State Reactions to the Trading of Emissions Allowances Under Title IV of the Clean Air Act Amendments of 1990

Deborah M. Mostaghel
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I. INTRODUCTION

Sulfur dioxide (SO₂) and nitrous oxide (NOₓ) trigger acid rain when they react with water vapor in the atmosphere. The reaction forms sulfuric acid and nitric acid, which then fall back to earth as acid rain or snow.¹ The SO₂ and NOₓ that cause acid rain come primarily from the burning of fossil fuels by electric utilities.² In the United States, electric utilities emit approximately sixteen million tons of SO₂ and seven million tons of NOₓ annually.³ Although the emissions of SO₂ and NOₓ come primarily from coal-burning power plants in the east and the midwest, the problem is not merely local. The emissions travel in the atmosphere, sometimes for hundreds of miles, before they fall back to earth as acid rain or snow.⁴ The Clean Air Act Amendments of 1990 (the 1990 Amendments)⁵ are the most recent and the strongest legislative attempt to secure the goal of clean air for every American.⁶ Congress’s finding in support of Title IV—that “the problem of acid deposition is of national and international significance”⁷—indicates

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both the environmental and the economic devastation wrought by acid rain. The Clean Air Act Amendments include eleven titles covering a wide variety of clean air provisions. Of these provisions, one of the most innovative is Title IV. The purpose of Title IV is to reduce significantly the power plant emissions of acid rain precursors.

To cut down on the SO₂ emissions from coal-fired electric utilities, Title IV creates a two-pronged approach. First, it sets a national cap on emissions. Title IV allocates to each utility a number of pollution allowances to emit a certain amount of SO₂. The sum of all the allowances equals the nationwide cap. Second, Title IV recasts SO₂ as a commodity. If a utility does not need all of its allowances in a particular year, it may either trade them on a public exchange, or it may arrange private sales to a utility that needs more allowances to stay within its emissions limit.

The Environmental Protection Agency has delegated administration of annual auctions of emissions allowances to the Chicago Board of Trade. The Board of Trade held the first auction on March 29, 1993, and the second on March 28, 1994. The marginal interest in these auctions suggests that market trading will probably not be a significant factor in utilities' short-term compliance with Title IV,

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10 For discussion of the target levels, see infra notes 43-48 and accompanying text. This Article focuses on SO₂ because its volume is greater than that of NOₓ, and because there is no emissions allowance system for NOₓ comparable to that for SO₂.


12 This is accomplished under the allocation and transfer system of 42 U.S.C. § 7651b (Supp. V 1993). See also id. at § 7651o (governing auction sales).

13 A utility emitting SO₂ or NOₓ in excess of its allowances is subject to an excess emissions penalty. Id. at § 7651j (Supp. V 1993).

14 EPA Reveals Air Pollution Allowance Results, COAL WEEK, Apr. 5, 1993, at 8.

15 Id.

perhaps because the industry has to gain familiarity with the market concept and with pricing strategies. While a few utilities are beginning to trade in the market, more utilities are engaging directly in private buying and selling of emissions allowances.

States have raised unforeseen objections to some of their utilities’ private trades of emissions allowances. This Article will discuss these trades, the responses states have already made, and possible responses states may still make. Specifically, Section II explains why Title IV is built on market-based incentives and how the program works. Section III details the various state reactions to Title IV. These reactions include lawsuits and threats of legislative action to control utilities’ emissions allowance trades. Section III also identifies state laws that control acid deposition, and state laws that control the use of state coal, to see if states use these laws to circumvent Title IV. Section IV analyzes the various state lawsuits and laws identified in Section III. Section V concludes that the most serious threat to utilities’ ability to trade emissions freely is state legislation that would require state oversight of an in-state utility’s trade with an out-of-state utility. These essentially local reactions could derail the Clean Air Act’s nationwide approach to solving the acid rain problem. Since the allowance program does not include NOx, the Article discusses only SO2.

