

1979

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Repository Citation

Rosenberg, Ronald H. and Friedman, Bruce A., "Air Quality and Industrial Growth: The Location of New Industrial Sources of Pollution in Non-Attainment Areas" (1979). *Faculty Publications*. 673.
<https://scholarship.law.wm.edu/facpubs/673>

Air Quality and Industrial Growth: The Location of New Industrial Sources of Pollution in Non-Attainment Areas

I. INTRODUCTION

The Clean Air Act Amendments of 1970 directed the Administrator of the Environmental Protection Agency (EPA) to establish national primary ambient air quality standards for air pollutants for which air quality criteria had been established prior to the date of enactment.¹ These national primary ambient air quality standards were to be set at a level which would protect the public health with an adequate margin of safety.² The attainment and maintenance of these national primary ambient air quality standards was one of the major goals of the Act.³

Implementation of these amendments has resulted in a number of problems related to the increasing conflict between air quality and economic growth. One major problem involves the extent to which large new stationary sources of particular pollutants can be located in an area where the national ambient air quality standards are being violated. This issue is identified as the location of new sources in non-attainment areas, and due to its importance, it has become a subject of both administrative interpretation and congressional consideration. The issue is of critical importance for two reasons. First, many if not most, of the nation's large metropolitan

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¹ Clean Air Act Amendments of 1970, § 109(a)(1), 42 U.S.C.A. § 18576—4(a)(1) (1970) (hereinafter cited as the "Clean Air Act of 1970.")

² *Id.* § 109(b)(1).

³ *Id.* § 101(b)(1); *Sierra Club v. EPA*, No. 74-2063 (D.C. Cir. August 2, 1976). "The twin objectives of the Clean Air Act are to improve air quality where pollution levels do not meet national minimum standards, and to protect the quality of air that already . . . is cleaner than national standards (at 7, footnote 1)."

areas are currently non-attainment areas.⁴ Second, it is precisely those areas which are likely to experience pressure for increased industrial development. Thus, if the urban location of new sources of air pollution is to be restricted, industrial and employment expansion could be affected.

This article will discuss the problem of locating new or modified sources of air pollution in non-attainment areas. It will first address the requirements of the Clean Air Act Amendments of 1970 and their relationship to the non-attainment issue. This will be followed by an examination of the administrative and legislative approaches to reconciling the public health, economic and social implications raised by this issue. Finally, the article will discuss the impact of the recently-enacted Clean Air Act Amendments of 1977 upon the question of non-attainment areas.

II. DEVELOPMENT OF THE EPA EMISSIONS OFFSET POLICY

A. *The Clean Air Act Amendments of 1970*

As previously mentioned, the Clean Air Act Amendments of 1970 directed the Administrator of EPA to establish national primary ambient air quality standards for a variety of air pollutants.⁵ Within this framework, the Act delegated to the states and EPA the responsibility for attaining and maintaining these national air quality standards.

The principal mechanism for achieving the national primary ambient air quality standards is the State Implementation Plan.⁶ The Act required each state to adopt and submit for the approval of the administrator a plan which provided for the attainment and maintenance of primary standards as expeditiously as practicable, but in no case later than three years from the date of approval of such plan.⁷ The administrator was authorized, however, to grant an extension to a State of up to two years for the attainment of a primary standard in the absence of reasonably available control measures.⁸ Where a plan would be found to be inadequate to achieve the standards, the Act requires that it be revised.⁹ In any case, the national primary

⁴ EPA announced on February 23, 1978 that of the 3,215 counties in the United States: 606 violate the ambient standards for photochemical oxidants, 424 violate the particulate standard, 190 violate the carbon monoxide standard, 108 violate the sulfur dioxide standard, and 8 violate the nitrogen dioxide standard. See [1978] 8 ENV. REP. (BNA) 1681-83, 1704-06.

⁵ Clean Air Act of 1970 §§ 108 and 109. There are presently six air pollutants for which ambient standards have or are being established: (1) particulates, (2) carbon monoxide, (3) sulfur dioxide, (4) hydrocarbons, (5) nitrogen dioxide, and (6) lead.

⁶ S. REP. NO. 1196, 91st Cong., 2d Sess. 12 (1970); Regulations setting out the requirements for the preparation, adoption, and submittal of implementation plans may be found in 40 C.F.R. § 51 (1971).

⁷ Clean Air Act of 1970 § 110(a)(2)(A)(i).

⁸ *Id.* § 110(e).

⁹ *Id.* § 110(a)(2)(H).

ambient air quality standards were to be achieved by mid-1975 or at the latest mid-1977.¹⁰ Once achieved, the ambient standards must then be maintained.¹¹

In addition to mandating the adoption of state air quality implementation plans, the Act requires the administrator to promulgate new source performance standards for those categories of sources which cause or contribute to "the endangerment of [the] public health or welfare."¹² As one might expect, performance standards have been promulgated for heavy industrial source categories such as electric generating plants, steel mills, petroleum refineries, and storage facilities.¹³

The Act set out requirements which established the minimum components of an approvable state plan.¹⁴ In general, a plan was required to include measures "necessary" to ensure attainment and maintenance of the primary and secondary standards.¹⁵ One of the required elements of a State Implementation Plan is a procedure for the pre-construction review of new sources of pollution to which a standard of performance for new stationary sources applies.¹⁶ Before the administrator can approve a state plan, the pre-construction review procedure must include authority to prevent the construction or modification of any new source which would prevent the attainment or maintenance of a national primary or secondary ambient air quality standard.¹⁷ Further, the procedure must require the owner or oper-

¹⁰ *Natural Resources Defense Council v. E.P.A.*, 475 F. 2d 968, 970 (D.C. Cir. 1973).

¹¹ Clean Air Act of 1970 § 110(a)(2)(A)—(H); *Train v. Natural Resources Defense Council*, 421 U.S. 60 (1975).

¹² Clean Air Act of 1970 § 111(b)(1)(A).

¹³ As of March 1, 1978, EPA has promulgated New Source Performance Standards for the following source categories: Fossil-Fuel Fired Steam Generators (40 C.F.R. 60.40); Incinerators (40 C.F.R. 60.50); Portland Cement Plants (40 C.F.R. 60.60); Nitric Acid Plants (40 C.F.R. 60.70); Sulfuric Acid Plants (40 C.F.R. 60.80); Asphalt Concrete Plants (40 C.F.R. 60.90); Petroleum Refineries (40 C.F.R. 60.100); Storage Vessels for Petroleum Liquids (40 C.F.R. 60.110); Secondary Lead Smelters (40 C.F.R. 60.120); Secondary Brass and Bronze Ingot Production Plants (40 C.F.R. 60.130); Iron and Steel Plants (40 C.F.R. 60.140); Sewage Treatment Plants (40 C.F.R. 60.150); Primary Copper Smelters (40 C.F.R. 60.160); Primary Zinc Smelters (40 C.F.R. 60.170); Primary Lead Smelters (40 C.F.R. 60.180); Primary Aluminum Reduction Plants (40 C.F.R. 60.190); Wet Process Phosphoric Acid Plants (40 C.F.R. 60.200); Superphosphoric Acid Plants (40 C.F.R. 60.210); Diammonium Phosphate Plants (40 C.F.R. 60.220); Triple Superphosphate Plants (40 C.F.R. 60.230); Granular Triple Superphosphate Storage Facilities (40 C.F.R. 60.230); Coal Preparation Plants (40 C.F.R. 60.250); Ferro-alloy Production Facilities (40 C.F.R. 60.260); Electric Arc Furnaces (40 C.F.R. 60.270); Kraft Pulp Mills (43 Fed. Reg. 7568 (1978)).

¹⁴ See notes 6-11 *supra*.

¹⁵ Clean Air Act of 1970 § 110(a)(2)(B).

¹⁶ *Id.*, § 110(a)(2)(D).

¹⁷ *NRDC v. EPA* 483 F. 2d 690, 694 (8th Cir. 1973). S. REP. No. 1196, 91st Cong., 2d Sess. 12 (1970). EPA has apparently decided that requiring the review

ator of a proposed source to submit any necessary information prior to the construction or modification of the source necessary to determine whether the ambient standard would be violated.¹⁸ Thus, the Act requires pre-construction review of any proposed new stationary source¹⁹ which might prevent the attainment or maintenance of a national ambient air quality standard, or for which a new source performance standard has been formulated.²⁰

In sum, the Act, and its legislative history, make it clear that where construction or modification of a new source of pollution is projected to prevent or delay the attainment and maintenance of a national primary ambient air quality standard, the state must take steps to mitigate the air quality impacts up to and including the prevention of a source's construction or modification.²¹ Therefore, where air quality in an area exceeds a national air quality standard, a new source of pollution may not be permitted to add to the existing violation.

B. *Early Experience Under the Act*

In order to implement and clarify the new source review requirement of the Act, the EPA, in 1973, promulgated a regulation entitled, "Review of new sources and modifications."²² The regulation directed the states to include in their implementation plan methods for identifying "the types and sizes of facilities, buildings, structures, or installations" which would be subject to review and the rationale for such a determination.²³ In addition, the regulation further clarified the nature of the information the owner or operator of a proposed new source must supply the state so that the source's effect on air quality could be determined.²⁴ The regulations also suggest that states can expand the categories of sources requiring new source review beyond those specifically required by the Act.²⁵

of only those source categories for which New Source Performance Standards have been promulgated would not adequately meet the mandated goal of attaining and maintaining the National Ambient Air Quality Standards. The Agency, therefore, requires the review of other sources which may interfere with achieving the standards. *See also*, Clean Air Act of 1970 § 110(a)(4)(A).

¹⁸ Clean Air Act of 1970 § 110(a)(4)(B).

¹⁹ The Act defines the term "stationary source" as "any building, structure, facility, or installation which emits or may emit any air pollutant." (Clean Air Act of 1977 § 111(a)(3)).

²⁰ *See* note 13 *supra*.

²¹ Prior to the 1977 Clean Air Act amendments, it was argued that the existing law prohibited the location of new air pollution sources within non-attainment areas after the passing of the ambient air quality attainment dates. *See*, H. R. REP. 95-294, 95th Cong., 1st Sess. 208 (1977).

²² 40 C.F.R. 51.18 (1973).

²³ *Id.*, § (f).

²⁴ *Id.*, §§ (c)(1) and (2).

²⁵ *See* note 22 *supra*.

Under this regulatory scheme, the burden of performing the preconstruction review of a proposed new source falls upon a designated reviewing authority. In most cases new source review is exercised by a state agency. However, in six states, the EPA performs these duties because the states' pre-construction review procedures have not yet been approved.²⁶ The regulations require the reviewing authority to examine permit applications to determine whether the state plan's emissions limitations will be met and also whether any air quality violations will be caused or exacerbated.²⁷

During the interim between the issuance of the 1973 new source review regulations and 1976, EPA did little to clarify its position on the non-attainment problem. In 1976, however, several new source review situations forced EPA to develop first a regional and then a national policy. In January of 1976, the EPA's regional office in California denied an application for a permit to construct an 8.62 million barrel petroleum and petroleum products storage terminal on Terminal Island, Los Angeles Harbor, Los Angeles, California.²⁸ The denial was based on a determination that the proposed source, even after meeting the applicable new source performance standards, would be a significant contributor of hydrocarbon emissions. This new hydrocarbon source would interfere with the attainment of the national air quality standards for photochemical oxidants (commonly referred to as smog).²⁹ Furthermore, in April of 1976, an official from EPA's Philadelphia regional office testified at a public hearing held in Portsmouth, Virginia on the construction of a new petroleum refinery in Hampton Roads, Virginia. Local officials were informed that Portsmouth was considered by EPA to be a non-attainment area for photochemical oxidants; and that to permit the location of a new major source of pollution into the area would worsen existing air quality.³⁰

Moreover, throughout 1976 the number of proposed projects in non-attainment areas continued to grow, thus putting even more pressure on the EPA to clarify its policy. A number of steel companies have filed plans to expand their present facilities in order to take advantage of existing integrated production sites located in such cities as Birmingham, Alabama; Youngstown, Ohio, and Pittsburgh, Pennsylvania.³¹ Yet, the air quality

²⁶ Progress in the Prevention and Control of Air Pollution in 1975, S. Doc. No. 94-228, 94th Cong., 2d Sess. 27-33 (1976).

²⁷ See note 22 and 23 *supra* and text accompanying.

²⁸ Letter from Paul DeFalco, Jr., Regional Administrator, EPA, Region IX, to Melvin B. Yates, General Manager, Paktank Pacific Company, January 27, 1976.

²⁹ Hydrocarbon compounds are considered to be precursor pollutants leading to the formation of photochemical oxidants. U.S. ENVIRONMENTAL PROTECTION AGENCY, *THE HEALTH IMPLICATIONS OF PHOTOCHEMICAL OXIDANT AIR POLLUTION TO YOUR COMMUNITY* at 17, August 1976.

³⁰ Washington Post, April 20, 1976, at A9, Col. 1.

