New York State's Legal Battle Against Upwind Pollution and Acid Rain: The
Attorney General's Perspective

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In January 1997, the New York Attorney General's office hosted a meeting in Albany at which representatives of several northeastern states began formulating a legal strategy for addressing the transport from the midwest of nitrogen oxide pollution which contributes to smog and acid rain. Since that time, much progress has been made towards reducing urban smog, or ozone, through litigation and administrative action. However, as this article explains, much still needs to be done before acid rain ceases to batter New York's lakes and mountains.

I. INTRODUCTION

Eight years ago, Congress enacted the Clean Air Act Amendments of 1990, ending years of litigation and lobbying directed towards obtaining new controls on emissions of pollutants which create ground level ozone—a precursor to both ground level ozone and acid rain. For the first time, the 1990 Amendments greatly strengthened the controls on emissions and migration of nitrogen oxides (NOx), a precursor to both ground level ozone and acid rain. For the first time, Congress required that areas which do not meet the Environmental Protection Agency's (EPA's) health-based ozone standard implement specified controls on NOx emissions. Congress also took steps in the 1990 Amendments to create the Ozone Transport Region (OTR), consisting of twelve northeastern states and the District of Columbia. Finally, Congress also required reductions in utility NOx emissions in the centerpiece of the 1990 Amendments—the enactment of Title IV, the acid rain title of the CAA.

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The enactment of the 1990 Amendments was hailed by the northeastern states and the environmental movement as a major victory in the battle against urban smog and acid rain. It was the culmination of extensive efforts by the northeastern states and their allies in the environmental movement to obtain action on acid rain through lobbying and litigation. Although inevitable compromises were made, it was widely felt that the solution to acid rain and smog was finally in place.

Unfortunately, however, much of the promise of the 1990 Amendments has proven to be illusory. Although the 1990 Amendments require NOx emission controls in areas which do not meet the ozone standard, EPA has routinely granted exemptions from the NOx control requirements to states located outside the northeast, on the grounds that NOx reductions are not beneficial there, even though such controls would reduce the amount of ozone being blown into the northeast. Furthermore, the reductions of sulfur dioxide and NOx required under the acid rain program have been insufficient to stem further damage to Adirondack lakes and ponds; yet EPA has declined to explain to Congress what additional controls are needed. Finally, the efforts of the northeastern states to obtain NOx emissions reductions under the interstate transport provisions of the CAA are being opposed by a coalition of midwestern states and utilities, who argue, in reliance on a typographical error, that the 1990 Amendments gutted the interstate transport provisions of the Act.

In the past two years, New York and the other northeastern states renewed their legal efforts to deal with the interstate transport of pollution and acid rain, relying on a combination of litigation and administrative actions to obtain EPA action to reduce the transport of ozone pollution and acid rain. New York led the way in 1996, challenging exemptions given by EPA to four midwestern states from the NOx control requirements normally applicable to ozone non-attainment areas. Then, in the summer of 1997, New York sued EPA again, this time over its failure to define a so-called deposition standard that would protect the Adirondack lakes and other threatened resources from the ravages of acid rain. In August 1997, New York and seven other northeastern states each filed voluminous petitions with EPA under Section 126 of the Act, requesting EPA to finally take action against the transport of ozone-causing NOx emissions from the midwestern power plants and factories.

By the end of 1997, these efforts began to bear fruit. In October 1997, EPA proposed the most significant regulatory action ever regarding the transport of ozone pollution, issuing a proposal to require NOx reductions from 22 states and the District of Columbia. In 1997, EPA also strengthened the National Ambient Air Quality Standards (NAAQS) for ozone, placing much of the midwest into noncompliance for the first time. In December 1997, eight northeastern states entered into an agreement with EPA to require action on the Section 126 petitions.

Now that EPA has started to take action on interstate pollution, it has come under attack from a coalition of midwestern states and utility interests. In the last three months of 1997, this midwestern coalition filed twelve actions in the D.C. Circuit challenging EPA's interpretation that the typographical error in Section 126 should be disregarded. Midwestern states, utilities and other industry groups have also challenged EPA's issuance of revised standards for ozone and particulate matter. Finally, they have challenged the settlement between EPA and the northeastern states to obtain NOx emissions reductions under the interstate transport provisions of the CAA.

To date, it appears that the northeast is getting the better of this new war between the states, winning some of the early skirmishes. However, there will undoubtedly be much more litigation before New York's air becomes easier to breathe and its waters less acidic.

II. THE ENVIRONMENTAL EFFECTS OF NOx EMISSIONS

NOx has been called the "jack-of-all-trades" of air pollutants because of the many ways in which it causes adverse effects.
on human health and environmental harm: nitrogen dioxide (NO₂) is itself a "criteria pollutant," regulated by EPA because of its harmful effects on human health; NOₓ is one of the two precursors of ozone pollution; NO₂ causes acid rain which is fatal to much of the aquatic life in New York's Adirondack Park area; and NOₓ causes eutrophication of coastal waters such as the Long Island Sound and Chesapeake Bay.

A. NOₓ as an Ozone Precursor

In the presence of sunlight, NOₓ reacts with volatile organic compounds (VOCs) in a complicated reaction that leads to the creation of ozone (O₃), the primary component of urban smog. Ozone contributes to many respiratory health problems, including chest pains, shortness of breath, coughing, nausea, throat irritation and increased susceptibility to respiratory infections such as asthma. In recognition of the serious adverse health effects of ozone pollution, EPA recently strengthened the NAAQS for ozone, from a one hour average of 120 ppb to an eight hour average of 80 ppb.

Any strategy for urban smog requires the reduction of NOₓ and VOC emissions. Areas which do not meet the ozone NAAQS must meet certain requirements for control of VOCs and NOₓ, both of which are precursors of ozone. Furthermore, because New York is in the OTR, all NOₓ emission sources in the state are subject to a specified level of NOₓ controls, similar to those normally applicable in moderate nonattainment areas, with more stringent requirements applicable to the greater New York City metropolitan area, rated by EPA as a severe nonattainment area. As a result, industrial sources in New York and other northeastern states are subject to greater costs of business than competing businesses operating in the south and midwest. If New York and the other northeastern states are unable to meet the 2007 deadline for meeting the ozone NAAQS, they may face sanctions or other consequences under the CAA.

