

STATE OF MINNESOTA

MINNESOTA POLLUTION

COUNTY OF RAMSEY

CONTROL AGENCY

In the Matter of the Proposed
Adoption of a Rule of the State,
6 MCAR 4.0041, Governing the
Agency's Permit Program for the
Growth or Expansion of Industry
in Nonattainment Areas

STATEMENT OF NEED
AND REASONABLENESS

I. INTRODUCTION

The subject of this rulemaking is the proposed adoption by the Minnesota Pollution Control Agency (hereinafter referred to as the "Agency") of Minn. Rule 6 MCAR §4.0041 (hereinafter referred to as "Minn. Rule APC 41," "APC 41," "the rule", or "the offset rule.") This rule is not an amendment to any existing rule of the Agency. This rule is proposed for adoption pursuant to Minn. Stat. § 116.07, subd. 4 (1980), which authorizes the Agency to adopt rules for the prevention, abatement, and control of air pollution.

If adopted, the proposed rule will apply to any person who proposes to construct or modify a subject emission facility in any area of the state that the Agency has designated nonattainment for any primary or secondary ambient air quality standard. The terms "nonattainment area," "ambient air quality standard," and "subject emission facility" are defined in the rule and are discussed below.

Rulemaking on proposed Minn. Rule APC 41 was authorized by the Agency on July 28, 1981. At the same time it authorized the initiation of rulemaking, the Agency found that the proposed adoption of the rule is noncontroversial in nature and directed

that the rulemaking proceedings be conducted in accordance with the statutory provisions governing the adoption of noncontroversial rules, Minn. Stat. § 15.0412, subd. 4h (1980). Accordingly, the rulemaking proceedings on the proposed adoption of the rule are governed by that statute and no hearing will be conducted on the adoption of the rule unless, on or before September 25, 1981, seven or more persons submit to the Agency a written request for such a hearing.

In accordance with the requirements of Minn. Stat. § 15.0412, subd. 4h (1980), this document, the Statement of Need and Reasonableness, was prepared and completed prior to the dates that the proposed adoption of the rule was noticed in the State Register and mailed to persons on the Agency's mailing list. The discussion provided in this Statement is divided into the following parts: Part II. Need for the Rule; Part III. Reasonableness of the Rule; Part IV. Summary; and, Part V. Exhibit List.

II. NEED FOR THE RULE

The need to adopt the proposed offset rule arises from the requirements of federal and state law.

A. Federal law.

The federal Clean Air Act, 42 U.S.C. § 7401, et seq., is divided into four different subchapters. Subchapter I of the Clean Air Act, 42 U.S.C. § 7401, establishes a program for the prevention and control of air pollution from stationary sources of pollution.

Subchapter I is itself divided into several parts. Part A of Subchapter I establishes the framework within which air pollution standards are set and existing stationary sources of air pollution are controlled. Part D of Subchapter I establishes the framework within which new stationary sources of air pollution are permitted to be constructed and operated in those areas of the United States that are classified as "nonattainment areas."

It is the requirements of Part A and Part D of Subchapter I, in addition to other things, that give rise to the need for the proposed offset rule. These requirements are discussed below.

1. Subchapter I, Part A of the Clean Air Act

The framework for the control of air pollution established in Subchapter I, Part A of the Clean Air Act is the following:

a. First, the Administrator of the United States Environmental Protection Agency (hereinafter referred to as "the EPA") is required to publish (and revise, from time to time) a list which includes, among other things, each air pollutant "the emissions of which . . . cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare." [Clean Air Act, 42 U.S.C. § 7408(a)(1)(A)]. Pollutants appearing on this list are commonly referred to as "criteria pollutants." To date, the EPA has listed seven criteria pollutants: sulfur oxides (measured as sulfur dioxide), particulate matter, carbon monoxide, ozone, hydrocarbons, nitrogen oxides and lead. 40 CFR Part 50.

b. Second, the Administrator is required to adopt national primary ambient air quality standards and national

secondary ambient air quality standards for each criteria pollutant. [Clean Air Act, 42 U.S.C. § 7409(a)]. Primary ambient air quality standards are to be set at levels sufficient to protect the public health [Clean Air Act, 42 U.S.C. § 7409(b)(1)]. Secondary ambient air quality standards are to be set at levels sufficient to protect the public welfare [42 U.S.C. § 7409(b)(2)].¹

c. Third, each state is required to submit to the EPA a list classifying the entire state, by air quality control regions, as: (1) in attainment of the primary and secondary ambient air quality standards (attainment areas); (2) not in attainment of the primary and secondary ambient air quality standards (nonattainment areas); and, (3) unclassifiable, due to lack of sufficient information to determine the status of the area with respect to the primary and secondary ambient air quality standards (unclassified areas.) Clean Air Act, 42 U.S.C. § 7407(d)(1). The Administrator of the EPA reviews each state's list, makes such revisions as the Administrator deems necessary, and promulgates the list as a federal rule. Clean Air Act, 42 U.S.C. § 7407(d)(2).