³¹ Kotsch J. A., *Developments in the Iron and Steel Industry U.S. and Canada—1975*, IRON AND STEEL ENGINEER, D-7-D-15, February 1976.

in Birmingham, Youngstown, and Pittsburgh currently exceeds the national ambient standards for both total suspended particulate matter³² and sulfur dioxide.³³ There are also a number of energy production and distribution projects proposed with anticipated sites in AQCRs currently exceeding a national air quality standard. In general, the projects involve the construction of deepwater tanker terminals and tank farms on the West and Gulf Coasts.³⁴ Two projects have been proposed for location on the Gulf Coast: the Louisiana Offshore Oil Port would consist of an offshore crude oil terminal and a petroleum storage facility to be located at St. James, Louisiana;³⁵ and SEADOCK, a similar project, would be located in the area of Houston, Texas.³⁶ A third project, identified as Sohio-Plus, involves the construction of a tanker terminal in San Pedro Harbor near Long Beach, California.³⁷ All three projects would be potential major sources of hydrocarbon emissions and would exacerbate existing violations of the national standards for photochemical oxidants.³⁸ By aggravating air quality violations after the statutory attainment date, these projects cannot legally receive a permit to construct under the Clean Air Act of 1970.³⁹

Responding to increased pressure for national guidance, EPA prepared several policy papers, and in April of 1976, the "Policy Guidance for New Source Reviews in Non-Attainment Areas under the Clean Air Act" was issued.⁴⁰ This Policy Guidance document was prepared mainly for the assistance of state and local reviewing agencies, many of which were experiencing difficulty in reconciling the Clean Air Act's mandates with the economic necessities of industrial and employment expansion. It also served as a vehicle for soliciting comments on the developing policy.

In light of the pervasive nature of the non-attainment problem and the potentially significant economic and energy implications for the nation involving the projects and categories of sources discussed above, some uniform national approach was clearly necessary. Thus, in October of 1976, EPA issued a draft interpretative ruling on the non-attainment question which superseded the April, 1976 policy guidance document.⁴¹ After re-

³² U.S. ENVIRONMENTAL PROTECTION AGENCY, MONITORING AND AIR QUALITY TRENDS REPORT, 1974, A-1, A-82, A-89, February 1976 (EPA-450/1-76-001).

³³ *Id.* at B-1, B-53, B-56.

³⁴ FEDERAL ENERGY ADMINISTRATION, CRUDE OIL SUPPLY ALTERNATIVES FOR THE NORTHERN TIER STATES, August 1976 (FEA/G-76/350).

³⁵ *Id.* at 50.

³⁶ *Id.*

³⁷ *Id.* at 48.

³⁸ *Supra* note 42 at D-1, D-8, D-13.

³⁹ *See* note 117 *supra* and text accompanying.

⁴⁰ EPA POLICY GUIDANCE FOR NEW SOURCE REVIEWS IN NON-ATTAINMENT AREAS UNDER THE CLEAN AIR ACT, April 1976.

⁴¹ Unfortunately there was no widespread distribution of these drafts prior to the ruling published on December 21, 1976. A number of interest groups were consulted, but there was no broad-based effort to solicit public interest or opinion.

ceiving comment on its proposed policy, the EPA, in December, 1976, published the formal interpretative ruling in the Federal Register.⁴² The interpretative ruling represents EPA's latest effort at developing a workable nationwide standard for new source review in non-attainment areas.

III. THE EPA'S CURRENT POLICY: THE EMISSIONS OFFSET RULE

The EPA interpretative ruling more clearly established the "minimum" new source review requirements for the location of new or modified major sources in non-attainment areas.⁴³ States, therefore, are free to impose more stringent regulations if they so desire. Nevertheless, by establishing a system for treating the location or modification of new sources, the ruling illuminated the required procedure for preconstruction review of new sources. The major feature of the new ruling was EPA's adoption of an "offset credit," or net benefit standard of review.⁴⁴ Rather than focusing solely on the predicted emissions of a proposed new source, the offset credit policy looks to the current air quality of the area to be affected by the new source. If the net effect of the new emissions, when combined with unanticipated emissions reductions from existing sources beyond those required by the applicable state plan, will contribute to "reasonable progress" in attaining the national air quality standards for that region, then the new source may be granted a construction permit.⁴⁵ Thus, as long as this emission trade-off yields a better than one-for-one improvement, the EPA will not challenge the state's interpretation of "reasonable progress."⁴⁶

The adoption of the offset credit policy was significant for two reasons. First, it allowed some flexibility in new source review so as to accommodate reasonable industrial growth in non-attainment areas. Second, and perhaps most important, it indicated that the EPA did not interpret the Clean Air Act as precluding major new or expanded source construction in AQCR which were currently exceeding a national ambient air quality standard. This position also reflected the realization that the ambient air quality standards could not be attained by the statutory deadline.

On the other hand, the selection of the interpretative ruling format is unusual, and standing alone it could have raised procedural issues. The Administrative Procedure Act exempts interpretative rulings from the publication and public comment requirements of standard rulemaking.⁴⁷ Although interpretative rulings are not defined by the Act, case law makes

⁴² 41 Fed. Reg. 55524-30 (1976).

⁴³ 41 Fed. Reg. 55525 n.1.

⁴⁴ *Id.* at 55529.

⁴⁵ *Id.*

⁴⁶ *Id.*

⁴⁷ Administrative Procedure Act, 5 U.S.C. § 553(b)(3)(A) (1970).

it clear that such a designation should be reserved for less significant agency actions.⁴⁸ Since the ruling represented a major agency policy statement on an issue of national importance, the decision to use the interpretative ruling instead of an amendment to the regulations might have been a miscalculation. It is possible that the new emission offset policy could be attacked on the procedural grounds that the ruling is, in fact, a new regulation which has not received adequate public scrutiny. A reviewing court might have then ordered the agency to propose the policy document as a rule in conformity with the Administrative Procedure Act. It is worth noting that the EPA published an Advanced Notice of Proposed Rulemaking signifying its intent to formally amend its pre-construction review regulations on the same day it issued the interpretative ruling.⁴⁹ The subsequent ratification of the ruling by Congress in the Clean Air Act Amendments dispels any danger of such a procedural attack.

A. Scope of Application

Before turning to the implementation procedures under the interpretative ruling, it is necessary to examine the scope of ruling's application. The EPA document continues existing practice of concentrating attention on "major sources" of pollution. Consequently, smaller sources may be approved in non-attainment areas without undergoing an air quality impact analysis and a showing of reasonable further progress towards the attainment of the primary air quality standards.⁵⁰ The definition of major sources is, therefore, of considerable importance. Initially, major sources were defined as those having an "allowable emission" rate equal to, or greater than one hundred tons per year for particulates, sulfur oxides, nitrogen oxides, and hydrocarbons.⁵¹ Major sources of carbon monoxides must have an emission rate of one thousand tons per year.⁵² There is some uncertainty over the continued use of the "allowable emissions" standard for determining major sources. In fact, the Advanced Notice of Proposed Rulemaking issued concurrently with the interpretative ruling suggested that the EPA was considering a modification of the major source category by defining major sources as those with an allowable emission rate of fifty tons per year for particulate matter, sulfur oxides, nitrogen oxides, and hydrocarbons; and five hundred tons for carbon monoxide.⁵³ As evidenced by the proposed redefinition, the EPA intends to broaden the application of its

⁴⁸ See generally *National Nutritional Foods Assn. v. Weinberger*, 512 F. 2d 688 (2d Cir. 1975).

⁴⁹ 41 Fed. Reg. 55558 (1976).

⁵⁰ 41 Fed. Reg. 55528 (1976).

⁵¹ *Id.*

⁵² *Id.*

⁵³ 41 Fed. Reg. 55559 (1976).

new source review procedures by restricting the class of sources not subject to preconstruction review, i.e., minor sources.⁵⁴

The EPA's new policy continues the existing procedure of reviewing new sources under the pre-construction review requirements established in the 1973 regulations. Hence, the reviewing authority, be it federal, state, or sub-state, must first determine whether the new source will meet all applicable emission requirements in the approved State Plan; that is, new source performance standards and any other emission requirement imposed by the state.⁵⁵ Failure to meet the specified emission requirement mandates the denial of the permit to construct. However, if the applicable emission limitations are met, the reviewing authority must then perform an air quality analysis to determine the precise impact of the proposed source upon the air quality of the AQCR. This analysis must be performed on a case-by-case basis, and must evaluate the projected impact of the new source upon both the specific source location and the entire AQCR. If after undergoing the requisite air quality analysis it is determined that the new or modified source will not cause a new, or exacerbate an existing, national air quality standard violation, it may receive the necessary permits to construct and operate without undergoing the emissions offset analysis.

B. Situations Requiring Offset Analysis

The offset credit policy will be applied in either of two situations; that is, having satisfied the applicable state plan emission limitations, a proposed new source might still, (1) cause a new violation of an attained national air quality standard,⁵⁶ or (2) exacerbate existing violations of such standards within AQCR.⁵⁷ In each situation the offset credit procedure requires a specified analysis; thus each will be considered separately.

The first situation occurs when the location or expansion of a source meeting the applicable state plan requirements or new source performance standards would cause a violation of a national air quality standard in a currently "clean" area (one not now in violation of the national standard).

⁵⁴ Recent reports indicate that EPA is considering a change in the interpretative ruling which would extend the ruling's coverage to new or modified sources having "potential" emissions of 100 tons or more per year. The potential emission rate would be defined as "the emission rate expected to occur without control equipment unless such control equipment is (aside from air pollution control requirements) necessary for the source to produce its normal product or is integral to the normal operation of the source." See, [1978] 8 ENV. REP. (BNA) 1403.

⁵⁵ 41 Fed. Reg. 55528 (1976)

⁵⁶ *Id.*

⁵⁷ *Id.* at 55528-29 (1976). If after undergoing the requisite air quality analysis it is determined that the new or modified source will not cause a new or exacerbate an existing NAAQS violation, it may receive the necessary permits to construct and operate without undergoing the emission offset analysis.

In such a case, preconstruction approval by the reviewing authority will be conditioned upon the new source meeting certain requirements. First, the new source must agree to reduce its own emissions to a more stringent level than that required by the state plan (internal offsets) or to arrange for more stringent control of neighboring sources (external offsets). Instead of more stringent internal emissions offsets, the reviewing authority may also prescribe "design, operational, or equipment" standards for the new source.⁵⁸ Second, the emission limitations for the locating source and "any existing sources affected" must be federally enforceable. Regardless of the nature of the offset procedure selected by the new source owner or the reviewing authority, the offset must result in the maintenance of the attained national ambient air quality standard.⁵⁹ Thus, in clean air areas, construction of new sources will not be allowed if it will result in a new violation of a national air quality standard.

In practice this offset procedure can be initiated either by the new source owner or by the applicable reviewing authority. Nevertheless, the emissions reductions agreed to must be federally enforceable and must be in effect as of the date the new source commences operation.⁶⁰ In the case of internal offsets, the commitment to reduce other sources of emissions can be made part of the new source permit and directly enforceable as a state plan requirement by the EPA or a private party.⁶¹ However, in the case of external offsets, the emissions reductions of the neighboring sources will not be acceptable unless they are part of a new state plan requirement, and therefore enforceable as a violation of the state plan by the EPA, the state, or private parties.⁶² The interpretative ruling states that such a new state plan requirement may be found in any "State or local regulation, operating permit condition, consent or enforcement order, or any other legally enforceable mechanism available to the State."⁶³ In the case of state or locally initiated offsets, a formal state plan revision must be accomplished.⁶⁴ In this way a state or community can further tighten its emissions restric-

⁵⁸ 41 Fed. Reg. 55528 n.4 (1976). Questions arise concerning the federal enforcement authority over such "design, operational or equipment standards" as described in the ruling. Also the ruling does not specify whether secondary air quality impacts of the location of these major sources must be accounted for in the required air quality impact analysis. Assuming that a marginal trade-off benefit was gained from the location of the new source itself, an increase in vehicle miles travelled by automobiles attracted to the source could result in an overall worsening of the air quality in the area of the plant. It is unlikely that EPA would require such a broadened analysis since it suspended its own indirect source regulations.

⁵⁹ 41 Fed. Reg. 55528 (1976).

⁶⁰ *Id.* at 55530.

⁶¹ 41 Fed. Reg. 44430 (1976).

⁶² *Id.*

⁶³ *Id.*

⁶⁴ *Id.*

tions for existing sources; thus accommodating the location of new industrial sources within its jurisdiction.

The second situation calling for the application of the offset credit procedure arises when the location or expansion of a source meeting the applicable state plan requirements would exacerbate an existing violation of a national air quality standard in a currently "dirty" area (a non-attainment area). It is here that the application of the offset credit analysis becomes more complex, as the interpretative ruling establishes five conditions precedent to the approval of a construction permit.⁶⁵

1. The first condition requires the new source to meet the "lowest achievable emission rate" attainable for the proposed type of facility.⁶⁶ To ascertain this rate, the reviewing authority is directed to examine the most stringent source limitation in any state plan and the lowest emission rate achieved in practice. It is presumed that the new source will be subject to this latter state of the art limitation unless it can be shown that such a rate cannot be attained. However, if the lowest achievable emission rate cannot be met, the owner of the new source must demonstrate the attainment of the best level of control up to the new source performance standard.⁶⁷ Thus, this first condition concerning control technology could spur the development of better pollution control equipment and by doing so, fulfill the technology forcing intent of the Clean Air Act.

2. The second condition set out in the interpretative ruling applies only to those new source owners or controllers who currently own or control other sources within the same AQCR. Before these owners or controllers will be permitted to construct a new source, all other sources within the same AQCR owned or controlled by them must be in compliance either with all applicable state plan requirements, or with an approved schedule and timetable for compliance under a state plan or enforceable order.⁶⁸ In addition, the reviewing authority must determine whether these other sources can be placed on a more expeditious compliance schedule than they are presently meeting.⁶⁹ Any compliance schedule adjustment must then become an enforceable condition of the new source permit. The purpose of this provision is to maximize control of existing sources within the

⁶⁵ *Id.* at 55528-29.

