Reference 17

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

April 2, 1991

MEMORANDUM

SUBJECT: PM-10 Moderate Area SIP Guidance: Final Staff Work Product

FROM: John Calcagni, Director
Air Quality Management Division (MD-15)

TO: Director, Air, Pesticides, and Toxics Management Division, Regions I, IV, VI
Director, Air and Waste Management Division
Region II
Director, Air Management Division
Regions III and IX
Director, Air and Radiation Division
Region V
Director, Air and Toxics Division
Regions VII, VIII, X

The purpose of this memorandum is to transmit the final staff work product for PM-10 (particulate matter nominally 10 micrometers or smaller in size) guidance for moderate PM-10 nonattainment areas. This document has been prepared by the Office of Air and Radiation staff, with assistance from the EPA Regional Offices and Office of General Counsel staffs, and will be the basis for drafting the portion of the General Preamble addressing PM-10 moderate area State implementation plans (SIP's). The General Preamble will set forth the specific criteria EPA will use in reviewing SIP submittals required under the Clean Air Act Amendments of 1990. We expect to publish the General Preamble in the fall of 1991.

Until a General Preamble is issued, it is recommended this document be used by EPA staff to guide action taken on SIP submittals for moderate PM-10 nonattainment areas. It should be noted that this document does not establish or affect legal rights or obligations. It does not establish a binding norm and it is not finally determinative of the issues addressed. Agency decisions in any particular case will be made by applying the applicable law and regulations to the specific facts of that case. In any proceeding in which this guidance may be applied, the Agency will thoroughly consider its applicability to the facts, the underlying validity of the policies and

interpretations set forth in the guidance, and whether changes should be made in the guidance based on submissions made by any person.

The guidance is divided into four sections: (a) statutory background, including a general discussion of SIP requirements for moderate PM-10 nonattainment areas; (b) determination of reasonably available control measures/reasonably available control technology (RACM/RACT); (c) guidance for areas that can demonstrate attainment by the applicable statutory date; and (d) guidance for areas that cannot demonstrate attainment by the applicable statutory date. Nothing in this guidance prevents a SIP for a moderate PM-10 nonattainment area from containing measures more stringent than RACM or RACT.

Additionally, we intend to supplement this guidance with Q's and A's as appropriate. If you have any questions, please contact Dave Stonefield (FTS 629-5350) or Thompson Pace (FTS 629-5634).

Attachments

cc: Bill Laxton
John Rasnic
Jim Weigold

PM-10 GUIDANCE: FINAL STAFF WORK PRODUCT

Statutory Background

Designations

On the date of enactment of the Clean Air Act Amendments of 1990 (November 15, 1990), PM-10 areas meeting the qualifications of section 107(d)(4)(B) of the amended Clean Air Act (Act) were designated nonattainment by operation of law. These areas included all former Group I areas identified in 52 FR 29383 (August 7, 1987) and clarified in 55 FR 45799 (October 31, 1990), and any other areas violating the PM-10 standards prior to January 1, 1989 (many of these areas were also identified in the October 31, 1990 Federal Register notice). A Federal Register notice announcing all of the areas designated nonattainment for PM-10 at enactment and classified as moderate was published in 56 FR 11101 (March 15, 1991). All other areas were designated unclassifiable. Subsequent to the date of enactment, EPA may redesignate any of these unclassifiable areas to nonattainment under the provisions of section 107(d)(3).

Classifications

Once an area is designated nonattainment, section 188 of the amended Act outlines the process for classification of the area and establishes the area's attainment date. In accordance with section 188(a), at the time of designation, all PM-10 nonattainment areas are initially classified as moderate by operation of law. A moderate area can subsequently be reclassified as serious either (1) before the applicable moderate area attainment date if at any time EPA determines the area cannot "practicably" attain the PM-10 national ambient air quality standards (NAAQS) by this attainment date, or (2) following the passage of the applicable moderate area attainment date if EPA determines the area has failed to attain [see section 188(b)].

For those areas which were designated nonattainment on the date of enactment by operation of law, where EPA determines that the area cannot "practicably" attain the NAAQS by December 31, 1994, EPA must propose to reclassify appropriate moderate areas as serious by June 30, 1991 and take final action by December 31, 1991. The EPA also has discretionary authority under section 188(b)(1) to reclassify any of these areas as serious at any time if EPA determines they cannot practicably attain the PM-10 NAAQS by December 31, 1994. The EPA may exercise this discretion where, for example, EPA originally believed an area could attain the standards by December 31, 1994 but later determines that it cannot attain. For example, EPA may find an area cannot practicably attain by December 31, 1994 after reviewing the November 15, 1991 SIP submittal for an area or upon the failure of a State to submit a SIP for an area.

For areas designated nonattainment subsequent to the date of enactment, EPA must reclassify appropriate areas as serious within 18 months of the required submittal date for the moderate area SIP. Taken together with the statutory requirement that these SIP's be submitted 18 months after being designated nonattainment, the statute thus requires that EPA reclassify the appropriate moderate area as serious within 3 years of the nonattainment designation.

Finally, in those cases where EPA determines that an area has failed to attain the NAAQS by the applicable attainment date, the area is reclassified as serious by operation of law. The EPA must publish a notice in the Federal Register of such determinations and consequent reclassifications within 6 months following the applicable attainment date.

Attainment Dates

Since this guidance addresses the control measures recommended for moderate PM-10 nonattainment areas, this discussion will be limited to the attainment dates for moderate nonattainment areas. Section 188(c)(1) of the amended Act specifies that the initial moderate nonattainment areas (those designated nonattainment upon enactment of the 1990 Amendments) are to attain the PM-10 NAAQS as expeditiously as practicable but no later than December 31, 1994, unless they are reclassified as serious (as described above). Areas designated nonattainment subsequent to enactment and classified as moderate must attain the PM-10 NAAQS as expeditiously as practicable but no later than the end of the sixth calendar year after the area's designation as nonattainment.

General SIP Requirements

As discussed above, States must develop and submit a SIP providing for the attainment of the PM-10 NAAQS for every area designated nonattainment and classified as moderate for PM-10 under the amended Act. Under section 189(a)(2), States must submit SIP's for the moderate PM-10 areas designated nonattainment upon enactment of the 1990 Amendments by November 15, 1991 except for the new source review (NSR) program provisions, which are due June 30, 1992. States must submit SIP's for those PM-10 areas designated nonattainment after enactment within 18 months after being designated nonattainment for PM-10.

The specific PM-10 SIP requirements applicable to moderate nonattainment areas are set forth in section 189(a) (NSR permit program, attainment demonstration, and RACM/RACT); section 189(c) (quantitative milestones); and section 189(e) (PM-10 precursors). The SIP's for moderate PM-10 nonattainment areas must also meet the general provisions applicable to nonattainment areas set

forth in Subpart 1 of Title I of the amended Act to the extent that these provisions are not inconsistent with and therefore not superseded by the more specific PM-10 requirements. All SIP's must also meet the applicable regulatory requirements set forth in 40 CFR Part 51 except to the extent those requirements are inconsistent with the amended Act.[1] The EPA will provide guidance at a later date for those SIP requirements not addressed in this guidance document. The discussion below is intended to provide additional background on some of the statutory requirements for moderate PM-10 nonattainment area SIP's and, in some cases, to provide some preliminary guidance on these statutory requirements.

New Source Review Permit Program. Section 189(a)(1)(A) provides that for all moderate areas States must submit a SIP containing an NSR permit program governing the construction and operation of new and modified major stationary sources of PM-10 (including, in some cases, PM-10 precursors) and meeting the requirements of section 173 of the revised law. For the initial moderate PM-10 nonattainment areas, this requirement is due on June 30, 1992. For moderate areas designated nonattainment post-enactment, this SIP requirement is due with the other SIP submittals, which is no later than 18 months after being designated nonattainment.

The EPA intends to issue proposed regulations governing the NSR requirements for PM-10 SIP's in July 1991. Note, however, that EPA has issued NSR guidance which explains the legal effect of being designated nonattainment under the new law, including the interim requirements applicable to moderate PM-10 nonattainment areas after having been designated nonattainment but before the NSR SIP requirement is due.[2]

Attainment Demonstration. Section 189(a)(1)(B) provides that States with moderate PM-10 nonattainment areas must submit a demonstration (including air quality modeling) showing attainment by the applicable attainment date or that attainment by the applicable date is impracticable. This SIP submittal is due on

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[1]The Clean Air Act Amendments of 1990 include a General Savings Clause which provides that regulations (or guidance, etc.) in effect before the enactment of the Amendments shall remain in effect after enactment (see section 193 of the amended Act). However, the Savings Clause also provides that such regulations (or guidance, etc.) shall remain in effect "except to the extent otherwise provided under this Act, inconsistent with any provision of this Act, or revised by the Administrator." Id.

[2]Memorandum entitled New Source Review Program Transitional Guidance, March 11, 1991, from John S. Seitz to Air Division Directors, Regions I-X.

November 15, 1991 for the moderate areas designated nonattainment for PM-10 at enactment and within 18 months for those moderate areas designated nonattainment post-enactment.

In general, attainment demonstrations for the initial moderate nonattainment areas should follow the existing modeling guidelines addressing PM-10 [e.g., PM-10 SIP Development Guideline (June 1987); Guideline on Air Quality Models (Revised); memorandum from Joseph Tikvart and Robert Bauman dated July 5, 1990] and any applicable regulatory requirements. The EPA has also developed a supplemental attainment demonstration policy that may be followed for initial moderate PM-10 nonattainment areas facing special circumstances. That policy statement is provided as Attachment 5. Attainment demonstrations for moderate areas designated post-enactment will be reviewed in accordance with the general guidance addressing PM-10, cited above, and any other applicable EPA guidance or regulations. The supplemental policy also noted above will not apply to these areas.

Quantitative Milestones. Section 189(c) provides that SIP's for all PM-10 nonattainment areas must contain quantitative milestones which are to be achieved every 3 years and demonstrate reasonable further progress towards attainment. The SIP's for the initial PM-10 moderate nonattainment areas are due November 15, 1991 and must demonstrate attainment by December 31, 1994, only 46 days beyond the November 15, 1994 milestone date. This de minimis timing differential makes it administratively impracticable to require separate milestone and attainment demonstrations. Thus, EPA's policy is to deem that the emission reduction progress made between SIP submittal and the attainment date will satisfy the quantitative milestone requirement for these areas. This is consistent with the purpose of the milestone requirement which is to "provide for emission reductions adequate to achieve the standards by the applicable attainment date" [H.R. Rep. No. 490, 101st Cong., 2d Sess. 267 (1990)]. The EPA will issue future guidance on this statutory requirement for the moderate PM-10 areas designated nonattainment post-enactment and the serious PM-10 nonattainment areas.

PM-10 Precursors. Section 189(e) provides that for all PM-10 nonattainment areas the control requirements applicable under PM-10 SIP's in effect for major stationary sources of PM-10 are also applicable to major stationary sources of PM-10 precursors except where the Administrator determines that the sources of PM-10 precursors do not contribute significantly to PM-10 levels which exceed the PM-10 NAAQS in the area. The EPA is required to issue guidance on this requirement. This document contains a lengthy discussion on control requirements for PM-10 precursors in moderate nonattainment areas and is intended to provide guidance for moderate area SIP's having control requirements applicable to major stationary sources of PM-10. The EPA intends to provide additional guidance, if necessary, on

control requirements for major stationary sources of PM-10 precursors when it issues proposed regulations for the NSR permit program applicable to PM-10 nonattainment areas, and when it issues guidance on the control technology requirements applicable to major stationary sources in serious PM-10 nonattainment areas.

RACM/RACT: The central focus of this guidance document is to provide recommendations for developing the control measures required for moderate PM-10 nonattainment areas. Under section 189(a)(1)(C) of the amended Act, moderate area SIP's must contain "reasonably available control measures" for the control of PM-10 emissions. Section 172(c)(1) of the amended Act, in turn, provides that RACM for nonattainment areas shall include "such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology . . . ." Thus, read together, these provisions require that moderate area PM-10 SIP's include RACM and RACT for sources of PM-10 emissions.

Under sections 189(a)(1) and (2) of the revised Act, initial moderate PM-10 nonattainment areas (i.e., those areas designated nonattainment upon enactment of the 1990 Clean Air Act Amendments) must submit SIP's containing RACM/RACT control measures by November 15, 1991, and these SIP's must provide for the implementation of RACM/RACT no later than December 10, 1993. Those areas designated nonattainment and classified as moderate post-enactment must submit SIP's containing RACM/RACT control measures 18 months after the nonattainment designation [see section 189(a)(2)(B)]. These SIP's must provide for the implementation of RACM/RACT no later than 4 years after being designated nonattainment, which is 30 months after the SIP submittal deadline for these areas [see section 189(a)(1)(C)].

Note that serious area control requirements are briefly described here as background for subsequent discussion regarding the relationship between moderate and serious area control measures. As discussed above, moderate PM-10 nonattainment areas may be reclassified as serious. Pursuant to section 189(b), States having areas that are reclassified as serious must submit SIP's for the areas containing best available control measures (BACM) which includes "the application of best available control technology to existing stationary sources" [H.R. Rep. No. 490, 101st Cong. 2d Sess. 267 (1990)].[3] The SIP's containing BACM/best available control technology (BACT) provisions must be

[3]While "best available control technology" applies to existing stationary sources, there is no indication from the statutory language or legislative history that Congress intended to adopt either the statutory or regulatory definitions of "best available control technology" under the prevention of significant deterioration program for PM-10 nonattainment purposes.

submitted within 18 months after reclassification as serious [see section 189(b)(2)]. These SIP's must provide for the implementation of BACM/BACT no later than 4 years after being reclassified, which is 30 months after the BACM/BACT submittal is due [see section 189(b)(1)(B)].

Under section 190, the Administrator must issue technical guidance for RACM and BACM by May 15, 1992 for three area source categories: urban fugitive dust, residential wood combustion, and prescribed silvicultural and agricultural burning. This document provides guidance on RACM for these source categories and is being provided to facilitate the timely submittal of SIP's for moderate PM-10 nonattainment areas.[4] As discussed above, SIP revisions for the moderate areas designated nonattainment upon enactment of the 1990 Amendments are due on November 15, 1991 and are to include RACM. This guidance also updates previously-issued guidance regarding RACT for large stationary sources. The BACM guidance to facilitate SIP development in serious PM-10 nonattainment areas will be issued at a later date.

Determination of Reasonably Available Control Measures/Reasonably Available Control Technology

Reasonably Available Control Measures

The starting point for specifying RACM in each SIP is the listing of available control measures for fugitive dust, residential wood combustion, and prescribed burning contained in Attachments 1, 2, and 3. The RACM is then determined for the particular area to which the SIP applies. If it can be shown

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[4] In addition to requiring RACM guidance for urban fugitive dust, residential wood combustion, and prescribed silvicultural and agricultural burning, section 190 requires that EPA examine other source categories and determine by November 15, 1993 whether additional guidance for RACM and BACM is needed. This document provides RACM guidance for sources of fugitive dust (including urban), residential wood combustion, and prescribed burning (including silvicultural and agricultural). The EPA believes, at this time, that these categories of sources are contributing to nonattainment of the PM-10 NAAQS.

Section 190 also requires that EPA take into account the emission reductions achieved or expected to be achieved under Title IV and other provisions in "issuing guidelines and making determinations under this section." In deciding whether to issue guidance for the categories of sources addressed in this document and in issuing this guidance, EPA has considered such emission reductions. The EPA does not believe, at this time, that actual or expected reductions from Title IV or other provisions will significantly reduce emissions from these sources.

that one or more measures are unreasonable because emissions from the sources affected are de minimis (i.e., insignificant), those measures may be excluded from further consideration as they would not represent RACM for that area.[5] Conversely, if additional measures are identified by the State or through public comment to be available in a particular circumstance, those measures should be added to the list of available measures for that area. The resulting available control measures are then evaluated for reasonableness, considering their technological and economic feasibility in the area to which the SIP applies. In the case of public sector sources and control measures, this evaluation should consider the impact of the reasonableness of the measures on the municipal or other governmental entity that must bear the responsibility for their implementation (e.g., paving of unpaved public roads). All measures in Attachments 1, 2, and 3 are considered available and are assumed to be technologically and economically feasible. A State may refute this by demonstrating that partial or full implementation of a measure is technologically or economically infeasible or otherwise unreasonable for a particular area on a case-by-case basis (e.g., watering to suppress dust where water is scarce). It is important to note that a State should consider the feasibility of implementing measures in part when full implementation would be infeasible. The SIP submittal to EPA should contain a reasoned justification for partial or full rejection of any of the available control measures that explains, with appropriate documentation, why each rejected control measure is infeasible or otherwise unreasonable.

When the process of determining RACM appropriate to an area is completed, the individual measures should then be converted into a legally-enforceable vehicle (e.g., a regulation or permit program). The regulations or other measures should meet EPA's criteria regarding the enforceability of SIP's and SIP revisions. These criteria were stated in the September 23, 1987 memorandum (with attachments) from J. Craig Potter, Assistant Administrator for Air and Radiation; Thomas L. Adams, Jr., Assistant Administrator for Enforcement and Compliance Monitoring; and Francis S. Blake, General Counsel, Office of the General Counsel, entitled "Review of State Implementation Plans and Revisions for Enforceability and Legal Sufficiency." As stated in this

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[5]Where the sources affected by a particular measure contribute only negligibly to ambient concentrations that exceed the NAAQS, EPA's policy is that it would be unreasonable and therefore would not constitute RACM to require controls on the source. In this regard, it is worth noting that the inherent authority of administrative agencies to exempt de minimis situations from regulation has been recognized in contexts such as this where an agency is invoking a de minimis exemption as "a tool to be used in implementing the legislative design" [see Alabama Power Co. v. Costle, 636 F.2d 323, 360 (D.C. Cir. 1979)].

memorandum, SIP's and SIP revisions which fail to satisfy the enforceability criteria should not be forwarded for approval. If they are submitted, they will be disapproved if, in EPA's judgment, they fail to satisfy applicable statutory and regulatory requirements.

The technical guidance that a State can use in making a decision on which of the available measures in Attachments 1, 2, and 3 are technically and economically feasible in a particular area is contained in four documents: (1) Control of Open Fugitive Dust Sources (EPA-450/3-88-008), September 1988; (2) Guidance Document for Residential Wood Combustion Emission Control Measures (EPA-450/2-89-015), September 1989; (3) Prescribed Fire Smoke Management Guide (NFES No. 1279), February 1985; and (4) Prescribed Fire Plan Guide (NFES No. 1939), August 1986. These documents have been in use for several years and are based on substantial input from State and local agencies, trade groups and associations, and control experts. It is EPA's intention to announce the availability of these documents as a notice of availability in the Federal Register in the spring of 1991. Copies will continue to be made available to the general public.

Reasonably Available Control Technology

This guidance follows EPA's historic definition of RACT as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.[6] The RACT applies to the "existing sources" of PM-10 stack, process fugitive, and fugitive dust emissions (e.g., haul roads, unpaved staging areas) [see section 172(c)(1)]. The EPA recommends that major stationary sources be the minimum starting point for RACT analysis. Generally, EPA construes RACT to apply to those existing sources in the nonattainment area that are reasonable to control in light of the attainment needs of the area and the feasibility of such controls. Thus, EPA believes that in light of the area's attainment needs, a State's RACT analyses should go beyond major stationary sources in the area and include other sources in the area that are reasonable to

[6]See, for example, 44 FR 53762 (September 17, 1979) and footnote 3 of that notice. Note that EPA's emissions trading policy statement has clarified that the RACT requirement may be satisfied by achieving "RACT equivalent" emission reductions from existing sources.

control under the circumstances.[7] Specific guidance on the evaluation of the technological and economical feasibility of RACT is contained in Attachment 4.

PM-10 Precursors. Section 189(e) of the amended Act provides that for all PM-10 nonattainment areas, the control requirements applicable under PM-10 SIP's in effect for major stationary sources of PM-10 are also applicable to major stationary sources of PM-10 precursors except where the Administrator determines that such sources do not contribute significantly to PM-10 levels which exceed the PM-10 NAAQS in the area. Thus, for example, because moderate PM-10 nonattainment area SIP's should contain RACT for major stationary sources of PM-10, they should also contain RACT for major stationary sources of precursors, unless EPA determines otherwise. Section 189(e) also requires that EPA issue guidance for the control of PM-10 precursors. This discussion presents EPA's preliminary guidance for controlling PM-10 precursors from major stationary sources in moderate PM-10 nonattainment areas.

Precursors of secondarily-formed PM-10 include volatile organic compounds (VOC's) which form secondary organic compounds, sulfur dioxide which forms sulfate compounds, and nitrogen oxides which form nitrate compounds. In general, EPA believes that major stationary sources of VOC's will not significantly contribute to PM-10 levels that exceed the NAAQS. Generally, those areas in the Nation having major stationary sources that would potentially emit significant amounts of VOC's and which have conditions conducive to the photochemical formation of

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[7]As referenced above, section 172(c) of the amended Act provides that RACT should apply to "existing sources in the area." This is the same language that appeared in the RACT requirement under the Clean Air Act prior to the 1990 Amendments [see section 172(b)(3) of the old law]. Under the pre-amended law, EPA interpreted the phrase "existing sources in the area" as it is interpreted in this guidance, i.e., to require RACT for those existing sources it is reasonable to regulate in light of the attainment needs of the area and the feasibility of controls. Note that Congress has not used the word "all" in conjunction with RACT in either the earlier law or as now amended. Thus, it is possible that a State could demonstrate that an existing source in an area should not be subject to a control technology where such control is unreasonable in light of the area's attainment needs or infeasible. Further, EPA believes that Congress has placed its imprimatur on, if not adopted, EPA's prior interpretation of RACT [see, e.g., section 182(a)(2)(A) of the amended Act; see also section 193 of the amended Act (savings clause preserving prior EPA guidance except where inconsistent with the Clean Air Act Amendments)].

secondary organic compounds are nonattainment for ozone and thus, already have requirements for RACT on sources of VOC.[8] Conversely, in ozone attainment areas, the inventory of the major stationary sources of VOC's will be sufficiently low so as not to significantly contribute to PM-10 levels which exceed the NAAQS in the area. Further, any potential increase in emissions from new or modified major stationary sources in either ozone nonattainment or attainment areas will be adequately controlled through EPA's NSR programs. The significance of sulfur dioxide and nitrogen oxides emissions is more regionally dependent due to differences in source mix and density, nonattainment area size, the expected impacts of Title IV, and other technical considerations.

In the western United States, for the purpose of this guidance considered west of the 100th meridian, EPA believes that, as a general matter, sources of sulfur dioxide and nitrogen oxides emissions will not significantly contribute to PM-10 levels except in a few major metropolitan areas (e.g., Los Angeles, Salt Lake County, Utah County, Denver, San Joaquin Valley) where secondary particle formation from these precursors is a significant contributing factor to PM-10 levels in excess of the NAAQS and pollutant transport between airsheds is relatively unimportant (i.e., locally emitted PM-10 precursors contribute to the PM-10 problem in that area).[9] Secondary formation is a

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[8]Congress recognized that sources of PM-10 precursors may be otherwise controlled. For example, the House Report states that "[t]he Committee notes that some of these precursors may well be controlled under other provisions of the Act" [H.R. Rep. No. 490, 101st Cong., 2d Sess. 268 (1990)]. Moreover, Congress expressly recommended that EPA consider other provisions of the Act in addressing precursors. The House Report states as follows: "The Committee expects the Administrator to harmonize the PM-10 reduction objective of this section with other applicable regulations of this Act regarding PM-10 precursors, such as NO_x" [H.R. Rep. No. 490 at 268]. Throughout the discussion of PM-10 precursors EPA has relied on the actual and expected reductions from other Clean Air Act requirements and has attempted to reconcile these with the statute's PM-10 attainment objective.