A region can be classified as attainment of a primary standard for a particular pollutant and nonattainment of the

¹Ambient air quality standards establish the maximum levels of pollution which may be tolerated in the air around us, without reference to any particular source of pollution. Ambient standards are not the same as emission standards (or emission limitations), which, unlike ambient standards, establish the maximum levels of pollution that may be emitted from a discrete source of pollution (such as a stack.)

secondary standard for that pollutant. In addition, a region can be classified as attainment for some pollutants and nonattainment for others.

d. Fourth, each state is required to develop and submit to the EPA, for approval, a State Implementation Plan (or "SIP"). These SIPs describe the control strategy that the state will implement to bring their nonattainment areas into compliance with federal ambient air quality standards. In developing their SIPs, the states are relatively free to choose any strategy which will result in attainment of the national ambient air quality standards by the required deadlines. However, the states' control strategies must satisfy the eleven enumerated Clean Air Act requirements, including, among other things, the establishment of a program for permitting the growth of industry in nonattainment areas. Clean Air Act, 42 U.S.C. § 7410(a)(2), see in particular, § 7410 (a)(2)(I). The basic framework of this "growth" program is set out in Chapter I, Part D of the Clean Air Act and is further discussed below.²

²A state's failure to satisfy the requirements of the Clean Air Act and to obtain the EPA's approval of its SIP by July 1, 1979, resulted in a prohibition of major industrial growth or expansion in that state until such time as the state's SIP is approved. As stated above, the "growth program" is a necessary part of any State Implementation Plan. If adopted by the Agency and approved by the EPA, the proposed offset rule (i.e., Minn. Rule APC 41), would establish the necessary growth program and eliminate the no-growth sanction currently in effect in Minnesota's nonattainment areas.

2. Subchapter I, Part D of the Clean Air Act

The framework for the control of air pollution established in Subchapter I, Part D of the Clean Air Act is the following:

a. Under section 7502(b)(6) of the Clean Air Act, each state must include within its SIP a provision which requires certain new air pollution sources proposed to be located in nonattainment areas to obtain construction and operating permits in accordance with the requirements set out in section 7503 of the Clean Air Act.

b. Section 7503 of the Clean Air Act specifies the four conditions that the owner or operator of a new source must satisfy in order to be issued a construction or operating permit. One of these conditions is commonly referred to as the "reasonable further progress" requirement, Clean Air Act, 42 U.S.C. § 7503(1)(A).

The "reasonable further progress requirement" relates to the progress that is being made in bringing a given nonattainment area into compliance with a specific ambient air quality standard and is defined in section 7501 of the Clean Air Act. In order to ensure that a nonattainment area continues to make "reasonable further progress" toward attainment of a standard even if proposed new sources of air pollution are located in that area, the Clean Air Act establishes two specific permit programs that the states' may implement. A state may not issue a permit to any proposed new source subject to these permit requirements unless the state has adopted one of these two permit programs.

These two "permit program" options flow from the requirements

of sections 7503(1)(A) and 7503(1)(B) of the Clean Air Act. The second option [established in section 7503(1)(B)] is one in which a state would "build into" its State Implementation Plan a "growth allowance." As long as the emissions from a proposed new source would be within the allowance provided in the SIP, the state may permit that new source to be constructed and operated.³

The first option [established in section 7503(1)(A)]⁴ is one in which the state would adopt an "offset program" as a means of issuing permits to new sources. If adopted, proposed Minn. Rule APC 41 would establish this offset program.

At the heart of the offset program is the requirement that, before a new source of air pollution may be constructed, it must obtain from existing sources of that pollution a reduction in emissions of that pollutant. The reduction required by the "offset program" is a decrease in emissions in the area which would be affected by the new source to more than "offset" the additional pollution which would be contributed if the new source was constructed and operated.

³The proposed offset rule recognizes this option as an alternative to the requirements of the rule. See section B.2.b. of the proposed rule and the discussion below regarding that section of the proposed rule.

⁴The United States Environmental Protection Agency (EPA) has adopted rules to implement the provisions of the Clean Air Act regarding offset programs. See 40 C.F.R. § 51.18 (1980) as amended; see also Appendix S to 40 C.F.R. §51.18. In order to be approved by the EPA, the State of Minnesota's offset program must meet the requirements specified in these rules.

B. State law.

The national ambient air quality standards are the maximum levels of certain pollutants that may be tolerated on a nationwide basis. The states are, therefore, prohibited from adopting ambient air quality standards that are less stringent than those adopted by the EPA. However, the states may adopt standards that are more stringent than the EPA if they so choose.

The legislature of the State of Minnesota has designated the Minnesota Pollution Control Agency the state body with primary responsibility for improving air quality and for dealing with the various and complex problems relating to, among other things, air pollution. Minn. Stat. ch. 116 (1980), see especially, sections 116.01 and 116.07.

Under state law, the Agency is required to

adopt standards of air quality Such standards of air quality shall be premised upon scientific knowledge of causes as well as effects based on technically substantiated criteria and commonly accepted practices.

Minn. Stat. § 116.07, subd. 2 (1980). In addition, the Agency is required to

adopt, amend and rescind rules and standards having the force of law relating to any purpose within the provisions of Laws 1969, Chapter 1046 [i.e., Minn. Stat. ch. 116] for the prevention, abatement, or control of air pollution.

Minn. Stat. §116.07, subd. 4 (1980).

"Air pollution" is defined in Minn. Stat. § 116.06, subd. 3 (1980) to mean

the presence in the outdoor atmosphere of any air contaminant or combination thereof in such quantity, of such nature and duration, and under such conditions as would be injurious to human health or welfare, to animal or plant life, or to property, or to interfere unreasonably with the enjoyment of life or property.