It can no longer be disputed that interstate transport of ozone pollution and the NOₓ emissions that contribute to ozone formation from upwind areas contribute significantly to the high ozone levels in the northeast. Because the prevailing winds are from the west, particularly in the summertime, they bring New York the NOₓ emitted from dozens of utilities and other industrial operations in the Midwest. This effect is exacerbated by the fact that many of the large midwestern power plants utilize extremely high stacks, which only serve to increase the mobility of the emissions. In recognition of this phenomenon, Congress singled out the migration of ozone and its precursors for special emphasis in the 1990 Amendments.

The bill reflects an increasing understanding of how ozone pollution is formed and transported. Because ozone is not a local phenomenon but is formed and transported over hundreds of miles and several days, localized control strategies will not be effective in reducing ozone levels.

B. Role of NOₓ in Creation of Acid Rain

It has also now been firmly established that NOₓ is, along with sulfur dioxide (SO₂), one of the two pollutants which contributes to the formation of acid rain. NOₓ particles, when in the atmosphere, are converted into nitric acid, which falls to the ground as acid rain. Acid rain has had a significant effect on the environment throughout the eastern portion of the United States, but primarily in the Adirondack area where hundreds of lakes and ponds have become highly acidic. EPA's 1995 Acid Deposition Standard Feasibility Study Report to Congress describes the effect of acid rain on fish and other wildlife as follows:

"[C]hanges in water quality produced by increased acidity tend to affect aquatic species first by decreasing their ability to survive, reproduce, or compete in acidic surface waters. Such responses can eliminate affected species and reduce species richness (i.e., the number of species living within a surface water). Such changes typically occur first in affected waters during episodic runoff events (i.e., when storm water or snowmelt runoff causes short-term flushes of acutely toxic water chemistries to enter receiving waters)."

Acidification of the receiving water bodies can take one of two forms: acute or chronic. Most of EPA's work to date has focused on chronic acidification which occurs when the acid rain exceeds the neutralizing capacity of a body of water. According to EPA's Report to Congress, the percentage of lakes in the Adirondacks that will be chronically acidic (i.e. corresponding to a pH of 5.28, a level at which many species of fish can no longer survive) by the year 2040 may exceed 40%.

Perhaps more important for the Adirondack lakes and ponds, however, is acute, or episodic acidification, which is described by EPA as follows:

[A]cute acidic conditions can rapidly develop during periods leading to, accompanying, or following episodic events, which primarily accompany discharges of storm and snowmelt water runoff. Pulses of highly acidic water flushing into and through soils, streams, and lakes often expose soil and aquatic biota to short-term, acutely toxic, lethal chemical conditions. (emphasis supplied)

Nitrogen deposition is disproportionately to blame for acute episodic acidification in the Adirondack region. EPA has determined that events of episodic acidification are particularly significant because, coming in the springtime, when fish are spawning, they can cause complete spawning failures. EPA has determined that approximately 70% of the Adirondack lakes can be affected by the worst annual episode. While the acidity of many of the lakes may return to relatively normal levels after the snow melt ends, the damage to the life in the lakes has been done, for that season at least.

The effect of acid rain is not simply reflected by pH levels in government reports. Many lakes, particularly in the western Adirondacks, that were favored destinations of sportsmen just two generations ago are now devoid of fish. In the Report to Congress, EPA estimates that the number of acidified lakes in the Adirondacks may double by the year 2040, if no further
emission reductions are promulgated beyond those required by Title IV. This already bleak scenario may be aggravated further by the deregulation of the electricity industry. In its February 20, 1996 comments on the draft Environmental Impact Statement prepared by the Federal Energy Regulatory Commission (FERC) regarding its plan to deregulate the market for the transmission of electricity (FERC docket no. RM95-8-000), EPA explained that electricity deregulation "has the clear potential to allow significant emissions upwind of ozone nonattainment areas and therefore result in increased emissions in one region of the country partially negating the progress being made, at great effort and considerable expense, in the Northeast."\(^{13}\)

### III. The Legal Requirements Governing Emissions of Nitrogen Oxides

The emission of nitrogen oxides is governed by provisions of Titles I and IV of the CAA. Title I embodies the primary mechanism whereby EPA regulates air quality from stationary sources, delegating much of the decisionmaking to states in the State Implementation Plan (SIP) process. Title IV, consisting of the acid rain provisions of the CAA, was added by Congress as part of the 1990 Amendments.

#### A. Title I: Control of NO\(_x\) as a Precursor to Ozone

Under Title I of the CAA, EPA is required to identify certain criteria pollutants for which it must promulgate NAAQS.\(^ {14}\) For each criteria pollutant, EPA is to promulgate a primary standard, which is protective of public health, and a secondary standard, which is protective of welfare effects, meaning resources and the environment in general. Each State is required to submit a SIP in which it sets out a strategy for complying with the NAAQS.\(^ {15}\)

Prior to 1990, states with ozone nonattainment areas were required only to implement controls on emissions of VOCs. That was changed in 1990, when Section 182(f) of the CAA was enacted, providing for control of NO\(_x\) as well as VOCs in ozone nonattainment areas.\(^ {16}\) Pursuant to Section 182 of the CAA, the stringency of NO\(_x\) and VOC controls to be implemented in the SIP process depends, in part, on the magnitude of the ozone problem in the area. For example, in "severe" nonattainment areas like the New York metropolitan area, no new source of NO\(_x\) pollution can commence operation until it has obtained NO\(_x\) reduction, or offsets, in the amount of 1.3 times its emissions, while in the less polluted "moderate" nonattainment areas, the ratio is only 1.15:1.\(^ {17}\)

Pursuant to Section 181 of the CAA, each state containing ozone nonattainment areas is required to implement a strategy for coming into compliance with the ozone standard by a prescribed date, which again varies based on the degree of noncompliance with the standard. For example, while moderate nonattainment areas were required to meet the ozone standard by November 1996, the more polluted severe nonattainment areas, like New York City, have until 2007 to come into compliance with the ozone standard.\(^ {18}\)