II. TITLE IV

A. Why The Title IV Approach?

Clean air legislation was initially concerned with research on air pollution problems. Programs to control air pollution followed, but these programs generally lacked enforcement mechanisms. In the Clean Air Act of 1970, Congress granted some enforcement authority to the infant Environmental Protection Agency, and Congress strengthened that authority when it passed the Clean Air Act

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17 Id.
Amendments of 1977. The 1977 Amendments developed national ambient air quality standards (NAAQS), that establish the maximum permissible atmospheric concentrations of certain pollutants. The 1977 Amendments also required individual states to develop state implementation plans (SIPs) to achieve these air quality standards. If the ambient concentration of a pollutant exceeded the NAAQS in a particular geographic area, EPA designated that area a “non-attainment” area for that pollutant. On the other hand, EPA designated areas where the ambient concentration registered less than the NAAQS as “attainment areas.”

Over the years, the SIPs proved to be an ineffective mechanism for implementing and enforcing the Clean Air Act and its amendments. SIPs required utilities to implement control technologies and to decrease SO₂ emissions depending on whether they were located in attainment or non-attainment areas. The SIPs gave no regard to how hard or how easy it would be for a particular utility to comply. Some utilities found it cheaper to pay fines than to comply. Other utilities could not comply within the statutory deadlines.

In the 1990 Amendments, Congress focused on market-based incentives to achieve the goal of reducing SO₂ emissions nationwide. Title IV employs a new “allocation and transfer system” for trading emissions allowances augmenting the SIPs’ traditional regulation by command and control. Congress expects the more flexible emissions

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24 Id. at § 7410.
25 Id. at § 7501(2).
26 Id. at §§ 7407-7491.
31 SIPs were to attain the NAAQS within nine months after their promulgation under the 1977 version of the Clean Air Act. 42 U.S.C. § 7410(a)(1) (1983). Pub. L. No. 101-549, § 101(d)(8), substituted “3 years (or such shorter period as the Administrator may prescribe)” for “nine months” throughout the section. Id. (Supp. V 1993).
33 Id.
34 Preexisting Clean Air Act requirements continue in force. Id. at § 7651l (Supp. V 1993).
trading system, which has been called the "centerpiece of the Acid Rain Program," to make it easier and more practical for utilities nationwide to reduce total emissions of SO₂ within the statute's timetable.35

B. How Title IV Works

Title IV provides market-based incentives. Title IV allocates a certain number of tradeable pollution allowances yearly to each utility.36 Each allowance authorizes the utility to emit one ton of SO₂ annually.37 To avoid emitting more SO₂ than allowed, a utility has several options. It may buy and burn cleaner, low-sulfur coal. It may install clean-coal technologies to reduce its SO₂ emissions. If a switch to low-sulfur coal or the installation of clean-coal technologies38 is not feasible, the utility can obtain more allowances.39 Obtaining more allowances will enable the utility to maintain its level of emissions without incurring fines.40

The acquisition of more allowances may be an attractive option for utilities that find it cost ineffective to install pollution-control equipment immediately. Thus, the argument raised by environmental groups and others that these allowances are a "license to pollute"41 may hold true in the short run. Indeed, it is true that a utility that obtains more emissions allowances may avoid emissions reductions for a time.42

The license-to-pollute argument, however, does not hold true in the long run.43 It does not hold true because limitations in existing SIPs

37 Id. at § 7651a(3) (Supp. V 1993).
39 See infra note 60 and accompanying text.
40 42 U.S.C. § 7661j (Supp. V 1993). A utility that emits more SO₂ than it has allowances for in a given year must pay a penalty of two thousand dollars per ton of excess and must, for each ton of excess emitted in the given year, reduce its emissions by an additional ton in the next year. Id.
43 Id. at § 7651(b). See also infra note 47.
remain in force. In addition, in order to see reductions quickly, EPA will implement Title IV's mandated \( \text{SO}_2 \) emissions reductions in two phases. Phase I requires that, by the year 2000, utilities must reduce \( \text{SO}_2 \) emissions to fifty percent of 1980 levels. Phase II requires that, starting January 1, 2000, the sum of emissions from all coal-fired utilities can be no more than 8.9 million tons annually. EPA will set new allocations of emissions allowances for each utility yearly.

EPA will base these allocations on the utility's historical fuel consumption and on the allowable emissions rate. EPA will implement the fifty percent reduction in emissions targeted for the year 2000 during Phase I of the program. Phase I, effective January 1, 1995, regulates the 110 utilities in the nation with the highest rates of \( \text{SO}_2 \) emissions. Most of these utilities are located in twenty-one midwestern and eastern states. Starting in 1995, EPA will annually allocate to utilities allowances for fewer tons of \( \text{SO}_2 \) than they emit. Thus, by the year 2000 Phase I utilities together will emit roughly fifty percent less \( \text{SO}_2 \) than they did in 1980. The average allowable emissions rate for the affected units in Phase I is 2.5 lbs/mmBTU.