C. Conclusion.

The need for the proposed offset rule arises out of both the federal and the state statutory requirements related to the prevention and control of air pollution. In specific, the need for the proposed offset rule arises out of (1) the need to satisfy the requirements of the federal program established to ensure the attainment and maintenance of ambient air quality standards in nonattainment areas; (2) the need to satisfy the general requirements of state law to ensure the prevention and abatement of air pollution; and, (3) the need to establish a mechanism for considering and managing both environmental and economic concerns related to the growth and expansion of industry in the nonattainment areas in Minnesota. The Agency's proposed offset rule, Minn. Rule APC 41, is intended to meet these needs.

III. REASONABLENESS OF THE RULE

The following discussion provides an explanation and justification of the individual provisions of the rule. The purpose of this section of the Statement is to demonstrate that each provision is a reasonable approach to its function.

A. Purpose. The purpose of this rule is to establish conditions to be included in certain permits issued by the Agency

to emission facilities in nonattainment areas.

B. Applicability.

1. Section B.1. of the rule establishes the basic applicability requirements of the proposed rule. In specific, section B.1. establishes that, except as provided in section B.2. of the proposed rule, the rule would apply to any person who proposes to construct or modify (as defined in section C.6.) a subject emission facility (as defined in section C.18.) in a designated nonattainment area (as defined in section C.10.). These basic applicability requirements are "reasonable" for the following reasons.

In developing its SIP (see discussion above), the Agency developed a program to ensure that the emissions from existing emission facilities do not cause or contribute to a violation of ambient air quality standards. Thus, the SIP addresses emissions from existing sources of air pollution. Since existing emissions of air pollution are addressed by the Agency in the SIP, they are not addressed in proposed Minn. Rule APC 41.

The pollutant emissions resulting from the construction of new or modification of existing emission facilities are not addressed in the SIP. Proposed Minn. Rule APC 41 would apply to the emissions from these facilities and would thereby ensure that emissions from these "unaccounted for" facilities do not create ambient air quality violations in nonattainment areas.

It is reasonable to make the offset rule applicable only to new or modified facilities in nonattainment areas but not to new

or modified facilities in other areas since the emissions from these "other" sources are controlled through other federal programs. In specific, increases in emissions that result from the construction or modification of facilities in attainment areas or unclassified areas are regulated under the federal "Prevention of Significant Deterioration" program (40 C.F.R. Part 51.24).

In summary, the proposed offset rule applies to those facilities that (1) may emit pollutants that are not otherwise accounted for by the Agency and (2) may cause or contribute to violations of the ambient air quality standards. In order to protect the public health and welfare, it is reasonable for the Agency to adopt a rule that reaches those sources that may cause or contribute to an ambient air quality violation and are not otherwise accounted for by the Agency.

2. Section B.2. of the rule establishes an exception from the applicability requirements set out in section B.1. The reasons for this exception are described below.

As discussed above, the Clean Air Act establishes two permit program options that the states may implement to control the emissions from growing or expanding industries. (See discussion at pages 6 and 7.) The proposed offset rule generally follows the first of the two options set out in the Clean Air Act. However, section B.2. of the proposed rule allows for the implementation of the second option in a nonattainment region. If the second option is implemented in that area, then the requirements established in the proposed offset rule are not applicable in that area.

The exception established in section B.2. is effective only

if a qualified alternate Plan has been developed and approved by both the Agency and the Environmental Protection Agency for the nonattainment area. If the alternate Plan establishes a growth allowance such that additional growth will not result in a violation of the ambient air quality standards, the alternate Plan would accomplish the same result as the offset rule. Section B.2. is therefore reasonable in that it allows local units of government the option of selecting the growth approach they wish to implement in their area (i.e., the alternate Plan approach or the offset rule approach.) It is reasonable to include the requirement that both the Agency and the EPA approve the alternate Plan since, absent such approval, the Clean Air Act would prohibit the use of this option. Clean Air Act, 42 U.S.C. § 7502(b)(5).

C. Definitions. In general, the Agency continues to use earlier definitions the Agency has established for terms appearing in the proposed rule (see Minn. Rule APC 2). This approach is reasonable in that it maintains consistency among various Agency rules.

Proposed Minn. Rule APC 41 contains nineteen definitions. These definitions are reasonable for the following reasons:

1. "Air quality control region." The term "air quality control region" is used in section C.8.a.(1) of the proposed rule to identify the area within which an offset for certain pollutants must be obtained. Although this term appears in the Clean Air Act, no definition is given for it. The definition proposed by the Agency in C.1. is reasonable in that it

reflects the actual administrative practice of the Agency.

2. "Criteria pollutant." The term criteria pollutant is used in section C.11.a. as part of the definition of "nonattainment criteria pollutant," which is used in section C.18. to identify the basis for subjecting emission facilities to the proposed rule and is used elsewhere in the proposed rule to collectively refer to the pollutants of interest. The term "criteria pollutant" is a commonly used "term of art" in the air pollution field. The derivation of this term is discussed above at page 3.