⁶⁶ *Id.* at 55528.

⁶⁷ *Id.*

⁶⁸ *Id.* at 55529. However, it could be argued that as a matter of public policy, the benefits of the trade-off ruling should only be available if all sources nationwide under the ownership of the new source owner are in compliance with air pollution requirements. However, such a position was proposed but not adopted by the House Interstate and Foreign Commerce Committee's non-attainment provision in 1976. See H. R. REP. NO. 94-1175, 94th Cong., 2d Sess. 179 (1976). The 1977 amendments to the Clean Air Act have a statewide compliance provision in § 173(3).

⁶⁹ 41 Fed. Reg. 55529 (1976).

AQCR and to ensure that the benefits of the emissions offset policy are available only to those industries which are cooperating with air pollution control efforts.

3. In addition to requiring emissions reductions from the new source, the third condition requires such reductions from existing sources "in the area of the proposed source."⁷⁰ This is, of course, consistent with the EPA's net benefit policy as long as the new source can obtain the requisite internal and external emission reductions, and the reviewing authority can assure that such reductions will result in a net benefit in the area's air quality, a new source may locate in a non-attainment area. As previously noted, these reductions must be such that the total emissions from existing sources and the new sources are "sufficiently less than the total allowable emissions from the existing sources under [the state plan] prior to the request to construct or modify so as to represent reasonable progress toward attainment of the applicable national air quality standards."⁷¹

This third condition, which represents the heart of the EPA's non-attainment policy, raises several important issues. How much of a reduction in emissions is required for "reasonable progress" in attaining a national ambient air quality standard? What is the "area of the proposed source?" An interpretation of the phrase is certain to precipitate litigation. One definition of the appropriate "area" could be any place within the AQCR experiencing a violation of a national air quality standard. Further, how in practice can a new source owner or controller get existing sources within the region to reduce their emissions? Finally, the third condition raises a question concerning the types of allowable emission offsets. The interpretative ruling indicates that only intra-pollutant offsets will be allowed.⁷² Thus, hydrocarbon emissions cannot be offset by nitrogen dioxide emissions reductions. It is possible that in the future when more is known about the health effects of the various air pollutants, inter-pollutant offsets will be allowed. For the present, however, such is not the case.

4. In addition to the three conditions discussed above, the interpretative ruling requires that emissions offsets yield a positive net air quality benefit in the "affected area" surrounding the proposed new source.⁷³ This requirement once again reaffirms the basic rationale of the EPA policy, but it also raises questions concerning the calculation of air quality benefits.⁷⁴

⁷⁰ *Id.*

⁷¹ *Id.* This language closely tracks that of the Conference Committee which required, "reasonable further progress" towards attainment of the NAAQSs. See H.R. REP. NO. 94-1742, 94th Cong., 2d Sess. 26 (1976). Section 173(1)(A) of the 1977 amendments contains a similar requirement.

⁷² 41 Fed. Reg. 55529 (1976).

⁷³ *Id.*

⁷⁴ Since the States could set the level of net benefit needed for operation of the policy at a low percentage, the possibility exists for a net emission reduction to occur

Clearly, certain pollutants affect local air quality only if emitted within the immediate vicinity, but, other pollutants, due to their transport characteristics, can influence local air quality even if emitted some distance away. For pollutants such as hydrocarbons or nitrogen oxides, the offsets may be obtained from sources "located anywhere in the broad vicinity of the proposed new source."⁷⁵ Depending on EPA's interpretation of the term "broad vicinity," hydrocarbons or nitrogen oxide emitters could find available offset reductions over a wide geographical area, even beyond the boundary of the AQCR in which the new source is located. On the other hand, when considering the air quality impact of carbon monoxide, particulate, sulfur dioxide sources, and other site-dependent emissions, area-wide emission reductions would not be appropriate. The reviewing authority is directed to employ simulation modelling to determine whether a trade off of these pollutants would in fact provide a positive net air quality benefit.⁷⁶ However, for emission offsets "on the same premises or in the immediate vicinity of the new source" or from "the same effective stack height," such modelling need not be performed; a presumption of air quality benefit is established.⁷⁷ In such an instance, reductions in emission rates will serve as the basis for the permit analysis.

5. The fifth, and final condition established by the interpretative ruling deals with the situation where the EPA has found the state plan to be inadequate to attain the national air quality standards and has either requested its revision, or called for a study to determine if such revision is necessary.⁷⁸ In either of these cases, if after January 1, 1979, a permit to construct is granted, construction may not begin prior to the EPA's approval or promulgation of the state plan revision.⁷⁹

This final condition raises several questions, however. If, prior to January of 1979, a construction permit is granted in an area where EPA has found the state plan unacceptable, what will be the status of the construction permit? The rationale for setting this transitional date is obscure. Even prior to January of 1979 the baseline for computing offset credit is the adequate state plan. Moreover, once the EPA has revised the state plan, what effect will the new emissions limitations have on future determinations of offset credit? Since the basic premise of the offset policy is that new source location in non-attainment areas requires emissions reductions over

with no actual air quality improvements resulting. This is due to the fact that the air quality analysis will be based upon modelling which may not provide the exactitude needed to determine a minor air quality variation. For example, the effect of air pollutants with transport characteristics is especially difficult to predict.

⁷⁵ 41 Fed. Reg. 55529 (1976).

⁷⁶ 41 Fed. Reg. 55528 (1976).

⁷⁷ *Id.*

⁷⁸ 41 Fed. Reg. 55529 (1976).

⁷⁹ *Id.*

that required in an approvable state plan, the new emission limitations would serve as the baseline for the policy. And finally, if the EPA has decided to demand the revision of a state plan, how long must the permit-granting agency wait before it can take action on a proposed new source? The answer to the question is uncertain. The revision of the state plan can be accomplished in several months or several years. EPA could effectively control the location of new or modified sources in these areas through the Plan revision process.

In sum, the EPA's offset credit policy comes into effect in either of two situations: one, where the proposed new source or modification would cause an otherwise "clean" area to be in violation of a national ambient air quality standard; or two, where the new source would simply exacerbate existing violations in a non-attainment area. In the first instance, the new source must affect either internal or external emissions reductions such that the national standard will be maintained. However, in the second instance, the new source must satisfy five requirements before construction will be permitted.

1. The new source must agree to meet the "lowest achievable emission rate" attainable for the type of facility proposed.⁸⁰

2. Owners or controllers of new sources must bring all other sources owned or controlled by them in the same AQCR as the new source into compliance with either all applicable state plan limitations, or an approved compliance timetable.⁸¹

3. The new source, or the appropriate reviewing authority, must assure sufficient external offsets "in the area of the proposed source" such that there will be a net benefit in the air quality of the region.⁸²

4. The arranged emissions offsets must yield a positive net air quality benefit in the "affected area" surrounding the new source.⁸³

5. Where the EPA has found the state plan inadequate, or called for a study of its adequacy, construction permits granted after January 1, 1979, must be held in abeyance pending the EPA's approval of the plan's revision.⁸⁴

C. Special "Baseline" Rules for Determining Offset Credit

As with any regulation, the general rule established cannot deal effectively with every situation. Consequently, the interpretative ruling also sets out six situations to provide guidance for setting baseline emission levels for use in the offset computation.⁸⁵

⁸⁰ 41 Fed. Reg. 55528-9 (1976).

⁸¹ 41 Fed. Reg. 55529 (1976).

⁸² *Id.*

⁸³ *Id.*

⁸⁴ *Id.*

⁸⁵ *Id.*

The first situation arises where there is no new source performance standard or state plan emission limitation for a source under consideration as a donor of offset credit. This is not an unlikely situation since new source performance standards only exist for a limited number of source categories. Where no such performance standards or emission limitations exist as a baseline standard against which emission reductions can be measured, the level of "actual emissions" at the time the new source permit request is received will be used as the baseline.⁸⁶ This rule is necessary for determining the amount of offset credit which will be granted to the incoming new source. For example, if an existing SO₂ source not subject to New Source Performance Standards or state limitations has actual emissions of 100 units prior to the application of the new facility, credit may only be taken for deductions below the 100 unit level of emissions. Thus it is possible that emissions in a non-attainment area which are not controlled may nevertheless be reduced if a new source emitting the same pollutants seeks to locate in the area. The interpretative ruling states that the actual emissions level is to be determined by "source tests or other appropriate means."⁸⁷ Obviously, it is important that whatever tests are used that they be accurate. The baseline emission level should not be set at an artificially high level so as to allow offset credit to be obtained contrary to the intent of the ruling. Once such a source has established an emission rate in the offset computation, that emission level would become an enforceable part of the state plan.

A second situation arises when an existing fuel combustion source switches to a cleaner fuel. This usually occurs when a source substitutes a low sulfur fuel for one having a higher sulfur content. Generally, the emission levels used for the baseline determination of an existing fuel burning source will be the allowable emissions permitted under the state plan for the type of fuel being burned at the time the new source application is filed. If the existing source then commits to switch to a cleaner fuel at some future date, an offset credit is allowed on the resultant emission decrease.⁸⁸ Consequently this policy may be only applied prospectively. If the source makes that commitment, it must also employ an alternative control measure which would yield the same amount of emission reduction should it resume use of the "dirtier" fuel.⁸⁹ The ruling also recommends that the reviewing authority assure that long-term supplies of the new fuel are available.

There are several weaknesses with this provision. First, the fuel switch must be delayed to some time in the future; and in the short run, total

⁸⁶ *Id.*

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ *Id.*

emissions could increase. This situation could arise during the period when the new source is operating and the existing source has not yet changed to cleaner fuels. Second, the source being used for the offset reduction might not be bound by any state plan provision or new source performance standard to force it to use the cleaner fuel. Since it voluntarily changed fuels it could legally resume burning the dirtier fuel at a later date without violating the state plan. This also raises questions concerning federal enforcement of the non-state plan provision obligations. And finally, how many sources will elect this method of obtaining offset credit if also required to install the "alternative control measure?" Such a requirement could make the fuel switch method of obtaining offset credit uneconomic and therefore unusable.

Third, emission offset credit can also be obtained by limiting source operating hours, and in some cases, by terminating operations of existing sources. The extent of the credit is then determined from the decrease in pre-existing emissions. As a general principle, the baseline for measuring reductions is the emission rate of the source operating at the "maximum expected production rate."⁹⁰ Thus, production capacity or operating hours must be permanently reduced before the credit will be granted.⁹¹ Due to limited state and federal enforcement resources it may be difficult to monitor precise reductions of operating hours or production levels.

The fourth situation occurs when the EPA has either found that a state plan is substantially inadequate to attain or maintain a national ambient air quality standard and has requested a state plan revision, or where the EPA has requested a study to determine the need for such a revision.⁹² In both cases the baseline emission level will be set at the level of emissions "resulting from the application of reasonably available control measures."⁹³ The rationale here is that a source in a state with an inadequate state plan should not receive credit for the emission reductions necessary to make the plan "adequate" in terms of achieving air quality standards. In fact, if the anticipated state plan revisions are available, the ruling recommends using those revisions as the baseline for emission offset credit until the state plan is formally revised.

Fifth, when a reduction of hydrocarbon emissions is needed, there can be no substitution of unreactive hydrocarbons for those with high reactivity. The rationale for this position is that all non-methane hydrocarbons eventually are transformed into photochemical oxidants and therefore ultimately

⁹⁰ *Id.* It is likely that the setting of the "maximum expected production rate" could lead to considerable controversy. Also the work force affected by any shutdown or curtailment would have to be notified of the proposed reductions in operations.

⁹¹ *Id.*

⁹² 41 Fed. Reg. 55529 (1976).

⁹³ *Id.*

have the same effect. The converse of this fifth condition would seem to be that offset credit would be available for any kind of hydrocarbon, irrespective of reactivity.

The sixth situation is less of a specific situation and more of general statement of policy: no "banking" of offset credit is permitted.⁹⁴ This means that if a new source owner needing 100 units of pollutant reduction actually acquires 150 units, he may not use those extra 50 units for a subsequent expansion or new source location. Thus any excess credit cannot be retained for future use by the same source or sold in the future to other sources needing offsets. This policy would encourage immediate use or disposition of "extra" offset credit so as to avoid forfeiture of the excess emission reduction. Therefore, the bar against emissions banking could have the unintended effect of spurring immediate new source growth in non-attainment areas. It has been argued that the "no banking" rule is a disincentive to the use and development of advanced control techniques since the industries capable of employing such new methods will not be permitted to use the "extra" offset credit at a later date. Also, a source owner having plans to modernize an aging facility might delay new construction to a time when all of the emission credit can be used; thus prolonging the life of the heavily-polluting older plant. It would seem that banking should be reconsidered by EPA in future reviews of the non-attainment policy.⁹⁵

D. *Exemptions from the Ruling*

The interpretative ruling also provides for an exemption from important provisions of the emission offset policy where a source either must change fuels due to inadequate fuel supplies or due to EPA regulations must install additional equipment to its operating process.⁹⁶ If an exemption were granted the new source would be able to locate without satisfying the emission offset net benefit test.⁹⁷ In order to grant such an exemption the reviewing agency must make three findings: (a) the applicant has made its "best efforts" to obtain the required emission offsets and limitations and those efforts were unsuccessful, (b) all "available" offsets were secured, and (c) the applicant will continue to obtain offsets in the future.