Title I also contains a number of provisions directed towards reducing the migration of criteria pollutants or, in the case of ozone, their precursors. Pursuant to Section 110 of the CAA, all SIPs must also include provisions preventing the interstate transport of pollutants in amounts which will adversely affect another state's ability to meet or maintain the applicable NAAQS.\(^ {19}\) Section 126 provides downwind States with a mechanism for petitioning EPA to require emission reductions from sources in those upwind states which have not controlled their contribution to interstate pollution as required by Section 110. Finally, in Section 184 of the CAA, Congress set up the Ozone Transport Region (OTR), requiring a certain level of controls on the emissions of ozone precursors in all portions of the northeastern states within the OTR regardless of whether the state at issue itself meets the ozone NAAQS.\(^ {20}\)

Although Title I does not specifically address acid rain, its provisions have some impact on acid rain. Pursuant to Section 109 of the CAA, EPA is required to set secondary NAAQS for each criteria pollutant at levels which are protective of "welfare effects," defined in Section 302(h) to include, \textit{inter alia}, effects on soils, water, wildlife and weather, "whether caused by transformation, conversion or combination with other pollutants."\(^ {21}\) Of the six criteria pollutants for which EPA has promulgated national ambient air quality standards, four contribute to acid rain formation, as a "welfare effect:" sulfur dioxide, nitrogen dioxide, ozone, and particulate matter. While sulfur dioxide and nitrogen dioxide are direct precursors to acid rain, ozone is created by NO\(_x\), an acid rain precursor, and particulate matter include nitrates and sulfates, which create nitric acid and sulfuric acid, respectively, when combined with water in the atmosphere.

To date, however, EPA has been reluctant to use its authority to designate secondary standards, protective of welfare effects, as a tool against acid rain. For example, in 1996, EPA declined to revise the nitrogen dioxide NAAQS to prevent acid rain, on the grounds that scientific uncertainty prevented it from identifying an appropriate standard.\(^ {22}\) Likewise, EPA has not used the sulfur dioxide, ozone or particulate matter standard to protect against acid rain.

#### B. Title IV: Acid Rain

Until 1990, Title I provided the only tool for addressing acid rain. In 1990, however, Congress enacted significant amendments to the CAA, which included, as the crown jewel, the enactment of Title IV, the acid rain provision of the CAA. The enactment of Title IV in 1990 was the result of several years of legislative activity, dating back to 1980, when EPA commissioned the National Acid Precipitation Assessment Project (NAPAP) to research and develop a program for the prevention and control of air pollution. The work of NAPAP occupied the next ten years, and cost hundreds of millions of dollars.

By the late 1980s, Congressional patience with the NAPAP project had grown thin. In 1989, President Bush took office, announcing, with regard to acid rain, that "the time for study is over, the time for action is now."\(^ {23}\) As a result, several bills...
addressing acid rain, along with other amendments to the CAA, were introduced in 1989, including an Administration bill. After much in the way of last minute negotiating and compromises, the acid rain title of the CAA was enacted as part of the 1990 Amendments.

Although the precursor emissions to acid rain—sulfur dioxide and nitrogen oxides—are attributable to many types of emissions activity, the Title IV requirements of the CAA focus primarily on utility power plants. In Sections 403 through 406 of the CAA, Congress set up a program for reducing emissions of sulfur dioxide by ten million tons from 1990 levels, and creating a trading program for attaining those reductions. In subsequent rulemakings, EPA has added some body to these requirements and created an efficient cap and trade program for sulfur dioxide emissions. With regard to NO\textsubscript{x}, however, Congress was less bold. Although the House proposal would have obtained up to 4 million tons in NO\textsubscript{x} reductions, the final legislation required only 2 million tons in NO\textsubscript{x} reductions, but it also required EPA to prepare a report to Congress on the feasibility of defining an acid deposition standard that would be protective of the resources threatened by acid rain.

Part of the reason for congressional caution in Title IV’s NO\textsubscript{x} control program was some uncertainty about the specific nature of the relationship between NO\textsubscript{x} emissions and the creation of acid rain. The requirement that EPA define an acid deposition standard which would be protective of the resources threatened by acid rain was intended to eliminate that uncertainty and enable Congress to promulgate the deposition standard identified by EPA.

IV. RECENT LITIGATION AND REGULATORY ACTION ADDRESSED TO REDUCTION OF OZONE POLLUTION

A. Challenge to Midwestern Exemptions from NO\textsubscript{x} Control Requirements

In March 1996, New York commenced a lawsuit in the U.S. Court of Appeals for the Seventh Circuit against EPA, challenging EPA’s decision to exempt portions of the four states surrounding Lake Michigan—Wisconsin, Illinois, Indiana, and Michigan—from the requirements of Section 182 for control of NO\textsubscript{x} emissions. In the regulatory action at issue, EPA determined, under Section 182(f), that the urban areas surrounding Lake Michigan that are not in compliance with the ozone standard need not implement NO\textsubscript{x} controls normally required in ozone nonattainment areas. These urban areas include the cities of Milwaukee, Chicago, and Gary, Indiana, as well as other smaller areas on Lake Michigan. EPA granted the exemption under Section 182(f)(1)(A), which provides that the requirements for control of NO\textsubscript{x} emissions normally applicable in ozone nonattainment areas do not apply “if the administrator determines (when the administrator approves a plan or plan revision) that additional reductions of oxides of nitrogen would not contribute to attainment of the NAAQS for ozone in the area.”

EPA granted the exemption based on a determination that NO\textsubscript{x} reductions in the Lake Michigan non-attainment areas would actually increase, rather than reduce, levels of ozone in the immediate areas. This so-called “disbenefit” effect is based on a theoretical phenomenon whereby NO\textsubscript{x} compounds in the air may react with the ozone which has already been created, to reduce the levels of ozone. According to EPA, although NO\textsubscript{x} are an essential part of the creation of ozone, once high levels of urban smog, or ozone have been created, reductions in NO\textsubscript{x} emissions make the ozone problem worse before it gets better. In other words, EPA accepted the Lake Michigan states’ logic that adding additional traffic to the Chicago freeway system would improve, not worsen, Chicago’s smog problem.

Although EPA recognized in the rulemaking that increased NO\textsubscript{x} emissions in the Lake Michigan area would have adverse effect on downwind areas, it interpreted Section 182(f) to preclude consideration of such downwind effects. In challenging EPA’s action, New York, joined by Vermont and Pennsylvania, took the position that EPA erred in granting the exemptions without regard to the effect on downwind states. Even though Section 182(f) does not on its face require consideration of downwind effects, New York argued that consideration of such effects is brought into the equation by the language providing that a NO\textsubscript{x} exemption is effective only when EPA makes the necessary determination “when the administrator approves a [state implementation] plan or plan revision.” Because all state implementation plans must meet the requirements of Section 110(a)(2)(D) of the CAA, including the requirement that they not allow emissions which contribute significantly to nonattainment in downwind areas, New York argued that no exemption could be granted unless SIPs for the midwestern states seeking the exemptions prohibited NO\textsubscript{x} emissions which contributed significantly to ozone non-attainment in downwind states. Because EPA did not consider the effect of the exemption on downwind states, New York argued that EPA erred as a matter of law.