3. "Fugitive emissions." This term is referred to in section C.16., where it is included within the definition of "restricted emissions." The term "fugitive emissions" is defined in the proposed rule because the public commonly thinks only of point source emissions (such as smokestack emissions) when considering air pollution. Since fugitive emissions may contribute to violations of ambient standards, it is reasonable to apply the proposed rule to both fugitive emissions and point source emissions.

In addition, since it is more difficult to quantify fugitive emissions than other sorts of emissions, it is reasonable to specify the manner in which fugitive emissions shall be quantified. Under the proposed rule, fugitive emissions would be quantified in accordance with commonly accepted methods of calculation.

4. "Gross increase in emissions." This term is used in section C.18., the definition of "subject emission facility"

and is needed to adequately describe the applicability of the proposed rule. Section C.18. contains three separate applicability sections (i.e., C.18.a., C.18.b., and C.18.c.). The term "gross increase in emissions" specifically relates to section C.18.a.

The definition of "gross increase in emissions" is consistent with the Environmental Protection Agency's requirements regarding the applicability of state offset rules. [See Alabama Power Company v. Costle, 13 ERC 1225 (D.C. Circuit June 18, 1979); see also Alabama Power Company v. Costle, 13 ERC 1993 (D.C. Circuit December 14, 1979)]. Accordingly, in calculating the gross increase in emissions that would result from the construction or modification of the proposed new emission facility, the Agency shall consider the total emissions to be expected from the new facility when the facility is operated with pollution control equipment or other legally enforceable restrictions to be applied to or incorporated in that facility.

5. "Lowest achievable emission rate." This term is vital to accomplish the objectives of the proposed rule. It is used in D.4.a.(1) to describe the maximum level of emissions that a proposed new or modified facility would be allowed to emit. The term is defined in the Clean Air Act and EPA regulations. Clean Air Act, 42 U.S.C. § 7501(3); 40 CFR Part 51.18, Appendix S, II.7. Both the Clean Air Act and the EPA regulations require states to limit the emissions from sources subject to the requirements of a federally-required offset program to the "lowest achievable emission rate." Clean Air Act, 42 U.S.C. § 7503(1)(B)(2) and 40

CFR Part 51.18(j)(2), as amended at 45 Fed. Reg. 52745 (August 7, 1980).

The Clean Air Act includes within their definition of "lowest achievable emission rate" the emission limitations specified in any other state's Plan. Id. The Clean Air Act provides that, if an owner or operator demonstrates that such limitations are not achievable, then those limitations are not considered the "lowest achievable emission rate" for that source. 42 U.S.C § 7501(3). In the proposed rule, the Agency proposes to incorporate this definition to make the limitations appearing in another state's Plan presumptively but not conclusively achievable in practice. This is reasonable in that it appears that some states adopt unachievable emission limitations in order to keep certain sorts of industries from locating in that state.

6. "Modification" or "modified." This term is also a critical part of the definition of "subject emission facility." The definition provided in C.6. excludes several activities from the definition of the term "modification" or "modified." These exclusions are reasonable in that they would eliminate the possibility of inappropriate application of the proposed rule. That is, these exclusions are based on the Agency's belief that certain modifications at an emission facility are not particularly important from a pollution standpoint or are, on balance, tolerable and therefore should not be subject to the proposed offset rule. Thus, section C.6.a. of the proposed rule excludes from the rule those emissions that are not permanent (i.e., those

emissions that result from routine maintenance, repair or replacement.) Sections C.6.b., c., d. and f. exclude from the rule emissions that result from relatively insignificant (from a pollution perspective) changes in the operations of an existing facility. The exclusions in C.6.e. and g. are provided in response to energy concerns and constraints, are consistent with federal rulings on this subject [see 40 CFR Part 51.18(j)(1)(vi)(c)(2) as amended at 45 Fed. Reg. 52744 (August 7, 1980)] and are, therefore, also reasonable.

7. "National ambient air quality standards." This term is used in section C.10. of the proposed rule, along with the term "state ambient air quality standards" in defining the term "nonattainment area." Since the term "nonattainment area" is used to describe the applicability of the proposed rule, the definition of both the term national ambient air quality standards and state ambient air quality standards are needed. It is reasonable to tie the applicability of the proposed rule to violations of the national standards (as determined by the agency or by the Environmental Protection Agency) since the Clean Air Act requires the offset program to be applied in those areas. See Clean Air Act, 42 U.S.C. § 7409 and Part D.

8. "Net air quality benefit." This term, like "lowest achievable emission rate," is also vital to accomplishing the objectives of the offset rule and relates directly to the "reasonable further progress requirement" described at page 6 above. The Agency believes that it is

reasonable and desirable to specify the ratio of offsets to new emissions in order to leave no doubt as to the reduction in emissions required to accomplish the "reasonable further progress" requirement of the Clean Air Act, as implemented by the State. The term is used in D.2. as the purpose or objective of the modeling analyses.

9. "Net increase in emissions." This term is used in section C.18., the definition of "subject emission facility," and is needed to adequately describe the applicability of the proposed rule. While the term "gross increase in emissions" relates to section C.18.a., the term "net increase in emissions" relates specifically to sections C.18.b. and c. Like the term "gross increase in emissions," the term "net increase" is consistent with the Environmental Protection Agency's requirements. Unlike the term "gross increase," the term net increase excludes all emission reductions obtained within the same plant from the calculation of the total emissions that will result from the construction of the new facility or modification of the existing facility.