This broad exemption provision raises several questions. First, it is not clear just what sources will be eligible for its benefits, such as sources subject to natural gas curtailment or coal conversion orders.⁹⁸ The ruling does

⁹⁴ *Id.*

⁹⁵ See, [1978] 8 ENV. REP. (BNA) 1456.

⁹⁶ 41 Fed. Reg. 55529 (1976).

⁹⁷ *Id.*

⁹⁸ It has been reported that EPA is considering an expansion of the exclusions from the definition of "modification" as stated in the interpretative ruling. The change

not explain the meaning of "inadequate fuel supplies" so as to narrow the coverage of the exemption. Emission increases solely attributable to source-initiated fuel changes should not be treated differently from a voluntary source modification which is subject to the offset policy.⁹⁹ Second, the relationship between new section 113(d)(5)(A)(i) & (ii) dealing with coal conversion and gas curtailments and the exemption provision is not clear. Section 113(d)(5)(D) would seemingly allow a fuel change as long as the adverse air quality effects are infrequent, insignificant, and statistically insufficient to cause or contribute to a primary air quality standard violation. The offset policy should be better coordinated with the new statute. Third, the language of the exemption should specify that the provision will apply only to existing sources directed to change fuels pursuant to a government order and not those switching for economic or other reasons. This provision should not permit new sources to evade the effect of the emission offset policy by switching to alternate fuels. The potential result of the exemption policy would be to permit new source construction which would create or worsen an ambient air quality violation. A policy with such an effect should have been more narrowly drawn.

Finally, if a large number of exemptions were permitted in an area, a state plan revision might become necessary to further reduce emissions from existing sources so that the ambient standards would be attained and

would add another category to the exclusion from the offset requirements to those sources converting to coal,

(i) by reason of an order under Section 2(a) of the Energy Supply and Environmental Coordination Act of 1974 or any amendments thereto; or any subsequent enactment which supersedes such Act; or (ii) which qualifies under Section 113(d)(5)(A)(ii) of the Act.

[1978] 8 ENV. REP. (BNA) 1403. Such a change to the Interpretative Ruling would exempt these government-ordered coal conversions from the diluted requirements present in the December 21, 1976 draft of the ruling. *See*, 41 Fed. Reg. 55529 (1976). By so doing, this purported amendment to the ruling would go beyond the special preferential treatment accorded coal conversion sources under section 113(d) with respect to non-attainment areas. Alternatively this could be viewed as an administrative deferral to the tests laid down in section 113(d)(5)(D).

⁹⁹ However, the interpretative ruling indicated that the "use of an alternative fuel or raw material (unless limited by previous permit conditions) if prior to the publication of this ruling in the Federal Register, the source is designed to accommodate such alternative use" will not be considered to be a modification of an existing source which would be subject to offset analysis. 41 Fed. Reg. 55528 (1976). This exclusion from the definition of "modification" seems to apply only to sources technically capable of using alternative fuel supplied prior to December 21, 1976 and wishing to convert. The parenthetical phrase appears to state an implied requirement that the use of the alternative fuel will not cause a violation of the State's implementation plan. This exclusion is distinct from the exemption discussed above which apparently applies to sources required to change fuels possibly due to government edict. These exempted sources are not totally relieved from all requirements of the offset policy as are those which are excluded.

maintained.¹⁰⁰ Consequently an indirect effect of granting these exemptions could be to limit or even eliminate the possibility of accommodating new growth in the area under the emission offset policy since the achievement of the necessary emission reductions from existing sources would become more difficult under the tightened state plan. Thus, this exemption provision has the potential to circumvent the policy behind the Clean Air Act and the offset concept. Furthermore, as presently written, it is biased in favor of all existing sources changing fuel as opposed to new sources. To remedy this infirmity, the EPA should reevaluate and redraft this exemption provision, possibly limiting its effect solely to sources under government coal conversion orders.

E. Attainment of the Secondary Standards

The impact of the new emission offset policy upon the attainment of the secondary ambient air quality standards is briefly discussed in the ruling.¹⁰¹ Any major new source located in a non-attainment area which would delay the attainment and maintenance of the secondary standard could be accommodated by amending the state plan. Under the Clean Air Act of 1970, the secondary standards need only be attained within a "reasonable time."¹⁰² A state may revise its state plan to provide extensions from its existing secondary standards deadlines. If the state submits, and EPA approves, an amendment to the state plan, a new source which would cause or exacerbate a secondary national air quality standard deadline may be exempt from the offset requirements so long as the source meets applicable state plan emission limitations and will not interfere with attainment by the newly-revised date. The effect of this provision could be to delay attainment of the secondary standard well into the future.

F. Unresolved Issues under the Ruling

Finally the interpretative ruling does not discuss two other potential non-attainment situations: (1) interstate or inter-AQCR affects the new source growth, and (2) development occurring in clean portions of an AQCR experiencing air quality violations.

The "intrusion" issue raised by the first of these situations constitutes a serious problem especially when certain pollutants are considered. Pollutants such as hydrocarbons (forming oxidants) and oxides of nitrogen are often transported over great distances from the site of their emission. The

¹⁰⁰ The ruling states at 55529 that "[S]uch an exemption *may* result in the need to revise the SIP to provide additional control of existing sources." (emphasis supplied) *Id.* It is arguable that such a revision is mandatory should the source increase emissions of any pollutant for which there is or will be a violation of the NAAQS.

¹⁰¹ 41 Fed. Reg. 55530 (1976).

¹⁰² Clean Air Act of 1970 § 110(a)(2)(A)(ii).

regional nature of the non-attainment question will necessitate cooperation between states and also between air quality control agencies within the same state. Such cooperation was clearly envisioned by the Congress when it enacted section 110(a)(2)(E) of the Clean Air Act of 1970 and also the 1977 Amendments.¹⁰³ The requirements of that section, if properly executed, could prevent air pollution intrusion problems from occurring. However if the system mandated by section 110(a)(2)(E) were ineffective, serious disagreements could arise should economic development in one state damage air quality in another. Air pollution intrusions originating in a non-attainment area could also activate review under the significant deterioration review provisions of the state plan and possibly the plans of adjacent states. This would happen in the event that pollutants from non-attainment areas enter "pristine" lands covered by the significant deterioration rules. The interpretative ruling makes it clear that pre-construction review under the new non-attainment policy does not supersede review pursuant to significant deterioration, new source performance standards, and national emission standards for hazardous pollutant regulations.¹⁰⁴ Consequently, even if the non-attainment review requirements are satisfied, a source could fail one of these other reviews and therefore be denied approval to locate in the non-attainment area. Therefore, the impact of the "intrusion" issue can significantly affect operation of the offset policy.¹⁰⁵

The siting of sources in "clean" portions of AQCRs having localized violations is also not thoroughly explained.¹⁰⁶ Since AQCRs sometimes en-

¹⁰³ Section 110(a)(2)(E) of the Clean Air Act of 1970 required that each State Implementation Plan

contains adequate provisions for intergovernmental cooperation, including measures necessary to ensure that emissions of air pollutants from sources located in any air quality control region will not interfere with the attainment or maintenance of such primary or secondary standard in any portion of such region outside of such State or in any other air quality control region.

The direct meaning of this prior statutory language indicates that State-administered emission offset programs would have been required to take into account the impact of the new or expanded source growth upon other States or AQCRs. Under the 1977 amendments to the Act, section 110(a)(2)(E) has been modified to permit a State or locality to petition the EPA Administrator to intercede when emissions from another State intrude and affect local air quality. *See* notes 178-192 and the text accompanying.

¹⁰⁴ 41 Fed. Reg. 55527 (1976).

¹⁰⁵ Since all major sources must be evaluated to determine the air quality effect of their location on neighboring areas, is possible that sources locating in "clean" areas will be subject to non-attainment requirements and also those locating in polluted areas could be subjected to prevention of significant deterioration regulations. EPA is considering a system to limit the impact analysis to those effects which are "significant." The significance levels have not yet been formally announced. This system would limit the scope of the required air quality impact analysis by eliminating consideration of "insignificant" effects. *See*, [1978] 8 ENV. REP. (BNA) 1403-04.

¹⁰⁶ 41 Fed. Reg. 55528. When discussing air quality impact analysis of "stable" air pollutants the ruling notes that, "[I]f a source seeks to locate in the 'clean' portion

compass large geographical areas and air quality violations are often confined to limited portions of those areas, industrial expansion may occur as long as the existing violations are created in the clean area. Precision in predicting air quality impact is vital in this area. This subject warrants further study since it could result in the expansion of air quality violations if new emissions in these "clean" areas are not confined.

While the EPA was developing the offset policy contained in the interpretative ruling, the 94th Congress attempted to devise a legislative solution to the non-attainment problem. Although the 1976 amendments to the Clean Air Act were not enacted,¹⁰⁷ the 95th Congress was more successful. A major policy decision on non-attainment area growth emerged which included the EPA Interpretative Ruling as a major component.

IV. THE CONGRESSIONAL APPROACH TO THE NON-ATTAINMENT PROBLEM

On August 7, 1977, after more than two and one-half years of effort, the 95th Congress enacted comprehensive amendments to the Clean Air Act.¹⁰⁸ At the conclusion of the 94th Congress, a similar set of amendments was adopted by the Senate/House Conference Committee only to be defeated by a filibuster on the final day of the congressional session.¹⁰⁹ Using the unadopted bill as a foundation, Congress in the 1977 Clean Air Act amendments enacted nine new sections which establish the legislative strategy for the non-attainment question. Since both the House and Senate bills possessed sections treating this subject, the new sections 129 and 171 through 178 of the Conference Report represent an amalgam of the two bills. The non-attainment issue received considerably more attention and was the subject of more discussion and debate in the 95th Congress than in its predecessor. Not surprisingly, the non-attainment provisions of the new statute reflect the overall characteristics of 1977 Clean Air Act amendments. The sections are specifically worded, detailing fixed submission dates and numerous requirements for State Plan revisions. There is great emphasis placed upon state and local governmental action in the planning and implementation of industrial growth in non-attainment areas. Consequently the federal role in the new strategy is largely that of supervising the activi-

of the AQCR and would not affect the area presently exceeding standards or cause a new violation of the NAAQS, such a source may be approved." *Id.*

¹⁰⁷ The 1976 amendments were nearly enacted. The Senate/House Conference Committee rushed to present a conference report on the air law revision before the end of the second session of the 94th Congress. Through the concerted filibuster efforts of Senators Allen, Moss, and Garn (on the last day of the Session), the amendments never approved. *See*, [1976] 7 ENV. REP. (BNA) 835-6.

¹⁰⁸ P.L. 95-95 (August 7, 1977).

¹⁰⁹ *See* note 107 *supra*.

ties mandated by the law. Finally, a major theme of Congressional support for the provision stressed that a high degree of emissions control required by the non-attainment section is beneficial to employment and industrial expansion because it permits the air resource to be properly used by a larger number of industrial firms.¹¹⁰ Therefore, strict pollution control is portrayed as being essential for sustained economic development. With this general introduction, we will examine the workings of the new congressionally-mandated non-attainment area program.

A. *Interim Regulations*

The statute focuses on the non-attainment issue in terms of two time periods; pre- and post-1979. In the time between the enactment of the amendments and July 1, 1979, EPA's offset policy may be applied to the question of major new or modified source location in non-attainment areas.¹¹¹ The amendments, in fact, ratify the agency's existing regulations with the only exception being that the baseline for undertaking the offset analysis is the applicable state implementation plan in effect at the time of the permit application.¹¹² Such a baseline is undesirable in the instance where the current state plan is inadequate since the existing emission limitations may be too lenient. Consequently, offset credit could be obtained and new sources located without providing for attainment of the national ambient standards. It is likely that the Congress believed that in the interim period it was impractical to require the offset analysis to be computed using all "adequate" State Implementation Plans. Such a course would necessitate numerous plan revisions which might not be accomplished soon enough.

In the alternative, the interim strategy permits states to obtain a waiver from the federal offset regulations and to administer its own non-attainment area program until July 1, 1979.¹¹³ However, the substantive requirements of this substituted state program are intended to have the same pollution reducing effect as the federal regulatory system.¹¹⁴ The EPA Administrator is authorized to supervise the conduct of this State program and must terminate the waiver if insufficient emission offset reductions are attained or

¹¹⁰ CONG. REC. S. 13697 Aug. 4, 1977. Floor statement of Senator Edmund S. Muskie.

¹¹¹ Clean Air Act Amendments of 1977 § 129, (to be codified in 42 U.S.C. § 7401) [hereinafter cited as the Clean Air Act of 1977].

¹¹² Clean Air Act of 1977 § 129(a)(1). No explanation for this deviation is to be found in the legislative history. See, CONFERENCE REPORT, CLEAN AIR ACT AMENDMENTS OF 1977, H.R. REP. NO. 95-564, 95th Cong. 1st Sess., 157 (1977). In addition, Senator Muskie's floor statement presenting the Conference Report does not even mention this change. CONG. REC. S. 13702, August 4, 1977.

¹¹³ Clean Air Act of 1977 § 129(a)(2).