[9]The focus here and elsewhere on transport between airsheds and on the characteristics of the nonattainment area flow from the statutory language of section 189(e) which states that in determining not to require RACT for major stationary sources of precursors, EPA must find that the sources do not contribute significantly to PM-10 levels which exceed the NAAQS "in the area." Thus, under this provision EPA may determine that major stationary sources of precursors in a nonattainment area should not be subject to RACT because the sources do not contribute significantly to PM-10 levels in the same area.

factor in these few major metropolitan areas because of the combination of their large geographic size, source mix, and particular meteorology and topography. The combination of source mix, meteorology, and topography rarely occurs in other areas in the west. In addition, where nonattainment areas are relatively small in size, precursors are usually transported out of the area before secondary particles can form in significant quantity. Thus, EPA believes that local sources of secondary particles are not generally significant contributors to the nonattainment problem in western areas other than in major metropolitan areas as described above. Therefore, generally, in the western United States, RACT for major stationary sources of sulfur dioxide and nitrogen oxides is expected to be required for only those few major metropolitan areas. Further discussion on the need to apply RACT in moderate PM-10 nonattainment areas is found in the sections addressing control requirements for areas that do/do not demonstrate attainment.

The EPA generally believes that local major stationary sources of nitrogen oxides and sulfur dioxide will not significantly contribute to PM-10 concentrations in nonattainment areas in the eastern United States. As a general matter, pollutant transport between airsheds in the eastern United States is responsible for a relatively large portion of secondary particle concentrations in nonattainment areas. Therefore, it is difficult to determine with certainty whether sources of PM-10 precursors in the nonattainment area would contribute significantly to PM-10 concentrations in the same area. In addition, EPA believes sources of nitrogen oxides will not significantly contribute to PM-10 levels which violate the NAAQS because historically nitrate compounds have been measured in relatively low concentrations in the eastern United States. Sulfate compounds, however, are present generally in significant quantities in many eastern areas. Nevertheless, EPA expects that very substantial regionwide reductions of sulfur dioxide emissions will result from the implementation of Title IV of the Act. The EPA believes these emission reductions will significantly mitigate any sulfate contributions to PM-10 concentrations. In light of the relatively large portion of secondary particles attributable to inter-airshed transport and the associated uncertainties regarding source-receptor relationships, the historically relatively low nitrate concentrations and the anticipated sulfur dioxide emission reductions from Title IV of the amended Clean Air Act, EPA does not believe that local major stationary sources of nitrogen oxides and sulfur dioxide are significant contributors to nonattainment in eastern PM-10 nonattainment areas.[10] Thus,

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[10] See footnote 8.

SIP's for nonattainment areas in the eastern United States, need not, as a general matter, require RACT on major stationary sources of these precursors.

Finally, where a State believes secondary particles may be present in an area, EPA recommends that the secondary fraction of PM-10 and the components of that secondary fraction be determined through appropriate chemical analysis of the filters used to gravimetrically determine the PM-10 concentrations. Information discovered in SIP development and other analyses and studies conducted by the State or EPA may indicate whether major stationary sources of precursors significantly contribute to PM-10 concentrations in a particular area. Therefore, while the preceding discussion provides guidance as to EPA's implementation of section 189(e) and some of the factors that will guide EPA's findings under this section, EPA intends to formally determine whether major stationary sources of PM-10 precursors contribute significantly to PM-10 levels in a particular area and, thus, whether RACT is required when EPA takes rulemaking action on the individual moderate area SIP's.

Condensible PM-10. Condensible particulate matter (CPM) refers to particles which form in the atmosphere as the exhaust gases from a source cool. The CPM emissions form particles in the PM-10 size range and are considered PM-10 emissions [see, e.g., PM-10 SIP Development Guideline (June 1989) at p. 5-32 and 55 FR 41547 (October 12, 1990)]. The EPA issued guidance on CPM in a December 24, 1990 memorandum from John Calcagni and William Laxton entitled "Interim Guidance on Emission Limits and Stack Test Methods for Inclusion in PM-10 SIP's." Generally, RACT for sources of CPM will be reviewed consistent with this guidance. In addition, EPA believes it is reasonable and therefore constitutes RACT to control CPM only where CPM is a significant portion of the emissions from an existing stationary source.[11] Further guidance on the identification of sources where RACT should consider CPM is found in Assessment of the Controllability of Condensible Particulate Matter (EPA-600/8-90-75), published in October 1990. Note that EPA has also recently proposed to add a method for measuring CPM emissions from stationary sources to Appendix M of 40 CFR Part 51 (55 FR 41546, October 12, 1990).

TSP RACT. Since 1979, EPA has taken action to approve a number of total suspended particulate (TSP) nonattainment area SIP's that require RACT for existing stationary sources of TSP. As a technical matter, RACT level measures to control TSP

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[11]Where CPM emissions are a negligible portion of the emissions from an existing stationary source, EPA's policy is that such control may be excluded as being unreasonable and thus, not constituting RACT for that source [See also Alabama Power Co. v. Costle, 636 F.2d 323, 360 (D.C. Cir. 1979), discussed above].

emissions generally utilize technology that also effectively controls PM-10 emissions. Thus, EPA believes it is reasonable to generally presume that control technology which represents RACT for TSP emissions from a source satisfies the requirement of RACT for PM-10 emissions under the amended Act. However, the reasonableness of this control technology may be refuted for a particular source in a PM-10 nonattainment area where information indicates that a level of control greater than that achieved by the TSP RACT would constitute RACT for PM-10. Further, with respect to controls on stack and process fugitive emission points that represent RACT in currently-approved TSP SIP's, EPA specifically recommends that the emission limits be reviewed in light of improvements in control technology and reductions in control costs that may now make lower emission limits reasonable. In addition, regulations submitted as part of the PM-10 SIP should be reviewed to determine whether they meet EPA criteria regarding enforceability, noted above. The EPA will not approve any PM-10 SIP containing RACT measures that fail to meet applicable statutory and regulatory requirements for SIP enforceability, consistent with the previous discussion on RACM.

In those PM-10 nonattainment areas that do not have previously-approved Part D TSP nonattainment area plans, the particulate matter regulations for existing sources should be reviewed to determine if: (1) additional controls are necessary to meet RACT requirements, and (2) if the regulations meet EPA's enforceability criteria. Similarly, existing regulations controlling emissions of PM-10 precursors [e.g., VOC's, sulfur dioxide, and nitrogen oxides] should be reviewed on a case-by-case basis in those areas where, consistent with the precursors discussion above, RACT should apply to major stationary sources of PM-10 precursors.

Section 110(n)(1) of the amended Clean Air Act provides that all TSP SIP's, including any revisions, that were approved or promulgated by EPA before enactment of the 1990 Amendments shall remain in effect until EPA approves or promulgates a revision to the SIP under the new law. Further, the General Savings Clause, section 193 of the amended Act, prohibits any post-enactment modification to any control requirement in effect or required to be adopted by a SIP in effect before enactment of the Amendments for any area which is a nonattainment area for any air pollutant unless the modification ensures equivalent or greater emission reductions of such air pollutant. Thus, under section 110(n)(1) existing provisions of TSP SIP's remain in effect until such provisions are revised under the new law. Further, under section

193, modifications to TSP control requirements, such as TSP RACT, cannot be approved unless at a minimum they ensure equivalent emission reductions of PM-10.[12]

SIP's That Demonstrate Attainment

The SIP's for moderate nonattainment areas should include implementation of RACM for area sources and RACT for stationary sources of PM-10 emissions at least to the extent necessary to demonstrate attainment of the PM-10 NAAQS by the applicable statutory attainment dates. Therefore, if a State adopts less than all available measures but demonstrates, adequately and appropriately, that (a) reasonable further progress and attainment of the standards is assured, and (b) application of all such available measures would not result in attainment any faster, than a plan which requires implementation of less than all technologically and economically available measures may be approved.[13] The EPA believes it would be unreasonable and therefore would not constitute RACM/RACT to require that a plan which demonstrates attainment include all technologically and economically available control measures even though such measures would not expedite attainment.

As provided in section 172(c)(9) of the amended Act, all moderate nonattainment area SIP's that demonstrate attainment must include contingency measures. These measures become effective without further action by the State or the Administrator, upon determination by the Administrator that the area has failed to make reasonable further progress or attain the PM-10 NAAQS by the applicable statutory deadline. These contingency measures should consist of other available control measures that are not included in the control strategy.

SIP's That Do Not Demonstrate Attainment

In those moderate PM-10 nonattainment areas where the State's control strategy cannot demonstrate attainment by the applicable date mandated in the Act, the State should document that its control strategy represents the application of the available control measures, as determined above, to all source categories. The EPA believes it is reasonable and therefore

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[12]A moderate PM-10 area is a nonattainment area for any air pollutant within the meaning of section 193. Thus, for these areas, any modifications to any control requirements, including TSP, would have to ensure equivalent emission reductions of PM-10.

[13]See, e.g., 44 FR 20375 (April 4, 1979). See also 56 FR 5460 (February 11, 1991).

constitutes RACM/RACT for all available control measures which are technologically and economically feasible to be adopted as RACM/RACT for areas which do not demonstrate attainment.

Areas that do not demonstrate attainment will be reclassified as serious areas under section 188(b) and will be required to implement BACM, which includes the application of BACT to existing stationary sources [see H.R. Rep. No. 490, 101st Cong., 2d Sess. 276 (1990)]. Therefore, as discussed below, for those areas that will be reclassified as serious, EPA believes it may be reasonable, in some circumstances, for States to consider the consistency of RACM and RACT with the BACM and BACT that will ultimately be implemented under the serious area plans for those areas.

In the case of RACM for area sources, EPA anticipates that any future implementation of BACM for these sources will be additive to, and hence consistent with, RACM. This is because BACM will generally consist of a more extensive implementation of the RACM measures (e.g., paving more unpaved roads, strengthening the components of a smoke management program, imposing additional requirements to improve the performance of wood burning devices). Since EPA anticipates that RACM and BACM for these sources will be consistent, the SIP's for these areas should reflect the application of RACM to appropriate sources as determined by the analysis described above for RACM.

In the case of RACT, review of the State's requirements for RACT on specific stack and process sources should focus on the technological and economic feasibility of control measures. In the case of those moderate PM-10 areas designated nonattainment upon enactment, section 188(b) states that EPA must propose reclassification by June 30, 1991 and take final action on such reclassification by December 31, 1991 with respect to those areas that EPA believes cannot practicably attain by December 31, 1994. Implementation of BACT will be required for sources in the initial moderate areas that EPA so reclassifies approximately 2 years after the deadline for implementation of RACT.[14] In many instances, the installation of pollution controls representing RACT may involve substantial capital expenditures. In the event that BACT is later required for those sources, this may require controls inconsistent with those recently installed

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[14]Under section 189(a), moderate areas designated nonattainment at enactment must implement RACM (including RACT) by December 10, 1993. Under section 189(b) areas reclassified as serious must implement BACM (including BACT) within 4 years after reclassification. If EPA takes final action on December 31, 1991, these areas will be required to implement BACT by December 31, 1995, approximately 2 years after the December 10, 1993 implementation deadline for RACT.

as RACT, largely wasting those recent expenditures. Under such circumstances, the installation of controls in the first round of SIP planning would be unreasonable, and thus, would not constitute RACT. Accordingly, EPA does not expect the SIP's for the initial moderate areas reclassified as serious in December of 1991 to require major changes to the control systems for specific stack and process sources where the State reasonably anticipates that such changes likely will be inconsistent with the application of BACT-level control systems.

In the case of fugitive dust associated with stationary sources, EPA anticipates that the implementation of BACT will be consistent with the implementation of RACT. This is based on the fact that control of such emissions under BACT will generally be additive, i.e., consist of a more extensive application of fugitive dust control measures imposed at RACT. Therefore, EPA expects that, to the extent that control of these sources is technologically and economically feasible, the SIP's for these areas must reflect the application of RACT on fugitive dust associated with stationary sources.

Attainment Date Waiver: Nonanthropogenic Sources. Under section 188(f) of the amended Act, EPA may waive the attainment date for a moderate area where the Administrator determines that nonanthropogenic sources of PM-10 contribute significantly to a violation of the PM-10 NAAQS in the area. Thus, those States having moderate PM-10 nonattainment areas where significant contributions to PM-10 emissions come from sources not caused by humans directly or indirectly may request an attainment date waiver. However, EPA may only waive the attainment data for those moderate areas which fully implement their moderate area SIP requirements [see H.R. Rep. No. 490, 101st Cong., 2d Sess. 265 (1990)]. Thus, any State having a moderate nonattainment area which the State believes may qualify for an attainment date waiver should nevertheless proceed with SIP development and implementation.

In addition, the legislative history suggests that Congress contemplated a narrow definition of what may qualify as "nonanthropogenic" and would limit it to include activities where the human role in the causation of the pollution is highly attenuated (see generally H.R. Rep. No. 490). The House Report states as follows: "The term 'anthropogenic sources' is intended to include activities that are anthropogenic in origin. An example of such sources is the dry lake beds at Owens and Mono Lakes in California, which give rise to dust storms that are a result of the diversion of water that would otherwise flow to such lakes and should be considered anthropogenic sources" (H.R. Rep. No. 490 at 265). The EPA intends to issue additional guidance on the scope of the waiver provision as it applies to both moderate and serious PM-10 nonattainment areas in the near future.

International Border Areas. Under section 179B of the amended Act, a SIP for a moderate nonattainment area affected by emissions originating from sources outside the United States shall be approved by the Administrator provided: (1) such plan meets all the applicable requirements under the Act (including, for example, RACM/RACT), other than a requirement that such a plan or revision demonstrates attainment of the PM-10 NAAQS by the applicable moderate area attainment date; and (2) the SIP demonstrates that the area would attain by that date but for the emissions emanating from outside of the United States. Generally, EPA expects that any such areas will be adjacent to international borders (e.g., El Paso, Texas; Nogales, Arizona; Imperial Valley, California).

Information Contacts. If you have any questions about the general guidance, please contact Tom Pace (FTS 629-5634). For information on specific programs, the staff contacts are: RACT - Ken Woodard (FTS 629-5697); fugitive dust - Robin Dunkins (FTS 629-5335); residential wood combustion - Chris Stoneman (FTS 629-0823); and prescribed burning - Andy Smith (FTS 629-5398). These staff contacts are chairing RACM/BACM task forces.

ATTACHMENT 1

AVAILABLE FUGITIVE DUST CONTROL MEASURES

Background

The available control measures listed below apply to all fugitive dust sources except those to which reasonably available control technology (RACT) is applicable (i.e., fugitive dust associated with stationary sources). Fugitive dust is particulate matter suspended in the air either by mechanical disturbance of the surface material or by wind action blowing across the surface. Mechanical disturbance includes resuspension of particles from vehicles traveling over roadways, parking lots, and other open areas. Wind action includes dust blown off inadequately stabilized open areas. The quantity of fugitive dust emissions is dependent upon several factors such as the size of the source, emission rate, and control efficiency. The Environmental Protection Agency's (EPA) policy is to reduce fugitive dust emissions, with an emphasis on preventing, rather than mitigating, them. For example, past efforts to control emissions from paved roads have usually relied on street cleaning to reduce silt loading. The new approach would put a higher priority on measures to prevent silt from getting on the road surface. Mitigative measures should be reserved for those areas/situations where prevention is not feasible. Technical guidance on fugitive dust control measures is found in Control of Open Fugitive Dust Sources (EPA-450/3-88-008 September, 1988).

List of Available Control Measures

1. Pave, vegetate, or chemically stabilize access points where unpaved traffic surfaces adjoin paved roads.

2. Require dust control plans for construction or land clearing projects.

3. Require haul trucks to be covered.

4. Provide for traffic rerouting or rapid clean up of temporary (and not readily preventable) sources of dust on paved roads (water erosion runoff, mud/dirt carryout areas, material spills, skid control sand). Delineate who is responsible for cleanup.

5. Prohibit permanent unpaved haul roads, and parking or staging areas at commercial, municipal, or industrial facilities.

6. Develop traffic reduction plans for unpaved roads. Use of speed bumps, low speed limits, etc., to encourage use of other (paved) roads.

7. Limit use of recreational vehicles on open land (e.g., confine operations to specific areas, require use permits, outright ban).

8. Require improved material specification for and reduction of usage of skid control sand or salt (e.g., require use of coarse, nonfriable material during snow and ice season).

9. Require curbing and pave or stabilize (chemically or with vegetation) shoulders of paved roads.

10. Pave or chemically stabilize unpaved roads.

11. Pave, vegetate, or chemically stabilize unpaved parking areas.

12. Require dust control measures for material storage piles.

13. Provide for storm water drainage to prevent water erosion onto paved roads.

14. Require revegetation, chemical stabilization, or other abatement of wind erodible soil, including lands subjected to water mining, abandoned farms, and abandoned construction sites.

15. Rely upon the soil conservation requirements (e.g., conservation plans, conservation reserve) of the Food Security Act to reduce emissions from agricultural operations.

ATTACHMENT 2

AVAILABLE RESIDENTIAL WOOD COMBUSTION CONTROL MEASURES

Background

Wood smoke from residential wood stoves and fireplaces is a significant source of PM-10 pollution in areas in the western United States that do not attain the PM-10 ambient air quality standards. In some mountain communities, atmospheric inversions can trap wood smoke particulates in valleys and cause PM-10 concentrations to reach levels well in excess of the standards.

The U.S. EPA's new source performance standard (53 FR 5860, February 26, 1988) is a long-term strategy designed to improve the performance of wood burning devices nationwide. Alone, though, it will not result in attainment of the PM-10 air quality standards in areas affected by wood smoke. Additional available control measures are listed below. They are intended to (1) reduce emissions from current stoves through inspections, education, and shifting to cleaner stoves or fuel; (2) curtail the use of wood stoves or fireplaces during adverse meteorological conditions; and (3) limit future growth in emissions. Additional guidance on these measures is contained in EPA-450/2-89-015 (September 1989), Guidance Document for Residential Wood Combustion Control Measures. Nothing in this document prevents a State implementation plan (SIP) in a moderate PM-10 nonattainment area from containing control measures more stringent than RACM.

List of Available Control Measures

1. Establish an episode curtailment program, including: a curtailment plan; a communication strategy to implement the plan; a surveillance plan (e.g., "windshield" survey, opacity trigger); and enforcement provisions including procedures, penalties, and exemptions). A voluntary program will be deemed reasonable if the area demonstrates attainment.

2. Establish a public information program to inform and educate citizens about stove sizing, installation, proper operation and maintenance, general health risks of wood smoke, new technology stoves, and alternatives to wood heating.

3. Encourage improved performance of woodburning devices by:

   - Establishing a program to identify, through opacity observation, deficiencies in stove operation and maintenance. (Under such a program, advice and assistance should be provided to the identified households to help reduce visible emissions from their devices.)

   - Providing voluntary dryness certification programs for dealers and/or making free or inexpensive wood moisture checks available to burners.

   - Evaluating and encouraging, as appropriate, the accelerated changeover of existing devices to new source performance standard or other new technology stoves (e.g., hybrid designs, pellet stoves) by such approaches as subsidized stove purchases tax credits or other incentives.

4. Provide inducements that would lead to reductions in the stove and fireplace population (or use) by:

   - Slowing the growth of woodburning devices in new housing units by taxes, installation permit fees, or other disincentives.

   - Encouraging a reduction in the number of woodburning devices (i.e., removing or disabling the devices) through tax credits or other incentives.

   - Discouraging the resale of used stoves through taxes, fees, or other disincentives.

   - Discouraging the availability of free (or very inexpensive) firewood by increasing cutting fees or limiting the cutting season.

ATTACHMENT 3

PRESCRIBED BURNING CONTROL MEASURES

BACKGROUND

Prescribed burning, including silvicultural and agricultural burning, is a contributor to PM-10 nonattainment in some Regions. In many cases, well established smoke management approaches are not being followed, resulting in avoidable air quality problems. The EPA has been working closely with the National Wildfire Coordinating Group (NWCG) to develop appropriate guidance. The objective is to establish smoke management (SM) programs in these areas which constitute reasonably available control measures (RACM), and reduce population exposure to smoke from open burning, while assuring that resource management goals are met.

States should address emissions from open burning in a manner that balances natural resource, agricultural, and other burning objectives with air quality goals and objectives, by utilizing a smoke management program as described in the NWCG's Prescribed Fire Smoke Management Guide (NFES No. 1279, February 1985) and the Prescribed Fire Plan Guide (NFES No. 1939, August 1986), publications of the Boise (Idaho) Interagency Fire Center.

The scope of a SM program should reflect the specific conditions and requirements of a local area. Existing programs may be adequate in many cases and in other cases may provide a basis for developing a refined program. Smoke management should encourage the cooperative efforts of local, State, Federal, and private land managers. Emphasis should be on conducting burns under an established planning process.

For the purpose of PM-10 SIP development, the term prescribed burning includes all open burning of vegetative matter. This includes both planned ignition and prescribed natural fire. Nothing in an SM program constituting RACM is intended to influence vegetation management or fire suppression practices so as to increase the potential for wildfire to the point that natural resources or public safety are compromised.

The RACM should apply in those moderate PM-10 nonattainment areas where it has been shown, through monitoring, modeling, or other analysis that prescribed burning can or does contribute to exceedances of the PM-10 national ambient air quality standards (NAAQS). The SM program should also apply to areas outside of the nonattainment area if it is shown that prescribed burning outside of the nonattainment area can or does contribute to the exceedances. The prescribed burning RACM may be limited only to the season(s) when PM-10 exceedances occur, if it can be shown that the annual PM-10 NAAQS is not violated.

Source categories (e.g., burning of fencelines, ditch banks, small brush piles, small prescribed natural burns, garden plots) may be exempted from RACM requirements based on consideration of their collective influence on PM-10 emissions, their duration, season, and proximity to potentially affected populations.

An SM program to constitute RACM should consist of at least the following components:

SMOKE DISPERSION EVALUATION

As a minimum, the program should use National Weather Service forecasts or other meteorological analyses to determine when meteorological conditions are favorable or unfavorable for dispersion and transport of smoke (i.e., "burn days," "no burn days").

BURN PLANNING, AUTHORIZATION, AND ADMINISTRATION

The smoke management program should provide a process (e.g., telephone call-in) for receiving burn requests, evaluating requests and granting approval for burns. Approval of a burn should be based on an evaluation of the airshed's capacity/capability to disperse emissions on allowable burn days so that the cumulative emissions from all burns and other sources in the airshed will not cause or contribute to exceedances of the PM-10 NAAQS. The approval to burn on a burn day should be equitably divided among all categories of burners requesting approval to burn while accommodating the "incentives" specified elsewhere in this policy.

REQUIREMENTS FOR ENSURING BURNER QUALIFICATIONS

Voluntary training in smoke management techniques should be reasonably available for all burners. The program should include incentives for burners who complete the voluntary training (e.g., priority for approval to burn on "burn days").

PUBLIC EDUCATION AND AWARENESS

Information programs on the nature of and reasons for smoke management should be periodically presented to the public (e.g., public service announcements, newspaper articles).

SURVEILLANCE AND ENFORCEMENT

The SM program should rely on routine PM-10 monitoring, and/or modeling supplemented by periodic visual assessments of the effectiveness of the dispersion evaluation program. The existing PM-10 monitoring network should be evaluated for its ability to provide information on the effectiveness of RACM as applied to burning conducted in and near the nonattainment area.

The network should be modified as appropriate. The program should also provide a process for documenting and following up on public complaints and should provide for and levy fines against burners who violate any of its mandatory requirements.

EMISSION INVENTORIES AND EMISSION REDUCTION EFFORTS

States should develop and maintain an emission inventory for prescribed burning and all burns should be categorized as to their purpose. Documentation of the size, date, purpose, and emission reduction measures used should be submitted following each large burn. Emission reduction techniques (e.g., mass ignition, rapid mop-up) should be encouraged and incentives (e.g., priority for approval to burn on "burn days") should be offered for demonstrated emission reduction efforts, including the use of alternatives to burning, provided that such incentives can be utilized without compromising resource management objectives.