10. "Nonattainment area." The term "nonattainment area" is used throughout the rule. Generally, the proposed rule would apply to sources located within regions identified as "nonattainment areas." The proposed definition of "nonattainment area" reflects the actual usage of that term in that the EPA has the authority to designate areas of the State that violate federal

ambient air quality standards while the Agency is responsible for addressing the pollution problem. In addition, since some state ambient air quality standards are more stringent than federal standards, the Agency may have to independently designate areas violating state ambient standards different than their federal counterparts.

It should be emphasized that areas of the state are designated nonattainment of a federal standard pursuant to federal rulemaking by the Environmental Protection Agency. Thus, the federal nonattainment designations are made by the EPA pursuant to authority it is granted in the Clean Air Act (and not pursuant to any delegated authority from the Agency.) The federal designations appear as rules in the Code of Federal Regulations, at 40 CFR Part 81.324. The Agency has not yet designated any areas nonattainment of state standards more stringent than federal standards, but would do so in a proceeding separate than this rulemaking. As stated above, it is reasonable for the Agency to refer to both the federal and state designations as nonattainment areas. Such designations are readily understood by all persons to whom this rule might apply.

11. "Nonattainment criteria pollutants." This term is used throughout the rule and generally describes the types of emissions that would make a source subject to the proposed offset rule. C.11. provides that for all nonattainment areas except ozone, nonattainment criteria pollutant means the criteria pollutant (as defined in C.2.) for which an area is designated

nonattainment. For ozone nonattainment areas, nonattainment criteria pollutant means nonmethane hydrocarbons. It is reasonable to treat ozone somewhat separately from the other pollutants addressed in this rule since ozone is a pollutant, unlike the other pollutants, which is not directly emitted by a source but which results from a chemical reaction of, among other things, emissions of nonmethane hydrocarbons.

12. "Offsets." This term describes the basic requirement of the proposed rule, that is, the requirement that a new source "offset" the emissions it would add in an area by accomplishing a reduction in the existing emissions in that area. It is reasonable to require that all offsets be documented and legally enforceable in order to ensure that a long-term, real contribution to attainment of standards is made by subject emission facilities. It is reasonable to establish August 7, 1977, as the baseline date against which "offsets" will be calculated since this date is both required by the Clean Air Act and is used by the Agency in developing its State Implementation Plan. Clean Air Act, 42 U.S.C. § 7407(d)(1).

In addition, it is reasonable to include the alternative baseline date specified in section C.12.b. since the Agency would make existing offsets part of any future revisions to its State Implementation Plan and would thereby change the basic emission inventory against which offsets would be calculated. (In revising its SIP, the Agency determines the amount of emissions that are currently emitted by sources, and then develops a control program

to ensure a reduction in emissions by an amount necessary to achieve ambient air quality standards. The amount of emissions allowed by the State Implementation Plan is often referred to as "baseline emissions." It is against this amount (i.e., the maximum amount of emissions allowed if ambient standards are to be attained and maintained) that offsets may be obtained. See discussion, below, of definition of "restricted emissions," in section C.16.)

13. "Plan" or "State Implementation Plan." This term is used in sections B.2. and C.12.b. and reflects the actual usage of that term in the Clean Air Act.

14. "Plant." This term is used in section C.18.c. and must be defined to clearly delineate the applicability of the proposed rule to modifications of existing emission facilities. The use of the Standard Industrial Code to define "plant" is reasonable in that this code is readily accessible and is a common tool of the industrial community, as is evidenced by the use of this Code in the federal emission offset interpretive ruling, 40 CFR Part 51.18(j)(1)(ii) as amended at 45 Fed. Reg. 52744 (August 7, 1980).

15. "Resource recovery facility." This term is used in section D.5., which establishes a limited exclusion for resource recovery facilities. The definition provided in the proposed rule is reasonable in that it is consistent with the Environmental Protection Agency's definition of the term. 40 C.F.R. 51.18, Appendix S II.A.12 (1980). However, in its definition, the Environmental Protection Agency does not explain what averaging

period it will use to determine whether a facility meets the definition of a resource recovery facility. The proposed definition set out in C.15. contains a thirty day rolling average. "Thirty day rolling average" is defined in C.19. and is reasonable for the reasons stated below.

16. "Restricted emissions." This term is used in the definition of "net air quality benefit" and, like the term offsets, is vital to the workings of the proposed rule. In order to understand the need for and reasonableness of this provision, the way in which an offset is to be calculated must be understood.

To satisfy the requirements of the proposed rule, an offset must result in a net air quality benefit. In order to result in a net air quality benefit, the reduction in emissions from an existing source must be greater than the proposed increase in emissions from the new or modified source.

In order to determine the amount of reduction to be achieved, it is necessary to know the baseline against which the reduction is calculated. (This is quite a simple fact. For instance, in order to know how much weight one has reduced, it is necessary to know the weight at which one began to diet.)

The baseline against which reductions are calculated is referred to in this proposed rule as "restricted emissions." The definition of "restricted emissions" in the proposed rule constitutes a reasonable "baseline" against which to measure offsets and net air quality benefit in that it recognizes the various ways in which the Agency may account for emissions from

existing sources in both the Agency's emission inventory and in its SIP. Further, the definition of "restricted emissions" is reasonable in that it provides a mechanism for sources to correct errors in the Agency's records (see C.16.d.).