¹¹⁴ Clean Air Act of 1977 § 129(a)(2)(A)-(C). These sections require nearly an identical program to that imposed during the post-1979 period in § 173 of the Clean Air Act.

if the state violates any other conditions imposed by the statute. Hence, this provision allows EPA to delegate the interim non-attainment regulatory program to qualified States while retaining total control over the issuance of construction permits to new or modified sources in any non-attainment area. This interim veto power expiring as it does on July 1, 1979 allows for continuous federal supervision of major industrial growth decisions and links the existing EPA strategy with the congressionally-mandated scheme emphasizing incremental revisions of the State Implementation Plan.

A final portion of the interim strategy involves the treatment of new or modified sources having "properly granted" construction permits as of the date of enactment of the Clean Air Act amendments and wishing to obtain operating permits.¹¹⁵ Section 129(a)(3) effectively exempts or "grand-fathers" these sources from the requirements of either the EPA offset policy or the statutory analysis in section 173. To obtain an operating permit, the owners of these facilities need only demonstrate that the source in question will meet the emission limitations specified in the existing construction permit.¹¹⁶ The statute is concise in this area, however questions may arise over the precise meaning of the term "properly granted" as it applies to sources already having construction permits. It is possible that some facilities being completed in non-attainment areas had received earlier permission to build based upon faulty or inadequate state pre-construction review analysis which ignored the non-attainment area issue altogether. If that analysis were undertaken prior to the issuance of EPA's emission offset regulations, it may not have been proper to grant the construction permit in the first instance.¹¹⁷ Consequently, the meaning of the term "properly granted" employed in this section of the interim strategy will have to be clarified either administratively or by judicial review.

B. Planning and State Plan Revisions

For the post-1979 period the 1977 amendments stress the development of an attainment and new source control strategy founded upon the State Implementation Plan. The existing air quality planning and implementation format of the Clean Air Act have been continued into the next decade.

¹¹⁵ Clean Air Act of 1977 § 129(a)(3).

¹¹⁶ Clean Air Act of 1977 § 129(a)(3).

¹¹⁷ It has been suggested prior to the enactment of the 1977 Clean Air Act amendments that it was illegal for a state to grant a construction permit to a new or modified major source in a non-attainment area after the passing of the date for the achievement of the national ambient standards. *See, CLEAN AIR ACT AMENDMENTS OF 1977, REPORT BY THE COMM. ON INTERSTATE AND FOREIGN COMMERCE, H. R. REP. NO. 95-294, 95th Cong., 1st Sess. 208 (1977)*. If this interpretation to the prior statute were made, then the issuance of construction permits in non-attainment areas could be challenged as not being "properly granted" under the language of section 129(a)(3) of the 1977 amendments.

Section 110 of the Act, detailing the components of an adequate state plan, has been expanded so as to include a provision mandating that major stationary source construction in non-attainment areas comply with the permitting and planning requirements of the new non-attainment sections of the statute.¹¹⁸ By amending section 110 in this fashion the Congress has attempted to create a uniform, national policy towards the non-attainment issue but with the State and local level of government actually taking the direct role in executing the strategy.

Every State Implementation Plan for a state having a non-attainment area within its borders must be revised by January 1, 1979 to include specific non-attainment plan provisions to assure attainment and maintenance of the national ambient standards.¹¹⁹ The statute requires that primary ambient standards are to be attained "as expeditiously as practicable" but no later than December 31, 1982. A further extension until December 31, 1987, is recognized for hydrocarbons (HC) and carbon monoxide (CO); two automobile-related air pollutants. It appears quite likely that these outer bounds—December 31, 1982 and 1987—will become the air quality planning target dates for most States. By virtue of the non-attainment section of the amendments, the attainment date for the primary ambient air quality standards has been extended from the mid-1970s to 1983 or 1988. This fact was tacitly assumed by the House/Senate conferees but not clearly presented as a delay in achieving the primary, health-related standards.

The mandated revisions must address a list of eleven specific areas enumerated by the statute which give some guidance to the state air quality planning effort.¹²⁰ First, the plan revision must be adopted after reasonable notice and public hearing.¹²¹ This reiterates the requirement of the existing section 110(a)(2)(H) and extends it to the non-attainment context. Second, the plan must provide for "the implementation of all reasonably available control measures as expeditiously as practicable."¹²² Unfortunately, there is no guidance given as to the nature of these "reasonably available control measures." Such a standard must only apply to existing sources since new or modified sources would be subject to the "lowest achievable emission rate" technology requirement required by section 173. Third, further support for this position can be found in section 172(b)(3) which states that the revised plan must require that "reasonable further progress"

¹¹⁸ Clean Air Act of 1977 § 110(a)(2)(I).

¹¹⁹ Clean Air Act of 1977 § 172(a)(1) & (b), 178. This revision must be distinguished from the revision required by section 172(a)(2) (1987 attainment of HC and CO standard), section 402(d)(2) (to accommodate new requirements of the amendments) and section 124(b)(1) & (2) (assurance of the adequacy of state plans).

¹²⁰ Clean Air Act of 1977 § 172(b)(1)-(11).

¹²¹ Clean Air Act of 1977 § 172(b)(1).

¹²² Clean Air Act of 1977 § 172(b)(2).

be made towards achieving the primary ambient standards with *existing* sources having at a *minimum* reasonably available emission control (emphasis supplied).¹²³ The exact nature of these reasonably available controls will undoubtedly become a source of contention between EPA, the states and industry.

Fourth, the plan must contain a comprehensive, accurate, and current emission inventory from the sources in the area. This is a crucial element of any control strategy since it serves as the basis for determining where additional emissions reductions may be obtained.¹²⁴ Fifth, the revision must identify and quantify the emissions "which will be allowed to result" from any new or modified sources to be constructed within the non-attainment area.¹²⁵ The rationale for this requirement is not readily apparent until it is read in conjunction with the permit requirements of section 173(1)(B).¹²⁶ Sixth, a permitting program regulating the construction and operation of new and modified major stationary sources must also be included in the

¹²³ Clean Air Act of 1977 § 172(b)(3). Reasonable further progress is a term which is defined in section 171(1) of the Act as an incremental series of emission reductions which will result in the attainment of the ambient standards by the dates specified in the statute. This section anticipates that reductions will be greatest in the early years of this period and that "regular" reductions will be achieved thereafter. This provision was adopted in lieu of the House planning requirement of equal, incremental reductions in emissions every two years. See H. R. REP. NO. 95-294, 95th Cong., 1st Sess. § 127(e)(1) and p. 212 (1977). The reasoning of the House committee was that the fixed, incremental approach would not allow states to set unrealistic emission reduction goals for later years after new sources had located and air quality had not improved.

¹²⁴ Clean Air Act of 1977 § 172(b)(4).

¹²⁵ Clean Air Act of 1977 § 172(b)(5). The provision states that the State Implementation Plan must "expressly identify and quantify the emissions, if any, of any such pollutant which will be allowed to result from the construction and operation of major new or modified stationary sources of each such area."

¹²⁶ The language in section 173(b)(5) refers to the fact that the revised state plans may allow for a new source growth increment in their air quality planning. Upon reference to section 173(1)(B) which presents an alternative procedure to the emission offset analysis for determining whether a new or modified source will be permitted in a non-attainment area, there is mention of an "allowance" of a pollutant under section 172(b). The legislative history of section 173 reveals that the conferees recognized a new source emissions increment as an option in the revised state plans. See, H.R. REP. NO. 95-564, 95th Cong., 1st Sess. 157(1977). In his floor statement on the Conference Report, Senator Muskie explained the two statutory options for industrial expansion in non-attainment areas. In discussing the second option he said,

it [the State] may provide an allowance for new source growth in its plan, so that new sources may be permitted without case-by-case offset determination so long as the emissions are within the approved quantified allowance and the net effect will be reasonable further progress toward NAAQS attainment by the time required.

CONG. REC. S. 13792, August 4, 1977.

state plan.¹²⁷ This permit system must conform to the analytical requirements set forth in section 173. Seventh, the manpower and financial resources needed to effectuate the new non-attainment plan provisions must be "identified and committed."¹²⁸ Eighth, this section mandates that the revised plan "contain emission limitations, schedules of compliance and such other measures as may be necessary to meet the requirements of this section."¹²⁹ This directive mirrors the language of section 110(a)(2)(B) and might be viewed as being superfluous. However, this section grants the authority to impose a variety of measures which may be creatively used to obtain the necessary offset credits to permit new source location.¹³⁰

Ninth, there must be a demonstration of public, local and state government involvement and consultation relating to the non-attainment area planning.¹³¹ This requirement reflects the congressional recognition that questions concerning industrial expansion in the non-attainment areas of our nation present complex problems affecting individuals, localities and states. This section and section 174 attempt to integrate these interests, to some degree, in the planning and initial decision-making stages of the non-attainment program. Building such a foundation of support for the inevitably controversial effects of this program represents a prudent course. Tenth, the state, regional, and local governments must attest that they have adopted the necessary requirements under the revised plan and that they will implement and enforce it.¹³² The eleventh and last state plan revision pertains to the activities required in exchange for extending the final compliance date for attaining the primary ambient standards for photochemical oxidants and carbon monoxide until December 31, 1987. These requirements will be discussed below.

In those states having substantial automobile-related air pollution, the amendments provide for a further extension for compliance with the primary ambient standard for photochemical oxidants and carbon monoxide. If in its initial plan revision a state can show the impossibility of achieving either or both of these standards by December 31, 1982 even with the application of all reasonably available measures, then the attainment date may

¹²⁷ Clean Air Act of 1977 § 172(b)(6).

¹²⁸ Clean Air Act of 1977 § 172(b)(7).

¹²⁹ Clean Air Act of 1977 § 172(b)(8).

¹³⁰ Both the Volkswagen New Stanton, Pennsylvania plant and the SOHIO Long Beach, California facility are examples of how offset credit can be creatively obtained from existing sources so as to accommodate major new sources.

¹³¹ Clean Air Act of 1977 § 172(b)(9). This provision was adopted from the House bill—section 127(c)(9). The intent of drafters was to increase the role of citizens and interested elected officials in the plan revision activities. The traditional requirements for notice and public hearing were believed to be inadequate. *See*, H.R. REP. NO. 95-294, 95th Cong., 1st Sess., 216-17 (1977).

¹³² Clean Air Act of 1977 § 172(b)(10).

be delayed to as late as December 31, 1987.¹³³ The EPA Administrator has the burden of determining whether an extension is warranted and the length of its duration. Should EPA grant the extension, the state must then submit another revision to its State Implementation Plan no later than July 1, 1982.¹³⁴ As a *quid pro quo* for the time delay, the state must undertake three additional obligations. It is required (1) to formulate a pre-construction alternative site analysis procedure for major emitting facilities, (2) to establish a "specific schedule" for "vehicular emission inspection and maintenance program," and (3) to identify "other measures necessary" to ensure attainment of the primary ambient air quality standard by at least December 31, 1987.¹³⁵ It is left to the state and local governments to determine which other measures beyond those "reasonably available" should be planned for and implemented. The Act's legislative history indicates that these additional measures be developed as soon as possible without waiting until the second state plan revision is submitted.¹³⁶ This position indicates the seriousness of the auto-related air pollution problem and the time span needed to address this complex issue. The extended 1987 attainment date is not an excuse for dilatory local action. Finally, the statute includes another provision only applicable when a post-1982 attainment date is sought. The state plan must be modified to include "comprehensive measures and requirements" to encourage the public funding of mass transportation. This mandate, added by the technical amendments to the Clean Air Act of 1977, seeks to commit localities to emphasize public transit as a long term solution to severe carbon monoxide and oxidant problems.¹³⁷

The Clean Air Act amendments focus additional attention upon those areas of the nation which are violating the primary ambient standard for photochemical oxidants and carbon monoxide. Special planning procedures are mandated under which planning and enforcement functions are to be allocated to various state, local, and regional entities.¹³⁸ The Act indicates a preference for having an organization of "local elected officials" prepare

¹³³ Clean Air Act of 1977 § 172(a)(2). This section illustrates another instance when the definition of the term "reasonably available control measures" will be highly important. See notes 122 and 123 *supra*.

¹³⁴ Clean Air Act of 1977 § 178.

¹³⁵ Clean Air Act of 1977 § 172(b)(11)(A)-(C).

¹³⁶ 123 CONG. REC. S. 13702, August 4, 1977 (Statement of Senator Muskie).

¹³⁷ Clean Air Act § 110(a)(3)(D). This additional requirement did not appear in the amendments as enacted in August of 1977, but rather as a "technical amendment" attached as a rider to the Safe Drinking Water bill, P. L. 95-190 (November 16, 1977). See, 123 CONG. REC. H. 11954 (Daily ed. Nov. 1, 1977). The brief explanation states that this amendment "implements the conference agreement." One wonders why such an important requirement was originally omitted and whether the conference reports are fully understood by the conferees.

¹³⁸ Clean Air Act of 1977 § 174(a).

the implementation plan relating to these two pollutants. The state, however, maintains the ultimate control since it must certify the designated planning organization and if no local group is designated within six months the governor will determine who shall plan.¹³⁹ In addition, the Act requires that existing federal transportation and air quality maintenance planning be coordinated with the efforts under the non-attainment section.¹⁴⁰ This final point is extremely important if duplicative and potentially inconsistent air quality planning is to be avoided. There is a danger that section 110 planning functions might be needlessly fragmented if responsibilities are too widely disbursed. Finally, the Act provides \$75 million in grant funds to subsidize the costs of planning under section 174.¹⁴¹ Surprisingly, these program funds are only available for planning in areas having violations of the oxidant or carbon monoxide standards.¹⁴² Apparently the existing section 105 air pollution agency grants are intended to support the planning in those areas with violations of other pollutants.

