1975, at 9:00 a.m. at Mankato, Minnesota, at the Law Enforcement Center, 710 South Front Street, after proper notice required by Minnesota Statutes §15.0412 (1974) was served upon all persons, associations and other interested groups registered with the Secretary of State for that purpose.

After affording all interested persons an opportunity to present written and oral data, statements and arguments, having considered all of the testimony, having considered all evidence adduced and upon the records, files and proceedings herein, and having confirmed the need for the above-captioned regulation:

NOW, THEREFORE, IT IS ORDERED that this regulation identified as APC 27, entitled Standards of Performance for Iron and Steel Plants, dated March 14, 1975, is adopted this 24th day of February, 1976, pursuant to authority vested in the Minnesota Pollution Control Agency by Minnesota Statutes §116.07 subd. 4 (1974).

MINNESOTA POLLUTION CONTROL AGENCY

By Marion E. Watson
Marion Watson
Chairwoman

and
Peter L. Gove
Executive Director

CERTIFICATE OF AGENCY'S

ADOPTION OF RULES RESOLUTION

I, Peter L. Gove, do hereby certify that I am the Executive Director of the Minnesota Pollution Control Agency, an agency duly authorized under the laws of the State of Minnesota, and that the following is a true, complete, and correct copy of a resolution adopted at a meeting of the Agency duly and properly called and held on the 24th day of February, 1976; that a quorum was present at said meeting; that said resolution is set forth in the minutes of said meeting and has not been rescinded or modified.

> RESOLVED, that Minnesota Regulations APC 25, entitled Standards of Performance for Secondary Lead Smelters, dated March 14, 1975, APC 26, entitled Standards of Performance for Secondary Brass and Bronze Ingot Production Plants, dated March 14, 1975, and APC 27, entitled Standards of Performance for Iron and Steel Plants, dated March 14, 1975, be and hereby are approved and adopted, pursuant to authority vested in the Minnesota Pollution Control Agency by Minn. Stat. §116.07 subd. 4 (1974) and the Findings of Fact submitted by the staff are hereby adopted as the Findings of Fact of the Agency

IN WITNESS WHEREOF, I have hereunto subscribed my name this 25th day of February, 1976.

Peter L. Gove
Executive Director

Subscribed and sworn to before me
this 25th day of February, 1976:

MARY E. WYATT
NOTARY PUBLIC — MINNESOTA
DAKOTA COUNTY
My Commission Expires July 30, 1981

Mary E. Wyatt
Notary Public

STATE OF MINNESOTA

COUNTY OF RAMSEY

MINNESOTA POLLUTION

CONTROL AGENCY

In the Matter of the Adoption of Amendments to Air Pollution Control Regulations APC 2, 3, 4, 5, 7, 8, 11, 12, 13, 15, and 16 and New Regulations APC 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32

STATEMENT OF COMPLIANCE WITH RULEMAKING PROCEDURES APC 27

I, Special Assistant Attorney General Alan R. Mitchell, do hereby declare that I have examined the proposed rules entitled "Standards of Performance for Iron and Steel Plants," and all related documents and that, based on them and my personal familiarity with the applicable procedures, the Manual of Rulemaking Procedures has been followed.

Alan R. Mitchell

Alan R. Mitchell
Special Assistant
Attorney General

Dated: March 31, 1976