Phase II, effective January 1, 2000, will encompass some additional 700 power plants, comprised of approximately 2000 units, located throughout the contiguous forty-eight states. Phase II, when the 8.9 million ton annual limit becomes effective, will lower the average allowable emissions rate from the 2.5 lbs/mmBTU of Phase I to 1.2 lbs/mmBTU. The mandated reductions of Phase I and Phase II will

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44 Id. at § 7651l.
45 Id. at § 7651b(a)(1).
46 Id.
47 Id. The number of annually allocated allowances will be less than the electric utility industry's current \( \text{SO}_2 \) emissions, until the target cap is reached in the year 2000. S. REP. No. 228, 101st Cong., 1st Sess. 275–82 (1989), reprinted in 1990 U.S.C.C.A.N. 3385, 3658–66.
49 Id.
50 Id. at § 7651c.
51 Id.
52 Id. at § 7651c(e) tbl A.
53 Id. at § 7651c(a)(1).
54 Id.
55 An affected unit is a unit subject to emission reduction requirements or limitations under Title IV. 42 U.S.C. § 7651a(2) (Supp. V 1993).
57 Id. at § 7651d (Supp. V 1993).
58 Id. at § 7651d(b)(1).
59 Id.
result in allowable yearly emissions, in the year 2000 and after, that are ten million tons lower than yearly emissions during the 1980s. 60

Each year the number of allowances allocated to utilities will decrease until the nationwide limit is reached, and this reduction will have a market effect. As the number of available allowances decreases, their value as commodities will rise, and the cost to obtain excess allowances will increase. At some point, some utilities may find it cheaper to reduce emissions than to buy allowances. If these utilities reduce emissions below their allotted allowances, they can sell their extra allowances to other utilities unable to make reductions. 61 Thus, Title IV lets utilities harness market forces to achieve compliance with the statute's pollution-reduction goals, and it ensures, in the long term, that allowances are not "licenses to pollute." 62

III. UNANTICIPATED REACTIONS TO TRADING UNDER TITLE IV:

Lawsuits and Threats of Restrictive State Laws

As utilities enter into allowance trading agreements among themselves, however, unanticipated state reactions raise troubling possibilities. Emissions trades have spurred a lawsuit against trading and threats of new state laws that would restrict trades when the trade is perceived as allowing more pollution to drift over the very state from which the allowances were sold. 63 In these instances the relevant state considered the utility's attempts to comply with Title IV to be detrimental to the state. Both responses—lawsuits and restrictive state laws—could hinder the free trading of allowances and undercut Title IV's effectiveness.

60 56 Fed. Reg. 63,004.
61 Anyone may buy emissions allowances. 42 U.S.C. § 76510(c)(2) (Supp. V 1993). In the first auction, held March 29, 1993 by the Chicago Board of Trade, while utilities generally submitted the highest bids and won most of the allowances, bids came from many other sources, including brokers, public interest groups, and private investors. Utilities Buy Most SO2 Allowances at Low Prices in First EPA Auction, INDEPENDENT POWER REP., Apr. 9, 1993, at 14. One successful public interest group, Ecotech International, won a single allowance for $450, the highest bid made. First Auction Sends Price Signal, Seen Stimulating Allowance Market, ELECTRIC UTIL. Wk. (formerly ELECTRICAL Wk.), Apr. 5, 1993, at 3. For a list of allowance auction results, see EPA/Chicago Board of Trade Allowance Auction Results, UTIL. ENV'T REP., Apr. 2, 1993, at 9.
62 There has also been at least one quixotic pollution reduction gesture: in March, 1993, Northeast Utilities donated 10,000 or (seven percent) of its anticipated 150,000 emissions allowances to the American Lung Association, which immediately retired them. Susan E. Kinsman, NU Donates Pollution Allowance, HARTFORD COURANT, Mar. 20, 1993 (A Edition), at B1.
A. New York's Lawsuit