C. Sanctions

In an effort to supplement enforcement authorities under the statute, the amendments have created disincentives for non-compliance with the planning and plan implementation requirements of section 110 or the non-attainment provisions of the Act.¹⁴³ The EPA Administrator is prohibited from "approv[ing] any projects or award[ing] any grants"¹⁴⁴ authorized by the Clean Air Act when three conditions exist. The air quality control region must be one (1) not attaining a primary ambient air quality stand-

¹³⁹ *Id.* The Act does stress local participation since the control of oxidants and carbon monoxide involves limitations under the use of automobiles. Aware of the controversial nature of any land use controls needed for the required air quality improvements, the Congress decided to allow local government a first chance to formulate these plans. See also, Clean Air Act of 1977 § 110(a)(5)(A) (indirect source review) and Clean Air Act of 1977 § 110(a)(2)(B) (land use controls).

¹⁴⁰ Clean Air Act of 1977 § 174(b).

¹⁴¹ Clean Air Act of 1977 §§ 175, 325(b)(1). It is not altogether clear why planning for the control of oxidants and carbon monoxide receive special funding support in excess over that given to limit other pollutants. One explanation might be that controlling these automobile-related pollutants might require a reordering of urban activity patterns which would be a complex and time-consuming planning problem.

¹⁴² Clean Air Act of 1977 § 175(a). This interpretation is drawn from the fact that section 175(a) refers to "organization of local elected officials . . . recognized by the State under section 174(a). . . ." Section 174(a) is apparently focused upon those areas of the nation experiencing automobile-created air pollution problems since it exclusively refers to oxidants and carbon monoxide.

¹⁴³ Clean Air Act of 1977 § 176(a)-(d).

¹⁴⁴ Clean Air Act of 1977 § 176(a). The precise meaning of the quoted language is not clear. The nature of the "projects" that may not be approved is not defined in the statute. An expansive reading of that term could encompass sewage treatment plant construction grants made under the Federal Water Pollution Control Act.

ard, (2) where transportation control measures are necessary for attainment and (3) where after July, 1979 the EPA Administrator makes a finding that the state has not submitted or has not made "reasonable efforts toward submitting" the revised state plan required by section 172.¹⁴⁵ The same restriction applies to the Secretary of the Department of Transportation in approving projects or awarding grants except for "safety, mass transit, or transportation improvement projects related to air quality improvement or maintenance."¹⁴⁶ This primary sanction involving the submission of a revised state plan is obviously intended to encourage state and local planning activity. However, the effectiveness of this section hinges upon a finding to be made by the administrator that there has been no submission or that reasonable efforts have not been made to submit the necessary plan revision. Undoubtedly, there will be immense political pressures on the Administrator when he is compelled to make this finding. A secondary sanction exists when state or designated local governments fail to implement any requirement of an approved state plan.¹⁴⁷ In this case, the EPA Administrator is barred from making any grants under the Clean Air Act. Although it is not clearly stated, this funding sanction appears to apply only to the area where the state plan is not being implemented and not to the state as a whole.

These funding sanctions have been adopted with at least a dual intent. First, the states and localities are to be encouraged to comply with the planning and implementation requirements of the new law. The Congress has enlisted the financial self-interest of these entities to avoid a lethargic and dilatory response to the command of the statute. Second, the federal government in general and the EPA and DOT in particular are directed to conform their activities to the provisions of approved State Implementation Plans. In addition, a federal consistency requirement, comparable to that established under the federal Coastal Zone Management Act, is created.¹⁴⁸ Although no explicit state or local veto power over federal grants, loans

¹⁴⁵ Clean Air Act of 1977 § 176(a)(1)-(3).

¹⁴⁶ *Id.*

¹⁴⁷ Clean Air Act of 1977 § 176(b). This limitation on funding is restricted to grants made pursuant to the Clean Air Act and not to any other EPA authority. Also this sanction may be applied when any part of a SIP, not solely the non-attainment section, is not being implemented. The beneficial coercive effect of the funding sanction may be ill-conceived since its application will bar EPA grants to state and local air pollution agencies. This federal support has been the mainstay of many State's air pollution control programs. Forfeiture of these funds could irreparably harm these sub-federal efforts. The failure of State and local air pollution control might then be attributed to the Congress and EPA.

¹⁴⁸ Clean Air Act of 1977 § 176(c). *See also*, federal agencies are directed to give priority in the exercise of their authority to attainment and maintenance of the primary national ambient air quality standards. Clean Air Act § 176(d). This provision acts in concert with the consistency requirement of section 176(c).

or permits is accorded, it is conceivable that this consistency requirement could serve as a discrete basis for challenging federal agency actions in both attainment and non-attainment air quality control regions. Considering the wide-ranging nature of the federal actions which must be consistent with the revised state plans, it is easy to understand why the Congress sought local participation and coordination in plan development. The contents of the revised state plan will undoubtedly affect numerous public and private decisions. Consequently substantial local attention should be focused upon the planning process guiding the revision of the state implementation plan.

D. The Permitting Process

Although the statute places substantial emphasis upon renewed air quality planning in non-attainment areas, the success or failure of the non-attainment program will largely depend upon the new or modified source permit procedure.¹⁴⁹ Due to the significance of this procedure, the Act establishes specific tests which must be satisfied prior to the issuance of a construction or operation permit.¹⁵⁰ These requirements closely mirror the components of the EPA emission offset regulations.

(1) BASIC OFFSET COMPUTATION

Under section 173(1) (A) the "permitting agency" must first determine that, taken together, emissions from (1) the new or modified major source, (2) new non-major sources and (3) existing sources "in the region" will be sufficiently less than the total emissions from existing sources allowed under the state plan so as to represent "reasonable further progress" towards the attainment of the ambient standards.¹⁵¹ This finding must be computed as of the date the permit applicant intends to commence operations at the new facility. However, the precise language employed in this section raises several significant questions regarding the analysis to be undertaken under the permit procedure.

First, there is no specific definition of what constitutes a "major" stationary source subject to the regulatory requirements of the section.¹⁵² The general definition provided in section 302(j) would apparently serve as the standard for the offset determination. Section 302(j) uses an emis-

¹⁴⁹ The plan revisions required under section 172(b)(6) must contain procedures for granting construction and operating permits. *See* note 127 *supra*.

¹⁵⁰ Clean Air Act of 1977 § 173.

¹⁵¹ Clean Air Act of 1977 § 173(1)(A).

¹⁵² Although the terms "major stationary source" and "major emitting facility" are frequently employed throughout the non-attainment sections of the amendments, there is no definition provided for either expression. Consequently this determination will undoubtedly have important ramifications to potential source owners contemplating construction in the non-attainment area.

sions level of one hundred tons per year as definition of a major source. A "non-major" stationary source will therefore circumvent the requirements of the non-attainment section and need only comply with existing state new source review requirements, if applicable. Hence, the importance of the "major source" definition becomes obvious. However, it is possible to criticize the arbitrary establishment of fixed threshold emission levels in the non-attainment context. Although such a system does provide certainty of application, it may also ignore substantial cumulative emissions from sources emitting less than one hundred tons per year. The actual effect of a small number of these sources could be much worse than that of one source barely over the one hundred ton threshold. Consequently, the uniform statutory provision might not be preferable to a case-by-case analytical system possibly with much lower annual emission thresholds.

Second, the offset analysis focuses upon the "allowable emissions" from existing and new sources to determine whether a sufficient reduction in emissions has been achieved so as to permit the location of the new facility. The baseline for measuring the reduction is the implementation plan in effect "prior to the application" for a permit under the section.¹⁵³ If by its terms, the plan in effect prior to the new source application provides for NAAQS attainment by the statutory deadline, then additional emission reductions must be necessary in order to accommodate the new source and to achieve the ambient standards by the time set by the statute and present in the revised state plan. Nothing would require that when the statutory offset approach is taken, the ambient standard be attained *prior* to the deadline established pursuant to section 172(a). As specifically defined in the statute, the perplexing term "reasonable *further* progress" does not seem to require that result.¹⁵⁴ As a practical matter, the attainment deadlines will probably never be advanced once they are approved by the administrator. However, this reading of the statute would indicate that the offsets achieved need not result in a net benefit or more than one-for-one reduction in emissions. Since "reasonable further progress" is defined as

¹⁵³ Clean Air Act of 1977 § 173(1)(A). Since the permit program under section 173 is concerned with the post-1979 time period it is expected that the state plan in effect "prior to the application" for the permit will be a plan that complies with the requirements of section 172. Consequently the offset "credit" obtained through further control of existing sources or non-major new sources would be computed against emission limitations present in state plan which provides for attainment within the statutory period.

¹⁵⁴ "Reasonable further progress" is defined in section 171(1) as "annual incremental reductions in emissions of the applicable air pollutant (including substantial reductions in the early years following approval or promulgation of plan revisions under this part and section 110(a)(2)(I) and regular reductions thereafter) which are sufficient in the judgment of the Administrator, to provide for attainment of the applicable national ambient air quality standard *by the date required in section 172(a).*"

incremental emission reductions sufficient to provide for attainment by the date specified in section 172(a), the offsets could lawfully continue the pace and degree of emissions control of the revised state plan.¹⁵⁵ In addition, the term "reasonable *further* progress" indicates this necessary incremental improvement in emission control. However, the Act's legislative history demonstrates that this progress need only be incremental but with no specific mandate regarding the pace of the air quality improvement.¹⁵⁶ As a matter of policy it is important that substantial emission reductions be achieved in the near term and that unrealistic reliance is not placed upon large future pollution control gains.

(2) NEW GROWTH OPTIONAL ANALYSIS

The new statute provides permitting agencies an alternative analytical technique to the offset review. The meaning and intent of this provision of the non-attainment section is unclear at best. A permit may issue if pollution from the new or modified source "will not cause or contribute to emissions levels which exceed *the allowance permitted* for such pollutant for such area from new or modified major stationary sources *under section 172(b)*." (emphasis supplied).¹⁵⁷ Unfortunately section 172(b) contains eleven subsections, none of which is cross-referenced to section 173. Furthermore, the legislative history does not provide any guidance for determining the precise nature of the elusive "allowance."¹⁵⁸ It seems likely that the legisla-

¹⁵⁵ The interpretation of section 171(1) assumes that a new source need only obtain offset credits in an amount equal to the contribution of the new source [a one to one trade-off]. By so doing, the NAAQS would be attained by the date specified in section 172(a) and no net benefit would be required. The Conference Report does not mention the need for achieving a net benefit but only states that the offset requirements must be met. H.R. REP. NO. 95-564, 95th Cong., 1st Sess. 157 (1977). Consequently, the Congressional policy on non-attainment differs quite substantially from the EPA interpretative ruling. See, notes 70 and 71 and the text accompanying.

¹⁵⁶ This uneven reduction approach was adopted at the behest of the Senate conferees. The House had originally required that progress toward attainment would be made in equal, two-year increments, or else no permits could be granted. See, H.R. REP. NO. 95-294, 95th Cong., 1st Sess. 212 (1977). The reason for the two year increments was to prevent a state from granting a number of permits early in the period and expecting unrealistic reductions later in the time frame. It was hoped that the House-mandated system would insure consistent progress towards attainment.

¹⁵⁷ Clean Air Act of 1977 § 173(1)(B).

¹⁵⁸ The House Conference Report merely states that a permit will be granted when either the offset requirements are met or "the new source will not cause to be exceeded the allowance for new growth built into the State plan revision." H.R. REP. NO. 95-564, 95th Cong., 1st Sess. 157 (1977). Since there was no formal Senate Conference report, we must look to the extended floor statement of Senator Edmund S. Muskie for assistance. Senator Muskie notes that the revised State plan may continue the offset format or "it may provide an allowance for new source growth in its plan, so that new sources may be permitted without case-by-case offset determinations so long as the emissions are within the *approved qualified* allowance and the net

tive draftsmen intended to refer to the state plan revision required by section 172(b)(5) when they conceived the new growth option. This subsection states that the revised plan "expressly identify and *quantify* the *emissions, if any*, of any such pollutant which will be *allowed* to result from the construction and operation of major *new* or *modified* stationary sources for each such area." (emphasis supplied).¹⁵⁹ This subsection would seemingly allow a state to reserve an increment of the air quality improvement needed to achieve attainment for new or modified major sources. The superficial simplicity of this statement masks a fundamental problem: actually attaining the NAAQS. Implicit in the new growth option theory is the idea that states can formulate plans in 1978 or 1979 which will be implemented and will attain air quality standards sometime in the 1980's. Since we are only concerned here with areas presently violating the national ambient air standards, it would seem overly optimistic to believe that sufficient emission reductions could be planned for and achieved to provide for air standards attainment and new source growth. Such an option places primary reliance upon the success of the air quality planning process and depends too heavily on anticipated air pollution improvement without case-by-case analysis. If ever there was a need for close scrutiny of individual permit decisions, location or expansion in non-attainment areas presents such a need. Congress should have specified its intent more clearly rather than leaving the interpretation of this crucial section to conjecture, litigation and ultimately to the courts.