STATE OVERSIGHT

The relationship of the State air pollution agency with other State agencies to which management of the SM program may have been delegated will need to be determined on a State-by-State basis. Nevertheless, State rules and regulations should be enacted in such a manner that all provisions of the SM program are enforceable by the State through its State implementation plan. Generally, memorandums of understanding should be utilized to clearly specify working relationships among agencies.

ATTACHMENT 4

RACT DETERMINATIONS FOR STATIONARY SOURCES

BACKGROUND

Congress has for the second time in amending the Clean Air Act (Act) specifically required that reasonable available control technology (RACT) be applied to existing stationary sources in nonattainment areas. In section 172(b)(3) of the Act, as amended in 1977, Congress specified that nonattainment area plans were to "require, . . . reasonable further progress . . . including such reduction in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology." Thus, RACT was required in SIP's developed for areas that were designated nonattainment for total suspended particulate matter. Now, in section 172(c)(1) of the Clean Air Act, as amended by the Clean Air Act Amendments of 1990 (Nonattainment Plan Provisions - In General), Congress again requires that nonattainment area plans provide for ". . . such reductions in emissions from existing sources in the [nonattainment] area as may be obtained through the adoption, at a minimum, of reasonably available control technology." Thus, RACT is now required for PM-10 nonattainment area SIP's.

The RACT for a particular source has always been determined on a case-by-case basis considering the technological and economic feasibility of reducing emissions from that source (through process changes or add-on control technology). The following technological and economic parameters should be considered in determining RACT for a particular source.

TECHNOLOGICAL FEASIBILITY

The technological feasibility of applying an emission reduction method to a particular source should consider the sources's process and operating procedures, raw materials, physical plant layout, and any other environmental impacts such as water pollution, waste disposal, and energy requirements. The process, operating procedures, and raw materials used by a source can affect the feasibility of implementing process changes that reduce emissions and the selection of add-on emission control equipment. The operation of and longevity of control equipment can be significantly influenced by the raw materials used and the process to which it is applied. The feasibility of modifying processes or applying control equipment is also influenced by the physical layout of the particular plant. The space available in which to implement such changes may limit the choices and will also affect the costs of control.

Reducing air emissions may not justify adversely affecting other resources by increasing pollution of bodies of water, creating additional solid waste disposal problems or creating excessive energy demands. [A PM-10 control technology may not be reasonable if these other environmental impacts cannot reasonably be mitigated.] For analytic purposes, a State may consider a PM-10 control measure technologically infeasible if, considering the availability (and cost) of mitigative adverse impacts of that control on other pollution media, the control would not, in the State's reasoned judgment, provide a net environmental benefit. In many instances, however, PM-10 control technologies have known energy penalties and adverse effects on other media, but such effects and the cost of their mitigation are also known and have been borne by owners of existing sources in numerous cases. Such well-established adverse effects and their costs are normal and assumed to be reasonable and should not, in most cases, justify nonuse of the PM-10 control technology. The costs of preventing adverse water, solid waste and energy impacts will also influence the economic feasibility of the PM-10 control technology.

Alternative approaches to reducing emissions of particulate matter including PM-10 are discussed in Control Techniques for Particulate Emissions from Stationary Sources - Volume I (EPA-450/3-81-005a) and Volume II (EPA-450/3-81-005b), September 1982. The design, operation and maintenance of general particulate matter control systems such as mechanical collectors, electrostatic precipitators, fabric filters, and wet scrubbers are discussed in Volume I. The collection efficiency of each system is discussed as a function of particle size. Information is also presented regarding energy and environmental considerations and procedures for estimating costs of particulate matter control equipment. The emission characteristics and control technologies applicable to specific source categories are discussed in Volume II. Secondary environmental impacts are also discussed.

Additional sources of information on control technology are background information documents for new source performance standards and Identification, Assessment, and Control of Fugitive Particulate Emissions, EPA-600/8-86-023, August 1986.

ECONOMIC FEASIBILITY

Economic feasibility considers the cost of reducing emissions and the difference in costs between the particular source and other similar sources that have implemented emission reductions. As discussed above, EPA presumes that it is reasonable for similar sources to bear similar costs of emission reduction. Economic feasibility rests very little on the ability of a particular source to "afford" to reduce emissions to the level of similar sources. Less efficient sources would be rewarded by having to bear lower emission reduction costs if

ATTACHMENT 5

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

MAR 4 1991

MEMORANDUM

SUBJECT: PM-10 SIP Attainment Demonstration Policy for Initial Moderate Nonattainment Areas

FROM: John Calcagni, Director
Air Quality Management Division (MD-15)

William G. Laxton, Director
Technical Support Division (MD-14)

TO: Director, Air, Pesticides, and Toxics Management Division, Regions I, IV, VI
Director, Air and Waste Management Division Region II
Director, Air Management Division Regions III and IX
Director, Air and Radiation Division Region V
Director, Air and Toxics Division Regions VII, VIII, X

Overview

The purpose of this memorandum is to document EPA's attainment demonstration policy for initial moderate PM-10 nonattainment areas, i.e., those designated nonattainment upon enactment of the Clean Air Act Amendments of 1990 and, by operation of law, classified as moderate upon enactment. This policy supplements the attainment demonstration guidance set forth in the PM-10 SIP Development Guideline (June 1987), the Guideline on Air Quality Models (Revised), and the memorandum from Joseph Tikvart and Robert Bauman dated July 5, 1990. It is limited in application to those moderate PM-10 nonattainment areas designated nonattainment at enactment, all of which have a November 15, 1991 deadline for submitting attainment demonstrations and other State implementation plan (SIP) requirements. The short period in which the statute mandates the demonstration submittal for these areas has been an important factor in EPA's decision to supplement its attainment demonstration policy.

Policy

Generally, all SIP submittals for the initial moderate PM-10 nonattainment areas should follow the existing guidance on PM-10 modeling as noted above. In the situation where an area has completed or can complete its demonstration by November 15, 1991 consistent with existing guidance, an attainment demonstration based on the existing guidance should be submitted. However, in those situations where time constraints, inadequate resources, inadequate data bases, lack of a model for some unique situations, and other unavoidable circumstances would leave an area unable to submit an attainment demonstration within the short timeframe provided by the newly revised law, then a modified demonstration based on this policy statement may be submitted. Section 189(a)(1)(B) of the recently revised Clean Air Act requires that all modified demonstrations be based on some form of "air quality modeling." In addition, 40 CFR §51.112 requires that a demonstration be shown to be "adequate and appropriate." This supplemental policy is issued in accordance with these statutory and regulatory requirements.

All such modified demonstrations should be accompanied by the following:

1. Documentation of Modified Modeling Method. Documentation of the procedures or analyses used in lieu of those set forth in the previously issued guidance.

2. Rationale for Modified Demonstration. An explanation of why the alternative modeling techniques set forth in the guidance were not used.

3. Justification of Modified Demonstration. A description of how and why the SIP provides an adequate and appropriate demonstration of areawide attainment. If the design value contained in the demonstration is based on monitoring data, the justification should also:

(a) Show that the SIP is based on at least one full year of data from an approved network that meets EPA's quality assurance requirement. Also, the justification should contain a review of the monitoring data (e.g., data completeness, prescribed sampling frequency) in accordance with EPA's SIP development guidance. The justification should also include a review the network's ability to identify the point of maximum concentration and the impact of most significant sources.

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
)
PM-10 EMISSION LIMITS IN THE) R91 - 22
McCOOK AND LAKE CALUMET AREAS) (Rulemaking)
IN COOK COUNTY, ILLINOIS,)
AND THE GRANITE CITY AREA)
IN MADISON COUNTY, ILLINOIS)

TABLE OF CONTENTS OF REGULATORY SUBMITTAL

Following is a Table of Contents of all pleadings and documents included with this regulatory proposal:

C Report titled "Meetings to Discuss PM-10 Rule Development, April 1990 - August 1991"

D Report titled "Emissions Inventory Report for McCook, Lake Calumet, and Granite City PM-10 Study Areas"

E Report titled "An Assessment of PM-10 Air Quality in the McCook, Lake Calumet, and Granite City Study Areas"

F Report titled "Discussion of the PM-10 Rule Proposal"

G Report titled "Meeting National Ambient Air Quality Standards in Illinois: PM-10: Estimating Costs of Control Methodology"

LB:jmm/sp/558M

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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

IN THE MATTER OF:	)	
	)	
PM-10 EMISSION LIMITS IN THE MCCOOK AND LAKE CALUMET AREAS IN COOK COUNTY, ILLINOIS, AND THE GRANITE CITY AREA IN MADISON COUNTY, ILLINOIS	)	R 91-22

NOTICE

TO: Dorothy M. Gunn, Clerk
Illinois Pollution Control Board
100 W. Randolph St., Suite 11-500
Chicago, Illinois 60601

William Denham
Department of Energy & Natural Resources
325 West Adams Street, Room 300
Springfield, Illinois 62704

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Pollution Control Board 4 Complete Packages and 6 Partial Packages of the Regulatory Proposal of the Illinois Environmental Protection Agency for PM-10 Emission Limits for the McCook and Lake Calumet Areas in Cook County, Illinois, and the Granite City Area in Madison County, Illinois a copy of which is herewith served upon you.

ENVIRONMENTAL PROTECTION AGENCY
OF THE STATE OF ILLINOIS

By: Julia M. Gentile
Julia M. Gentile
One of its Attorneys
Division of Legal Counsel

Date: August 14, 1991
Agency File #

2200 Churchill Road, P.O. Box 19276
Springfield, Illinois 62794-9276
(217)782-5544

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	
PM-10 Emission Limits For the	)	R91-22
McCook and Lake Calumet Areas	)	(Rulemaking)
in Cook County, Illinois and	)	
the Granite City area in	)	
Madison County, Illinois	)	

APPEARANCE

I hereby file my Appearance in this proceeding on behalf of the Illinois Environmental Protection Agency.

Kathleen C. Bassi
Associate Legal Counsel

DATED: August 14, 1991

Illinois Environmental Protection Agency
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-5544

JG:sf/2045q,20

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	
PM-10 Emission Limits For the McCook and Lake Calumet Areas in Cook County, Illinois and the Granite City area in Madison County, Illinois	)	R91- (Rulemaking)

APPEARANCE

I hereby file my Appearance in this proceeding on behalf of the Illinois Environmental Protection Agency.

Julia M. Gentile
Assistant Legal Counsel

DATED: August 14, 1991

Illinois Environmental Protection Agency
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-5544

JG:sf/2045q,51

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:

PM-10 EMISSION LIMITS FOR THE MCCOOK AND LAKE CALUMET AREAS IN COOK COUNTY, ILLINOIS, AND THE GRANITE CITY AREA IN MADISON COUNTY, ILLINOIS.

R91-22

IEPA PROPOSAL OF REGULATIONS

The Illinois Environmental Protection Agency moves that the Illinois Pollution Control Board adopt the following attached regulations.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

By: M. A. Gade
Mary Gade
Director

DATED: August 14, 1991

2200 Churchill Road
P.O. Box 19276
Springfield, Illinois 62794-9276
217/782-5544

JG/mls/2194q/49

R91-22

AGENCY ANALYSIS
OF ECONOMIC AND BUDGETARY EFFECTS OF PROPOSED RULEMAKING

Agency: Pollution Control Board

Heading of the Part: PART 211 DEFINITIONS AND GENERAL PROVISIONS

Administrative Code Citation: 35 Ill. Adm. Code 211.122

Signature of Agency Head: M A Haden

What are the legal reasons for the proposed agency action? Please provide a citation to the Public Act or law, Code of Federal Regulations or copy of the case. Check as many as are applicable:

Illinois Public Act		
Federal Law	X	Clean Air Act 42 U.S.C. par.
State Court Decision		7401 et seq. as amended (1990)
Federal Court Decision		
Federal Rules or Regulations	X	52 FR 24634 (July 1, 1987)
State Administrative Decision		
Other (Please Specify)		

What is the Agency's policy objective for the proposed rulemaking?
The Agency's policy objective is to propose enforceable State regulations for submission to the USEPA as the PM-10 State Implementation Plan (SIP) for the McCook, Lake Calumet, and Granite City, Illinois areas that will bring about attainment and maintenance of the National Ambient Air Quality Standards (NAAQS) for PM-10.

A. Economic Effect on the Persons Regulated by the Rule

1. What will the economic effect be on persons who will be regulated by the proposed rulemakings? Please complete the following:

(a) The economic effect on persons regulated will be:

Please check: Positive _____, Negative _____, No Effect X.

(b) The approximate economic impact in dollars will be: $ N/A.

Note: If the dollar amount is unknown, please outline and attach to this form a specific and detailed explanation of the steps taken by the Agency to determine the approximate impact of the rulemaking.

(c) Will the rulemaking have an impact upon any existing

grants or contracts within the current contract period?

(1) Please check: Yes _____ No X

(2) If so, please explain:

2. Will there be any new reporting requirements as a result of this rulemaking?

(a) Please check: Yes _____ No X

(b) If so, please specify:

(c) Specify the approximate number of person hours needed annually to complete the current reporting requirements.

Please check:
1 - 4 hours _____
5 - 12 hours _____
13 - 25 hours _____
25 or more _____
N/A

3. Does the proposed rulemaking change any current reporting requirements?

(a) Please check: Yes _____ No X

(b) If yes, please specify:

(c) Specify the approximate number of person hours needed annually to complete the current reporting requirements.

Please check:
1 - 4 hours _____
5 - 12 hours _____
13 - 25 hours _____
25 or more _____
N/A

4. What is the schedule for completing the reporting requirements?

Please check:
Daily _____
Weekly _____
Monthly _____
Quarterly _____
Semi-Annually _____
Annually _____
Other _____
(please specify)
N/A

5. Please circle the number of employees that will be needed to complete the required reporting requirements.

1 2 3 4 5 More than 5 _____ (please specify)

6. Reporting requirements will best be handled by:

Please check:

Typist	_____
Bookkeeper	_____
Word Processor	_____
Computer Input Operator	_____
Executive Secretary	_____ N/A
College Graduate	_____
Accountant	_____
Attorney	_____
Supervisory Personnel	_____
Private Consultant	_____
Other (Please specify)	_____

7. Does the proposed rulemaking require the completion of any forms?

Yes _____ No ___X___

(a) If yes, how many forms? _____

(b) Specify the number of pages of the form or forms: _____

(c) Will the proposed rulemaking require forms to be submitted to the agency?

Yes _____ No ___X___

8. Please circle the business sector or sectors that will be affected by the proposed rulemaking. Indicate the total number of individual firms, the total number of employees, and the number of individual firms in the business sector or sectors affected in Illinois.

Business Sector	Total Number of Individual Firms in the Business Sector	Total Number of Employees in the Business Sector	Number of Individual Firms in the Business Sector Affected in Illinois
Agriculture	_____	_____	_____
Construction	_____	_____	_____
Finance	_____	_____	_____
Fishing	_____	_____	_____
Forestry	_____	_____	_____
Insurance	_____	_____	_____
Manufacturing	_____	_____	_____
Mining	_____	_____	_____
Professional Services	_____ N/A	_____	_____
Real Estate	_____	_____	_____
Retail Trade	_____	_____	_____
Services	_____	_____	_____
Transportation	_____	_____	_____
Wholesale Trade	_____	_____	_____
*All Sectors of Business	_____	_____	_____
*Other (please specify below)	_____	_____	_____

9. Please circle the number of regulatory alternatives considered by the agency:

0 1 2 3 4 5 6 7 8 9 10

If more than 10, please specify the number: _____

(a) Were any alternatives considered to minimize the burden on small businesses?

Yes _____ No X No effect

If yes, please specify the alternatives considered and why they were rejected.

(b) Were any other alternatives considered?

Yes _____ No __X__

If yes, please specify the alternatives considered and why they were rejected.

Note: If additional space is needed please provide an attachment.

B. Anticipated Cost of the Regulation on the Proposing Agency's Budget

1. Will the proposed rulemaking implement a new program?

(a) Yes _____ No __X__

(b) If yes, please provide the program title.

2. Will the proposed rulemaking change an existing program?

(a) Yes _____ No __X__

(b) If yes, please provide the program title.

3. What is the anticipated effect of the proposed rulemaking on the agency's budget?

(a) Please check: Increase _____ Decrease _____
No Change __X__

(b) If an increase or decrease is anticipated, specify the fiscal year in which this change will first occur.

FY _____

(c) For the fiscal year specified above, please provide the fund allocations earmarked for this program.

Fund Name __N/A__
Organizational Unit _____

Personal Services	$ _____
Retirement Contributions	_____
Social Security	_____
Group Insurance	_____
Contractual Services	_____
Travel	_____ _____
Commodities	_____ _____
Printing	_____

Equipment _____
Electronic Data Processing _____
Telecommunications Services _____
Operation Auto Equipment _____
Total $ _____

Note: If the agency has not broken down it allocation for this particular program by the above line items, it should so indicate, and provide a total amount.

4. Has the agency received any federal grants to implement the proposed rulemaking?

(a) Please specify: Yes _____ No __X__

(b) If yes, please specify the fiscal year in which the federal grants will first be received. FY _____.

(c) Please provide the federal fund number, as reported to the Bureau of the Budget: _____.

(d) For the fiscal year specified above, please provide the budget allocations earmarked for this program.

Fund Name _____
Organizational Unit _____

Personal Services $ _____
Retirement Contributions _____
Social Security _____
Group Insurance _____
Contractual Services _____
Travel _____
Commodities _____
Printing _____
Equipment _____
Electronic Data Processing _____
Telecommunications Services _____
Operation Auto Equipment _____
Total $ _____

Note: If the agency has not broken down its allocation for this particular program by the above line items, it should so indicate, and provide a total amount.

5. Will the proposed rulemaking require any forms to be submitted to the agency?

Yes _____ No __X__

(a) If yes, how many forms? _____

(b) Specify number of pages of the form or forms: ____

(c) Please circle the number of agency employees needed to review the forms:

1 2 3 4 5

If less than 1, or more than 5 please specify: ___

6. Will the proposed rulemaking require any forms to be reviewed and analyzed by the agency on a periodic basis?

Yes _____ No ___X___

(a) If yes, how many forms? _____

(b) Specify number of pages of the form or forms: ____

(c) Please circle the number of agency employees needed to review the forms:

1 2 3 4 5

If less than 1, or more than 5 please specify: __

7. Will the proposed rulemaking require that reports be reviewed and analyzed by the agency on a periodic basis?

Yes _____ No ___X___

(a) If yes, how many reports? _____

(b) Specify number of pages of the report or reports: _____

(c) Please circle the number of times the reports will be analyzed annually:

1 2 3 4 5

If less than 1, or more than 5 please specify: __

8. Which of the following best describes how these forms and reports are maintained by the agency? Please check all that apply.

Computerized	N/A
Analyzed in Detail	
Reviewed	
Occasionally	
Manually Filed	
Filed for Future Reference	
Never Looked at	

Discarded _____

C. Anticipated Cost of the Regulation on Other State Agencies

1. What is the anticipated effect of the proposed rulemaking on the budgets of other states agencies?

(a) Increase _____ Decrease _____
No Change ___X___ No Effect _____

(b) If an increase or decrease is anticipated, specify the fiscal year in which this change will first occur.

FY _____

(c) For the fiscal year specified above, please provide the budget allocations earmarked for this program.

Federal Fund Name N/A
Organizational Unit _____

Personal Services	$ _____
Retirement Contributions	_____
Social Security	_____
Group Insurance	_____
Contractual Services	_____
Travel	_____
Commodities	_____
Printing	_____
Equipment	_____
Electronic Data Processing	_____
Telecommunications Services	_____
Operation Auto Equipment	_____
Total	$ _____

Note: If the agency has not broken down its allocation for this particular program by the above line items, it should so indicate, and provide a total amount.

2. Other than budgetary effects, will the proposed rulemaking in any way effect another state agency's policies?

(a) Yes _____ No ___X___

(b) If yes, please specify:

D. Anticipated Cost of the Regulation and its Programs on State Revenue

1. What is the anticipated effect of the proposed rulemaking on State revenue?

(a) Increase _____ Decrease _____

No change X

(b) If an increase or decrease is anticipated, specify the fiscal year in which this change will first occur.

FY _____

(c) If an increase or decrease is anticipated for the fiscal year specified above, please provide the following:

(a) Dollar amount $_____

(b) Fund name _____

2. If the rulemaking has a positive effect on State revenue, will the money be deposited in the State Treasury?

Yes _____ No _____

3. Will it be necessary for the General Assembly to appropriate any monies generated from this rulemaking proposal prior to its expenditure?

(a) Yes _____ No X

(b) If yes, please specify the month and year when final General Assembly action will be necessary.

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	
PM-10 EMISSION LIMITS FOR THE MCCOOK AND LAKE CALUMET AREAS IN COOK COUNTY, ILLINOIS, AND GRANITE CITY AREA IN MADISON COUNTY, ILLINOIS.	)	R91-22

AGENCY CERTIFICATION THAT THIS PROPOSED RULE IS FEDERALLY REQUIRED

The Illinois Environmental Protection Agency ("Agency") has reviewed the applicable provisions of the Clean Air Act (42 U.S.C. § 7401 et seq. (1983)("CAA"), the 1990 Amendments to the Clean Air Act (P.A. 101-549 ("CAAA") and Section 28.2 of the Illinois Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1028.2 ("Act") and certifies that this regulatory package (R91___: PM-10 Emission Limits For the McCook and Lake Calumet areas in Cook County, Illinois and Granite City area in Madison County, Illinois) meets the "required rule" definition as set forth in Section 28.2(a) of the Act and moves the Board to find this proposal to be "required rule," to initiate regulatory proceedings, and to move expeditiously to First Notice and hearing.

Section 28.2 of the Act states that a "required rule" is " a rule that is needed to meet the requirements of ... the Clean Air Act (including required submission of a State Implementation Plan)...." Ill. Rev. Stat., 1989, ch. 111 1/2, par. 1028.2. Section 110 of the CAA requires that each state adopt and submit to United States Environmental Protection Agency ("USEPA") a plan which provides for the implementation, maintenance, and enforcement of national ambient air quality standards ("NAAQS") (42 U.S.C. § 7410).

On July 1, 1987, at 52 Fed. Reg. 24634 and pursuant to authority found in Sections 108 and 109 of the CAA (42 U.S.C. §§7408, 7409), the USEPA promulgated the NAAQS for particulate matter with an aerodynamic diameter of not more than 10 micrometers ("PM-10"). The standards set were 24 hour 150 ug/m^3 and an annual standard of 50 ug/m^3.

On August 7, 1987, at 52 Fed. Reg. 19383, the McCook and Lake Calumet areas in Cook County and the Granite City area in Madison County were designated as Group I areas for PM-10 because these areas had a 95% probability of not attaining the PM-10 NAAQS established by the USEPA. On May 16, 1990, at 55 Fed Reg. 20265, the USEPA directed that the Oglesby area in LaSalle County also be subject to a Group I analysis.

On November 15, 1990, Section 188 of the CAAA classified the above areas as nonattainment areas for PM-10 and imposed a SIP submittal date of Nobember 15, 1991. 42 U.S.C. § 7513(a).

Failure to make a timely submittal would subject the State of Illinois to sanctions, as provided by CAA in the event of non-compliant. Additionally, Section 179(a)(3)(A) of the CAAA provides that a non-compliant state may be subject to one of two available sanctions, i.e., highway funding §179(b)(1)) and higher offset requirement (§179(b)(2)). However, should the Administrator find the state lacking in good faith in working toward compliance, both sanctions shall apply until such time as the state achieves compliance (§179(a)(4)). Thus, it is incumbent that these proposed regulations for all four areas be expeditiously promulgated as final regulations to allow timely submission to USEPA by November 15, 1991.