Regulators in New York state filed suit against EPA to limit trades that New York thinks will simply move pollution from one place to another. Long Island Lighting Company (LILCO), a New York utility, received SO₂ allowances under the 1990 Amendments for pollution control measures that it had instituted in the 1980s. LILCO sold an option to buy these SO₂ allowances to Amax Energy, Inc. (Amax), of Greenwich, Connecticut. Amax, an energy broker, planned to sell packages of allowances and coal or natural gas to utilities in the midwest. Amax Energy, Inc. (Amax), of Greenwich, Connecticut. Amax, an energy broker, planned to sell packages of allowances and coal or natural gas to utilities in the midwest.64 Environmental groups in New York expressed concern that allowances sold to midwestern utilities would result in airborne pollution drifting east and coming to rest in New York.65 The New York State Department of Environmental Conservation (DEC) then filed suit against EPA,66 alleging that EPA's SO₂ allowance trading rules would allow midwestern utilities to “spew more than their share of emissions” and that EPA failed to establish an oversight mechanism for trading allowances.67 New York wanted EPA to restrict trades that could result in the introduction of SO₂ emissions from outside the state into environmentally sensitive areas of New York.68

In supporting New York's position, DEC Commissioner Thomas Jorling stated that:

Unless the market approach is connected to achieving reductions in acid deposition, the trading of allowances could result in utilities in the Midwest purchasing credits and continuing to emit massive loadings of sulfur to the atmosphere at the expense of environmentally sensitive areas of New York and other northeastern states and Canada.69

Jorling may have intended his statement as a scare tactic, since the market approach is indeed connected to achieving reductions. Utilities may only sell or trade emissions allowances after the utilities have met the federally imposed reductions.70 LILCO had excess allowances

67 EPA Handling of Allowance Trading Questioned, supra note 65.
to sell because it had already implemented control measures that brought its emissions levels below those mandated by Title IV.  

But because Title IV restricts emission levels starting as early as 1995, many utilities will not be able to install clean-coal technology or switch fuel supply sources in time. Thus, they must acquire extra allowances to avoid fines for noncompliance.

By 2000, Title IV will have reduced total SO₂ emissions from all sources by fifty percent.  Still, one may argue for Jorling's position. While the flexible free-market trading scheme will result in lowered emissions nationwide, there is no guarantee that every area of the country will see equal pollution reductions. The extent to which mid-western utilities will use technology, cleaner coal, or allowances to meet the statute's requirements cannot yet be predicted. When Congress chose to try the market approach to reducing SO₂ emissions, however, it rejected the inclusion of regional limitations and federal oversight mechanisms in Title IV. Thus, it is unlikely that Congress would be willing to change Title IV any time soon, despite New York's suit.

B. The Threat of Restrictive State Laws

1. State Legislation to Control Trades: New York and Wisconsin

More threatening than a lawsuit to the free play of the market is the response to Title IV emissions allowance trades evinced by some state legislators who seek to control trades through restrictive state legislation. In response to LILCO's sale to Amax, New York state legislators introduced a bill to regulate the allowance trading of New York's utilities. Specifically, the bill seeks to prohibit sales or trades of emissions allowances to upwind utilities. The New York measure

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71 To settle part of New York's suit, EPA has proposed the canceling of SO₂ emissions credits for pollution cuts that New York made before Title IV was passed. Clean Air Act: EPA May Close "Loophole," N.Y. Enviros Pleased, American Political Network, Dec. 9, 1993, available in LEXIS, Nexis Library, Greenwire File.

72 See supra notes 45-56 and accompanying text.


74 See Kriz, supra note 64 and accompanying text.

would require utilities to clear their allowance trades with the state "to ensure sufficient review of the potential acid deposition of such actions in sensitive receptor areas of the state...."

Wisconsin legislators reacted similarly to a Wisconsin utility’s sale of emissions allowances. Wisconsin Power and Light Company, based in Madison, sold 35,000 allowances to the Tennessee Valley Authority in May, 1992. Wisconsin Power and Light’s announcement of the sale triggered public concern in Wisconsin about “secret trading of pollution rights.” Five citizen action groups put forth the view that sales of allowances to utilities in so-called “dirtier” states “upwind from environmentally sensitive lakes and forests in Wisconsin, the Northeast and the Appalachian Mountains” were not environmentally sensible. At the urging of these groups, Wisconsin legislators are contemplating the introduction of legislation to require that the terms of any proposed purchase or sale of SO2 emission allowances be publicly disclosed, that the Wisconsin Public Service Commission approve trades before they are made, and that the Wisconsin Department of Natural Resources review proposed trades for environmental impacts.