(3) LOWEST ACHIEVABLE EMISSION RATES (LAER)

The statute requires the new or modified source "to comply with the lowest achievable emission rate."¹⁶⁰ This pollution control technology requirement originated in House bill in an effort to demand a higher degree of pollution abatement from non-attainment area new or modified sources than for similar facilities locating in places having better air quality. All new or modified major sources would be subject to the existing requirements of section 111 of the Act (New Source Performance Standards). LAER was undoubtedly intended to provide for more stringent control than found in section 111. Fortunately, the "lowest achievable emission rate" is a term defined by the statute. The statutory definition presents two choices:

(A) the most stringent emission limitation which is *contained in the implementation plan of any State* for such class or category of source, unless

effect will be reasonable further progress toward NAAQS attainment by the time required." (emphasis supplied) 123 CONG. REC. S. 13702 (daily ed. Aug. 4, 1977) (remarks of Sen. Muskie).

¹⁵⁹ Clean Air Act of 1977 § 172(b)(5).

¹⁶⁰ Clean Air Act of 1977 § 173(2).

the owner or operator of the proposed source demonstrates that such limitations are not achievable, or

(B) the most stringent emission limitation which is *achieved in practice* by such class or category of source, whichever is more stringent. (emphasis added).¹⁶¹

The first option would examine all State plans to locate the "state of the art" in pollution control, whereas the second choice focuses upon abatement which is "achieved in practice." The determination of an "achievable" technology encompasses technical and economic issues. The legislative history stresses the actual, on-line character of the technology required by LAER as opposed to technology which has only been demonstrated as a hypothetical possibility on the drawing board.¹⁶² This raises the question of whether a control technique used successfully in an experimental or pilot facility can be imposed under the second part of the LAER test. Also, may advanced control technology be required which has been demonstrated in industrial use in foreign countries but not within the United States? These questions were not addressed by the statute or the legislative history and they will certainly be the subject of active discussions in the future.

A second and equally vexing problem involves the question of cost: how expensive can a technology be before it becomes "unachievable" for the purposes of the non-attainment section. On the surface, the two-pronged test for establishing the LAER avoids direct consideration of the "cost" issue. If a technology is found in an existing state plan or is achievable in practice, it can be imposed. Arguably, costs are indirectly considered through these tests. However, the legislative history suggests that even if a variety of control technology can satisfy either of the twin statutory tests, it may not be required by EPA "if the cost . . . is so great that a major new source could not be built or operated . . ."¹⁶³ This Conference Committee language adds a further qualification to the statutory tests; that LAER is to be determined on a facility-by-facility basis with the purported economic viability of the plant serving as the ultimate test. This "implied" requirement effectively emasculates the tests stated in section 171(3) and makes the final decision depend upon disputed economics. Unquestionably EPA will not seek expensive or innovative control systems unless it has sufficient data to prove that the proposed technology is efficient and economical. This is a burden of proof which the agency will have difficulty in meeting. The consequence of this interpretation will be that EPA will be reluctant to impose requirements beyond those already mandated by

¹⁶¹ Clean Air Act of 1977 § 171(3)(A)-(B).

¹⁶² The House Conference Report notes that, [T]he definition [of LAER] is intended to describe the lowest rate which is actually, not theoretically, possible." H.R. REP. NO. 95-564, 95th Cong., 1st Sess. 157 (1977).

¹⁶³ *Id.*

section 111. The LAER requirement should be the incentive driving the development, acquisition, and distribution of innovative and highly effective control technology. The already-polluted non-attainment areas of this country should be the recipients of the best possible control technology. This section of the Act may lead to a private negotiation process between major industrial firms and the EPA over technology requirements for growth in non-attainment areas. Unfortunately, section 171(3) will not permit the LAER concept to be used as aggressively as possible to spur technology development.

(4) STATEWIDE COMPLIANCE REQUIREMENT

The congressional drafters of the non-attainment policy viewed new industrial growth or expansion as being subject to extraordinary requirements. From the above discussion it is apparent that the development of advanced control technology was also to be a secondary benefit of the non-attainment program. In addition, the non-attainment strategy used the prospect of new source growth as an incentive for higher levels of control on existing sources of air pollution. Although the other permit requirements have focused upon the characteristics of the new or modified source itself, section 173(3) goes beyond that to consider the emission levels of other facilities. The permit applicant must show that all major stationary sources "owned or operated by such person (or by any entity controlling, controlled by, or under common control with such person) in such state are subject to emission limitations and are in compliance, or on a schedule for compliance, with all applicable emission limitations and standards under this Act."¹⁶⁴ This compliance requirement must be examined.

First, the section only applies to "major stationary sources" owned by the permit applicant. Therefore, massive non-compliance by non-major stationary sources alone would not prevent the granting of the new source permit. This fact seems to contradict the articulated policy of only rewarding cooperative source owners. It is made more serious by the fact that the term "major stationary source" is statutorily defined to be a source emitting 100 tons per year. Consequently an owner of many smaller sources would be exempt from the state-wide compliance requirement. Second, the scope of compliance extends to the entire state where the new source is locating. This is a provision in that it examines the applicant's compliance beyond the immediate Air Quality Control Region. However, as presently structured, it ignores non-compliance by the source owner in any other state, even if it is quite serious.¹⁶⁵ An argument can be made that this compliance

¹⁶⁴ Clean Air Act of 1977 § 173(3).

¹⁶⁵ The anomalous situation may occur when a firm's operations in one state are in substantial and longstanding violation of State and federal requirements but

requirement should be made national in scope in order to expedite compliance by major, nationally-operating polluters. Also, an examination of a firm's compliance record with respect to other pollution control requirements—beyond air pollution—would be advisable. Under such a system, the comprehensive environmental impact and the compliance record of the source owner's total operations within some predetermined geographical boundary could be evaluated when the non-attainment new source permit is sought.¹⁶⁶ Third, other facilities must be in compliance or on a compliance schedule "with all applicable emission limitations and standards under this Act."¹⁶⁷ The congressional intention must have been to recognize only those compliance schedules authorized and approved by the statute and not just any compliance schedule. However, the statutory language does not clearly express this idea, thus leaving room for litigation over the precise meaning of the term "schedule for compliance." In summary, the intended effect of this statewide compliance requirement is laudatory and it may, in fact, result in expedited major source compliance. But it must not be forgotten that a major new source locating in a non-attainment area should be required to make extraordinary efforts to reduce emissions and ambient air pollution levels due to its decision to locate in the non-attainment region. The state-wide compliance requirement is justifiable as such an "extraordinary effort."

(5) IMPLEMENTATION OF THE STATE PLAN IN THE NON-ATTAINMENT AREA

The final requirement of the non-attainment area permit program concerns the administration of the state implementation plan. This requirement focuses upon the regulatory activities of the state and not the actions of the permit applicant. The permitting agency must determine that the state plan "is being carried out for the non-attainment area in which the proposed source is to be constructed or modified *in accordance with the requirements of this part.* (emphasis added.)"¹⁶⁸ The intent here is to limit non-attain-

the owner may still receive a non-attainment area permit in the adjacent State as long as there are no sources or non-complying sources in that State. The political boundary may therefore make all the difference.

¹⁶⁶ It would be advisable to consolidate new source permitting so that a source owner would deal with only bureaucracy and would know whether his project complied with all environmental regulation. Such a system would probably be more efficient and would undoubtedly save time. A streamlined permit process would certainly benefit the source owner by providing him with a faster administrative decision and could also aid the environmental interests by focusing attention upon the comprehensive effects of a new facility.

¹⁶⁷ Clean Air Act of 1977 § 173(3).

¹⁶⁸ Clean Air Act of 1977 § 173(4). This subsection was added to the 1977 Clean Air Act amendments in the form of subsequent "conforming and technical amendments" passed on November 1, 1977 of part of the Safe Drinking Water Act

ment area expansion to those jurisdictions following the regulatory and planning framework of new non-attainment statutes. However, the exact wording of section 173(4) might permit new or modified source growth (A) when the non-attainment section standards are being observed in the particular area, but other state plan requirements are being violated there¹⁶⁹ or (B) when the non-attainment provisions are being ignored in other parts of the state. In order to encourage active state air quality programs, it would have been advisable for the Congress to require a finding that the entire state plan is being actively implemented throughout the state. This would have imposed more pressure upon the state air pollution control agencies and helped to achieve the comprehensive goals of the Clean Air Act. Finally, there may be a conflict of interest incorporated into the structure of this last permit requirement. The "permitting agency"—usually a state or local pollution control agency—is directed to decide whether the state plan is being properly "carried out" in the non-attainment area. Hence the permitting agency may be evaluating the quality of its own activities when determining whether or not to grant the permit. Such a situation is not desirable. It is the role of the EPA to supervise the permitting decisions of the states and to ensure that permit requirements are met.

E. Enforcement and Judicial Review

Since the non-attainment section focuses upon emission reductions required pursuant to section 173(1)(A), it further requires that they be "legally binding" before a non-attainment area permit can be issued. Once again we are confronted with the problem of lack of definition in statutory terminology. This uncertainty raises several important questions. If emission limitations are "legally binding," who can enforce them? Do the limitations become part of the state plan, and if so, are violations punishable as any other state plan violation? What is the procedure, if any, for modifying these source emission standards once approved? Although unmentioned

amendments, P.L. 95-190 (November 16, 1977). See, 123 CONG. REC. H. 11955 (daily ed. Nov. 1, 1977). In briefly explaining the legislative intent behind this modification, Congressman Rogers stated that the addition of section 173(4) "implements [the] conference agreement . . ." *Id.* at H. 11957. If this was the conference agreement it was only known to the conferees since the legislative history does not mention any such requirement.

¹⁶⁹ The brief explanation of this "technical amendment" provided by Congressman Rogers address this issue. However the statement appears to contradict the language of section 173(4). Congressman Rogers states that "as a condition for granting a permit to construct in a nonattainment area, the State must be carrying out *the requirements of its SIP* in that area." (emphasis added) 123 CONG. REC. H. 11957 (daily ed. Nov. 1, 1977). This would indicate that total SIP compliance and not just compliance with non-attainment provisions is a prerequisite for permit issuance.

directly within section 173, several amendments to other sections of the Act provide some answers to these relevant questions.

First, the existing citizen's suit provision—section 304—has been modified in order to accommodate the non-attainment section. Section 304(a)(3) now allows for a civil suit,

against any person who proposes to construct or constructs any new or modified major emitting facility without a permit required under . . . part D of Title I (relating to non-attainment) or who is alleged to be in violation of any condition of such permit.¹⁷⁰

As stated, this amendment would allow citizen's suits both to enjoin unauthorized construction and also impermissible operation of "major emitting facilities" having permits within non-attainment areas. In addition, section 304(f) is amended to state by way of definition that an "emission standard or limitation under this Act" includes any condition or requirement of a non-attainment area permit.¹⁷¹ This expanded definition appears to be redundant of section 304(a)(3) discussed above. However, the expanded section 304(f) definition does make it clear that the non-attainment area permit requirements and section 304 civil sanctions apply to governmental as well as private facilities. Consequently, the amended Clean Air Act specifically provides citizens access to judicial review in at least two distinct situations: (1) where an unpermitted major source is about to be built and (2) where such a source is violating the terms of its operating permit.

A more vexing problem involves a citizen's challenge of a decision to issue a non-attainment area permit. No special review procedure was established by the 1977 amendments for such a situation, yet judicial review of this initial decision would appear to be extremely important. The only policing of the state and arguably local permit-granting agencies provided for by the new statute is found in section 113(a)(5) discussed below. As before, judicial review of state or local agency actions can be maintained in the state courts. Once again, Congress has omitted an important detail in the regulatory system it established for non-attainment area growth.

Second, the federal enforcement section of the Act—section 113—has also been amended to establish a discretionary duty on the part of the EPA Administrator to act against a state when it violates EPA's interim non-attainment regulations or any non-attainment area SIP provisions.¹⁷² The triggering event for all of the section 113 remedies is a finding by the administrator that such violations have occurred. EPA is presented with two alternatives. On one hand, it may issue an administrative order barring

¹⁷⁰ Clean Air Act of 1977 § 304(a)(3).

¹⁷¹ Clean Air Act of 1977 § 304(f)(3).

¹⁷² Clean Air Act of 1977 § 113(a)(5).

the construction or modification of any major stationary source in the area. Failure to comply with such an administrative order could subject a source owner to liability under both the civil and criminal penalty provisions of the Act.¹⁷³ These penalties have been strengthened by the 1977 amendments. The civil penalty now includes injunctive relief and also monetary fines of up to \$25,000 per day of violation.¹⁷⁴ The statutory criminal sanction contains fines of up to \$25,000 or \$50,000 per day of violation (depending upon prior convictions) in addition to imprisonment for up to one or two years.¹⁷⁵ Furthermore, these criminal penalties have been made directly applicable to corporate officers and not solely the firms for which they work.¹⁷⁶ The second alternative would be to bring a civil action under section 113(b)(5). However, this civil action—seeking either an injunction or damages or both—is not aimed primarily at the state but rather at the owner of the major source when such person “attempts to construct or modify a major stationary source in any area with respect to which a finding under subsection (a)(5) has been made.”¹⁷⁷ The requisite finding hinges upon state and not private action. If for any reason the finding embodied in subsection 113(a)(5) is not made, EPA could only move directly against the new source through the general enforcement authority of section 113(a)(1).