17. "State ambient air quality standards." Along with the term "national ambient air quality standards," this term is used in section C.10. of the proposed rule in defining the term "nonattainment area." Since state ambient air quality standards may be more stringent than national standards, it is possible for areas to be nonattainment of a state standard but attainment of a national standard. Since the Agency is charged with the responsibility under state as well as federal law of preventing and abating air pollution, it is reasonable for the proposed rule to include a definition that would have the rule apply in both federal and state nonattainment areas. (See also explanation of national ambient air quality standards at page 16.)

18. "Subject emission facility." This term defines the sources to which the offset rule would apply. The rule applies to sources proposed to be constructed or modified in areas designated nonattainment on the date the agency receives a completed permit application for the construction or modification. This date is reasonable in that it is consistent with Environmental Protection Agency guidance on this subject. See 46 Fed. Reg. 9124 - 9127 (January 28, 1981.)

C.18. is divided into three basic parts, C.18.a., C.18.b. and C.18.c. C.18.a. describes the applicability of the rule to the construction of new sources and to larger modifications of

existing sources. Under this section of the rule, only large sources [i.e., those with a "gross increase in emissions" (as defined in C.4.) of 100 tons per year of a nonattainment criteria pollutant] are subject to the rule.

C.18.b. describes the applicability of the rule to modifications of existing sources. The emission rates specified in this section have the effect of limiting the rule's applicability to those facilities which are relatively large in terms of both emissions and economics. Relatively small facilities are thereby spared the burden of satisfying the requirements of proposed Minn. Rule APC 41. Those few facilities that may have small emission increases that would cause a disproportionate local degradation of ambient air quality can be addressed through existing Agency rules [Minn. Rule APC 3(f)]. Further, since C.18.b. refers to net increases in emissions (as opposed to gross increases), the proposed rule allows sources to obtain offsets within the existing facility and thereby avoid the other requirements of the offset rule. This is reasonable in that it ensures that "reasonable further progress" toward achievement of the standards will be maintained.

C.18.c. describes the applicability of the proposed rule to modifications of a plant. This section is needed and reasonable to avoid the possibility that a facility may make several modifications (all of which are smaller than the amounts that would make them subject to the rule) and might, accordingly, avoid having the offset rule applied to them. Thus, this section

provides a mechanism through which modifications made over a specified time period may be considered in aggregate for the purpose of determining whether the offset rule applies to the sources being modified. This definition is consistent with the requirements of the Environmental Protection Agency on this subject.

19. "Thirty day rolling average." This term is used in section C.15., which is the definition of "resource recovery facility." In order to be considered a resource recovery facility under the proposed rule, the facility must utilize solid waste to provide more than 50 percent of the heat input. In calculating whether solid waste is used to provide more than 50 percent heat input, a 30 day rolling average shall be used.

It is reasonable to include an explanation in the rule of the averaging period that the agency will use in determining whether a source meets the definition of resource recovery facility. A thirty day rolling average is a reasonable time period in that it provides a reasonably accurate statement of the overall operations of the facility.

D. Conditions for Permit. Section D of the proposed rule establishes the conditions under which permits for subject emission facilities shall be issued (see D.1. through D.3.), requires that certain conditions be contained in permits issued to subject emission facilities (see D.4.), and establishes a limited exclusion from some of the requirements in D. (see D.5.)

1. The first condition, that offsets be obtained prior to construction or modification, is the heart of the offset rule. Under D.1., sufficient offsets (as defined in C.12.) must be obtained. The amount of offsets that must be obtained is described by section D.2. (net air quality benefit.)

The requirement to get offsets (in the amount specified in D.2.) applies to all subject emission facilities except those emission facilities that are temporary. Temporary emission facilities are those that will be located in the nonattainment area for less than two years. These temporary facilities can be assumed to have little significant impact on the nonattainment area. It is, therefore, reasonable to exempt these facilities from the offset requirements but not from the "lowest achievable emission rate" and "certification" requirements (in sections D.4. and D.3., respectively.) This is because the reasons for requiring offsets are not the same as the reasons for requiring

certification and lowest achievable emission rate. If these "exempt" sources did not implement "lowest achievable emission rate," they could interfere with the short-term "reasonable further progress" being made in the area. However, since these sources will not be in the area over the long-term, there is little concern regarding their interference with "reasonable further progress" over the long-term. Since the offset requirement is intended as a long-term mechanism for achieving "reasonable further progress," it is reasonable to exempt temporary (i.e., short-term) sources from the offset requirement. (The certification requirement is equally applicable to temporary and permanent sources for the reasons stated in the discussion of that requirement, below.) Finally, this partial exemption (from the offset requirement but not the other requirements of section D. of the proposed rule) is consistent with federal rulings on the subject. 40 C.F.R. Part 51, Appendix S, IV.B.3.