This regulatory package is directed at the McCook, Lake Calumet, and Granite City areas and represents a strategy for achieving and maintaining the ambient air quality standards for PM-10 in three of the four geographic areas

in Illinois which require additional regulation to control PM-10 emissions. This proposal will enable Illinois to fulfill its obligation to adopt federally approvable and enforceable regulations to ensure the attainement and maintenance of the PM-10 NAAQS for Illinois. A regulatory proposal covering the Oglesby area entitled, "PM-10 Emission Limits for the Portland Cement Manufacturing Plant and Associated Quarry Operations Located South of the Illinois River in LaSalle County, Illinois," in Proceeding R91-6, was previously submitted and remains pending before the Board.

The Agency hereby certifies that its proposal meets the definition of "required rule". In support thereof, this Certification is accompanied by a confirmation letter signed by David A. Kee, Director of the Air and Radiation Division, USEPA Region V, verifying that the Agency's Certification is correct, and that the proposed rules are federally required due to the requirements of Clean Air Act.

WHEREFORE, in light of the foregoing, the Agency moves the Board to find this regulatory proposal to be a "required rule" under Section 28.2 of the Act and to initiate the regulatory proceedings according to the rules and procedures set forth in Section 28.2.

The Agency further moves that pursuant to Section 28.2(b), the Board accept this Certification within 45 days of receipt and reference such Certification in the first notice publication in the Illinois Register.

The Agency further moves the Board to submit this regulatory proposal for first notice publication as expeditiously as practicable, giving due consideration to the Federal deadline of November 15, 1991 for submission to USEPA.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BY: Julia M. Gentile

Julia M. Gentile
Assistant Counsel
Division of Air Pollution Control

DATED: August 14, 1991

2200 Churchill Road, P.O. Box 19276
Springfield, Illinois 62794-9276
217/782-5544

JMG:sad/1897q, 1-4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

AUG 02 1991

REPLY TO ATTENTION OF:

Bharat Mathur, Manager
Division of Air Pollution Control
Illinois Environmental Protection Agency
P.O. Box 19276
Springfield, Illinois 62794-9276

RE: Section 28.2 of the Illinois Environmental Protection Act

Dear Mr. Mathur:

The National Ambient Air Quality Standards ("NAAQS") for Particulate Matter (PM) were promulgated by the United States Environmental Protection Agency (USEPA) on July 1, 1987, at 52 Fed. Reg. 24634 pursuant to Sections 108 and 109 of the Clean Air Act (42 U.S.C. 7408, 7409). Section 110 of the Clean Air Act requires Illinois to prepare a federally approvable State Implementation Plan to achieve and maintain the ambient air quality standards (42 U.S.C. 7410).

By operation of law and pursuant to Section 107(d)(4)(B) of the Clean Air Act, the McCook, Lake Calumet, and Granite City areas of Illinois are nonattainment for PM. Consequently, Illinois must submit a plan which meets the requirements of the Clean Air Act, as amended, no later than November 15, 1991. The proposed rules concerning PM emission limits entitled, "PM-10 Emission Limits for the McCook and Lake Calumet Areas in Cook County, Illinois and the Granite City Area in Madison County, Illinois", are directed to those three geographic areas in Illinois in need of additional regulation to control PM emissions. This regulatory proposal would enable the State of Illinois to fulfill its obligation to develop and adopt enforceable regulations to ensure attainment of the PM NAAQS.

Therefore, I certify and confirm that the Illinois Environmental Protection Agency Certification is correct in that PM rules for the three above-cited areas are federally required by the Clean Air Act.

Sincerely yours,

David Kee, Director
Air and Radiation Division

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	
PM-10 EMISSION LIMITS FOR THE	)	
MCCOOK AND LAKE CALUMET AREAS	)	R91-22
IN COOK COUNTY, ILLINOIS, AND THE	)	(Rulemaking)
GRANITE CITY AREA IN MADISON	)	
COUNTY, ILLINOIS.	)	

MOTION FOR WAIVER OF REQUIREMENTS

NOW COMES the Illinois Environmental Protection Agency ("Agency") by one of its attorneys, and requests that the Illinois Pollution Control Board ("Board") waive certain requirements, namely, that the Agency submit the original and nine copies of the entire proposal, that the Agency submit a copy of the proposal to the Attorney General, that the entire package be submitted at this time, and that copies of incorporations by reference be included in this proposal. In support thereof, the Agency states the following:

1. Section 102.120 requires that the original and nine copies of each proposal shall be filed with the Clerk and one copy each with the Attorney General and ENR. (35 Ill. Adm. Code 102.120.)

a. This entire regulatory proposal will consist of several hundred pages. Recent federal action requires Illinois to submit these rules to USEPA on or before November 15, 1991. Given the length of the proposal and the urgency with which submission must be made for review and timely promulgation, the Agency is requesting that it be allowed to submit four complete copies of the proposal plus six partial copies, the latter consisting of pleadings and the proposed rules absent supporting documentation.

b. On July 18, 1991, the Agency discussed this matter with Mr. Matthew Dunn, Chief of the Environmental Control Division of the Attorney General's Office, who agreed that the Agency need not supply that office with a copy of the proposal, provided that he be formally notified that a proposal has been made and where the proposal could be reviewed. Attached hereto is a copy of a letter to Mr. Dunn to that effect. (See Attachment A)

2. Section 102.121(f) requires the Agency to provide copies of material to be incorporated by reference. All materials in this regulatory package designated as incorporations by reference consist of documents of general reference and, as such, are readily obtainable. None are of an obscure nature. Given the ease of accessibility of these materials and the sheer volume of this regulatory proposal alone, duplication of all materials, without regard to actual need for such duplication, would result in prohibitive costs and a waste of resources.

WHEREFORE, the Agency respectfully requests the Board to grant its request and waive those requirements as noted above.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

By: Julia M. Gentile

Julia M. Gentile
Assistant Counsel
Division of Air Pollution Control

Dated: August 14, 1991

2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-5544

JG:jab/sp2153q/1-2

Attachment A

Illinois Environmental Protection Agency · P. O. Box 19276, Springfield, IL 62794-9276
217/782-5544

August 14, 1991

Mr. Matthew Dunn, Chief
Environmental Control Division
Office of the Attorney General
SOIC, 12th Floor
100 West Randolph Street
Chicago, Illinois 60601

Dear Mr. Dunn:

Re: Regulatory Proposal for PM-10 Nonattainment Areas

Pursuant to our telephone conversation of July 18, 1991, I am hereby formally informing you that the Agency has filed a regulatory proposal with the Illinois Pollution Control Board on this date entitled "PM-10 Emission Limits For the McCook and Lake Calumet Areas in Cook County, Illinois and the Granite City Area in Madison County, Illinois.

The Agency has made this regulatory proposal pursuant to the 1990 Amendments to the Clean Air Act, which require that Illinois adopt federally approvable and enforceable regulations for the PM-10 nonattainment areas by November 15, 1991. This regulatory proposal would enable the State of Illinois to fulfill its obligation and ensure attainment in those areas.

As I indicated to you, the Agency's proposal is lengthy. Therefore, you graciously agreed to the Agency's request that it not be required to make a submittal to the Attorney General as required by 35 Ill. Adm. Code §102.120. The Agency has filed a Motion for Waiver of that requirement with its regulatory submittal. A copy of this letter is attached to that Motion.

Should the Attorney General wish to inspect the Agency's submittal, it can be found at the Office of the Illinois Pollution Control Board on the 11th floor of the State of Illinois Center in Chicago. Attached hereto, however, for your convenience, are copies of the Agency's Certification that these are required rules, the Agency's Statement of Reasons, and the Proposed Rules.

Your cooperation in this matter is sincerely appreciated.

Very truly yours,

Julia Gentile

Julia Gentile
Assistant Counsel
Division of Air Pollution Control

JG:jab/sp2153q/3

Attachment

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	
PM-10 Emission Limits For the McCook and Lake Calumet Areas in Cook County, Illinois, and the Granite City area in Madison County, Illinois.	)	R91-22 (Rulemaking)

MOTION FOR EXPEDITED HEARINGS

NOW COMES the Illinois Environmental Protection Agency ("Agency"), by one of its attorneys, and requests that, after the Board determines that this proposal meets the requirements of Section 102.160(a) and accepts the proposal for hearing, the Board issue an order setting the necessary hearings on the soonest possible dates.

In support of the request for expedited hearings, the Agency states as follows:

1. A Synopsis of the Agency Testimony and its Exhibits have been presubmitted at the time of filing this proposal;

2. Pursuant to the 1990 Clean Air Act Amendments (42 U.S.C. §7401 et seq. as amended by P.A. 101-549 (1990)), each state is required to complete final promulgation of regulations and submit a federally approvable PM-10 SIP by November 15, 1991 for all areas designated nonattainment.

3. The three geographic areas covered by this proposed rulemaking are designated nonattainment areas by virtue of operation of law. 42 U.S.C. §7513(a) As such, the proposed PM-10 state regulations herein must be fully promulgated as final regulations in time to allow a submission to USEPA by November 15, 1991.

4. Failure to meet this federally imposed deadline would subject Illinois to substantial sanctions, including loss of federal grants (42 U.S.C. §7249(b)).

5. The promulgation and implementation of these proposed regulations are expected to assure compliance with the Clean Air Act and the 1990 Amendments and achieve attainment of the PM-10 National Ambient Air Quality Standards in Illinois.

6. In light of the foregoing, it is necessary to expedite the hearing process.

WHEREFORE, taking the above facts into consideration, the Agency respectfully requests the Board to grant its motion and issue an order setting hearings for the soonest possible dates.

Respectfully submitted,

Illinois Environmental Protection Agency

By: Julia M. Gentile
Julia M. Gentile
Assistant Counsel
Division of Air Pollution Control

DATED: August 14, 1991

2200 Churchill Road
Post Office Box 19276
Springfield, ILlinois 62794-9276

JMG/1929q/69-70

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	
PM-10 EMISSION LIMITS FOR THE	)	
McCOOK AND LAKE CALUMET AREAS	)	R91-22
IN COOK COUNTY AND THE GRANITE	)	(Rulemaking)
CITY AREA IN MADISON COUNTY,	)	
ILLINOIS	)	

REQUEST FOR DETERMINATION THAT AN
ECONOMIC IMPACT STUDY SHOULD NOT BE PREPARED

NOW COMES the Illinois Environmental Protection Agency ("Agency"), by one of its attorneys, and requests that the Illinois Pollution Control Board ("Board") pursuant to 35 Ill. Adm. Code 102.181 enter an order expressing the determination that an Economic Impact Study ("EcIS") should not be prepared in the above-titled proceeding.

In support thereof, the Agency states as follows:

1. The Clean Air Act (42 U.S.C. §7401 et seq.) ("CAA") and the 1990 Amendments to the Clean Air Act (P.A. 101-549) ("CAAA") at Section 110(a) set forth the requirement that each state adopt and submit to the United States Environmental Protection Agency ("USEPA") a state implementation plan ("SIP") for achieving and maintaining the national ambient air quality standards for the various air pollutants.

2. On July 1, 1987, at 52 Fed. Reg. 24634 and pursuant to authority found in Sections 108 and 109 of the CAA (42 U.S.C. §§7408, 7409), USEPA promulgated the NAAQS for particular matter with an aerodynamic diameter of less than or equal to a nominal 10 micrometers ("PM-10") and fixed a 24-hour standard of 150 ug/m^3 and an annual standard of 50 ug/m^3.

3. On August 7, 1987, at 52 Fed. Reg. 29383, the McCook and Lake Calumet areas in Cook County and the Granite City area in Madison County were designated as Group I areas for PM-10 because these areas had a 95% probability of not attaining the PM-10 NAAQS established by the USEPA.

4. On November 15, 1990, Section 188 of the Clean Air Act Amendments ("CAAA") classified all such areas as nonattainment areas for PM-10 and imposed a SIP submittal date of November 15, 1991 (42 U.S.C. §7513(a)) thereby placing the State of Illinois under an obligation to adopt federally approvable and enforceable regulations for these areas by November 15, 1991 to ensure the attainment and maintenance of the PM-10 NAAQS.

5. This regulatory package is directed at the McCook, Lake Calumet and Granite City areas and would enable the State of Illinois to fulfill its obligation to develop and adopt enforceable regulations to ensure attainment of the PM-10 NAAQS in those areas.

6. Included with this regulatory package is a report prepared by the Illinois Department of Energy and Natural Resources ("DENR") which describes its investigation into the economic impact of this proposed rulemaking upon affected facilities where such circumstances exist (see Exhibit G). The DENR report demonstrates a reasonable and practicable investigation of those impacts. The Agency has discussed the various additional controls or other possible measures required by imposition of these proposed rules with the affected facilities. Where facilities expressed concerns regarding the impact of the proposed rules, the Agency discussed alternatives which allow the facility to achieve compliance.

Therefore, the Agency maintains no further economic impact study is necessary in light of the efforts of DENR and commitments of affected facilities to take appropriate measures to provide compliance. Compliance with the proposed rules is economically feasible.

WHEREFORE, the Agency requests that the Board grant its request on order that no Economic Impact Study be prepared.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

by Julia M. Gentile

Julia M. Gentile
Assistant Counsel
Division of Air Pollution Control

DATED: August 14, 1991

2200 Churchill Road, P.O. Box 19276
Springfield, Illinois 62794-9276
217/782-5544

LB:jmm/sp/597M/1-3

R91-22

AGENCY ANALYSIS
OF ECONOMIC AND BUDGETARY EFFECTS OF PROPOSED RULEMAKING

Agency: Illinois Pollution Control Board

Heading of the Part: Part 212 - Visible and Particulate Matter Emissions

Administrative Code Citation: 35 Ill. Adm. Code 212.107, 212.108, 212.109, 212.113, 212.316, 212.324, 212.362, 212.425, 212.458, and 212.464

Signature of Agency Head: M. A. Haden

What are the legal reasons for the proposed agency action? Please provide a citation to the Public Act or law, Code of Federal Regulations or copy of the case. Check as many as are applicable:

Illinois Public Act		
Federal Law	X	Clean Air Act 42 U.S.C. par. 7401 et seq. as amended (1990)
State Court Decision		
Federal Court Decision		
Federal Rules or Regulations	X	52 Fed Reg 24634 (July 1, 1987)
State Administrative Decision		
Other (Please Specify)		

What is the Agency's policy objective for the proposed rulemaking?
The Agency's policy objective is to propose enforceable State regulations for submission to the USEPA as the PM-10 State Implementation Plan (SIP) for the McCook, Lake Calumet, and Granite City areas in Illinois that will bring about attainment and maintenance of the National Ambient Air Quality Standards (NAAQS) for PM-10.

A. Economic Effect on the Persons Regulated by the Rule

1. What will the economic effect be on persons who will be regulated by the proposed rulemakings? Please complete the following:

(a) The economic effect on persons regulated will be:

Please check: Positive _____, Negative X, No Effect _____.

(b) The approximate economic impact in dollars will be:
$ 4,230,267/year. (All Areas)

Note: If the dollar amount is unknown, please outline and attach to this form a specific and detailed explanation of the steps taken by the Agency to determine the approximate impact of the rulemaking.

(c) Will the rulemaking have an impact upon any existing

grants or contracts within the current contract period?

(1) Please check: Yes _____ No X

(2) If so, please explain:

2. Will there be any new reporting requirements as a result of this rulemaking?

(a) Please check: Yes X No _____

(b) If so, please specify: See Note 1

(c) Specify the approximate number of person hours needed annually to complete the current reporting requirements. No current reporting requirements

Please check:
1 - 4 hours _____
5 - 12 hours _____
13 - 25 hours _____
25 or more _____

3. Does the proposed rulemaking change any current reporting requirements?

(a) Please check: Yes X No _____

(b) If yes, please specify: See Note 2

(c) Specify the approximate number of person hours needed annually to complete the current reporting requirements.

Please check:
1 - 4 hours _____
5 - 12 hours _____
13 - 25 hours _____
25 or more X

4. What is the schedule for completing the reporting requirements?

Please check:
Daily _____
Weekly _____
Monthly _____
Quarterly _____
Semi-Annually _____
Annually _____
Other X (See Note 3)
(please specify)

5. Please circle the number of employees that will be needed to complete the required reporting requirements.

1 2 3 4 5 More than 5 See Note 4 (please specify)

6. Reporting requirements will best be handled by:

Please check:

Typist	
Bookkeeper	
Word Processor	
Computer Input Operator	
Executive Secretary	X
College Graduate	
Accountant	X
Attorney	
Supervisory Personnel	
Private Consultant	X
Other (Please specify)	Engineer/Technical

7. Does the proposed rulemaking require the completion of any forms?

Yes X No

(a) If yes, how many forms? See Attachment 1

(b) Specify the number of pages of the form or forms: See Attachment 1

(c) Will the proposed rulemaking require forms to be submitted to the agency?

Yes X No

8. Please circle the business sector or sectors that will be affected by the proposed rulemaking. Indicate the total number of individual firms, the total number of employees, and the number of individual firms in the business sector or sectors affected in Illinois.

Business Sector	Total Number of Individual Firms in the Business Sector	Total Number of Employees in the Business Sector	Number of Individual Firms in the Business Sector Affected in Illinois
Agriculture			
Construction			
Finance	2,925	108,422	1
Fishing			
Forestry			
Insurance			
Manufacturing	18,120	1,033,272	96
Mining	889	21,180	4
Professional Services			
Real Estate	8,769	59,259	1
Retail Trade			
Services	85,237	1,229,040	16
Transportation	10,126	265,057	23
Wholesale Trade	23,467	339,233	18
*All Sectors of Business	149,533	3,055,463	159
*Other (please specify below)			

9. Please circle the number of regulatory alternatives considered by the agency:

0 1 2 (3) 4 5 6 7 8 9 10

If more than 10, please specify the number: _____

(a) Were any alternatives considered to minimize the burden on small businesses?

Yes X See Note 5 No _____

If yes, please specify the alternatives considered and why they were rejected.

(b) Were any other alternatives considered?

Yes _____ No X See Note 6

If yes, please specify the alternatives considered and why they were rejected.

Note: If additional space is needed please provide an attachment.

B. Anticipated Cost of the Regulation on the Proposing Agency's Budget

1. Will the proposed rulemaking implement a new program?

(a) Yes _____ No X

(b) If yes, please provide the program title.

2. Will the proposed rulemaking change an existing program?

(a) Yes X No _____

(b) If yes, please provide the program title. See Note 2

3. What is the anticipated effect of the proposed rulemaking on the agency's budget?

(a) Please check: Increase _____ Decrease _____
No Change X

(b) If an increase or decrease is anticipated, specify the fiscal year in which this change will first occur.

FY _____

(c) For the fiscal year specified above, please provide the fund allocations earmarked for this program.

Fund Name _____
Organizational Unit _____

Personal Services	$ _____
Retirement Contributions	_____
Social Security	_____
Group Insurance	_____
Contractual Services	_____
Travel	_____
Commodities	_____
Printing	_____

Equipment _____
Electronic Data Processing _____
Telecommunications Services _____
Operation Auto Equipment _____
Total $ _____

Note: If the agency has not broken down it allocation for this particular program by the above line items, it should so indicate, and provide a total amount.

4. Has the agency received any federal grants to implement the proposed rulemaking?

(a) Please specify: Yes X See Note 7 No _____

(b) If yes, please specify the fiscal year in which the federal grants will first be received. FY already received.

(c) Please provide the federal fund number, as reported to the Bureau of the Budget: N/A.

(d) For the fiscal year specified above, please provide the budget allocations earmarked for this program.

Fund Name N/A
Organizational Unit _____

Personal Services $ _____
Retirement Contributions _____
Social Security _____
Group Insurance _____
Contractual Services _____
Travel _____
Commodities _____
Printing _____
Equipment _____
Electronic Data Processing _____
Telecommunications Services _____
Operation Auto Equipment _____
Total $ _____

Note: If the agency has not broken down its allocation for this particular program by the above line items, it should so indicate, and provide a total amount.

5. Will the proposed rulemaking require any forms to be submitted to the agency?

Yes X No _____

(a) If yes, how many forms? See Attachment 1

(b) Specify number of pages of the form or forms: See Attachment 1

(c) Please circle the number of agency employees needed to review the forms:

1 2 3 4 (5)

If less than 1, or more than 5 please specify: See Note 8

6. Will the proposed rulemaking require any forms to be reviewed and analyzed by the agency on a periodic basis?

Yes X No _____

(a) If yes, how many forms? See Attachment 1

(b) Specify number of pages of the form or forms: See Attachment 1

(c) Please circle the number of agency employees needed to review the forms:

1 2 3 4 (5)

If less than 1, or more than 5 please specify: See Note 8

7. Will the proposed rulemaking require that reports be reviewed and analyzed by the agency on a periodic basis?

Yes X No _____

(a) If yes, how many reports? 1

(b) Specify number of pages of the report or reports: varies

(c) Please circle the number of times the reports will be analyzed annually:

1 2 3 4 5

If less than 1, or more than 5 please specify: See Note 3

8. Which of the following best describes how these forms and reports are maintained by the agency? Please check all that apply.

Computerized	X
Analyzed in Detail	X
Reviewed	X
Occasionally	
Manually Filed	X
Filed for Future Reference	X
Never Looked at	

Discarded _____

C. Anticipated Cost of the Regulation on Other State Agencies

1. What is the anticipated effect of the proposed rulemaking on the budgets of other states agencies?

(a) Increase _____ Decrease _____
No Change X No Effect _____

(b) If an increase or decrease is anticipated, specify the fiscal year in which this change will first occur.

FY _____

(c) For the fiscal year specified above, please provide the budget allocations earmarked for this program.

Federal Fund Name _____
Organizational Unit _____

Personal Services	$ _____
Retirement Contributions	_____
Social Security	_____
Group Insurance	_____
Contractual Services	_____
Travel	_____
Commodities	_____
Printing	_____
Equipment	_____
Electronic Data Processing	_____
Telecommunications Services	_____
Operation Auto Equipment	_____
Total	$ _____

Note: If the agency has not broken down its allocation for this particular program by the above line items, it should so indicate, and provide a total amount.

2. Other than budgetary effects, will the proposed rulemaking in any way effect another state agency's policies?

(a) Yes _____ No X

(b) If yes, please specify:

D. Anticipated Cost of the Regulation and its Programs on State Revenue

1. What is the anticipated effect of the proposed rulemaking on State revenue?

(a) Increase _____ Decrease _____

No change X

(b) If an increase or decrease is anticipated, specify the fiscal year in which this change will first occur.

FY _____

(c) If an increase or decrease is anticipated for the fiscal year specified above, please provide the following:

(a) Dollar amount $_____

(b) Fund name _____

2. If the rulemaking has a positive effect on State revenue, will the money be deposited in the State Treasury?

Yes _____ No _____ N/A

3. Will it be necessary for the General Assembly to appropriate any monies generated from this rulemaking proposal prior to its expenditure?

(a) Yes _____ No X

(b) If yes, please specify the month and year when final General Assembly action will be necessary.

NOTE 1:

Four previously unregulated landfills will have to meet the requirements of air pollution regulations under the provisions of this rulemaking.

NOTE 2:

Under the provisions of this rulemaking, previously regulated sources will need to report air emissions of 10-micron particulate matter (PM10) instead of total suspended particulates (TSP).

NOTE 3:

In general, permits for emissions of air pollutants are renewed every 5 years.

NOTE 4:

For previously regulated facilities, there should be little or no change from the number of employees or employee-hours required under current regulations. Newly regulated sources (see Note 1) are not likely to require new employees, though there may be an increase in hours or other resources devoted to completing the reporting requirements.

NOTE 5:

To the extent that small businesses are associated with low overall emissions and low ambient air quality impacts, the method chosen for this rulemaking would tend to choose sources for regulation that are not owned by such small businesses.

NOTE 6:

Agency requirements under the federal Clean Air Act and resources available for this rulemaking dictated that the Agency concentrate its efforts on the sources of air emissions shown to be most responsible for modeled violations of the target air quality standard.

NOTE 7:

The requirement for this program is part of the Agency's ongoing grant from the U.S. Environmental Protection Agency.