Although this case was filed in March 1996, it was not argued until October 31, 1997, as briefing and argument was stayed by the court while the parties attempted to negotiate a resolution. Ultimately, the parties were unable to negotiate a settlement of the matter, although EPA did take the significant step of proposing, on October 10, 1997, significant NO\textsubscript{x} emission reductions from several midwestern and southern states, including the Lake Michigan states, in an effort to reduce interstate transport of NO\textsubscript{x} and ozone pollution. To a large degree, this proposal—this so-called NO\textsubscript{x} SIP call, discussed below—rendered EPA’s failure to consider the interstate effects when it granted the exemptions irrelevant. For example, EPA announced that it would require NO\textsubscript{x} emission reductions of approximately 40% from Indiana and Illinois. Assuming that EPA is correct that this 40% reduction would eliminate any significant impact on downwind states, New York would no longer have a basis to complain about the NO\textsubscript{x} exemptions in the Lake Michigan urban areas so long as the states in which those areas were located obtained the necessary NO\textsubscript{x} reductions in compliance with the SIP call.

The issuance of this proposed SIP call played a significant...
role in the reasoning of the 7th Circuit, in its January 12, 1998 decision upholding the exemptions. In upholding the exemptions, the court, in an opinion authored by Chief Judge Richard Posner, determined that Section 182(f)(3) provided a mechanism whereby EPA could grant an exemption from the NOx requirements on a provisional basis if the exemption would be beneficial to the local non-attainment area, while it considered the interstate effects under a different schedule. The Court reasoned, however, that once EPA finalizes its determination about the interstate effects of emissions from the non-attainment areas at issue under Section 110, that determination would, in effect, trump the exemption granted under Section 182(f)(3):

"Of course later on, when the EPA considered downwind effects pursuant to the mandate of Section 110(a)(2)(D), it would have in effect to rescind the exemption granted under Section 182(f)(3) if it found the downwind effects significant." 26

In the reasoning of the 7th Circuit, the purpose of Section 182(f)(3) is to allow states to forego the cost of NOx controls while EPA is evaluating the interstate transport effects. The court characterized the "apparent purpose" of Section 182(f)(3) as being "to allow the postponement of full compliance with the control requirements for nitrogen oxides until the downwind effects are determined, provided that the effects of postponement in the emitting area are not adverse." 27

Although New York lost the case, the Seventh Circuit's reasoning provides New York and the other northeastern states with significant ammunition in their battle against transported pollution. The court's reasoning that interstate transport effects under Section 110 will trump the exemptions under Section 182(f) will be significant for EPA's further deliberations on the proposed NOx SIP call. In the proposed SIP call, EPA left open the possibility that it would reduce the emission reductions required of the Lake Michigan states in light of the exemptions which were granted. However, the 7th Circuit decision circumscribes EPA's authority to consider the exemptions when it finalizes the SIP call, making clear that interstate transport effects under Section 110 would take priority over the basis for the exemptions from the NOx control requirements of Section 182(f) of the CAA.

B. The Proposed NOx SIP Call

The NOx SIP call announced on October 10, 1997, is perhaps the most significant action ever proposed by EPA to address the problem of transported NOx pollution. EPA issued this proposal pursuant to the requirement of Section 110(a)(2)(D) of the CAA that each state's SIP "contain adequate provisions . . . prohibiting any source . . . from emitting air pollutants in amounts which will . . . contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any . . . national primary or secondary ambient air quality standard." Acting pursuant to Section 110(k)(5), which requires EPA to require a State to correct any inadequacies in its SIP, EPA announced its intent to require specified NOx emission reductions from twenty-two States and the District of Columbia.

The SIP call followed two years of deliberation of the so-called Ozone Transport Assessment Group (OTAG), a group formed of representatives of all the states east of the Rocky Mountains. OTAG undertook the task of attempting to come up with a solution for the problem of ozone transport, primarily the transport of NOx emissions. Although OTAG did perform a significant amount of technical work, including modeling efforts and data assembly, it was unable to formulate any concrete recommendations for the necessary steps to control creation and transport of NOx pollution.

With the SIP call, EPA picked up where OTAG left off. In the SIP call, EPA specifies NOx emission reductions ranging from 9% to 44% that 22 states generally located in the midwest, south and east (plus the District of Columbia) must obtain in order to prevent interference with any other states' ability to meet the NOx ozone standard. Although New York and many of the other northeastern states are included in the SIP call, they will not be required to obtain any significant emission reductions beyond those already anticipated under the memorandum of understanding (MOU) executed by the Ozone Transport Commission (OTC). 28

In calculating the emission budgets, EPA articulated for the first time its calculation of the "significant contribution" language of section 110(a)(2)(D). The concept of "significant contribution" is an intrinsically ambiguous concept where the difference of a few parts per billion in an area's air quality can mean the difference between meeting and exceeding the ozone NAAQS. For example, assume that New York City exceeds the 120 ppb standard by 5-10 ppb a few times each summer and that the contribution from New Jersey is 5 ppb, from Pennsylvania is 5 ppb, from West Virginia is 5 ppb and from Ohio is 5 ppb. Under such a scenario, New York would meet the ozone standard if the interstate transport were eliminated, but would the contribution of any given state, at less than 5% of the total ozone in New York City, constitute a "significant contribution"?