2. The second condition, that the owner or operator demonstrate that the offsets to be provided are sufficient to result in a net air quality benefit, describes the amount of offsets that must be obtained. It is necessary to obtain sufficient offsets to result in a net air quality benefit because existing emission facilities have the burden, under the SIP, of reducing emissions to attain ambient air quality standards and requiring new and expanded emission facilities to contribute to attainment of these standards is only fair. To allow new emissions to be offset at a ratio of one to one is to allow maintenance of the status quo and the status quo is unacceptably

high concentrations of ambient air pollution. A net air quality benefit is defined at C.8.b. as a ratio of offsets to new emissions of 1.1 to 1. In other words, offsets must exceed new emissions by 10 percent. Absent such a ratio, subject emission facilities could be constructed without significantly contributing to attainment of ambient standards. For example, consider a subject emission facility of 100 tons per year which could otherwise obtain an offset of 101 tons per year. The first 100 tons per year of offset prevents a net air quality degradation and only the last 1 ton per year contributes to attainment of standards. With the ratio specified in C.8.b., the offset required in this example would be 110 tons per year, with 10 tons per year contributing to attainment of ambient standards.

In addition to the argument that the net air quality benefit requirement is fair (considering the SIP requirements on existing emission facilities), the argument can be made that a net air quality benefit at the ratio of 1.1 to 1 from large new emission facilities is more practical than extending the offset rule to new small emission facilities for the purpose of attaining ambient air quality standards. As mentioned previously, those few facilities which would have small emission increases that would cause a disproportionate local degradation of ambient air quality are more appropriately addressed through existing rules. Finally, the 1.1 to 1 ratio is also consistent with the federal requirement that the State make "reasonable further progress in attaining ambient air quality standards". (See discussion above).

In addition, section D.2. describes the methods to be used to ensure that a subject emission facility will obtain sufficient reductions to result in a net air quality benefit. For subject emission facilities located or proposed to be located in carbon monoxide, nitrogen oxide, nonmethane hydrocarbon or ozone nonattainment areas, no modeling analysis is required. For sulfur dioxide and particulate matter nonattainment areas, a modeling analysis is required.

The modeling analysis requirement is reasonable in that large point sources, i.e., emission facilities discharging pollutants through a discrete emission point such as a smokestack, typically emit large amounts of sulfur dioxide and particulate matter. Computerized atmospheric dispersion modeling is the most appropriate tool for assessing ambient effects of point source emissions and therefore is the appropriate tool to determine whether a net air quality benefit will result from offsets for particulate matter and sulfur dioxide.

The other criteria pollutants are unlike particulate matter and sulfur dioxide in that these other pollutants are typically emitted by a broad range of mobile sources and small area sources spread over an entire air quality control region as well as by large emission facilities. Thus, for these other pollutants, it is reasonable to assume a net air quality benefit without requiring modeling analyses if the offset requirement is met within the region.

3. The third condition established in section D. (in specific, in D.3.) requires all permit applicants for subject emission facilities to certify that all emission facilities in Minnesota which are under common control are in compliance with air pollution rules or are on a compliance schedule. This is reasonable since, from an air quality management viewpoint, it is desirable that all disputes regarding the existing compliance status of a permit applicant be resolved before new permits (and possible points of disagreement) are issued. Further, the condition is reasonable since it is needed to satisfy the requirements of the Clean Air Act, 42 U.S.C. § 7503.

4. D.4. establishes the conditions to be included in permits issued to subject emission facilities. Section D.4.a. describes the actual emission limitation to be included in permits issued to subject emission facilities. Section D.4.a. establishes two possible permit conditions. The first condition is referred to as the lowest achievable emission rate (or LAER) and is defined at section C.5. of the proposed rule. Limiting emissions from subject emission facilities to the lowest achievable emission rate, as D.4.a.1. does, is necessary and reasonable to minimize the demand for offsets and thereby maximize the possible amount of economic growth in a nonattainment area. If a few emission facilities found it less expensive to consume all the available offsets in an area than to limit emissions to the lowest achievable emission rate, then subsequent permit applicants would be unable to locate in that area without contributing to violation

of ambient standards. This emission limitation is also reasonable in that it is required by the Clean Air Act, 42 U.S.C. § 7503.

The alternate condition established in D.4.a. is applicable in those instances in which an emission rate is less practicable than an alternative standard, such as a performance standard or work practice. For example, in instances in which the proposed new source's emissions will not be from a discrete point source and will be a pollutant such as total suspended particulate matter, it may not be possible to establish a specific emission rate for that source's pollution (and would, therefore, not be possible to establish the "lowest achievable emission rate" for that source.) Accordingly, it is reasonable to provide some other, more practicable mechanism to control that new source's pollution. These alternatives are commonly referred to as "performance standards" since they usually establish conditions according to which a task may be performed (as compared to the amount of emissions allowable from that task.) Finally, the inclusion of this alternative in D.4.a.2. makes D.4.a.1. (the LAER requirement) more reasonable.

Further, D.4.b. requires that permits issued to subject emission facilities include a condition that the offsets that the subject emission facility has obtained are legally enforceable by the agency and by the Environmental Protection Agency. This is reasonable in that, for the offset program to be effective, it is vital that agreed upon limitations or reductions in emissions be maintained.

5. D.5. establishes a limited exclusion from the requirements of D.1. and D.2. Thus, otherwise subject resource recovery facilities may, under certain conditions, be excepted from the requirement to obtain offsets. This exclusion provides a reasonable mechanism through which potential difficulties in the siting of resource recovery facilities may be avoided. The Agency believes that, to the extent possible, such difficulties should be avoided. This belief is consistent with Minnesota law. See, e.g., Minn. Stat. § 115A.