77 TVA to Buy Emission Credits from Utility, CHI. TRIB., May 12, 1992, at C2.
78 Wisconsin Legislator Urges Bill to Prohibit ‘Secret’ Allowance Trades By Utilities, UTIL. ENV'T REP., Apr. 16, 1993, at 14 (hereinafter Wisconsin Legislator Urges Bill) (Statement of Wisconsin state representative Peter Bock (D-Milwaukee)).
79 Citizens for a Better Environment, the Citizens' Utility Board, Wisconsin's Environmental Decade, Sierra Club/John Muir Chapter and RENEW (Renewable Energy For Wisconsin). Id.
80 Kriz, supra note 64, at 1697.
81 Id.
82 Wisconsin Legislator Urges Bill, supra note 78, at 14. Public disclosure of purchase or sales terms would be significantly more restrictive than existing Wisconsin law. Legislation introduced in Wisconsin in 1991 called for rules “consistent with but no more restrictive than the federal clean air act” to specify amounts of emissions. WIS. STAT. ANN. § 144.31(1)(r) (West Supp. 1993). In a phone call to the office of the bill’s proponent, Representative Peter Bock, on February 1, 1994, legislative assistant Brad Kelly said that this legislation is still in the drafting stage. Wisconsin Legislator Urges Bill, supra note 78, at 14.

Laws like this might very well withstand commerce clause challenge. Congress, pursuant to the commerce clause, U.S. CONST., art. I, § 8, cl. 3, has ultimate authority to regulate interstate commerce, traditionally defined as anything in the flow of traffic between or among states. Gibbons v. Ogden, 22 U.S. (9 Wheat.) 1 (1824). State laws that regulate the flow of interstate commerce have withstood attack if they serve a legitimate state interest and are applied evenhandedly. Raymond Motor Transp., Inc. v. Rice, 434 U.S. 429, 440 (1978). When a state law is attacked on commerce clause grounds for obstructing the flow of commerce, the court will balance the state’s need to regulate against the federal government’s need for uniformity in laws affecting interstate commerce. See Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970). A common balancing standard is the three-prong test of Pike, requiring evenhanded regulation,
2. State Laws to Control Acid Deposition

While no state has yet passed laws to control emissions trades between in-state and out-of-state utilities, several states have passed acid deposition control laws. In their current form, these laws do not appear to threaten allowance trading between in- and out-of-state utilities. However, some of these laws regulate in-state trades. In 1984, long before A.B. 3569, the bill currently under review, New York implemented a sulfur deposition control program. New York’s legislative findings included the recognition that, “although the major sources of acid deposition precursors are located within the midwestern United States and certain provinces of Canada, emissions from sources within the state contributed significantly to acid deposition in the state.” The acid deposition control program established interim deposition control targets, which took effect in 1988. The program identified emissions reductions necessary to achieve the target for stationary sources in the state. To achieve a control target, even now in New York, a stationary source is neither required to nor prohibited from adopting “any particular control technique.”

Wisconsin has had air pollution control laws on the books at least since 1967. In implementing legislation in 1983 to provide SO$_2$ emission limitations that would be effective from 1985 to 1993, the Wisconsin Legislature found that the increase in SO$_2$ emissions from stationary sources contributed to the acid deposition problem and threatened natural resources. The Wisconsin Legislature also found that most fulfillment of a legitimate local purpose, and incidental effect on interstate commerce. Id. In a constitutional challenge to a law like the one proposed in Wisconsin, the state would argue that its law regulates evenhandedly, addresses a significant state interest, and has but an incidental effect on interstate commerce.

The proposed Wisconsin legislation is arguably different from the Illinois statute that a federal district court struck down in Alliance for Clean Coal v. Craig, 840 F. Supp. 554 (N.D. Ill. 1993). See infra notes 173-98 and accompanying text. The Alliance court held that the Illinois statute violated the commerce clause because it discriminated against interstate commerce on its face. See 840 F.2d at 561. The Wisconsin legislation as currently proposed does not appear to do that.