In the proposed SIP call, EPA articulated a pragmatic approach to the question of what constitutes "significant contribution." 29 It divided the eastern United States into twelve subregions, which served as the basis for the OTAG deliberations. EPA then identified what areas of the country would continue to be in nonattainment in the year 2007 — the statutory deadline by which most of the eastern seaboard areas, classified by EPA as "severe" non-attainment areas, must meet the ozone NAAQS 30 —even after implementing all controls explicitly required by the CAA. Under EPA's analysis, these are the areas which are the recipients of significant ozone transport. EPA's next step was to identify the source areas which contribute to
ozone nonattainment in these problem areas. In the proposed SIP call, EPA identified 22 states, and the District of Columbia, as being jurisdictions which contribute to ozone nonattainment in the problem areas. To determine the contribution from each of these states to downwind nonattainment, EPA applied a "weight of the evidence" test, in which it evaluated a variety of factors, such as the magnitude of emissions, the distance from the problem areas and the steps already taken to control emissions in the source and receptor states. Finally, EPA determined what emission reductions were necessary in each of these 23 jurisdictions to enable all downwind states to meet the ozone standard by the year 2003. These emission reductions range from 10-20% for those northeastern states which are already implementing aggressive emission controls to over 40% for some of the midwestern states whose NOX emissions are due primarily to coal burning utility power plants, which have been relatively uncontrolled.

In calculating the amounts of emission reductions required from each state, EPA considered what emission reductions were possible from each emission sector. For example, the state emission budgets are based on an assumption that more extensive emission reductions can be obtained from the utility sector than from motor vehicles. However, the SIP call does not require the identified states to meet their assigned budgets in any specific way; nor does it impose any emission control requirements directly on sources (as opposed to EPA action in response to the Section 126 petitions, discussed below).

In the SIP call, EPA announced its intention to set up a program for trading of NOX emission allowances to effectuate the emission reductions required under the SIP call at the lowest cost to sources. On May 11, 1998, EPA published in the Federal Register its proposed NOX emission trading program, which will allow states to opt into a NOX emission trading program, modeled on the trading scheme set up by the northeastern states' Ozone Transport Commission. EPA took comments on the SIP call proposal through early March, 1998 and on the trading program through late June. Once it reviews all comments received, it will issue a final rule, no later than November 1998, which will require states to submit revised SIPs by October 1999. Undoubtedly, much litigation will follow EPA's finalization of the SIP call. However, if all goes according to schedule, the necessary emission controls should be in place and emission reductions obtained no later than May 2003.

**C. The Section 126 Petitions**

Less than two months prior to EPA's proposal of the SIP call, New York and seven other states filed petitions with EPA under Section 126 of the CAA, seeking reductions in NOX pollution from specified sources to the south and west of each state. Section 126(b) of the CAA provides that any state can petition EPA "for a finding that any major source or a group of stationary sources emits or would emit any air pollution in violation of the prohibition of Section 7410(a)(2)(D)(ii) of this Title." That cross reference, which contains an apparent typographical error, is a reference to Section 10(a)(2)(D) of the CAA, which requires each SIP to contain provisions prohibiting any source in the state from emitting pollutants in amounts which would contribute significantly to non-attainment in other states. Within 60 days after receipt of a Section 126 petition, EPA is required by Section 126(b) to either make the finding requested in the petition, or deny the petition. If it makes the finding requested in the petition, the specified sources may not continue to operate more than three months after the finding has been made, unless they comply with emission limits and compliance schedules specified by EPA to eliminate the downwind effects no later than three years after the date of the finding.

Like EPA's SIP call, these petitions relied heavily on OTAG data, supplemented by other data and modeling performed by the petitioning states. In the Section 126 petitions, the petitioning states requested significant reductions in NOX emissions—up to 85%—from the enumerated sources. If the Section 126 petitions are granted, all specified sources will have to implement aggressive NOX emission controls, similar to the requirements already set forth in the Ozone Transport Commission MOU for large industrial sources in the northeast.

Although EPA issued the SIP call within the 60-day period following the submission of the Section 126 petitions, it did not make any findings in response to the Section 126 petitions, or deny such petitions, within the 60-days allowed for doing so. Pursuant to Section 307(d)(10) of the CAA, EPA purported to give itself two thirty-day extensions for action. Ultimately, however, it reached agreement with the northeastern states on a schedule for taking action on the Section 126 petitions. Pursuant to that schedule, embodied in a proposed consent decree lodged with the Southern District of New York, EPA is required to issue proposed findings and emission limits in response to the Section 126 petitions no later than September 1998, with the final determination to be made no later than April 1999. Under the agreement, EPA may, in effect, modify its action in response to the Section 126 petitions if the states in which the sources targeted by the Section 126 petitions are located comply with the final SIP call prior to November 1999. The effect of this schedule, therefore, is to allow states in which the targeted sources are located to come up with their own proposal for reducing emissions, obviating any need for EPA to impose controls on sources in the state. If upwind states do not comply with the SIP call, however, they risk having EPA impose strict emission standards on sources within their borders.

Several midwestern states and midwestern utility interests have moved to intervene in, and dismiss, the Section 126 litigation, on the grounds that the District Court does not have jurisdiction. Their primary argument—that EPA's preliminary steps in acting on the Section 126 petitions are properly subject to the jurisdiction of the D.C. Circuit Court of Appeals rather than the federal district court—was defeated when the D.C. Circuit dismissed all their petitions challenging EPA's actions on the Section 126 petitions to date (see below). The midwestern interests have also opposed the proposed consent decree in comments submitted to EPA pursuant to Section 113(g) of the CAA, which requires EPA to take public comment on all proposed settlements. In support, they argue that EPA has no authority to disregard the typographical error in Section 126 and...
that the consent decree schedule is too aggressive. Paradoxically, while their first argument is based on slavish adherence to an obviously erroneous statutory provision, their second argument completely disregards the requirements of Section 126 that EPA act on petitions within 60 days and impose emission limitations to be effective no later than three years after making the findings requested by the petitions.

The District Court will likely decide whether there is any merit to the midwust's arguments when it determines whether to enter the consent decree. A decision from the District Court is expected shortly after this article is scheduled for publication. In the meantime, EPA is proceeding with consideration of the Section 126 petitions and has announced its preliminary conclusion that they have merit. 99

D. Litigation in the D.C. Circuit Regarding EPA's Interpretation of Section 126 of the CAA

Subsequent to the filing of the Section 126 petitions in August 1997, a total of twelve petitions were filed in the D.C. Circuit Court of Appeals, challenging EPA's preliminary interpretation of the relationship between Sections 126 and 110. Four of these petitions challenged an interpretation set forth by EPA in an August 8, 1997 letter to the State of New Hampshire; four of these actions challenged an interpretation set forth in the Federal Register notice in which EPA announced that it was claiming a 30-day extension to act on the Section 126 petitions; and four of these petitions challenged EPA's authority to enter into the agreement with the northeastern states on a schedule for addressing the Section 126 petitions.