F. *Interstate Non-Attainment Effect*

A basic premise underlying the entire federal anti-air pollution effort has been that no state should be allowed to become a “pollution haven” where national standards do not apply. Behind this broad principle are the twin reasons that 1) states should not be free to establish unfair industrial advantages based upon an avoidance of pollution control within their political jurisdiction and 2) pollution created in one locale is often transported great distances to others so that air pollution cannot be viewed as purely a local issue. The 1970 Clean Air Act addressed the issue of interstate air pollution effects by requiring that all state implementation plans contain:

provisions for intergovernmental cooperation, including measures necessary to insure that emissions of air pollutants from sources located in any air quality control region will not interfere with the attainment or maintenance of such primary or secondary standard in any portion of such region out-

¹⁷³ Clean Air Act of 1977 §§ 113(b)(1) and (C)(1)(B). In addition new subsection 113 (b)(5) independently subjects a source owner to civil penalties for “attempts to construct or modify a major stationary source in any area with respect to which a finding under subsection (a)(5) has been made.”

¹⁷⁴ Clean Air Act of 1977 § 113(b).

¹⁷⁵ Clean Air Act of 1977 § 113(e).

¹⁷⁶ Clean Air Act of 1977 § 113(c)(3).

¹⁷⁷ Clean Air Act of 1977 § 113(b)(5).

side of such State *or in any other air quality control region.* (Emphasis supplied.)¹⁷⁸

However the EPA regulations which gave the States guidance on the implementation of this statutory mandate did little more than provide for an exchange of information. The mildest interpretation of this Clean Air Act requirement was upheld by one federal appellate court in *NRDC v. EPA*.¹⁷⁹ Consequently, there was virtually no enforcement against air pollution emanating from one state but adversely affecting another in the last seven years.¹⁸⁰ In an effort to remedy that structural weakness in the federal air pollution law, the 1977 Clean Air Act amendments thoroughly revised section 110(a)(2)(E) and added new section 126 to supply the needed procedural detail.¹⁸¹

The new Act requires that all state plans have adequate provisions which will prohibit "any stationary source within the State from emitting any air pollutant in amounts which will . . . prevent attainment or maintenance by *any other State* of any such national primary or secondary ambient air quality standard." (Emphasis supplied.)¹⁸² In an effort to specify such "adequate provisions," the statute now includes section 126 which requires that written notice be given to all "nearby" states when major new or existing sources "may significantly contribute to levels of air pollution in excess of the national ambient air quality standards in any air quality control region outside the State in which source intends to locate. . . ."¹⁸³ The statute does not explain what information this "notice" is to convey. Section 126 clearly addresses this issue of non-attainment conditions caused or exacerbated by air pollution intrusions originating from other states. If it is actually carried out, this notification provision will cause sources and air pollution control agencies to isolate and identify those polluters whose adverse air quality impact is substantial.¹⁸⁴

In the case of new source construction or existing source modification, the source owner must provide written notice to all nearby states at least sixty days prior to the commencement of construction. This notice must be

¹⁷⁸ Clean Air Act of 1970 § 110(a)(2)(E).

¹⁷⁹ 483 F.2d 690, 692-3 (8th Cir. 1973).

¹⁸⁰ See, S. REP. NO. 95-127, 95th Cong., 1st Sess. 41-2 (1977).

¹⁸¹ The Comprehensive Clean Air Act amendments of both the House and Senate contained provisions regarding interstate air pollution. See, H.R. REP. NO. 95-294, 95th Cong., 1st Sess. 329-31 (1977) and S. REP. NO. 95-127, 95th Cong., 1st Sess. 41-2 (1977).

¹⁸² Clean Air Act of 1977 § 110(a)(2)(E)(i).

¹⁸³ Clean Air Act of 1977 §§ 126(a)(1)(B) & (a)(2).

¹⁸⁴ In addition to the intrusion of air pollutants into non-attainment areas, this section equally pertains to the situation where air pollution enters into an area having air quality better than the secondary standard: a prevention of significant deterioration area. See, Clean Air Act of 1977 § 126(a)(1)(A).

given to those nearby states whose air quality "may be affected" by the new or modified source.¹⁸⁵ In the case of existing major stationary sources which significantly contribute to air quality violations in neighboring states, the state of source location itself must provide notice to the affected nearby states which identifies the offending sources. The statute required that this onetime identification was to have been completed within three months after the enactment of the new law.¹⁸⁶

Next, state and local governments are authorized to petition the EPA Administrator for a finding that any major source emits or will emit air pollutants so as to prevent the attainment or maintenance of the national air quality standards in another state.¹⁸⁷ This power to petition the federal environmental administrator appears to be independent of the notification requirements imposed under section 126(a). Therefore, a petition could be filed without the prerequisite of a formal notification. Obviously, any information included in a notification would assist the administrator in making his decision under section 126(b). However, the administrator is allowed sixty days to investigate the allegations of any petition and additional time in which to conduct a public hearing so that his ruling on the petition is informed.¹⁸⁸ As written, a section 126 petition can be initiated only by governmental entities and not directly by citizens. This aspect of the section minimizes the role of citizen's groups in the administrative process. It is not clear whether EPA could act pursuant to section 126 after receiving an informal petition from nongovernmental bodies or individuals. If, through its own efforts, EPA were to determine that major sources in one state were adversely affecting another state's air quality, it could act against the first state for not implementing the requirements of section 110(a)(2)(E)(i)(I) and (ii). It seems certain that the administrative remedy provided in section 126 was not intended as a supplement to the citizen suit provision of section 304.

Finally, if the EPA Administrator grants the petition, a SIP violation would occur if a new or modified source were constructed or operated. Ostensibly the new or modified plant would be prohibited. Where an existing source is found to prevent attainment or maintenance of an ambient standard in another state, it could only operate for an additional three months.¹⁸⁹ Thereafter, EPA would place the existing source on a compliance schedule not exceeding three years in duration in order to control the intruding air pollutants.¹⁹⁰ If three years were insufficient, the source could

¹⁸⁵ Clean Air Act of 1977 § 126(a)(1). *See also*, note 105 *supra*.

¹⁸⁶ Clean Air Act of 1977 § 126(a)(2).

¹⁸⁷ Clean Air Act of 1977 § 126(b).

¹⁸⁸ *Id.*

¹⁸⁹ Clean Air Act of 1977 § 126(c).

¹⁹⁰ *Id.*

then apply for a delayed compliance order available under section 113(d) of the Act. This generous compliance timetable probably reflects the pervasiveness of the interstate pollution problem, the long range transport characteristics of several air pollutants, and the fear that section 110(a)(2)(E) and the non-attainment area provisions could directly threaten "remote" pollution sources.

In conclusion, section 126 can serve as an important component of the non-attainment program if it is actively pursued by EPA, state and local governments. Certainly a state would not wish to have its own pollution abatement efforts nullified and growth potential restricted by air emissions originating from beyond its borders. On the other hand, there is little incentive for a state exporting its pollution to report extraterritorial air quality impacts resulting from local sources. This weakness in the system may be mitigated by the petition process incorporated into section 126(b). However, this recourse places the burden of decision and action on the EPA; it could place the agency between two antagonistic states.¹⁹¹

In addition, the sole emphasis of this¹ interstate impact section—section 126—is on the effects of "major" stationary sources; with no consideration of those non-major sources which may have the same cumulative adverse air quality impacts. As a matter of policy, non-major stationary sources should not be ignored, especially when they contribute to violations of the primary and secondary air quality standards in nearby states. However, reference to section 110(a)(2)(E) indicates a broader sweep to the interstate abatement efforts. Under the language of that section all state implementation plans must contain provisions "*prohibiting any stationary source within the State from emitting any air pollutant in amounts which will . . . prevent attainment and maintenance by any other State/of the NAAQS/*."¹⁹² (Emphasis supplied.) This would seemingly contradict the narrower approach of section 126 or at least limit its notice, petition, and compliance scheduling provisions to major stationary sources. In addition to foregoing, the statute does not in any way address the situation where air quality standard violations are caused by transported automobile-related air pollution.

The interstate component of the non-attainment question raises important issues concerning intra-regional economic development, especially when the air quality planning and regulatory activities of one state would limit the economic growth of its neighbors. Intertwined with this large issue is the concept of equity between states. A basic principle of the Clean

¹⁹¹ Review of the Administrator's decisions under section 126 will probably be had in the regional United States Courts of Appeal. See, Clean Air Act of 1977 – 307(b)(1). The new statute specifically provides for such judicial review. See, Clean Air Act of 1977 § 307(d)(1)(M).

¹⁹² Clean Air Act of 1977 § 110(a)(2)(E).

Air Act has been to minimize such inequities so as to avoid competition for polluting industries through the inducement of relaxed pollution standards. As the nation's air quality is recognized as a valuable and scarce resource, competition for its use will grow more intense. In the future, interstate conflicts over air use will invariably become more common.

V. CONCLUSION

As we enter the final two decades of this century, it is certain that our society will continue to be concerned with improving and preserving the quality of the nation's air resource. On the other hand, major industrial growth during this period will not cease; but rather it will undoubtedly continue in the form of the construction of new facilities and the modernization of existing plants. The dynamism of the American industrial economy spurred by the increasing worldwide demand for goods and services will force industry to seek a greater productive capacity. As a nation, we must address the important policy question of determining the "best" location of this future industrial growth. The answer to this question is complex and unavoidably political. However, as long as the federal air pollution control policy embodied by the Clean Air Act is in force, air quality considerations will greatly influence industrial location decisions.

For a number of reasons, industry will often choose to expand their operations within existing urban areas; often already experiencing poor air quality. This desire creates a conflict between environmental and other economic and social interests which has not been previously addressed by any national growth policy. The non-attainment area provisions of the 1977 Clean Air Act at a minimum represent an initial legislative approach to the resolution of these complex and conflicting problems. The policy, however, should not be considered as the culmination of federal policy development in this area, but instead a first step. Subsequent legislative amendments to the Clean Air Act will serve to shape this policy as the years pass and as government regulators and planners develop their experience and expertise.

The Congress by enacting this provision has at least taken an initial step towards the formulation of a national urban growth policy. Whether or not this is the best way to proceed with such a policy, the non-attainment area rules focus attention upon the question of industrial expansion within existing urbanized regions. However, this urban growth policy is primarily concerned with air quality, public health, and welfare interests. As such, it brings attention to bear upon a contention that has been in dispute for some time; that environmental concerns should be the dominant interest recognized when government attempts to regulate industrial expansion. It is often suggested that government should balance the interests of air quality improvement with economic expansion. When that argument is made,

we must be cognizant of the fact that industrial expansion is to occur in areas which are presently violating existing, health-related ambient air quality standards. The issue in the non-attainment area context is not aesthetic in nature, but rather it is one involving the health and welfare of all those who live and work in the presently polluted areas. When this public health rationale for a non-attainment area policy is raised the subsequent challenge is to the validity of the ambient air quality standards which are the basis of the entire federal air quality effort. There is no indication at present that the administratively-developed air quality standards are invalid or that they will be weakened in the future. On the contrary, it is quite likely that other air pollutants will be regulated as new information becomes available. Consequently, air quality and an environmentally-based policy will continue as influential factors guiding industrial growth decisions in urbanized areas.

Since that is the case, the Clean Air Act's non-attainment policy assumes an extremely important role. The material above discusses the new policy in some detail. As an initial congressional approach, this provision is commendable. It establishes procedures and substantive requirements for reviewing major air pollution sources. However, there are several overall criticisms which can be levied against the policy. First, it only focuses on a review of "major" sources of air pollution, yet the section does not define the term "major" for its own purposes. But beyond that, concentrating on major stationary sources ignores the contribution of non-major stationary and mobile sources of pollution which can significantly affect the air quality in an AQCR. In this way, the new policy is also inequitable, placing new restrictions only on large sources. The non-attainment policy should be more sensitive to all new source growth. Secondly, the statute effectively extends the attainment date for the national air quality standards until 1983 and 1988 for different pollutants. This was to be expected since the mid-1970s attainment dates of the 1970 Clean Air Act had long since been passed. It is hoped that these new dates will serve as true deadlines for attainment of the ambient air quality standards. If these dates pass without achieving attainment of the standards, the federal air pollution control effort will have its credibility severely impaired. Third, the new statute does not address the situation where ambient air quality standards are established in the future by EPA for previously unregulated pollutants. What will be the attainment date? Will sources of these pollutants be subject to a non-attainment permitting procedure by analogy? These questions will undoubtedly be confronted in the next revision of the Clean Air Act. Fourth, there is no serious consideration of the attainment of the secondary ambient air quality standards in either the interpretative ruling or the statute. If these standards are to mean anything, they must be achieved within some finite time frame. Also, we must determine as a matter of policy

whether a violation of the secondary standards should trigger offset analysis. Fifth, the statute has not addressed the situation where an area which presently meets the national air quality standards subsequently becomes a non-attainment area after the compliance dates specified in the law. These prospective non-attainment situations may reinstate prior approaches to the non-attainment issue. It may be suggested that no new source growth should be permitted as long as the air quality violates the NAAQS. Congress should provide for this problem when it next considers Clean Air Act amendments.

The non-attainment issue has provided an example of federal policy development in a complex environmental, economic, and social area. The legislative approach can be rightfully criticized for its structural and definitional flaws. However it must be recognized as an attempt by the Congress to make new industrial development compatible with the environmental health and welfare needs of the American public. As an issue of public policy it represents an area of immense complexity and social importance. The successful resolution of this problem will undoubtedly depend in large part upon the creativity of government and industrial planners and engineers who will be responsible for designing "cleaner" industrial processes. The solution must be technological and it is hoped that the new non-attainment statute will provide the structure and impetus for reaching the goal of a productive and healthful American society.