Section D.5. describes the conditions that must be met in order for the exception to apply. These conditions are reasonable in that they are consistent with the conditions provided by the Environmental Protection Agency's offset rule 40 C.F.R. § 51.18, Appendix S IV.B.) Unlike the Environmental Protection Agency's rule, the proposed rule specifies the manner in which the Agency shall determine if the permit applicant has satisfied the conditions in D.5. (See D.5.b.). Section D.5.b. is reasonable in that it relates to existing Agency rules and reasonably describes the way in which a permit applicant can demonstrate eligibility for the exception specified in D.5.b. Finally, for the same reasons as described in the explanation of the temporary facility exception (see pages 25 and 26), it is reasonable to only partially except resource recovery facilities from the requirements of the proposed offset rule.

E. Banking. The banking provision included within the rule is reasonable in that it removes a possible and unintentional

disincentive that may exist without this provision. Without such a provision, an industry may hesitate to shutdown a particular inefficient or uneconomical facility out of concern that it will lose the opportunity to use the "offset emissions" from that facility at a later point. Thus, proposed Section E. allows a person to save offsets resulting from shutdown of equipment or from control of existing emission facilities beyond what might be legally required. The "saved offsets" may then be used at a later time when the "saver" either needs the offsets for a permit application or sells the offsets to someone else. In order to be used at a later point in a permit application, banked offsets must satisfy the same criteria as offsets in general. The Agency's review of the availability of these offsets occurs at the point they are proposed to be used to allow the growth or expansion of a particular new subject facility. The reporting requirements in Section E. exist to ensure that the banking of offsets is done in an orderly fashion and to allow the Agency a mechanism for recording and verifying offsets that may be used in the future.

F. Limitation on use of offsets. The proposed offset rule establishes a program for the growth or expansion of industries in nonattainment areas. Under this program, a proposed new source must more than "offset" the increase in emissions that it will create by finding and achieving a decrease in emissions from an existing source. Without such an "offset," the new source will not be eligible for a construction or an operating permit.

By creating a program through which new and existing sources

may "trade" in allowable emissions, the offset program may encourage persons to buy, sell or trade in allowable emissions. Although this permit program may, therefore, create a mechanism through which emissions can be traded, the program is not intended to create a "property right" in emissions that would require the State to compensate persons if, due to a change in the Agency's regulatory program, the use of those emissions become limited or unavailable. The proposed section F. is, therefore, reasonable in that it puts persons on notice of the fact that the creation of the offset program does not create a property right that would require compensation from the State for the unavailability of the use of the offset at a later time.

Finally, in considering the reasonableness of the proposed rule, some mention should be given to the overall economic impact of the effect of the rule. The offset rule creates an economic mechanism through which new sources will be permitted to locate in nonattainment areas of the State, while at the same time air quality in those nonattainment areas is improved. It is difficult (if not impossible) to assess the actual economic impact of this rule since the extent to which persons may actually buy and sell offsets depends entirely on the plans of different industries to locate in various nonattainment areas of the State some time in the future. In any event, it should be understood that the rule itself does not require any owner of any existing facility to spend any monies for the control of their existing emissions.

IV. SUMMARY

In accordance with Minn. Stat. §15.0412, subd. 4h (1980), the Agency has, in this Statement, set out an affirmative presentation of facts establishing the need for and reasonableness of the proposed offset rule. As stated earlier, the purpose of the rule is to provide a mechanism through which industries will be permitted to grow and expand in nonattainment areas of the State. The rule is needed and reasonable in that it establishes a coherent and comprehensive permit program through which such industrial growth and expansion could be accomplished.

V. EXHIBIT LIST

In drafting the proposed rule, the Agency staff relied on personal experience and expertise in dealing with construction and operating permits. In addition, the staff relied on the following documents and laws (these documents are hereby incorporated into this document by reference):

1. Minn. Stat. ch. 116 (1980)
2. Clean Air Act, 42 U.S.C. §7401, et seq. (1977)
3. 40 CFR Part 51 (1980) (including Appendix S)
4. 40 CFR Part 52 (1980)
6. 45 Fed. Reg. 31304- 31312 (May 13, 1980)
7. 45 Fed. Reg. 52675- 52748 (August 7, 1980)
8. 45 Fed. Reg. 59874 - 59879 (September 11, 1980)
9. 46 Fed. Reg. 9124 - 9127 (January 28, 1981)

10. 46 Fed. Reg. 16280 - 16282 (March 12, 1981)
11. "Compilation of Air Pollutant Emission Factors," OAQPS AP-42, U.S. Environmental Protection Agency, Office of Air Quality Planning Standards.
12. "Guidelines on Air Quality Models," OAQPS No. 1.2-080, U.S. Environmental Protection Agency.
13. Standard Industrial Classification Manual, 1972, as amended by the 1977 Supplement.
14. Alabama Power Company v. Costle, 13 ERC 1225 (D.C. Circuit June 18, 1979)
15. Alabama Power Company v. Costle, 13 ERC 1993 (D.C. Circuit December 14, 1979).

Dated: August 21, 1981



LOUIS J. BREIMHURST
Executive Director

MINNESOTA POLLUTION CONTROL AGENCY