In all of these cases, midwestern interests—utilities, coal companies, and four midwestern and southern states—challenged EPA's preliminary determination that the cross-reference to Section 126 to Section 110(a)(2)(D) contains a typographical error. Read literally, the cross-reference to Section 110(a)(2)(D)(ii) in Section 126 is circular. On its face, Section 126(b) provides that any state may petition for a finding that a source or group of stationary sources emits air pollutants "in violation of the prohibition of Section 7410(a)(2)(D)(ii) of this title." However, Section 110(a)(2)(D)(ii) does not contain a "prohibition;" instead it simply refers back to Section 126: it provides that all state implementation plans shall contain provisions ensuring compliance with the applicable requirements of Section 7426 (Section 126) and Section 7415 (Section 115) of this Title. The only portion in the cross reference derived from a literal reading that is not circular—the reference to Section 115—is nonsensical because Section 115 relates to international pollution transport but Section 126 does not provide for petitions by foreign nations.

EPA's position is that this reference to Section 110(a)(2)(D)(ii) should be a reference to Section 110(a)(2)(D)(i). Such an interpretation finds strong support in the legislative history of the provision. Prior to the 1990 Amendments to the CAA, the language now found in Section 110(a)(2)(D)(i), providing that no state shall allow pollution which contributes to attainment in other states, was found in Section 110 (a)(2)(E)(i). When Congress enacted the 1990 Amendments to the CAA, former subsection 110(a)(2)(E) was revised and renumbered as 110(a)(2)(D). However, when Section 126 was revised to reflect the renumbering of Section 110, an error was made in the cross-reference. There is no evidence in the legislative history to suggest that Congress intended any substantive change when it revised the cross-reference in Section 126. In accordance with the Second Circuit's decision in Chateauguay, 40 Congressional silence indicates that no substantive change was intended by Congress.

The D.C. Circuit consolidated these twelve petitions into a single case, in which New York and three other northeastern states intervened on the side of EPA. 41 EPA moved to dismiss all of those petitions, which had been consolidated, on the grounds that the Court of Appeals does not have jurisdiction under Section 307 to review EPA's preliminary interpretation of Section 110 and Section 126. On April 28, 1998, the D.C. Circuit granted the motion to dismiss, accepting EPA's argument that none of the challenged actions constitute "final action" subject to review in the Courts of Appeals under Section 307 of the CAA.

E. Litigation Over The Revision To The Ozone NAAQS

In July 1997, EPA issued a final regulation, changing the ozone NAAQS from a one-hour average of .12 parts per million to an eight hour average of .08 parts per million. As a result of this change, it is anticipated that many areas in compliance with the current standard will soon find themselves out of compliance with the new standard. While a few of these locations are in the northeast, far more of these new non-attainment areas will be located in the midwest and the south. The emission reductions that will be required in these areas to meet the new ozone standard will have a beneficial effect on ozone levels in the northeast.

Within days of EPA's finalization of this rule, it was challenged in the D.C. Court of Appeals by a number of industry groups including utilities, coal companies, and trucking groups, as well as a number of midwestern states. Their primary arguments are the CAA does not provide EPA with legal authority to revise the ozone standard, and that the available scientific information does not support a more restrictive standard. The states of Massachusetts and New Jersey, as intervenors, and New York as amicus (joined by Connecticut, New Hampshire and Vermont) have submitted an amicus brief in support of the revised ozone standard. These states and EPA rely on the ample evidence that lower levels of ozone pollution are needed to protect the health of the millions of people—including, in particular, children and asthmatics—who live in crowded urban areas affected by ozone pollution. Oral argument is scheduled for December.
V. Litigation Regarding EPA's Acid Rain Program

A. Litigation Over EPA's Phase II Utility Boiler Rulemaking

In December 1996, EPA issued its so-called Phase II NO₂ reduction requirements for utility boilers under Section 407 of the CAA. This rulemaking provided for the second phase of controls on NOx emissions from utility boilers under Title IV, the Acid Rain title of the CAA. These rules provided, for the first time, for annual emission controls for a variety of utility boilers, which were not subject to controls under Phase I of the program. In addition, this rulemaking tightened controls required on some of the larger utility boilers pursuant to the Phase I rulemaking.

This rulemaking required EPA to interpret the Congressional directive that the emission controls be comparable in cost to the cost of so-called low NOₓ burners. In interpreting that provision, EPA determined first that the phrase “comparable in cost” refers to the cost effectiveness of the controls. Therefore, under EPA’s interpretation, controls which may be more expensive, but which reduce more NOₓ, may be “comparable in cost” to cheaper controls. In addition, EPA determined that the word “comparable” does not require identity, but simply that the range of cost be in the same general range as the cost of low NOₓ burners. Therefore, EPA based the promulgated emission standards, for some types of boilers, on technologies which were more expensive than low NOₓ burners.

In promulgating this rulemaking, EPA recognized that the emission controls required by this rule, even when coupled with the additional controls required by the Phase I rules, would not be sufficient to fully address the contribution of NOₓ emissions to acid rain. In fact, as explained above, in the Report to Congress EPA recognizes that the number of acidified lakes in the Adirondacks can be expected to double by the year 2040 even with the controls anticipated by the two phases of the utility boiler rulemakings.

Nevertheless, the rule was challenged by a large number of utilities which argued, primarily, that EPA misinterpreted the requirement that the enacted controls be comparable in cost to low NOₓ burners. The State of New York, joined by Connecticut, Massachusetts, New Hampshire and Vermont, submitted an amicus brief taking the opposite position. Among other arguments, New York argued that EPA, rather than overreaching, actually interpreted the cost comparability requirement somewhat conservatively. New York took the position that, in evaluating the comparability of cost of controls, EPA should have compared the cost of the utility controls with controls on other sources of NOₓ emissions. For example, it could have considered the fact that the cost of further controls on NOₓ emissions from motor vehicles is much greater than the cost of controls enacted by EPA in this rulemaking, or the cost of low NOₓ burners. Thus, in its amicus brief, New York took the same position that it took in its comments on the proposed rulemaking – that EPA could, in fact, have found that even stricter controls were “comparable in cost” effectiveness to low NOₓ burners.