NOTE 8:

The requirements of this rulemaking will be handled by the Agency's existing personnel, primarily in the Division of Air Pollution Control's Permit Section. There are currently 28 employees in that section.

Attachment 1

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

GENERAL INSTRUCTIONS FOR PERMIT APPLICATIONS

Before you attempt to complete a permit application please read the following instructions thoroughly. It is the experience of the Agency that much time can be saved if the applicant has a basic understanding of the requirements for permit applications. If a permit is required, a process flow diagram, a plot plan/map, and the forms provided by the Agency will usually suffice to present the necessary application information in a clear and concise manner. Each of the forms is designed to allow you to present a particular type of information and is constructed to avoid a proliferation of "special forms". The forms adapt to virtually every type of operation and equipment, although in some instances, additional information will be requested.

Review paragraph (i) of Rule 103, Exemptions From Permit Requirements, attached at the end of these instructions. Proceed only if a permit is required for your equipment, process, or operation.

EXCERPTS FROM THE REGULATIONS

RULE 101: DEFINITIONS

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

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

RULE 103(a) CONSTRUCTION PERMITS

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

RULE 103(b) OPERATING PERMITS

(1) New Emission Sources and New Air Pollution Control Equipment

Prohibition. No person shall cause or allow the operation of any new emission source or new air pollution control equipment of a type for which a construction permit is required...without first obtaining an operating permit from the Agency....

(2) Existing Emission Sources

Prohibition. No person shall cause or allow the operation of any existing emission source or any existing air pollution control equipment without first obtaining an operating permit from the Agency....

GENERAL INFORMATION

(1) Each permit application must provide sufficient information to allow the Agency to conduct an independent engineering analysis to determine if the equipment covered by the permit application complies with Pollution Control Board Regulations, Chapter 2: Air Pollution, and the Environmental Protection Act.

(2) All data and information should be typed or legibly printed in ink.

Except for original signature pages, all forms and attached material may be photocopied to make the required number of copies.

An operating permit application must be submitted in duplicate.

A construction permit application for construction in Cook County must be submitted in triplicate.

A construction permit application for all other locations must be submitted in duplicate.

All pages in the application should be numbered sequentially and the total number of pages identified. (Example: Page 1 of 10, 2 of 10, ... Page 10 of 10).

It is recommended that the applicant retain a record copy of all applications and correspondence sent to the Agency.

PROCESS FLOW DIAGRAM

(3) A process flow diagram must accompany every permit application and must depict all emission sources and all air pollution control equipment covered by the application. Each item of equipment shall be labeled by name and a unique identifier. The range of flow rates and range of compositions shall be set forth for:

(1) all process equipment
(2) all air pollution control equipment
(3) all emission sources
(4) all stacks and vents

All stream flows shall be identified by lines and arrows denoting the direction and destination of the flow.

A sketch drawing, not to scale, or a block diagram, prepared in a reasonably neat manner, is usually sufficient for the diagram. Show each emission source and each item of air pollution control equipment and any other items of equipment which can affect the emission of air contaminants. Draw arrows showing the direction of product and gas flow, and give the rates and composition for average and maximum flows. Identify each item of equipment and each stack or vent by name or by using symbols, including a key to their meaning. If you have more than one source of emissions, it may be easier to show each source and any related air pollution control equipment on a separate diagram. In this case please identify each of your diagrams, and, if they are interconnected, show where and how they relate to each other.

PLOT PLAN/MAP

(4) An applicant must submit a plot plan/map to reasonably describe the location of the emission source or air pollution control equipment and the location of all stacks or vents. The plot plan/map must also show the distances from the operation to the nearest boundary of the property on which the operation is located, and to the nearest residences, lodgings, nursing homes, hospitals, schools, and commercial and manufacturing establishments.

You can use a format similar to that of the process flow diagram for the plot plan/map. Alternatively you can insert the required information on existing maps or plans of a reasonable scale.

FORMS

(5) A general application form must accompany every application, e.g. APC-200 -- "APPLICATION FOR A PERMIT TO CONSTRUCT/OPERATE" or APC-205 -- "APPLICATION FOR RENEWAL OF AN OPERATING PERMIT".

(6) Information, as requested by the forms, is required for each emission source and each item of air pollution control equipment, and for each item of process equipment that discharges to air pollution control equipment, or is capable of effecting emissions.

Select the forms you need for your particular equipment from the list of available forms on APC-209 -- "REQUEST FOR PERMIT FORMS". There may be insufficient space on a form for you to fully complete certain items. You should then attach a sheet to the form with the required information, indicating the item to which it refers.

(7) Where the applicant can not meet data requirements for describing performance specification of existing equipment, alternate information, such as stack tests, or engineering analysis of the equipment or similar equipment, sufficient to determine the actual levels of emissions may be submitted in lieu of the full detailed portion of the application forms. Acceptance of the alternate information, rather than the information requested by the application form, rests solely with the Agency.

(8) PCB Regs., Chapter 2, Part 1, Rule 103(b)(6)(C) allows the Agency to waive stack test requirements. A waiver may be granted if the applicant submits one of the following: (1) material balances, (2) performance data on similar equipment, or (3) calculations based upon emission factors or upon other methods generally accepted by persons in the field of air pollution control. Waiver under the above rule rests solely with the Agency. If a permit application is accepted as complete, this constitutes a waiver of Rule 103(b)(6)(C).

(9) Only one form is required for "identical" emission sources or "identical" items of air pollution control equipment. The acceptance of an application identifying emission sources or air pollution control equipment of different physical sizes, shapes, or performance specification as "identical" rests solely with the Agency. In any case, all source equipment and air pollution control devices must be shown and identified on the flow diagram(s).

Complete the form for identical equipment as if for one item of equipment. Where appropriate indicate all equipment to which the form applies. It is assumed that each identical item of equipment operates as described in the single form, unless otherwise explained, e.g. 2 regular units and standby unit, standby unit operated only when a regular unit is overhauled.

(10) If an applicant has previously received a permit, there may be certain items in his current application that he wants to include by reference. Data and information with the Division of Air Pollution Control may be incorporated by reference into a permit application and need not be resubmitted. When an applicant incorporates information by reference, he must state whether such information remains true, correct, current and complete. A proper method of referencing is form APC-210 -- "INCORPORATION BY REFERENCE".

Addenda forms should be included, in addition to other appropriate information forms, if they are applicable to your equipment, control equipment or operation, in particular:

(11) In an application to construct or operate storage tanks for organic material, petrochemical products, or other liquid material, the applicant must complete APC-232 -- "PROCESS EMISSION SOURCE ADDENDUM: TANK", for each tank.

(12) In an application to construct or operate a petrochemical or other chemical process, the applicant must complete APC-231 -- "PROCESS EMISSION SOURCE ADDENDUM: REACTOR, DRUM TOWER, HEAT EXCHANGER", for each process unit.

(13) In an application for a permit to construct or operate an incinerator, or to construct or operate control equipment generating solid waste, the applicant must complete APC-103 entitled "DISPOSITION OF WASTE MATERIALS".

(14) In an application for a permit to construct or operate control equipment generating liquid waste, the applicant must complete APC-104 entitled "ADDENDUM W--WASTEWATER TREATMENT FORM WET COLLECTORS".

ADDITIONAL REQUIREMENTS FOR CERTAIN APPLICATIONS

(15) For all chemical processes, petroleum and petrochemical manufacturing operations and other operations for which the Agency deems it necessary, the process flow diagram must be accompanied by a process and instrumentation diagram, or equivalent diagram, depicting those valves venting to the atmosphere, to flares and/or to air pollution control equipment. This process and instrumentation diagram shall include labels to correlate it with the flow diagram. This requirement may be waived by the Agency only if the Agency deems that the applicant has submitted other information equivalent to that provided by a process and instrumentation diagram.

(16) The State of Illinois has specific noise emission limits which apply to all equipment, including air pollution control devices, which generates noise. The applicant should contact the Manager of the Field Operations Section, Division of Noise Pollution Control, 2200 Churchill Road, Springfield, Illinois, 62706, if he has any questions concerning these regulations or noise pollution complaints lodged against his facility.

These instructions, and the instructions on each form will allow you to complete the majority or permit applications. Contact an office of the Environmental Protection Agency, Division of Air Pollution Control if you have any questions.

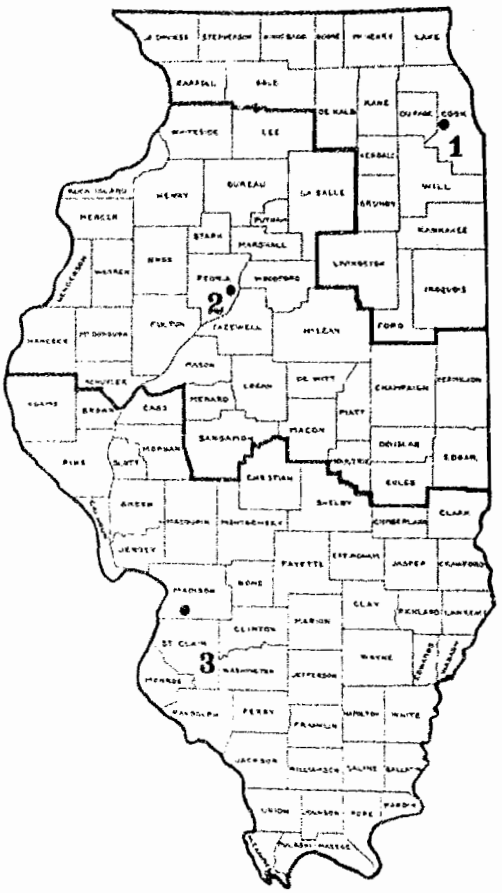
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
PERMIT SECTION
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706
(217) 782-2113

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
FIELD OPERATION SECTION

REGION 1
INTERCONTINENTAL CENTER
SUITE 1205 - 1701 1ST AVENUE
MAYWOOD, ILLINOIS 60153
(312) 345-9760

REGION 2
5415 NORTH UNIVERSITY
PEORIA, ILLINOIS 61614
(309) 691-2200

REGION 3
115A WEST MAIN
COLLINSVILLE, ILLINOIS 62234
(618) 345-0700



STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RULE 103(1) Exemptions. No permit is required for the following classes of equipment:

(1) air contaminant detectors or recorders, combustion controllers, or combustion shutoffs;

(2) air conditioning or ventilating equipment not designed to remove air contaminants generated by or released from associated equipment;

(3) fuel burning emission sources for indirect heating systems and for heating and reheating furnace systems used exclusively for residential or commercial establishments using gas and/or fuel oil exclusively with a total capacity of less than 50 million BTU per hour input;

(4) fuel burning emission sources other than those listed in (3) above for indirect heating systems with a total capacity of less than one million BTU per hour input;

(5) mobile internal combustion and jet engines, marine installations, and locomotives;

(6) laboratory equipment used exclusively for chemical or physical analysis;

(7) painting operations using not in excess of 5,000 gallons of paint (including thinner) per year;

(8) any emission source acquired exclusively for domestic use, except that a permit shall be required for any incinerator and for any fuel burning emission source using solid fuel with a total capacity of 50 million BTU per hour input or more;

(9) stationary internal combustion engines of less than 1500 horsepower;

(10) stacks or vents used to prevent the escape of sewer gases through plumbing traps;

(11) safety devices designed to protect life and limb, provided that safety devices associated with an emission source shall be included within the permit for such emission source;

(12) storage tanks for liquids used for retail dispensing;

(13) all printing operations using less than 750 gallons of organic solvents per year;

(14) storage tanks of organic liquids with a capacity of less than 5,000 gallons;

(15) flanged and threaded pipe connections, vessel manways and process valves capable of discharging specified air contaminants to the atmosphere;

(16) sampling connections used exclusively to withdraw materials for laboratory testing and analyses;

(17) all storage tanks of Illinois crude oil with capacity of less than 40,000 gallons located on oil field sites;

(18) all organic material - water single or multiple compartment effluent water separator facilities for Illinois crude oil of vapor pressure of less than 5 pounds per square inch absolute (psia).

(19) Grain-handling operations, exclusive of grain-drying operations, with an annual grain through-put not exceeding 300,000 bushels.

(20) Grain-drying operations with a total grain-drying capacity not exceeding 750 bushels per hour for 5% moisture extraction at manufacturer's rated capacity, using the American Society of Agricultural Engineers Standard 248.2, Section 9, Basis for Stating Drying Capacity of Batch and Continuous-Flow Grain Dryers.

(21) Portable grain-handling equipment and one-turn storage space.

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62794-9276

APPLICATION FOR PERMIT(A)	FOR AGENCY USE ONLY
☐ CONSTRUCT ☐ OPERATE	I.D. NO. _____
NAME OF EQUIPMENT TO BE CONSTRUCTED OR OPERATED _____ (B)	PERMIT NO. _____
	DATE _____

1a. NAME OF OWNER:		2a. NAME OF OPERATOR:	
1b. STREET ADDRESS OF OWNER:		2b. STREET ADDRESS OF OPERATOR:	
1c. CITY OF OWNER:		2c. CITY OF OPERATOR:	
1d. STATE OF OWNER:	1e. ZIP CODE:	2d. STATE OF OPERATOR:	2e. ZIP CODE:

3a. NAME OF CORPORATE DIVISION OR PLANT:		3b. STREET ADDRESS OF EMISSION SOURCE:		
3c. CTIY OF EMISSION SOURCE:	3d. LOCATED WITHIN CITY LIMITS: ☐ YES ☐ NO	3e. TOWNSHIP:	3f. COUNTY:	3g. ZIP CODE:

4. ALL CORRESPONDENCE TO: (TITLE AND/OR NAME OF INDIVIDUAL)	5. TELEPHONE NUMBER FOR AGENCY TO CALL:
6. ADDRESS FOR CORRESPONDENCE: (CHECK ONLY ONE) ☐ OWNER ☐ OPERATOR ☐ EMISSION SOURCE	7. YOUR DESIGNATION FOR THIS APPLICATION:(C) _____

8. THE UNDERSIGNED HEREBY MAKES APPLICATION FOR A PERMIT AND CERTIFIES THAT THE STATEMENTS CONTAINED HEREIN ARE TRUE AND CORRECT, AND FURTHER CERTIFIES THAT ALL PREVIOUSLY SUBMITTED INFORMATION REFERENCED IN THIS APPLICATION REMAINS TRUE, CORRECT AND CURRENT. BY AFFIXING HIS SIGNATURE HERETO HE FURTHER CERTIFIES THAT HE IS AUTHORIZED TO EXECUTE THIS APPLICATION.

AUTHORIZED SIGNATURE(S):(D)

BY _____ SIGNATURE	_____ DATE	BY _____ SIGNATURE	_____ DATE
_____ TYPED OR PRINTED NAME OF SIGNER		_____ TYPED OR PRINTED NAME OF SIGNER	
_____ TITLE OF SIGNER		_____ TITLE OF SIGNER	

(A) THIS FORM IS TO PROVIDE THE AGENCY WITH GENERAL INFORMATION ABOUT THE EQUIPMENT TO BE CONSTRUCTED OR OPERATED. THIS FORM MAY BE USED TO REQUEST A CONSTRUCTION PERMIT, AN OPERATING PERMIT, A CONSTRUCTION OR OPERATING PERMIT.

(B) ENTER THE GENERIC NAME OF THE EQUIPMENT TO BE CONSTRUCTED OR OPERATED. THIS NAME WILL APPEAR ON THE PERMIT WHICH MAY BE ISSUED PURSUANT TO THIS APPLICATION. THIS FORM MUST BE ACCOMPANIED BY OTHER APPLICABLE FORMS AND INFORMATION.

C) PROVIDE A DESIGNATION IN ITEM 7 ABOVE WHICH YOU WOULD LIKE THE AGENCY TO USE FOR IDENTIFICATION OF YOUR EQUIPMENT. YOUR DESIGNATION WILL BE REFERENCED IN CORRESPONDENCE FROM THIS AGENCY RELATIVE TO THIS APPLICATION. YOUR DESIGNATION **MUST NOT** EXCEED TEN (10) CHARACTERS.

(D) THIS APPLICATION MUST BE SIGNED IN ACCORDANCE WITH 35 ILL. ADM. CODE 201.154 OR 201.159 WHICH STATES, "ALL APPLICATIONS AND SUPPLEMENTS THERETO SHALL BE SIGNED BY THE OWNER AND OPERATOR OF THE EMISSION SOURCE OR AIR POLLUTION CONTROL EQUIPMENT, OR THEIR AUTHORIZED AGENT, AND SHALL BE ACCOMPANIED BY EVIDENCE OF AUTHORITY TO SIGN THE APPLICATION."

IF THE OWNER OR OPERATOR IS A CORPORATION, SUCH CORPORATION MUST HAVE ON FILE WITH THE AGENCY A CERTIFIED COPY OF A RESOLUTION OF THE CORPORATION'S BOARD OF DIRECTORS AUTHORIZING THE PERSONS SIGNING THIS APPLICATION TO CAUSE OR ALLOW THE CONSTRUCTION OR OPERATION OF THE EQUIPMENT TO BE COVERED BY THE PERMIT.

9. DOES THIS APPLICATION CONTAIN A PLOT PLAN/MAP:

☐ YES ☐ NO

IF A PLOT PLAN/MAP HAS PREVIOUSLY BEEN SUBMITTED, SPECIFY:

AGENCY I.D. NUMBER _____ APPLICATION NUMBER _____

IS THE APPROXIMATE SIZE OF APPLICANT'S PREMISES LESS THAN 1 ACRE?

☐ YES ☐ NO; SPECIFY _____ ACRES

10. DOES THIS APPLICATION CONTAIN A PROCESS FLOW DIAGRAM(S) THAT ACCURATELY AND CLEARLY REPRESENTS CURRENT PRACTICE.

☐ YES ☐ NO

11a. WAS ANY EQUIPMENT, COVERED THIS APPLICATION, OWNED OR CONTRACTED FOR, BY THE APPLICANT PRIOR TO APRIL 14, 1972:

☐ YES ☐ NO

IF "YES" ATTACH AN ADDITIONAL SHEET, EXHIBIT A, THAT:
(a) LISTS OR DESCRIBES THE EQUIPMENT
(b) STATES WHETHER THE EQUIPMENT WAS IN COMPLIANCE WITH THE RULES AND REGULATIONS GOVERNING THE CONTROL OF AIR POLLUTION PRIOR TO APRIL 4, 1972

11b. HAS ANY EQUIPMENT, COVERED BY THIS APPLICATION, NOTPREVIOUSLY RECEIVED AN OPERATING PERMIT:

☐ YES ☐ NO

IF "YES", ATTACH AN ADDITIONAL SHEET, EXHIBIT B, THAT:
(a) LISTS OR DESCRIBES THE EQUIPMENT
(b) STATES WHETHER THE EQUIPMENT
(i) IS ORIGINAL OR ADDITIONAL EQUIPMENT
(ii) REPLACES EXISTING EQUIPMENT, OR
(iii) MODIFIES EXISTING EQUIPMENT
(c) PROVIDES THE ANTICIPATED OR ACTUAL DATES OF THE COMMENCEMENT OF CONSTRUCTION AND THE START-UP OF THE EQUIPMENT

12. IF THIS APPLICATION INCORPORATES BY REFERENCE A PREVIOUSLY GRANTED PERMIT(S), HAS FORM APC-210, "DATA AND INFORMATION—INCORPORATION BY REFERENCE" BEEN COMPLETED.

APPLICATION FOR OPERATING PERMIT ONLY

13. DOES THE STARTUP OF AN EMISSION SOURCE COVERED BY THIS APPLICATION PRODUCE AIR CONTAMINANT EMISSION IN EXCESS OF APPLICABLE STANDARDS:

☐ YES ☐ NO

IF "YES," HAS FORM APC-203, "OPERATION DURING STARTUP" BEEN COMPLETED FOR THIS SOURCE.

☐ YES ☐ NO

14. DOES THIS APPLICATION REQUEST PERMISSION TO OPREATE AN EMISSION SOURCE DURING MALFUNCTIONS OR BREAKDOWNS:

☐ YES ☐ NO

IF "YES," HAS FORM APC-204, "OPERATION DURING MALFUNCTION AND BREAKDOWN" BEEN COMPLETED FOR THIS SOURCE

☐ YES ☐ NO

15. IS AN EMISSION SOURCE COVERED BY THIS APPLICATION SUBJECT TO A FUTURE COMPLIANCE DATE:

☐ YES ☐ NO

IF "YES," HAS FORM APC-202, "COMPLIANCE PROGRAM & PROJECT COMPLETION SCHEDULE," BEEN COMPLETED FOR THIS SOURCE:

☐ YES ☐ NO

16. DOES THE FACILITY COVERED BY THIS APPLICATION REQUIRE AN EPISODE ACTION PLAN (REFER TO GUIDELINES FOR EPISODE ACTION PLANS):

☐ YES ☐ NO

17. LIST AND IDENTIFY ALL FORMS, EXHIBITS, AND OTHER INFORMATION SUBMITTED AS PART OF THIS APPLICATION. INCLUDE THE PAGE NUMBERS OF EACH ITEM (ATTACH ADDITIONAL SHEETS IF NECESSARY):

TOTAL NUMBER OF PAGES _____

PRELIMINARY INQUIRY FOR AN AIR POLLUTION PERMIT

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

The Illinois Environmental Protection Agency is involved in a program to improve our environment. The Division of Air Pollution Control (a Division of the Environmental Protection Agency) administers a fact-finding and action program for cleaner air. This program requires permits for most new and existing sources capable of polluting the air.

This preliminary inquiry form has been prepared to help you establish communications with the Division relative to the permit program. If you provide the Division with the information requested below, then the Division can advise you of the forms and procedures required to obtain an air pollution permit.

The accuracy of the Division's response to this inquiry is dependent upon the clarity and completeness of the information you provide. Since no record of this correspondence will be retained by the Agency, your response must be self contained.

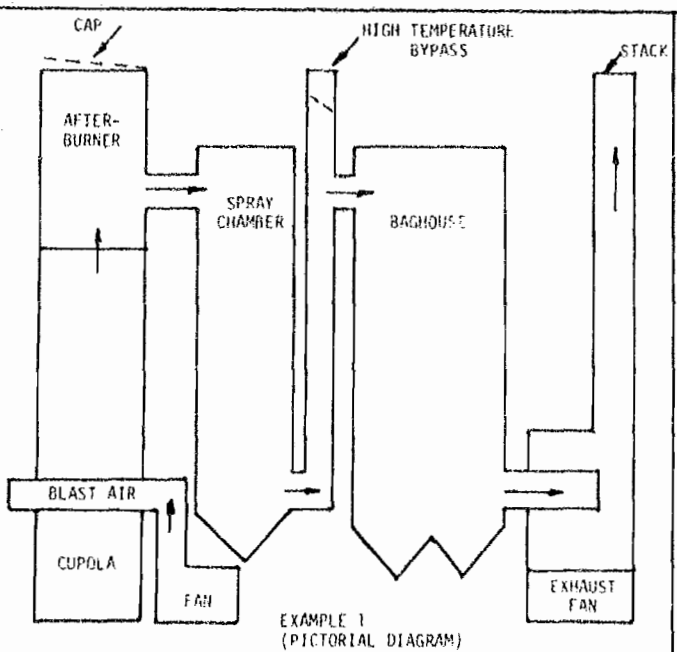
1. Please provide the name and mailing address to whom our response should be mailed.

2. Please provide a labeled diagram of your process or operation. In preparing such a diagram show each emission source and each item of air pollution control equipment and any other item of equipment which can affect the emission of air contaminants. Draw in arrows showing the direction of product and gas flow. Identify each item of equipment and each stack or vent by name or by using symbols with appropriate key to their meaning. You may have more than one source of air pollution. It may be easier to show each source and any related air pollution control system as a separate increment on a separate diagram. In any case, please identify each of your systems or increments. If they are interconnected, show where and how they relate to each other.