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83 See infra notes 85–122 and accompanying text.
84 Id.
85 See A.B. 3569, supra note 76.
87 N.Y. ENVT'L. CONSERV. LAW, Historical & Statutory Notes following § 19-0901.
88 N.Y. ENVT'L. CONSERV. LAW § 19-0909.
89 Id. at § 19-0907.3.
90 Id. at § 19-0909.2.
91 See WIS. STAT. ANN., Historical Note following § 144.31. (West 1989).
92 See WIS. STAT. ANN., Historical Note (2) following § 144.385 (West 1989).
of the \( \text{SO}_2 \) emissions in Wisconsin came from major utility operations.\(^{93}\) In addition, it found that, "in the short term, major utility operators could ensure that this state’s total \( \text{SO}_2 \) emissions [were] not excessive while incurring minimum or no additional costs by cooperating and coordinating their activities. . . ."\(^{94}\) The legislature capped the combined \( \text{SO}_2 \) emissions of its major utilities for the years 1985 through 1993 at 500,000 tons annually.\(^{95}\) Although the legislature designated caps for individual utilities, those caps would apply only if the total emissions cap for all utilities were exceeded.\(^{96}\) The legislature required major utilities to submit a joint annual operation plan. This plan must include individual annual operation plans, each utility’s emissions limitation, and information on how the utilities would cooperate to comply with the total annual limitation.\(^{97}\) In 1985 the Wisconsin Legislature added \( \text{SO}_2 \) emission rates and emission trading rules that would apply after 1992.\(^{98}\) Under these rules, any two major Wisconsin utilities may enter into agreements with each other for trading emissions, subject to Department of Natural Resources oversight.\(^{99}\)

Wisconsin’s current laws encourage local government units to handle air pollution problems on a local and regional basis.\(^{100}\) They require cooperation between the Department of Natural Resources and other states or interstate agencies.\(^{101}\) Wisconsin statutes do not yet address trades between a major Wisconsin utility and an out-of-state utility.

In addition to New York and Wisconsin, several other states have passed acid deposition control laws.\(^{102}\) Among the eastern seaboard states, Maine implemented an acid deposition control statute in 1985.\(^{103}\) The legislature found that acid deposition "poses a present and severe threat to the state’s natural resources, including its fish and wildlife, agriculture and water resources, as well as to the State’s economy and public health."\(^{104}\) The legislature authorized an Acid Rain Impact Study to determine the contributions of in-state and

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\(^{93}\) Id. at Historical Note (4).

\(^{94}\) Id. at Historical Note (5).

\(^{95}\) Id. at Historical Note (3).

\(^{96}\) Id. at Historical Note (3)(b).

\(^{97}\) Id. at Historical Note (4).

\(^{98}\) Id. at § 144.386.

\(^{99}\) Id. at § 144.386(2)(b)(1).

\(^{100}\) Id. at § 144.31(1)(c).

\(^{101}\) Id. at § 144.31(2)(e).

\(^{102}\) See infra notes 103–22 and accompanying text.

\(^{103}\) ME. REV. STAT. ANN. tit. 38, § 603-B (West 1989).

\(^{104}\) Id. at § 603-B(1).
out-of-state sources to the state’s deposition. But it made no mention of emissions trading.

New Hampshire adopted similar legislation in June, 1985. New Hampshire also found that, although acid rain precursor emissions come primarily from the midwest, sources within New Hampshire contribute to acid deposition not only in New Hampshire but also in Maine and Massachusetts. New Hampshire’s Acid Rain Deposition Control Program, as amended in 1990, defined “baseline emissions” as the total SO₂ emissions “in tons per calendar year averaged over the period 1979 through 1982 from all major sources.” Under the program, the Department of Environmental Services was required to develop a two-phase acid deposition control program. In the first phase, the program required a twenty-five percent SO₂ reduction from the baseline emissions by December 31, 1991. In the second phase, the goal is a fifty percent reduction by December 31, 1996. The Department of Environmental Services will adopt rules to monitor compliance. There is no mention of trades.

Maryland’s law directs its departments of Natural Resources and Environment to examine the possible contribution to a reduction of acid deposition of “enhanced conservation activities by electric utilities.” Furthermore, these agencies must identify and analyze emissions trading.