In a February 12, 1998 decision in that case, Appalachian Power Co. v. U.S. Environmental Protection Agency, No. 96-1497, the D.C. Circuit Court of Appeals rejected the utilities’ challenges, holding that EPA’s interpretation of the cost comparability requirements was entitled to deference under the Chevron analysis. This rulemaking should, at least, slow down the further deterioration of acidified lakes in the Adirondacks and elsewhere due to the effects of acid rain. However, as EPA freely concedes, it does not solve the problem of acid rain.

B. Litigation over EPA’s Failure to Promulgate an Acid Deposition Standard

EPA and New York both recognize that the emission controls enacted under Title IV are insufficient to prevent the further deterioration of Adirondack Lakes. However, EPA has another tool at its disposal. When it promulgated the CAA Amendments of 1990, including the acid rain provision, Congress included the requirement that EPA report to Congress on the feasibility of establishing an acid deposition standard. An acid deposition standard would be a standard which regulates NOₓ and SO₂ emissions based on the amount of nitrates and sulfates that can be added to the environment without causing environmental harm. Such a standard would normally be identified in terms of mass of nitrates (or sulfates) per specified surface area, per year. For example, an acid deposition standard may be defined in terms of pounds of nitrates or sulfates per hectare per year.

In requiring that EPA report to Congress on the feasibility of an acid deposition standard, Congress specified some additional requirements for the report. Most importantly, Congress required EPA to identify the numerical value of an acid deposition standard or standards that would be protective of the resources threatened by acid deposition. When EPA issued the Report to Congress two years late in 1995—and only then after being sued by the Sierra Club—it did not identify the numerical value of the necessary deposition standard or standards. Instead, EPA took the position that scientific uncertainties prevented it from identifying the necessary acid deposition standards or standard. EPA also explained that it did not have sufficient guidance from Congress regarding the degree of protection sought by Congress.

In May 1997, New York sent EPA a 60-day notice letter pursuant to Section 304 of the CAA, stating New York’s intention to commence a lawsuit against EPA for failing to comply with the mandatory duty to define an acid deposition standard or standards. When EPA failed to provide any assurances that it would complete the task of identifying the necessary acid deposition standard or standards, New York brought suit in the Northern District of New York against EPA in July 1997, seeking an order that EPA define the necessary deposition standards.

In response, EPA took the position that the District Court is without jurisdiction over the challenge. EPA argued first that New York’s lawsuit is a challenge to the substance of the Report.
to Congress, which should have been filed in the D.C. Circuit Court of Appeals under Section 307 of the CAA within 60 days of EPA's issuance of the report. When New York pointed out, in its response to EPA's motion to dismiss, that the 60-day limitation period has not commenced to run because EPA neglected to publish notice of the issuance of the report in the Federal Register, EPA switched gears, arguing in its reply brief that no court has jurisdiction to review EPA's compliance with a reporting statute. Chief Judge McAvoy would hear none of EPA's excuses: on April 21, 1998, he denied EPA's motion to dismiss, characterizing EPA's arguments as "legal legerdemain." Judge McAvoy's decision paves the way for New York (now joined by Connecticut and New Hampshire) to proceed with its motion for summary judgment, initially served in December 1997.

New York's argument is that the requirement that EPA define an acid deposition standard that is protective of resources threatened by acid rain, including the Adirondack lakes, is an integral part of the compromise known as the Clean Air Act Amendments of 1990. Rather than enacting the House bill, which would have provided EPA with the express authority to require additional $NO_x$ reductions, Congress chose instead to require that EPA simply describe the necessary acid deposition standards, leaving Congress, not EPA, with the choice of whether to enact them. According to the Senate Report, the acid deposition standard to be defined by EPA would supplement the reductions to be achieved under the enacted emission control requirements of Title IV:

"Although the control program included in title IV of the reported legislation begins from a different set of premises, a deposition standard may nevertheless, and in the longer-term, be useful as an element of the national program to protect aquatic and terrestrial resources from acid deposition."44

On the other hand, EPA argues that all it had to do is study the problem of acid rain, even though over $500 million had already been spent by the federal government on acid rain studies. EPA argues that Section 404 requires only that it "consider" identification of a deposition standard. If EPA is correct, none of the subparts of Section 404 would be required elements of the Report to Congress. However, that interpretation is inconsistent with the legislative development of the acid rain provisions of the CAA and with the unambiguous expressions of Congressional intent.

In enacting Title IV, Congress recognized the magnitude of the problems associated with acid deposition, and directed the EPA to provide the necessary technical guidance which would assist Congress in implementing controls on the emission of acid rain precursors. Congress expressly recognized that "strategies and technologies for the control of precursors to acid deposition exist now that are economically feasible," and that "current and future generations of Americans will be adversely affected by delaying measures to remedy the problem."46 By dragging its feet on this issue, EPA has clearly frustrated Congress's desire to end acid rain now.

C. Other Legal Avenues for Addressing Acid Rain

New York recognizes that victory in the acid deposition case will simply require EPA to describe the necessary acid deposition standard, but not necessarily promulgate the standard. Although EPA has never said so explicitly, EPA appears to believe that it does not have the legal authority to actually promulgate an acid deposition standard. Instead, EPA suggests that further legislative authorization is needed.

On this point, EPA is again reading its authority too narrowly. Under Section 107 of the CAA, EPA is required to set secondary NAAQS for so-called criteria pollutants to protect against welfare effects. Under Section 302(h) of the CAA, welfare effects are defined to include harm to the environment and other resources. Therefore, if the health-based air quality standards do not adequately protect the environment against adverse welfare effects, EPA must adopt secondary standards which are stricter than the primary standards.

EPA has never used the secondary standards in this manner. After describing the welfare effects of a certain pollutant—be it ozone, nitrogen dioxide, sulfur dioxide or particulate matter—EPA has invariably identified secondary standards which are identical to the primary standards. On a few occasions, when faced with evidence of the need for stricter secondary standards to protect some resources, EPA has balked at using the "national" secondary standards to address more "regional" effects. For example, when reevaluating the NAAQS for nitrogen dioxide in 1996, EPA recognized that nitrogen oxide emissions cause acid rain and that further reductions in emissions of nitrogen oxides, including nitrogen dioxide, are needed to protect the Adirondack lakes, and other sensitive water bodies, from further acidification. Nevertheless, EPA elected not to adopt a more protective secondary standard, saying that the national secondary standards are not an appropriate tool for addressing what is characterized as a regional problem.47

In this regard, EPA is misreading the relevant provisions of the CAA. The NAAQS requirements are intended to protect against all welfare effects, not just those which are national in scope. Just like EPA sets a health-based primary standard, like the ozone standard, at a level to protect the most vulnerable members of the public—such as the young, the elderly, and those afflicted with asthma and other respiratory difficulties—a welfare-based secondary standard should be set at a level to protect the nation's most vulnerable resources, such as the Adirondack lakes.