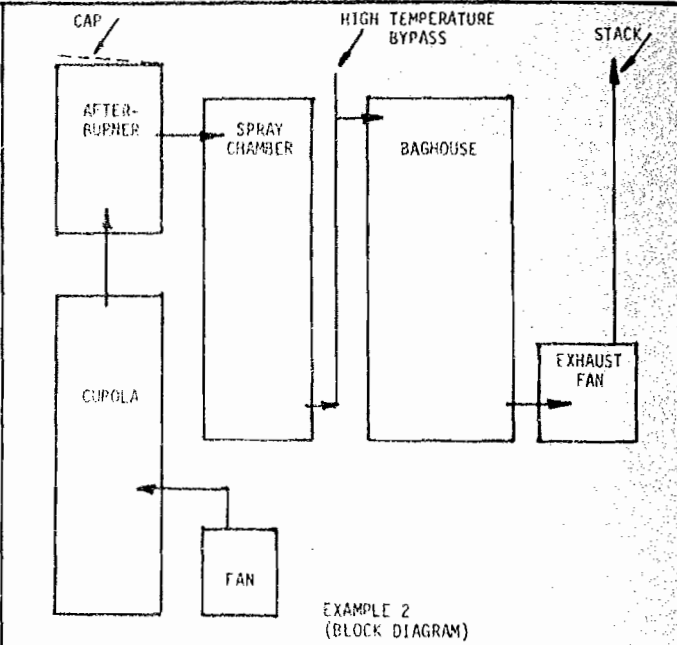
EXAMPLE

To further clarify the type of labeled diagram needed, we have included on this form examples of a labeled diagram of a process. Example #1 below is a pictorial diagram of an iron-melting operation which consists of a cupola and a method for removing most of the resulting air pollutants. In this example the air pollution control system consists of an afterburner, to burn the carbon monoxide, and a spray chamber and bag collector to control the solid particles emitted by the cupola. Example #2 is an alternate method of diagramming this same process.

Your response to this Preliminary Inquiry for an air pollution permit will not be considered an application for a permit. Our response is not intended to be, nor should it be construed as, a waiver or release of any rights of the Agency of any kind whatsoever, or any cause of action which has or may arise.



EXAMPLE 1
(PICTORIAL DIAGRAM)



EXAMPLE 2
(BLOCK DIAGRAM)

Send all correspondence to:

State of Illinois
Environmental Protection Agency
Division of Air Pollution Control
Permit Section
2200 Churchill Road
Springfield, Illinois 62706

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

REQUEST FOR PERMIT FORMS

RETURN REQUEST FOR PERMIT FORMS TO THE ABOVE ADDRESS

SEND FORMS TO:

YOUR MAILING ADDRESS

(ATTACH MAILING LABEL OR TYPE EXACT ADDRESS)

GENERAL APPLICATION FORMS		NO. OF COPIES REQUIRED
APPLICATION FOR A PERMIT CONSTRUCT OPERATE	APC-200	
APPLICATION FOR RENEWAL OF AN OPERATING PERMIT	APC-205	
INFORMATION RELATIVE TO THE DEMOLITION OF A STRUCTURE CONTAINING ASBESTOS MATERIAL	APC-211	
APPLICATION FOR ASBESTOS PERMIT	APC-212	

INSTRUCTIONS AND INQUIRY		NO. OF COPIES REQUIRED
GENERAL INSTRUCTIONS FOR PERMIT APPLICATIONS	APC-201	
PRELIMINARY INQUIRY FOR A PERMIT	APC-206	
REQUEST FOR PERMIT FORMS	APC-209	

EPISODE ACTION FORMS		NO. OF COPIES REQUESTED
GUIDELINES FOR THE COMPLETION OF AIR POLLUTION EPISODE ACTION PLANS	APC-162	
GUIDELINES FOR THE COMPLETION OF AIR POLLUTION EPISODE ACTION PLANS FOR GRAIN HANDLING OPERATIONS	APC-239	
AIR POLLUTION EPISODE ACTION PLAN	APC-100	

REPORTING FORMS		NO. OF COPIES REQUIRED
ANNUAL EMISSION REPORT	APC-208	
PROJECT COMPLETION REPORT	APC-271	

INFORMATION FORMS		NO. OF COPIES REQUESTED
DATA AND INFORMATION INCORPORATION BY REFERENCE	APC-210	
DATA AND INFORMATION PROCESS EMISSION SOURCE	APC-220	
DATA AND INFORMATION FUEL COMBUSTION EMISSION SOURCE	APC-240	
DATA AND INFORMATION INCINERATOR	APC-250	
DATA AND INFORMATION AIR POLLUTION CONTROL EQUIPMENT	APC-260	
GENERAL INFORMATION GRAIN-HANDLING AND GRAIN-DRYING OPERATIONS	APC-229	
DATA AND INFORMATION GRAIN-HANDLING AND GRAIN-DRYING OPERATIONS	APC-230	
DATA AND INFORMATION CONCRETE, ASPHALT, OR AGGREGATE CRUSHING PLANT	APC-234	
ADDENDUM L DISPOSITION OF WASTE MATERIALS	APC-103	
ADDENDUM W WASTEWATER TREATMENT FROM WET COLLECTORS	APC-104	
PROCESS EMISSION SOURCE ADDENDUM REACTOR, DRUM TOWER, HEAT EXCHANGER	APC-231	
PROCESS EMISSION SOURCE ADDENDUM TANK	APC-232	
COMPLIANCE PROGRAM AND PROJECT COMPLETION SCHEDULE	APC-202	
OPERATION DURING STARTUP	APC-203	
OPERATION DURING MALFUNCTION AND BREAKDOWN	APC-204	

RULES AND REGULATIONS (AIR)	
THE ENVIRONMENTAL PROTECTION ACT	

IL 532-0244
APC 209 (Rev. 1/27/77)

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

*DATA AND INFORMATION

FUEL COMBUSTION EMISSION SOURCE

*THIS INFORMATION FORM IS TO BE COMPLETED FOR A FURNACE, BOILER, OR SIMILAR EQUIPMENT USED FOR THE PRIMARY PURPOSE OF PRODUCING HEAT OR POWER BY INDIRECT HEAT TRANSFER. AN EMISSION SOURCE THAT DOES NOT FIT THIS DESCRIPTION, INCLUDING AN EMISSION SOURCE USING DIRECT HEATING, IS EITHER A PROCESS EMISSION SOURCE OR AN INCINERATOR.

1. NAME OF OWNER:	2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
3. STREET ADDRESS OF EMISSION SOURCE:	4. CITY OF EMISSION SOURCE:

GENERAL INFORMATION

5. FLOW DIAGRAM DESIGNATION(S) OF EMISSION SOURCE:

6. MANUFACTURER:	7. MODEL NUMBER:	8. SERIAL NUMBER:

9. AVERAGE OPERATING TIME OF EMISSION SOURCE: _____ HRS/DAY _____ DAYS/WK _____ WKS/YR	10. MAXIMUM OPERATING TIME OF EMISSION SOURCE: _____ HRS/DAY _____ DAYS/WK _____ WKS/YR

11. PERCENT OF ANNUAL HEAT INPUT:
DEC-FEB _____ % MAR-MAY _____ % JUN-AUG _____ % SEP-NOV _____ %

INSTRUCTIONS

1. COMPLETE THE ABOVE IDENTIFICATION AND GENERAL INFORMATION SECTION.
2. COMPLETE THE APPROPRIATE FUEL SECTION OR SECTIONS. IF MORE THAN ONE FUEL IS FIRED OR IF THE CAPABILITY EXISTS TO FIRE MORE THAN ONE FUEL, THE ACTUAL USAGE OF FUELS AND THE RELATIONSHIP BETWEEN FUELS, SIMULTANEOUS FIRING, ALTERNATE FIRING, RESERVE FUEL, ETC., MUST BE MADE CLEAR.
3. EMISSION AND EXHAUST POINT INFORMATION MUST BE COMPLETED, UNLESS EMISSIONS ARE EXHAUSTED THROUGH AIR POLLUTION CONTROL EQUIPMENT.
4. FIRING RATES AND CERTAIN OTHER ITEMS REQUIRE BOTH AVERAGE AND MAXIMUM VALUES.
5. FOR GENERAL INFORMATION REFER TO "GENERAL INSTRUCTIONS FOR PERMIT APPLICATIONS," APC-201.

DEFINITIONS

AVERAGE - THE VALUE THAT SUMMARIZES OR REPRESENTS THE GENERAL CONDITION OF THE EMISSION SOURCE, OR THE GENERAL STATE OF HEAT PRODUCTION OF THE EMISSION SOURCE. SPECIFICALLY:
AVERAGE OPERATING TIME - ACTUAL TOTAL HOURS OF OPERATION FOR THE PRECEDING TWELVE MONTH PERIOD.
AVERAGE RATE - ACTUAL TOTAL QUANTITY OF "MATERIAL" FOR THE PRECEDING TWELVE MONTH PERIOD, DIVIDED BY THE AVERAGE OPERATING TIME.
AVERAGE OPERATION - OPERATION TYPICAL OF THE PRECEDING TWELVE MONTH PERIOD, AS REPRESENTED BY AVERAGE OPERATING TIME AND AVERAGE RATES.

MAXIMUM - THE GREATEST VALUE ATTAINABLE OR ATTAINED FROM THE EMISSION SOURCE, OR THE PERIOD OF GREATEST OR UTMOST HEAT PRODUCTION OF THE EMISSION SOURCE. SPECIFICALLY:
MAXIMUM OPERATING TIME - GREATEST EXPECTED TOTAL HOURS OF OPERATION FOR ANY TWELVE MONTH PERIOD.
MAXIMUM RATE - GREATEST QUANTITY OF "MATERIAL" EXPECTED PER ANY ONE HOUR OF OPERATION.
MAXIMUM OPERATION - GREATEST EXPECTED OPERATION, AS REPRESENTED BY MAXIMUM OPERATING TIME AND MAXIMUM RATES.

GAS FIRING

*11. ORIGIN OF GAS: ☐ PIPELINE ☐ DISTILLATE FUEL OIL GASIFICATION ☐ OTHER LIQUID FUEL GASIFICATION ☐ SOLID FUEL GASIFICATION ☐ BYPRODUCT; SPECIFY SOURCE

12. ARE YOU ON AN INTERRUPTABLE GAS SUPPLY: ☐ YES ☐ NO
IF "YES", SPECIFY ALTERNATE FUEL: _____

13. ANNUAL CONSUMPTION: SCF	* 14. HEAT CONTENT: BTU/SCF	* 15. SULFUR CONTENT: %BY WT.
16. AVERAGE FIRING RATE: BTU/HR	17. MAXIMUM FIRING RATE: BTU/HR	

*IF THE GAS FIRED IS NATURAL GAS, THESE ITEMS NEED NOT BE COMPLETED.

OIL FIRING

18. TYPE OF OIL:
GRADE NUMBER: ☐ 1 ☐ 2 ☐ 4 ☐ 5 ☐ 6 OTHER: SPECIFY _____

19. ANNUAL CONSUMPTION: GALLONS	20. HEAT CONTENT: ☐ BTU/LB ☐ BTU/GAL
21. SULFUR CONTENT: %BY WT	22. ASH CONTENT: %BY WT

23. DIRECTION OF FIRING:
☐ HORIZONTAL ☐ TANGENTIAL ☐ OTHER: SPECIFY _____

24. AVERAGE FIRING RATE: BTU/HR	25. MAXIMUM FIRING RATE: BTU/HR

SOLID FUEL FIRING

26. TYPE OF SOLID FUEL:
☐ SUB-BITUMINOUS COAL ☐ BITUMINOUS COAL ☐ ANTHRACITE COAL ☐ OTHER: SPECIFY

27. ANNUAL CONSUMPTION: TONS	28. HEAT CONTENT AS FIRED: BTU/LB	
29. MOISTURE CONTENT AS FIRED: %BY WT	30. ASH CONTENT AS FIRED: %BY WT	31. SULFUR CONTENT AS FIRED: %BY WT

32. TYPE OF FIRING:
☐ CYCLONE ☐ PULVERIZED { ☐ WET BOTTOM OR ☐ DRY BOTTOM, ☐ HORIZONTALLY OPPOSED OR ☐ OTHER: SPECIFY _____

☐ SPREADER STOKER: % REINJECTION _____ ☐ OTHER: SPECIFY _____

33. AVERAGE FIRING RATE: BTU/HR	34. MAXIMUM FIRING RATE: BTU/HR

SUBMIT COPIES OF THOSE PORTIONS OF COAL OR OTHER SOLID FUEL CONTRACTS WHICH SET FORTH THE SPECIFICATIONS OF THE FUEL AND THE DURATION OF THE CONTRACT. IF THE ACTUAL FUEL FIRED IS A BLEND OF SOLID FUELS, SUBMIT APPROPRIATE PORTIONS OF ALL FUEL CONTRACTS AND SET FORTH THE MANNER IN WHICH THE FUELS ARE BLENDED AND ACTUALLY FIRED. REFERENCE THIS INFORMATION TO THIS FORM.

*EMISSION INFORMATION

35. NUMBER OF IDENTICAL SOURCES (DESCRIBE AS REQUIRED):

AVERAGE OPERATION

CONTAMINANT	CONCENTRATION OR EMISSION RATE PER IDENTICAL SOURCE		METHOD USED TO DETERMINE CONCENTRATION OR EMISSION RATE
PARTICULATE MATTER	36a. GR/SCF	b. ☐ LB/10^6 BTU ☐ LB/HR	c.
CARBON MONOXIDE	37a. PPM (VOL)	b. ☐ LB/10^6 BTU ☐ LB/HR	c.
NITROGEN OXIDES	38a. PPM (VOL)	b. ☐ LB/10^6 BTU ☐ LB/HR	c.
ORGANIC MATERIAL	39a. PPM (VOL)	b. ☐ LB/10^6 BTU ☐ LB/HR	c.
SULFUR DIOXIDE	40a. PPM (VOL)	b. ☐ LB/10^6 BTU ☐ LB/HR	c.

MAXIMUM OPERATION

CONTAMINANT	CONCENTRATION OR EMISSION RATE PER IDENTICAL SOURCE		METHOD USED TO DETERMINE CONCENTRATION OR EMISSION RATE
PARTICULATE MATTER	41a. GR/SCF	b. ☐ LB/10^6 BTU ☐ LB/HR	c.
CARBON MONOXIDE	42a. PPM (VOL)	b. ☐ LB/10^6 BTU ☐ LB/HR	c.
NITROGEN OXIDES	43a. PPM (VOL)	b. ☐ LB/10^6 BTU ☐ LB/HR	c.
ORGANIC MATERIAL	44a. PPM (VOL)	b. ☐ LB/10^6 BTU ☐ LB/HR	c.
SULFUR DIOXIDE	45a. PPM (VOL)	b. ☐ LB/10^6 BTU ☐ LB/HR	c.

*IF EMISSIONS ARE EXHAUSTED THROUGH AIR POLLUTION CONTROL EQUIPMENT, OR IF NATURAL GAS IS THE FUEL FIRED, ITEMS 36 THROUGH 47 NEED NOT BE COMPLETED.

**EXHAUST POINT INFORMATION

46. FLOW DIAGRAM DESIGNATION(S) OF EXHAUST POINT:

47. DESCRIPTION OF EXHAUST POINT (LOCATION IN RELATION TO BUILDINGS, DIRECTION, HOODING, ETC.):

48. EXIT HEIGHT ABOVE GRADE: FT	50. EXIT DIAMETER:
49. GREATEST HEIGHT OF NEARBY BUILDINGS: FT	51. EXIT DISTANCE FROM NEAREST PLANT BOUNDARY: FT
AVERAGE OPERATION	MAXIMUM OPERATION
52. EXIT GAS TEMPERATURE: °F	54. EXIT GAS TEMPERATURE: °F
53. GAS FLOW RATE THROUGH EACH EXIT: ACFM	55. GAS FLOW RATE THROUGH EACH EXIT: ACFM

**IF EMISSIONS ARE EXHAUSTED THROUGH AIR POLLUTION CONTROL EQUIPMENT THIS SECTION SHOULD NOT BE COMPLETED.

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

This agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111½, Section 1038. Disclosure of this information is required under that section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

*DATA AND INFORMATION AIR POLLUTION CONTROL EQUIPMENT	

*THIS INFORMATION FORM IS FOR AN INDIVIDUAL UNIT OF AIR POLLUTION CONTROL EQUIPMENT OR AN AIR POLLUTION CONTROL SYSTEM.

1. NAME OF OWNER:	2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
3. STREET ADDRESS OF CONTROL EQUIPMENT:	4. CITY OF CONTROL EQUIPMENT:
5. NAME OF CONTROL EQUIPMENT OR CONTROL SYSTEM:	

INSTRUCTIONS

1. COMPLETE THE ABOVE IDENTIFICATION.
2. COMPLETE THE APPROPRIATE SECTION FOR THE UNIT OF CONTROL EQUIPMENT, OR THE APPROPRIATE SECTIONS FOR THE CONTROL SYSTEM. BE CERTAIN THAT THE ARRANGEMENT OF VARIOUS UNITS IN A CONTROL SYSTEM IS MADE CLEAR IN THE PROCESS FLOW DIAGRAM.
3. COMPLETE PAGE 6 OF THIS FORM, EMISSION INFORMATION AND EXHAUST POINT INFORMATION.
4. EFFICIENCY VALUES SHOULD BE SUPPORTED WITH A DETAILED EXPLANATION OF THE METHOD OF CALCULATION, THE MANNER OF ESTIMATION, OR THE SOURCE OF INFORMATION. REFERENCE TO THIS FORM ANY RELEVANT INFORMATION OR EXPLANATION INCLUDED IN THIS PERMIT APPLICATION.
5. EFFICIENCY VALUES AND CERTAIN OTHER ITEMS OF INFORMATION ARE TO BE GIVEN FOR AVERAGE AND MAXIMUM OPERATION OF THE SOURCE EQUIPMENT. FOR EXAMPLE, "MAXIMUM EFFICIENCY" IS THE EFFICIENCY OF THE CONTROL EQUIPMENT WHEN THE SOURCE IS AT MAXIMUM OPERATION, AND "AVERAGE FLOW RATE" IS THE FLOW RATE INTO THE CONTROL EQUIPMENT WHEN THE SOURCE IS AT AVERAGE OPERATION.
6. FOR GENERAL INFORMATION REFER TO "GENERAL INSTRUCTIONS FOR PERMIT APPLICATIONS", APC-201.

DEFINITIONS

AVERAGE - THE VALUE THAT SUMMARIZES OR REPRESENTS THE GENERAL CONDITION OF THE EMISSION SOURCE OR THE GENERAL STATE OF PRODUCTION OF THE EMISSION SOURCE. SPECIFICALLY:
AVERAGE OPERATION - OPERATION TYPICAL OF THE PRECEDING TWELVE MONTH PERIOD, AS REPRESENTED BY AVERAGE OPERATING TIME AND AVERAGE RATES.

MAXIMUM - THE GREATEST VALUE ATTAINABLE OR ATTAINED FROM THE EMISSION SOURCE, OR THE PERIOD OF GREATEST OR UTMOST PRODUCTION OF THE EMISSION SOURCE. SPECIFICALLY:
MAXIMUM OPERATION - THE GREATEST EXPECTED OPERATION, AS REPRESENTED BY MAXIMUM OPERATING TIME AND MAXIMUM RATES.

ADSORPTION UNIT

1. FLOW DIAGRAM DESIGNATION(S) OF ADSORPTION UNIT:

2. MANUFACTURER:

3. MODEL NAME AND NUMBER:

4. ADSORBENT:
☐ ACTIVATED CHARCOAL: TYPE _____ ☐ OTHER: SPECIFY _____

5. ADSORBATE(S):

6. NUMBER OF BEDS PER UNIT:

7. WEIGHT OF ADSORBENT PER BED: LB

8. DIMENSIONS OF BED:
THICKNESS _____ IN, SURFACE AREA _____ SQUARE IN

9. INLET GAS TEMPERATURE: °F

10. PRESSURE DROP ACROSS UNIT: INCH H_2O GAUGE

11. TYPE OF REGENERATION:
☐ REPLACEMENT ☐ STEAM ☐ OTHER: SPECIFY _____

12. METHOD OF REGENERATION:
☐ ALTERNATE USE OF _____ ENTIRE UNITS ☐ ALTERNATE USE OF _____ BEDS IN A SINGLE UNIT
☐ SOURCE SHUT DOWN ☐ OTHER: DESCRIBE

AVERAGE OPERATION OF SOURCE	MAXIMUM OPERATION OF SOURCE
13. TIME ON LINE BEFORE REGENERATION: MIN/BED	15. TIME ON LINE BEFORE REGENERATION: MIN/BED
14. EFFICIENCY OF ADSORBER (SEE INSTRUCTION 4): %	16. EFFICIENCY OF ADSORBER (SEE INSTRUCTION 4): %

AFTERBURNER

1. FLOW DIAGRAM DESIGNATION(S) OF AFTERBURNER:

2. MANUFACTURER:

3. MODEL NAME AND NUMBER:

4. COMBUSTION CHAMBER DIMENSIONS:
LENGTH _____ IN, CROSS-SECTIONAL AREA _____ SQUARE IN.

5. INLET GAS TEMPERATURE: °F

7. FUEL:
☐ GAS ☐ OIL: SULFUR _____ WT%

6. OPERATING TEMPERATURE OF COMBUSTION CHAMBER: °F

8. BURNERS PER AFTERBURNER: @ BTU/HR EACH

9. CATALYST USED:
☐ NO ☐ YES: DESCRIBE CATALYST _____

10. HEAT EXCHANGER USED:
☐ NO ☐ YES: DESCRIBE HEAT EXCHANGER _____

AVERAGE OPERATION OF SOURCE	MAXIMUM OPERATION OF SOURCE
11. GAS FLOW RATE: SCFM	13. GAS FLOW RATE: SCFM
12. EFFICIENCY OF AFTERBURNER (SEE INSTRUCTION 4): %	14. EFFICIENCY OF AFTERBURNER (SEE INSTRUCTION 4): %

CYCLONE

1. FLOW DIAGRAM DESIGNATION(S) OF CYCLONE:

2. MANUFACTURER:

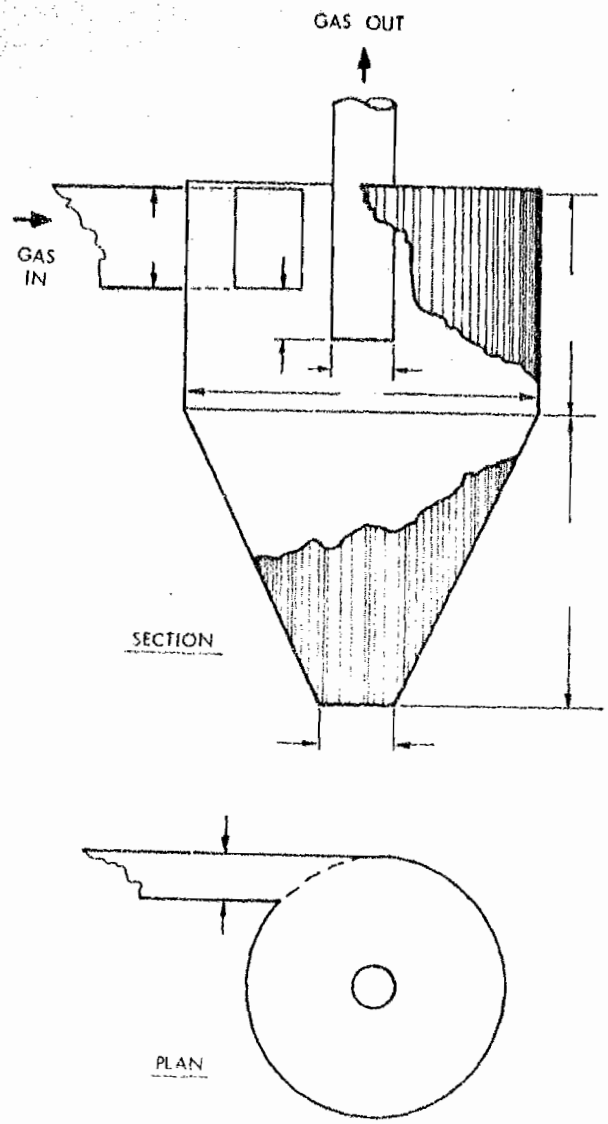
3. MODEL:

4. TYPE OF CYCLONE:
☐ SIMPLE ☐ MULTIPLE

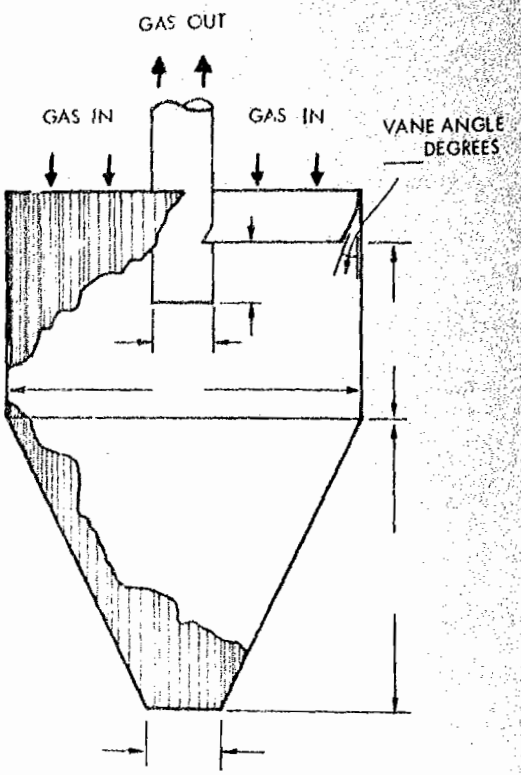
5. NUMBER OF CYCLONES IN EACH MULTIPLE CYCLONE:

6. DIMENSION THE APPROPRIATE SKETCH (IN INCHES) OR PROVIDE A DRAWING WITH EQUIVALENT INFORMATION:

TANGENTIAL INLET CYCLONE



AXIAL INLET CYCLONE
(INDIVIDUAL CYCLONE OF MULTIPLE CYCLONE)



NOT TO SCALE

AVERAGE OPERATION OF SOURCE	MAXIMUM OPERATION OF SOURCE
7. GAS FLOW RATE: SCFM	9. GAS FLOW RATE: SCFM
8. EFFICIENCY OF CYCLONE (SEE INSTRUCTION 4): %	10. EFFICIENCY OF CYCLONE (SEE INSTRUCTION 4): %

CONDENSER

1. FLOW DIAGRAM DESIGNATION(S) OF CONDENSER:

2. MANUFACTURER:

3. MODEL NAME AND NUMBER:

4. HEAT EXCHANGE AREA: FT^2

AVERAGE OPERATION OF SOURCE	MAXIMUM OPERATION OF SOURCE
5. COOLANT FLOW RATE PER CONDENSER: WATER _____ GPM AIR _____ SCFM OTHER: TYPE _____, FLOW RATE _____	10. COOLANT FLOW RATE PER CONDENSER: WATER _____ GPM AIR _____ SCFM OTHER: TYPE _____, FLOW RATE _____
6. GAS FLOW RATE: SCFM	11. GAS FLOW RATE: SCFM
7. COOLANT TEMPERATURE: INLET ___ °F OUTLET ___ °F	8. GAS TEMPERATURE: INLET ___ °F OUTLET ___ °F
12. COOLANT TEMPERATURE: INLET ___ °F OUTLET ___ °F	13. GAS TEMPERATURE: INLET ___ °F OUTLET ___ °F
9. EFFICIENCY OF CONDENSER (SEE INSTRUCTION 4): %	14. EFFICIENCY OF CONDENSER (SEE INSTRUCTION 4): %

*ELECTRICAL PRECIPITATOR

1. FLOW DIAGRAM DESIGNATION OF ELECTRICAL PRECIPITATOR:

2. MANUFACTURER:

3. MODEL NAME AND NUMBER:

4. COLLECTING ELECTRODE AREA PER CONTROL DEVICE: FT^2

AVERAGE OPERATION OF SOURCE	MAXIMUM OPERATION OF SOURCE
5. GAS FLOW RATE: SCFM	7. GAS FLOW RATE: SCFM
6. EFFICIENCY OF ELECTRICAL PRECIPITATOR (SEE INSTRUCTION 4): %	8. EFFICIENCY OF ELECTRICAL PRECIPITATOR (SEE INSTRUCTION 4): %

SUBMIT THE MANUFACTURER'S SPECIFICATIONS FOR THE ELECTRICAL PRECIPITATOR. REFERENCE THE INFORMATION TO THIS FORM.

*ELECTRICAL PRECIPITATORS VARY GREATLY IN THEIR DESIGN AND IN THEIR COMPLEXITY. THE ITEMS IN THIS SECTION PROVIDE A MINIMUM AMOUNT OF INFORMATION. THE APPLICANT MUST, HOWEVER, SUBMIT WITH THIS APPLICATION THE MANUFACTURER'S SPECIFICATIONS, INCLUDING ANY DRAWINGS, TECHNICAL DOCUMENTS, ETC. IF THE INFORMATION PROVIDED BY THE MANUFACTURER'S SPECIFICATIONS IS INSUFFICIENT FOR FULL AND ACCURATE ANALYSIS, THE AGENCY WILL REQUEST SPECIFIC ADDITIONAL INFORMATION.

FILTER UNIT

1. FLOW DIAGRAM DESIGNATION(S) OF FILTER UNIT:

2. MANUFACTURER:

3. MODEL NAME AND NUMBER:

4. FILTERING MATERIAL:

5. FILTERING AREA:

6. CLEANING METHOD:
☐ SHAKER ☐ REVERSE AIR ☐ PULSE AIR ☐ PULSE JET ☐ OTHER: SPECIFY _____

7. GAS COOLING METHOD: ☐ DUCTWORK: LENGTH _____ FT., DIAM _____ IN.
☐ BLEED-IN AIR ☐ WATER SPRAY ☐ OTHER: SPECIFY

AVERAGE OPERATION OF SOURCE	MAXIMUM OPERATION OF SOURCE
8. GAS FLOW RATE (FROM SOURCE): SCFM	12. GAS FLOW RATE (FROM SOURCE): SCFM
9. GAS COOLING FLOW RATE: BLEED-IN AIR _____ SCFM, WATER SPRAY _____ GPM	13. GAS COOLING FLOW RATE: BLEED-IN AIR _____ SCFM, WATER SPRAY _____ GPM
10. INLET GAS CONDITION: TEMPERATURE _____ °F DEWPOINT _____ °F	14. INLET GAS CONDITION: TEMPERATURE _____ °F DEWPOINT _____ °F
11. EFFICIENCY OF FILTER UNIT (SEE INSTRUCTION 4): %	15. EFFICIENCY OF FILTER UNIT (SEE INSTRUCTION 4): %

SCRUBBER

1. FLOW DIAGRAM DESIGNATION(S) OF SCRUBBER:

2. MANUFACTURER:

3. MODEL NAME AND NUMBER:

4. TYPE OF SCRUBBER:

☐ HIGH ENERGY: GAS STREAM PRESSURE DROP _____ INCH H_2O

☐ PACKED: PACKING TYPE _____, PACKING SIZE _____, PACKED HEIGHT _____ IN.

☐ SPRAY: NUMBER OF NOZZLES _____, NOZZLE PRESSURE _____ PSIG

☐ OTHER: SPECIFY _____ ATTACH DESCRIPTION AND SKETCH WITH DIMENSIONS

5. TYPE OF FLOW:

☐ COCURRENT ☐ COUNTERCURRENT ☐ CROSSFLOW

6. SCRUBBER GEOMETRY:

LENGTH IN DIRECTION OF GAS FLOW _____ IN., CROSS-SECTIONAL AREA _____ SQUARE IN.

7. CHEMICAL COMPOSITION OF SCRUBBANT:

AVERAGE OPERATION OF SOURCE	MAXIMUM OPERATION OF SOURCE
8. SCRUBBANT FLOW RATE: GPM	12. SCRUBBANT FLOW RATE: GPM
9. GAS FLOW RATE: SCFM	13. GAS FLOW RATE: SCFM
10. INLET GAS TEMPERATURE: °F	14. INLET GAS TEMPERATURE: °F
11. EFFICIENCY OF SCRUBBER (SEE INSTRUCTION 4) _____ % PARTICULATE _____ % GASEOUS	15. EFFICIENCY OF SCRUBBER (SEE INSTRUCTION 4): _____ % PARTICULATE _____ % GASEOUS

OTHER TYPE OF CONTROL EQUIPMENT

1. FLOW DIAGRAM DESIGNATION(S) OF "OTHER TYPE" OF CONTROL EQUIPMENT:

2. GENERIC NAME OF "OTHER" EQUIPMENT:

3. MANUFACTURER:

4. MODEL NAME AND NUMBER:

5. DESCRIPTION AND SKETCH, WITH DIMENSIONS AND FLOW RATES, OF "OTHER" EQUIPMENT:

AVERAGE OPERATION OF SOURCE	MAXIMUM OPERATION OF SOURCE
6. FLOW RATES: _____ GPM _____ SCFM	8. FLOW RATES: _____ GPM _____ SCFM
7. EFFICIENCY OF "OTHER" EQUIPMENT (SEE INSTRUCTION 4): %	9. EFFICIENCY OF "OTHER" EQUIPMENT (SEE INSTRUCTION 4): %

EMISSION INFORMATION

1. NUMBER OF IDENTICAL CONTROL UNITS OR CONTROL SYSTEMS (DESCRIBE AS REQUIRED):

AVERAGE OPERATION OF SOURCE

CONTAMINANT	CONCENTRATION OR EMISSION RATE PER IDENTICAL CONTROL UNIT OR CONTROL SYSTEM		METHOD USED TO DETERMINE CONCENTRATION OR EMISSION RATE
PARTICULATE MATTER	2a. GR/SCF	b. LB/HR	c.
CARBON MONOXIDE	3a. PPM (VOL)	b. LB/HR	c.
NITROGEN OXIDES	4a. PPM (VOL)	b. LB/HR	c.
ORGANIC MATERIAL	5a. PPM (VOL)	b. LB/HR	c.
SULFUR DIOXIDE	6a. PPM (VOL)	b. LB/HR	c.
OTHER (SPECIFY)	7a. PPM (VOL)	b. LB/HR	c.

MAXIMUM OPERATION OF SOURCE

CONTAMINANT	CONCENTRATION OR EMISSION RATE PER IDENTICAL CONTROL UNIT OR CONTROL SYSTEM		METHOD USED TO DETERMINE CONCENTRATION OR EMISSION RATE
PARTICULATE MATTER	8a. GR/SCF	b. LB/HR	c.
CARBON MONOXIDE	9a. PPM (VOL)	b. LB/HR	c.
NITROGEN OXIDES	10a. PPM (VOL)	b. LB/HR	c.
ORGANIC MATERIAL	11a. PPM (VOL)	b. LB/HR	c.
SULFUR DIOXIDE	12a. PPM (VOL)	b. LB/HR	c.
OTHER (SPECIFY)	13a. PPM (VOL)	b. LB/HR	c.

**"OTHER" CONTAMINANT SHOULD BE USED FOR AN AIR CONTAMINANT NOT SPECIFICALLY NAMED ABOVE. POSSIBLE OTHER CONTAMINANTS ARE ASBESTOS, BERYLLIUM, MERCURY, VINYL CHLORIDE, LEAD, ETC.

EXHAUST POINT INFORMATION

1. FLOW DIAGRAM DESIGNATION(S) OF EXHAUST POINT:

2. DESCRIPTION OF EXHAUST POINT (LOCATION IN RELATION TO BUILDINGS, DIRECTION, HOODING, ETC.):

3. EXIT HEIGHT ABOVE GRADE: FT	4. EXIT DIAMETER:
5. GREASTEST HEIGHT OF NEARBY BUILDINGS: FT	6. EXIT DISTANCE FROM NEAREST PLANT BOUNDARY: FT
AVERAGE OPERATION OF SOURCE	MAXIMUM OPERATION OF SOURCE
7. EXIT GAS TEMPERATURE: °F	9. EXIT GAS TEMPERATURE: °F
8. GAS FLOW RATE THROUGH EACH EXIT: ACFM	10. GAS FLOW RATE THROUGH EACH EXIT: ACFM

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

*DATA AND INFORMATION PROCESS EMISSION SOURCE	

*THIS INFORMATION FORM IS TO BE COMPLETED FOR AN EMISSION SOURCE OTHER THAN A FUEL COMBUSTION EMISSION SOURCE OR AN INCINERATOR. A FUEL COMBUSTION EMISSION SOURCE IS A FURNACE, BOILER, OR SIMILAR EQUIPMENT USED PRIMARILY FOR PRODUCING HEAT OR POWER BY INDIRECT HEAT TRANSFER. AN INCINERATOR IS AN APPARATUS IN WHICH REFUSE IS BURNED.

1. NAME OF PLANT OWNER:	2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
3. STREET ADDRESS OF EMISSION SOURCE:	4. CITY OF EMISSION SOURCE:

GENERAL INFORMATION

5. NAME OF PROCESS:	6. NAME OF EMISSION SOURCE EQUIPMENT:	
7. EMISSION SOURCE EQUIPMENT MANUFACTURER:	8. MODEL NUMBER:	9. SERIAL NUMBER:
10. FLOW DIAGRAM DESIGNATION(S) OF EMISSION SOURCE		
11. IDENTITY(S) OF ANY SIMILAR SOURCE(S) AT THE PLANT OR PREMISES NOT COVERED BY THE FORM (IF THE SOURCE IS COVERED BY ANOTHER APPLICATION, IDENTIFY THE APPLICATION):		
12. AVERAGE OPERATING TIME OF EMISSION SOURCE: _____ HRS/DAY _____ DAYS/WK _____ WKS/YR	13. MAXIMUM OPERATING TIME OF EMISSION SOURCE: _____ HRS/DAY _____ DAYS/WK _____ WKS/YR	
14. PERCENT OF ANNUAL THROUGHPUT: DEC-FEB _____ % MAR-MAY _____ % JUN-AUG _____ % SEPT-NOV _____ %		

INSTRUCTIONS

1. COMPLETE THE ABOVE IDENTIFICATION AND GENERAL INFORMATION SECTION.
2. COMPLETE THE RAW MATERIAL, PRODUCT, WASTE MATERIAL, AND FUEL USAGE SECTIONS FOR THE PARTICULAR SOURCE EQUIPMENT. COMPOSITIONS OF MATERIALS MUST BE SUFFICIENTLY DETAILED TO ALLOW DETERMINATION OF THE NATURE AND QUANTITY OF POTENTIAL EMISSIONS. IN PARTICULAR, THE COMPOSITION OF PAINTS, INKS, ETC., AND ANY SOLVENTS MUST BE FULLY DETAILED.
3. EMISSION AND EXHAUST POINT INFORMATION MUST BE COMPLETED, UNLESS EMISSIONS ARE EXHAUSTED THROUGH AIR POLLUTION CONTROL EQUIPMENT.
4. OPERATING TIME AND CERTAIN OTHER ITEMS REQUIRE BOTH AVERAGE AND MAXIMUM VALUES.
5. FOR GENERAL INFORMATION REFER TO "GENERAL INSTRUCTIONS FOR PERMIT APPLICATIONS," APC-201.

DEFINITIONS

AVERAGE - THE VALUE THAT SUMMARIZES OR REPRESENTS THE GENERAL CONDITION OF THE EMISSION SOURCE, OR THE GENERAL STATE OF PRODUCTION OF THE EMISSION SOURCE. SPECIFICALLY:

AVERAGE OPERATING TIME - ACTUAL TOTAL HOURS OF OPERATION FOR THE PRECEDING TWELVE MONTH PERIOD.

AVERAGE RATE - ACTUAL TOTAL QUANTITY OF "MATERIAL" FOR THE PRECEDING TWELVE MONTH PERIOD, DIVIDED BY THE AVERAGE OPERATING TIME.

AVERAGE OPERATION - OPERATION TYPICAL OF THE PRECEDING TWELVE MONTH PERIOD, AS REPRESENTED BY AVERAGE OPERATING TIME AND AVERAGE RATES.

MAXIMUM - THE GREATEST VALUE ATTAINABLE OR ATTAINED FROM THE EMISSION SOURCE, OR THE PERIOD OF GREATEST OR UTMOST PRODUCTION OF THE EMISSION SOURCE. SPECIFICALLY:

MAXIMUM OPERATING TIME - GREATEST EXPECTED TOTAL HOURS OF OPERATIONS FOR ANY TWELVE MONTH PERIOD.

MAXIMUM RATE - GREATEST QUANTITY OF "MATERIAL" EXPECTED PER ANY ONE HOUR OF OPERATION.

MAXIMUM OPERATION - GREATEST EXPECTED OPERATION, AS REPRESENTED BY MAXIMUM OPERATING TIME AND MAXIMUM RATES.

RAW MATERIAL INFORMATION		
NAME OF RAW MATERIAL	AVERAGE RATE PER IDENTICAL SOURCE	MAXIMUM RATE PER IDENTICAL SOURCE
20a.	b. LB/HR	c. LB/HR
21a.	b. LB/HR	c. LB/HR
22a.	b. LB/HR	c. LB/HR
23a.	b. LB/HR	c. LB/HR
24a.	b. LB/HR	c. LB/HR

PRODUCT INFORMATION		
NAME OF PRODUCT	AVERAGE RATE PER IDENTICAL SOURCE	MAXIMUM RATE PER IDENTICAL SOURCE
30a.	b. LB/HR	c. LB/HR
31a.	b. LB/HR	c. LB/HR
32a.	b. LB/HR	c. LB/HR
33a.	b. LB/HR	c. LB/HR
34a.	b. LB/HR	c. LB/HR

WASTE MATERIAL INFORMATION		
NAME OF WASTE MATERIAL	AVERAGE RATE PER IDENTICAL SOURCE	MAXIMUM RATE PER IDENTICAL SOURCE
40a.	b. LB/HR	c. LB/HR
41a.	b. LB/HR	c. LB/HR
42a.	b. LB/HR	c. LB/HR
43a.	b. LB/HR	c. LB/HR
44a.	b. LB/HR	c. LB/HR

*FUEL USAGE INFORMATION			
FUEL USED		TYPE	HEAT CONTENT
50a. NATURAL GAS	☐	b.	c. 1000 BTU/SCF
OTHER GAS	☐		BTU/SCF
OIL	☐		BTU/GAL
COAL	☐		BTU/LB
OTHER	☐		BTU/LB
d. AVERAGE FIRING RATE PER IDENTICAL SOURCE: BTU/HR		e. MAXIMUM FIRING RATE PER IDENTICAL SOURCE: BTU/HR	

*THIS SECTION IS TO BE COMPLETED FOR ANY FUEL USED DIRECTLY IN THE PROCESS EMISSION SOURCE, E.G. GAS IN A DRYER, OR COAL IN A MELT FURNACE.

*EMISSION INFORMATION

51. NUMBER OF IDENTICAL SOURCES (DESCRIBE AS REQUIRED):

AVERAGE OPERATION

CONTAMINANT	CONCENTRATION OR EMISSION RATE PER IDENTICAL SOURCE		METHOD USED TO DETERMINE CONCENTRATION OR EMISSION RATE
PARTICULATE MATTER	52a. GR/SCF	b. LB/HR	c.
CARBON MONOXIDE	53a. PPM (VOL)	b. LB/HR	c.
NITROGEN OXIDES	54a. PPM (VOL)	b. LB/HR	c.
ORGANIC MATERIAL	55a. PPM (VOL)	b. LB/HR	c.
SULFUR DIOXIDE	56a. PPM (VOL)	b. LB/HR	c.
**OTHER (SPECIFY)	57a. PPM (VOL)	b. LB/HR	c.

MAXIMUM OPERATION

CONTAMINANT	CONCENTRATION OR EMISSION RATE PER IDENTICAL SOURCE		METHOD USED TO DETERMINE CONCENTRATION OR EMISSION RATE
PARTICULATE MATTER	58a. GR/SCF	b. LB/HR	c.
CARBON MONOXIDE	59a. PPM (VOL)	b. LB/HR	c.
NITROGEN OXIDES	60a. PPM (VOL)	b. LB/HR	c.
ORGANIC MATERIAL	61a. PPM (VOL)	b. LB/HR	c.
SULFUR DIOXIDE	62a. PPM (VOL)	b. LB/HR	c.
**OTHER (SPECIFY)	63a. PPM (VOL)	b. LB/HR	c.

*ITEMS 52 THROUGH 63 NEED NOT BE COMPLETED IF EMISSIONS ARE EXHAUSTED THROUGH AIR POLLUTION CONTROL EQUIPMENT.
**"OTHER" CONTAMINANT SHOULD BE USED FOR AN AIR CONTAMINANT NOT SPECIFICALLY NAMED ABOVE. POSSIBLE OTHER CONTAMINANTS ARE ASBESTOS, BERYLLIUM, MERCURY, VINYL CHLORIDE, LEAD, ETC.

***EXHAUST POINT INFORMATION

64. FLOW DIAGRAM DESIGNATION(S) OF EXHAUST POINT:

65. DESCRIPTION OF EXHAUST POINT (LOCATION IN RELATION TO BUILDINGS, DIRECTION, HOODING, ETC.):

66. EXIT HEIGHT ABOVE GRADE: FT	67. EXIT DIAMETER: FT
68. GREATEST HEIGHT OF NEARBY BUILDINGS FT	69. EXIT DISTANCE FROM NEAREST PLANT BOUNDARY: FT
AVERAGE OPERATION	MAXIMUM OPERATION
70. EXIT GAS TEMPERATURE: °F	72. EXIT GAS TEMPERATURE: °F
71. GAS FLOW RATE THROUGH EACH EXIT: ACFM	73. GAS FLOW RATE THROUGH EACH EACH EXIT: ACFM

***THIS SECTION SHOULD NOT BE COMPLETED IF EMISSIONS ARE EXHAUSTED THROUGH AIR POLLUTION CONTROL EQUIPMENT.

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	
PM-10 EMISSION LIMITS FOR THE	)	
MCCOOK AND LAKE CALUMET AREAS	)	R91-22
IN COOK COUNTY, ILLINOIS AND THE	)	
GRANITE CITY AREA IN MADISON	)	
COUNTY, ILLINOIS	)	

STATEMENT OF REASONS

The Illinois Environmental Protection Agency ("Agency") hereby submits this Statement of Reasons, pursuant to Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1027) and 35 Ill. Adm. Code 102.120, in support of this regulatory package.

The Clean Air Act requires that Illinois demonstrate attainment with the ambient air standards for numerous pollutants, including particulate matter emissions. The Clean Air Act Amendments of 1990 require that the State submit rules for PM-10 by November 15, 1991, which provide for attainment with the standards. This rule proposal responds to these requirements.

These proposed regulations are intended to regulate particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers, which is known as PM-10. This proposal represents one portion of the State's submittal of a complete State Implementation Plan ("SIP") for the control of PM-10 emissions in Illinois in order to assure attainment of the PM-10 national ambient air quality standards ("NAAQS").

On July 1, 1987, at 52 Fed. Reg. 24634 and pursuant to authority found in Sections 108 and 109 of the Clean Air Act ("CAA") (42 U.S.C. §§7408, 7409), the United States Environmental Protection Agency ("USEPA") promulgated the NAAQS for PM-10, fixing a 24-hour standard of 150 ug/m^3 and an annual standard of 50 ug/m^3.

On August 7, 1987, at 52 Fed. Reg. 29383, USEPA designated Cook County and Madison County as Group I areas for PM-10 because these areas had a 95% probability of not attaining the PM-10 NAAQS established by the USEPA.