In the 1990 Amendments, Congress sent EPA a strong message that it wanted EPA to use the secondary standard provisions more aggressively. It revised the definition of welfare effects in Section 302(h) to include effects "caused by transformation, conversion, or combination with other pollutants." This change is clearly intended to encompass effects such as acid rain which result from complex chemical and physical reactions. It is also noteworthy that this revision was made in Section 109 of the 1990 Amendments, which was entitled "interstate pollution," suggesting that Congress intended for EPA to address the
interstate transport of pollution causing acid rain and other welfare effects by first adopting protective secondary standards and then using Section 110(a)(2)(D)(i) to require upwind states to control the emissions of precursor pollutants.

Congressional intent that EPA use the secondary standards to address welfare effects, such as acid rain, is demonstrated by another requirement of the 1990 Amendments: that EPA and the National Academy of Sciences undertake a study on the role of secondary standards in protecting welfare and the environment. Among other things, this study is supposed to "determine ambient concentrations of each [criteria] pollutant which would be adequate to protect welfare and the environment from such [welfare] effects." This provision of the 1990 amendments, Section 817 of P.L. 101-549, required that EPA take public comment on a draft of the report of the study and provide a final report to Congress no later than November 15, 1993. In response to a recent FOIA request served by the New York Attorney General's office, EPA has confirmed that it has not even commenced this study, even though nearly five years have passed since the deadline for completion of the study. As a result, New York sent EPA, on July 27, 1998, a notice of intent to sue under Section 304 of the CAA.

EPA's inaction on acid rain makes clear that the agency's air program is focused solely on health effects of air pollution, rather than the effects of air pollution on the natural environment. Although EPA has the tools at its disposal to attack acid rain, it may be reluctant to use those tools because of its fear that its health-based efforts—such as the new ozone and particular matter standards and the NOx SIP call—will be jeopardized. In fact, EPA is actually allowing the health-based actions to jeopardize the few acid rain based requirements currently in effect. For example, the SIP call may jeopardize the gains made under the Section 407 acid rain program. Because the ozone standard is stricter than the Section 407 requirements, many utilities can meet the Section 407 requirements by obtaining extensive reductions during the ozone season and averaging these summertime reductions over the rest of the year. This approach would meet the letter of Section 407 which contains in the Administration Bill. Such comprehensive legislation would, at least, hold out the possibility that the days of suing EPA to force it to do the right thing on acid rain would be over.

New York's Congressional delegation recognizes the need to take further action against acid rain. Senators Moynihan and D'Amato have cosponsored a bill imposing stricter year round requirements on NOx and SO2 emissions. The Clinton Administration has also proposed a bill which links deregulation of the electricity generating industry to increased controls on NOx emissions from utilities. However, the Administration proposal simply places a Congressional stamp of approval on the administration proposal already made by EPA for control of ozone season NOx reductions. It places no limits whatsoever on emissions of NOx in the fall, winter and spring, when those emissions are likely to cause the most destructive acidification of water bodies in upstate New York. This shortcoming ignores EPA's own conclusion—based on its years and years of studies—that year-round controls on NOx emissions are sorely needed.

A legislative solution to acid rain would combine the best elements of the D'Amato-Moynihan and Administration bills. Because the D'Amato-Moynihan Bill is a strong bill, which will level the playing field by requiring midwestern utilities to meet the same standards as northeastern utilities, it will undoubtedly be opposed by the midwestern states and utilities, which will benefit from the competitive edge they will otherwise enjoy in a deregulated marketplace for electricity. But therein lies the solution: the large midwestern utilities should be deprived of a deregulated marketplace unless the playing field is leveled. Congress should not pass legislation allowing midwestern utilities access to the northeastern marketplace until it ensures that their emissions will not cause acid rain and smog in the northeast. The Administration should substitute the Moynihan-D'Amato acid rain plan for the un-inspired proposal that is contained in the Administration Bill. Such comprehensive legislation would, at least, hold out the possibility that the days of suing EPA to force it to do the right thing on acid rain would be over.

About the authors:

Dennis C. Vacco was elected New York's Attorney General in 1994. Mr. Vacco began his career in public service in 1978 as an assistant Erie County prosecutor. He served as U.S. Attorney for the Western District of New York from 1988 to 1993. Attorney General Vacco holds degrees from both the State University of New York at Buffalo Law School and Jurisprudence (1978) and Colgate University (1974). For his work on acid rain and other matters affecting the Adirondack Park region, Attorney General Vacco was named "Conservationist of the Year" in 1997 by the Adirondack Council.

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Ground level ozone must be distinguished from the stratospheric ozone layer, the naturally-occurring layer of ozone in the outer atmosphere which blocks the transmission of potentially harmful ultra-violet radiation from the sun to the earth's surface.

As explained below, EPA has found that, in some crowded urban areas which already have high levels of ozone pollution, further increases in pollution can actually reduce the ozone level. The validity of this so-called "disbenefit effect" is the subject of spirited debate.

Nitrogen dioxide is also a criteria pollutant for which EPA has promulgated a NAAQS. However, it has no impact on New York because only southern California is out of compliance with the nitrogen dioxide standard.

Although not discussed in detail in this article, Title II, directed towards the control of emissions from motor vehicles or, "mobile sources," also addresses NO\(_x\) emissions. In areas of the northeast, mobile sources may account for 50% or more of the total NO\(_x\) emissions. However, because these ground level emissions do not tend to travel to the same degree as emissions from elevated industrial sources, their contribution to ozone and acid rain, is less than their share of the NO\(_x\) emission pie would suggest.

Section 110(a)(2)(D) requires that each SIP "contain adequate provisions:

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Committee on Energy and Natural Resources, January 24 and 25, 1990, Senate Hearing 101-826, at pg. 115.

46. 42 U.S.C. 7651(a)(3-5).


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