On November 15, 1990, Section 188 of the Clean Air Act Amendments of 1990 (P.A. 101-549 (1990)) ("CAAA") designated the McCook and Lake Calumet areas of Cook County, the Granite City area in Madison County, and the Oglesby area of LaSalle County as nonattainment areas for PM-10 and imposed a SIP submittal date of November 15, 1991 (42 U.S.C. §7513(a)), thereby placing the State of Illinois under an obligation to adopt federally approvable and enforceable regulations for those areas by November 15, 1991 to ensure the attainment and maintenance of the PM-10 NAAQS. This obligation arises under Section 110 (a) of the Clean Air Act (42 U.S.C. §7401 et seq.) as amended by the CAAA, which requires that each state adopt and submit to the USEPA a plan which provides for the implementation, maintenance, and enforcement of the NAAQS (42 USC §7410).

The Agency previously submitted a regulatory proposal for the Oglesby area entitled "PM-10 Emission Limits for the Portland Cement Manufacturing Plant and Associated Quarry Operations Located South of the Illinois River in LaSalle County, Illinois," in Proceeding R91-6, and it remains pending before the Board.

This regulatory proposal is directed at the McCook, Lake Calumet and Granite City areas -- the remaining three of the four geographic areas in Illinois which require additional regulation to control PM-10 emissions -- and includes all the rules that will be necessary for the McCook and Lake Calumet areas to achieve attainment. While the majority of the Granite City sources will also be required to meet the general emissions limit of 0.03 grains of

PM-10 per standard cubic foot and the regulations for fugitive dust control as proposed herein, the Agency expects that a small number of sources in the Granite City area will require limits beyond those provided by the general rule in order for that area to demonstrate attainment. At this time, the Agency modeling required to determine the identity of those sources has not yet been completed. Failure to make a timely submittal to USEPA of rules demonstrating attainment with the PM-10 NAAQS would subject the State of Illinois to sanctions as provided by the CAA. Section 179(a)(3)(A) of the CAAA provides that a non-compliant state may be subject to one of two available sanctions, i.e., withholding highway funding §179(b)(1) and higher offset requirements (§179(b)(2)). However, should the Administrator find the state lacking in good faith in working toward compliance, both sanctions shall apply until such time as that state achieves compliance (§179(a)(4)). Because of the urgency surrounding the submission of this proposal created by new federal requirements, even though the the further specific restrictions for the Granite City area are not yet complete, the Agency believes it is incumbent upon it to submit all available information now and to supplement this proposal at a later time when additional limits relevant only to selected sources within the Granite City area have been determined.

Absent from this proposal are contingency measures as required by Section 172(c)(9) of the Clean Air Act (42 U.S.C. §7502). As outlined in greater detail in a later section entitled "Federal Approvability", the Agency has not proposed such measures at this time because both the Agency and the USEPA remain unsure of the meaning of this provision of the Act. At such time as these requirements are clarified, the Agency will propose appropriate contingency measures.

General Overview

A philosophy underlying environmental control law is that we must protect against the worst-case scenario. In the context of PM-10, this means that the environmental protection agencies, in determining whether an area is attainment for a given parameter, must assume that a facility will emit to the extent allowed by the law. Therefore, we must perform computer modeling based on the emissions limitations as promulgated regardless of the actual emissions levels in the area, because so long as regulations allow a facility to emit to that level, it may at some point in the future do so.

It was on this basis, then, that USEPA designated the geographic areas subject of this rulemaking as nonattainment. USEPA found there is a 95% probability, based on the current TSP rules, that these areas will not comply with the NAAQS for PM-10. The task then fell to the Agency to solve the problem posed by existence of the current rules in these industrialized areas, knowing that the actual emissions of PM-10 in these areas are very close to attainment.

Therefore, in approaching the task of demonstrating attainment in the McCook, Lake Calumet, and Granite City areas, the Agency made the following initial decisions: (1) the existing Board particulate regulations provide the basis for control of particulate matter; (2) the proposed regulations will reflect the levels of control that are actually in place for most sources; (3) regulations will require further control where they are specifically needed to demonstrate attainment with the NAAQS, and these control measures are technically feasible; (4) the Agency would engage in substantial outreach efforts and would work very closely with interested parties throughout the

rulemaking process; and (5) the Agency would work closely with the DENR during the development of the proposal to ensure the costs of the regulating proposal were reasonable. With these decisions made, the Agency proceeded to implement them.

The particulate regulations currently in effect in Illinois provide the backbone of our regulatory framework and will continue to do so. More stringent PM-10 limits are required only for certain sources in the three study areas cited above. Even for many sources in these areas the limits will remain unchanged from the current state rules, such as on boilers and incinerators.

The Agency PM-10 rulemaking proposal was developed to ensure that the regulations properly give credit towards demonstrating attainment for those control measures which are widely used by affected sources. It proposes additional reasonable controls only where necessary to demonstrate attainment of the air quality standards. One must recognize that when Illinois or any state determines whether its State Implementation Plan demonstrates attainment with the national ambient air quality standards for particulate matter, it must assume that each source will emit the maximum amount of particulate emissions allowed by regulation. The limits that are set in the regulations must protect the air quality standards, and the Agency must show through its modeling that sources operating at their maximum allowed limits would not cause violations of the NAAQS.

At any time, most facilities in Illinois do not emit to the maximum extent allowed by the Air Pollution Control Regulations found at 35 Ill. Adm. Code, Part 212. The pollutant levels measured by air quality monitors show that

actual air quality is better than that which would be measured if all sources were emitting at their allowable levels. The monitors in Granite City and Oglesby indicate violations, but still actual air quality is better than if all sources emitted at the levels currently allowed by regulation. The air monitoring data in McCook and Lake Calumet indicate PM-10 levels that only occasionally exceed the air quality standard.

The Agency has concluded that the present controls must be properly accounted for in order to provide the appropriate credit in the modeling assessment. The air monitoring data and subsequent modeling analyses substantiate that if limits are set to account for these existing control measures, the new regulations by themselves will come very close to adequately protecting air quality. The Agency strategy was to achieve this approach, and thereby reduce the need to place unnecessary burdens on Illinois sources. In order to achieve the further reductions necessary to reach the NAAQS in all cases, certain additional limits will be needed for specific sources or types of sources that analyses reveal remain potential violations.

In developing these rules, the Agency examined the potential for limiting the process sources, in particular, to more closely reflect what sources actually emit. This result was achieved by setting a general limit on these sources with more stringent limits where necessary for the Agency to demonstrate attainment.

The Agency also determined that open fugitive particulate matter emissions are significant in all three study areas. While most sources employ measures to control fugitive dust, some facilities may have to improve their levels of control. The rules proposed by the Agency provide the means and guidance for

them to do so, ensuring that the fugitive dust emissions will be appropriately controlled in these areas.

The Agency engaged in very successful outreach efforts that involved the regulated community and other interested groups in the development of this proposal. The Agency shared with the affected facilities and with other interested groups each step in the rule development activities including development of the emissions inventory, assessment of the air quality using the appropriate modeling techniques, and development of the rule language itself. The Agency worked jointly with affected facilities to develop the PM-10 inventory in order to ensure appropriate modeling results. This approach is reasonable and practicable and necessarily results in an open rulemaking process that assures regulations appropriate for the State of Illinois. A discussion of the outreach activities is presented in Exhibit C.

In order to assess the cost of various elements of the regulatory proposal while the rule proposal was being developed, the Agency and DENR worked very closely with an engineering/economic contractor. The feasibility of many control measures and the costs of implementing these controls were discussed and evaluated. The exchange of information was extremely valuable to both the Agency and DENR. A detailed report, which was prepared for the final rule proposal, is included as Exhibit G in this submittal.

General Information about Particulate Matter[1]

Particulate matter in the atmosphere is made up of solids, liquids, and liquids-solids in combination and are present in the air in great numbers. Particulates entering the atmosphere differ in size and chemical composition.

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[1]52 Fed. Reg. 24634 (July 1, 1987).

The effects of particulates on health and welfare are directly related to their size and chemical composition.

Suspended particulates generally refer to particles less than 100 micrometers in diameter (human hair is typically 100 micrometers thick). Particles larger than 100 micrometers will settle out of the air under the influence of gravity in a short period of time.

Particulate pollutants enter the body by way of the respiratory system and their most immediate effects are upon this system. The size of the particle determines its depth of penetration into the respiratory system. Particles over 5 micrometers are generally deposited in the upper respiratory system, the nose, and the throat. Particles ranging in size from 0.5 to 5.0 micrometers in diameter can be deposited in the air ducts (bronchi), with few reaching the air sacs (alveoli). Most particles deposited in the bronchi are removed by the cilia within hours. Particles less than 0.5 micrometer in diameter reach and may settle in the alveoli. The removal of particles from the alveoli is much less rapid and complete than from the larger passages. Some of the particles retained in the alveoli are absorbed into the blood.

The USEPA has found that particulates have been associated with increased respiratory diseases (asthma, bronchitis, emphysema), cardiopulmonary disease, and cancer. USEPA determined that regulating PM-10 provides the requisite margin of safety necessary to protect public health and established the NAAQS for that parameter. USEPA also found that particulate matter may adversely affect the surfaces and growth rates of vegetation, including agricultural crops. Particulate air pollution may also cause a wide range of damage to materials, including corrosion of metals and electrical equipment and the soiling of textiles and buildings.

Purpose and Effect of the Proposal

The protection of the health of persons in the three areas underlies the purpose of this proposal. The emissions limits proposed herein will reduce PM-10 emissions to the extent necessary to achieve and maintain attainment of the PM-10 NAAQS and thereby ensure the protection of public health with respect to PM-10 air quality in the McCook, Lake Calumet, and Granite City nonattainment areas.

Facts Supporting the Proposal

The support provided by the Agency for this proposal establishes all of the facts necessary for the Board to adopt the proposal and for the proposal, upon adoption, to be approved by USEPA as the PM-10 SIP for the McCook, Lake Calumet, and Granite City areas. The following four subsections contain a capsule description of the Agency's methodology, rationale, and conclusions underlying this regulatory package. For further detail, please see the respective exhibits as noted within each subsection.

A. Emissions Inventory

An essential component for preparation of the revised State Implementation Plan is development of a comprehensive inventory of emission sources. The development of the emissions inventory included review of the existing particulate inventory for total suspended particulates, verification of the source parameters, application of appropriate PM-10 emission factors, computation of the PM-10 inventory data, and quality assurance of the inventory. Since each of the three study areas is predominately industrial in nature, development of the PM-10 inventory concentrated on quantifying and

verifying the emissions from the industrial activities. Industrial sources of PM-10 emissions were grouped for dispersion modeling purposes into the following categories: point sources, process fugitive sources, and open fugitive dust sources. The methodologies used to identify, complete, and compile emissions from point, process fugitive, and open fugitive particulate sources are described in detail in Exhibit D.

Point sources are defined as sources that emit PM-10 into the atmosphere through a discrete stack, chimney, or vent. In many cases, the emission release for a point source is via a flue or vent on a pollution control device. The point source inventory consists of all stack sources within the defined boundaries of the study areas.

Process fugitive sources include sources with emissions resulting from industrial processes that are very diffuse or dispersed at the point of release. Process fugitive sources generally are not adequately treated in a dispersion model as point sources. Non-stack sources such as coke ovens (from pushing and charging of coke and from door leaks) and roof monitors on the steelmaking shops and cast houses are examples of process fugitive sources.

Open fugitive dust emissions result primarily from raw material handling and from reentrainment from vehicular activities on paved and unpaved plant roads. Open fugitive dust sources are generally distributed throughout an industrial facility and are typically located at or near ground level. All three of the priority PM-10 study areas contain sources of industrial fugitive dust.

The PM-10 inventory represents a cooperative effort by the IEPA staff and members of affected industries in the study areas. During 1990 and 1991 the

Agency held general meetings in Springfield with industry to discuss inventory and PM-10 SIP development and to review IEPA data. The Agency also held several sets of general meetings in the three study areas from the summer of 1990 through the summer of 1991. The earlier meetings focused on the specific inventories of each area. Discussion of modeling results and presentation of the general rule proposal provided the focus of the spring 1991 meetings, while the summer 1991 meetings focused on the proposed regulations. In addition, the Agency had extensive contacts with individual industries and groups of industries through meetings and telephone discussions to identify PM-10 sources, to clarify operating conditions, and to prepare PM-10 inventories. Exhibit C contains summaries of all the general meetings, lists of attendees at each meeting, and outlines of the topics discussed at each meeting.

The end result of the PM-10 inventory process is an emissions inventory for each of the study areas that represents a cooperative effort with affected industries using nationally acceptable PM-10 emission factors. These inventories are the basis for the air quality modeling that provides the required attainment demonstration.

B. Modeling of Air Quality

To develop control strategies for the achievement and maintenance of the PM-10 NAAQS, the Agency performed dispersion modeling to study the air quality in the three cited Illinois areas. The mcdeling was conducted consistent with Federal guideline procedures. The primary source of such guidance is contained in two USEPA documents: PM-10 SIP Development Guideline and the Guideline on Air Quality Models.

The modeling analysis demonstrates that the emissions limits contained in this regulatory package are sufficient to provide for attainment and maintenance of the PM-10 NAAQS. The procedure used by the Agency to determine these limits yielded the most reasonable level of control necessary to provide attainment. For the vast majority of PM-10 emission sources, the revised emission limits proposed by the Agency merely codify control practices already being used to reduce emissions. More stringent requirements are proposed only for those sources shown by the modeling to contribute significantly to violations of the PM-10 NAAQS. Both the magnitude of a source's air quality impact and the reasonableness of the required controls were considered before the Agency assigned emissions limits that were more stringent than the source currently achieves. The Agency considers this approach to be equitable in that it represents the least intrusive application of controls and requires only that which is necessary for attainment.

A detailed description of dispersion modeling, including the specific procedures needed to meet state and federal requirements, and the results of the air quality modeling studies are found in the supporting documentation of this proposal (Exhibit E).

C. Contact with Environmental Control Agencies

The Agency consulted USEPA throughout development of this proposal to ensure that the most current guidance and interpretations are included. Since the revised national PM-10 standard became effective in 1987, the Agency has made every effort to ensure that the state is meeting federal requirements and guidance regarding monitoring activities, emissions inventory development, air

quality modeling, regulatory approach and regulatory language. As explained later in this document, the process used by the Agency reflects current federal guidance.

In addition to consultation with the USEPA, the Agency consulted other states and reviewed their regulatory development efforts. The Agency considered this in developing these proposed regulations and, to that end, reviewed particulate data, proposed and current regulations, and required control measures of certain other states. The Agency's primary focus in this regard was states within USEPA Region V, notably Michigan, Indiana, Minnesota, and Ohio; however, sixteen other states were contacted during the complete rule development process. Since greatest attention was given to the information provided from states within Region V, Agency contacts with most of the other states resulted in minimal impact on this effort.

Each of the four Region V states has at least one PM-10 nonattainment area, and they are all currently involved in the development of revised state implementation plans for PM-10. These states have also found that control of fugitive dust is an important element of their PM-10 regulations, and several of the Region V states also reported the use of a general limit for the control of point sources.

D. Application of Data

As noted previously, the Agency examined the possibility of adopting a general rule which would be applicable to the majority of Illinois process sources in the nonattainment areas and carving out source-specific exceptions for the few remaining sources in order to meet attainment. In this proposal

the Agency seeks to establish emissions limits that reflect control measures that are already in place for most industries.

Several sets of preliminary modeling were performed for the three study areas. The three assessments evaluated the air quality for each of the following: 1) the allowable emissions limits for existing particulate rules, 2) the actual PM-10 emissions levels, and 3) an assumed limit of 0.03 gr/scf as a general rule for point sources with various levels of fugitive dust controls (i.e., no fugitive control, fugitive control at actual levels, and at reasonable additional fugitive control). The model assessments with the 0.03 gr/scf limit and reasonable additional fugitive dust control showed dramatic improvements over the evaluation of existing rules. As discussed in foregoing subsection (A), the numerical limit of 0.03 gr/scf as a general rule and the issues regarding fugitive dust control were discussed at the informational meetings held with industry representatives in all three study areas.

The Agency subsequently determined that the majority of sources in each of the three study areas are able to meet the general limit of 0.03 gr/scf. Indeed, that general limit is a standard that most process emission sources are meeting currently and can continue to meet comfortably. This general emissions limit, therefore, may be fairly applied to all but a few sources, and for those, alternative standards have been provided.

Concerning fugitive particulate matter emissions, the Agency has proposed that opacity is appropriate as a surrogate indicator of fugitive dust emissions for ensuring that adequate control measures are being applied for certain types of fugitive dust sources. The use of opacity limits is consistent with existing Illinois rules for the control of particulate matter

and with practices in other states. The opacity limits included in this proposal reflect the Agency's intent to ensure that appropriate control practices are implemented and enforced. Exhibit F provides an extensive discussion of opacity as an indicator of control efficiency.

Federal Approvability

The USEPA's review of the Agency's proposal allows the Agency to represent its belief that this proposal is federally approvable. There are, however, two issues arising from the Clean Air Act Amendments which require further discussion: (1) a requirement that reasonably available control technology be imposed; and (2) as earlier discussed, a provision requiring contingency measures.

The CAAA requires imposition of reasonably available control technology to control PM-10:

> Section 172(c)(1) requires all nonattainment plan provisions to provide for the implementation of all reasonable available control measures as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology) and shall provide for attainment of the national primary ambient air quality standard. (42 U.S.C. 7502)

USEPA has interpreted these requirements to hold that the controls necessary to bring about attainment constitute reasonably available control technology. (April 2, 1991 USEPA Memorandum, "PM-10 Moderate Area SIP Guidance: Final Staff Work Product", from J. Calcagni to Regional Air Directors, included in Exhibit D.) This memorandum clarifies that USEPA believes it is unreasonable to require control measures that are not needed to demonstrate attainment. Consistent with this policy, the Agency has concentrated on proposing those rules necessary to demonstrate attainment of the NAAQS for development of the

PM-10 rules for the three study areas. The Agency maintains the emissions standards set forth in this proposal are necessary to achieve attainment of the PM-10 NAAQS and, therefore, the controls constitute reasonably available control technology.

The second Clean Air Act issue is the requirement for contingency measures found in Section 172(c)(9) which states:

> Such plan shall provide for the implementation of specific measures to be undertaken if the area fails to make reasonable further progress, or to attain the national primary ambient air quality standard by the attainment date applicable under this part. Such measures shall be included in the plan revision as contingency measures to take effect in any such case without further action by the State or the Administrator. (42 U.S.C. §7502)

As the Agency and USEPA remain unsure of the meaning of this provision, it cannot be determined at this time what additional regulations detailing contingency measures are necessary for federal approvability of this proposal. Therefore, the Agency has not proposed any contingency measures in this proposal. When this information is known, the Agency will act accordingly. Notwithstanding the contingency measures provision, the Agency maintains that this rule, if promulgated and implemented, will bring about attainment of the PM-10 air quality standards and is federally approvable as part of the PM-10 SIP.

Finally, this proposal is consistent with the USEPA "Federal Continuity Policy" which requires that the Illinois SIP for total suspended particulates (TSP) remain in place until a PM-10 SIP is approved. This transition policy, which seeks to avoid unnecessary disruption of the existing control program, reads in pertinent part as follows:

> The particulate matter control strategies in existing TSP SIP's reduce ambient concentrations of PM_{10} as well as TSP. Therefore, to avoid unnecessary disruption of the existing particulate matter control program, States will want to utilize existing SIP requirements as much as possible in their PM_{10} SIP's. The regulatory requirements of a State's existing TSP SIP must remain in effect, therefore, until a PM_{10} SIP is approved by EPA (see Section 110(i), 42 U.S.C. 7410(i)). The existing regulations will continue to be enforced by Federal and State agencies and through citizen suits during the period of transition from a TSP SIP to a PM_{10} SIP.
>
> It is unlikely that the level of control required by the current SIP is significantly more than will be necessary to attain and maintain the PM_{10} NAAQS. Therefore, regulations in the existing SIP cannot be relaxed without a demonstration that the revision will not interfere with attainment or maintenance of the PM_{10} NAAQS. 52 Fed. Reg. 24679 (July 1, 1987).

The foregoing is consistent with the Agency's intent to keep all regulations for particulate matter promulgated as part of the TSP SIP in place to the extent possible as part of the PM-10 SIP. The three areas involved in this rulemaking require additional regulation for the control of PM-10 emissions in order to demonstrate attainment and more stringent limits will be required only for certain sources in those three areas. The Agency will propose the adoption of the PM-10 national ambient air standards and repeal of the TSP air quality standards in a forthcoming docket.

THE AGENCY'S PROPOSAL

The following is a section by section summary of the Agency's Proposal.

Section 211.122 Definitions

The Agency has proposed widely accepted definitions of "Crushing" and "Screening", both definitions adapted from definitions that appear in 40 CFR 60, Subpart 000, "Standards of Performance for Nonmetallic Mineral Processing Plants". Also, the definition of "PM-10", earlier proposed in Proceeding R91-6, remains pending before the Board.

Section 212.107 Measurement Methods for Visible Emissions

The USEPA requires each state in its SIP to present an applicable measurement method for each emission limit imposed. If a state fails to do so, its SIP is deemed incomplete (40 CFR 61.111 (1987)). Sections 212.107 through 212.110 address this requirement.

In Section 212.107 the Agency proposes to adopt by reference the standard federal test method for the detection of visible emissions found in 40 CFR 60, Appendix A, Method 22.

Section 212.108 Measurement Methods for PM-10 Emissions

In this Section, the Agency proposes to incorporate by reference the two test methods for PM-10 emissions that USEPA has specifically adopted for suggested inclusion in State Implementation Plans. The methods are 40 CFR 51, Appendix M, Methods 201 and 201A, and are considered to give equivalent results. The Agency also proposes to allow compliance to be demonstrated by 40 CFR 60, Appendix A, Method 5. Use of this method would ordinarily result in a larger value of emissions, because Method 5 is a test method for total particulate rather than just for that portion of the total particulate which is less than 10 micrometers in aerodynamic diameter (PM-10). The option of Method 5 is proposed because it is simpler, thus more inexpensive to perform, than are Methods 201 and 201A, and because it provides a more conservative result. Section 212.108 also proposes Agency prerogatives to require testing for PM-10 emissions.

One requirement by USEPA for PM-10 is that the impact of condensible emissions must be included in the assessment. Condensible emissions are those which are a gas when in the stack but which condense to form particulate

matter immediately upon contact with cooler air outside the stack. The Agency accounted for these condensible emissions in its analyses, but it has not identified the need to control such emissions for its demonstration of attainment. All PM-10 reductions are to be accounted for in reductions of the non-condensible emissions. Therefore, no test method is proposed in this Section for measuring the condensible emissions. Such a method was proposed as part of the Oglesby PM-10 rule because it was needed there.

Section 212.109 Measurement Methods for Opacity

This proposed Section would adopt as a Board regulation the generally recognized procedure for determining the opacity of an emission source, 40 CFR 60, Appendix A, Method 9, as applicable for the first time to all sources having a percentage opacity limitation in the Board's Air Pollution Regulations. Currently, only certain Board opacity regulations refer to Method 9 (e.g., Section 212.126 or some of Part 212 Subpart R). Since many opacity limitations require compliance to be determined merely "by visual observations," the Agency proposal corrects an omission in the current regulations.

The proposed Section also would modify Method 9 for roadways and parking lots that have visible emissions only intermittently when vehicles travel over paved or unpaved surfaces. The modification is necessary because of the intermittent nature of these sources. Method 9 specifies that 24 consecutive opacity readings be taken at 15 second intervals in a six-minute period. The 24 readings are then to be averaged for a compliance determination. Compliance would always be assured for most roadways, however, because readings taken during the standard six-minute time period would show zero percent opacity if no vehicle passes occurred during that period. The