Pennsylvania’s acid deposition statute simply restates the requirements of Title IV. The statute prohibits SO₂ emissions greater than the annual number of allowances that an owner or an operator of a unit holds, forbids exceeding applicable emissions rates or standards, and prohibits use of an allowance before the year for which it has been allocated.

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105 Id. at § 603-B(2).
107 Id. at § 125-D:1.II.
108 Id.
109 Id. at § 125-D:2.III.
110 Id. at § 125-D:3.I.
111 Id. at § 125-D:3.II.(b).
112 Id.
114 Id. at § 3-3A-01(e).
115 Id. at § 3-3A-01(11).
116 Id. at § 3-3A-04(g)(ii).
118 Id. at § 4006.5(e)(1).
119 Id. at § 4006.5(e)(2).
120 Id. at § 4006.5(e)(3).
Inland, Iowa has amended its environmental protection statutes to provide for adoption of rules consistent with the Clean Air Act's permitting provisions. They require an operator of an air contaminant source to obtain an operating permit. The permits for sources subject to Title IV "shall include emission allowances for SO₂ emission." The Iowa amendments, however, make no mention of restrictions on emissions trading.

In general, states with acid deposition control laws recognize both locally produced and wind-borne SO₂ emissions as an environmental threat, and authorize control measures that are consistent with the Clean Air Act. In their present form, none of these laws appears to restrict emissions trading between in-state and out-of-state utilities.

3. State Laws to Control the Use of Coal

State laws that restrict utilities' attempts to trade emissions, even if they result in less wind-borne pollution landing within home-state borders, would threaten Title IV's ability to cut down on emissions nationwide. Another, quite different, type of state law could have the same effect: states that produce high-sulfur coal might try to restrict allowance trading to protect their coal industries. The achievement of Title IV's national pollution reduction goal might be slowed as utilities scramble to implement new coal-cleaning technologies while continuing to use high-sulfur coal. To date, though, with the exception of Illinois, states that produce high-sulfur coal have generally attempted to protect their coal industries by expressing a preference that coal-burning utilities within the state use locally produced coal. The degree to which these states control the utilities' choice of coal varies.

a. States That Are Somewhat Dependent on High-Sulfur Coal Production

The economies of Arkansas, Illinois, Indiana, Iowa, Missouri, and Tennessee all rely to some degree on the mining of high-sulfur coal. The Arkansas legislature protects the state's coal-mining industry

121 1993 Iowa Legis. Servo H.F. 331 (West), amending § 455B. 133(8.a) (approved May 19, 1993).
122 Id.
123 Illinois's statutes are the most protective. See infra notes 176-93 and accompanying text.
through a requirement that at least ten percent of the coal that utilities burn in coal-fired plants must be mined in Arkansas. The legislature will relax the requirement if there are valid technical, economical, or environmental reasons. Further, "a utility need not comply if the use of ten percent Arkansas coal would result in higher costs to consumers than existing or alternative coal purchase arrangements." Additionally, if a public utility's compliance with the ten percent rule forces the utility to exceed any applicable state or federal air quality emission standards, the requirement is reduced.

Indiana requires state institutions to buy and use Indiana coal unless federal regulations require the use of low-sulfur coal. Indiana does not require public utilities to purchase Indiana coal. It is possible that a public utility, to meet its requirements under the Clean Air Act, would propose a change of fuel type that would displace or diminish use of Indiana coal. In such a case, the public utility must also analyze the economic and employment effects of the change and its effects on Indiana coal as a viable source of fuel. To win Public Utility Commission approval, a public utility’s plan must either provide for continued or increased use of Indiana coal or be justified by economic considerations.

Iowa gives a preference to Iowa-mined coal. Further, Iowa may grant local coal up to a five percent preference over out-of-state coal.

Missouri requires its public institutions to purchase and use coal that is mined in Missouri or an adjoining state, provided the cost of that coal is not higher than the cost of coal from other states. Missouri’s Environmental Improvement Authority is authorized to help finance the development and marketing of "[m]eans of energy

126 Id. at § 23-18-105(a). The ten percent requirement is valid "[t]o the extent that it is technically, economically, and environmentally feasible." Id.
127 Id. at § 23-18-105(b)(1)(A).
128 Id. at § 23-18-105(b)(2). Specifically, "[n]o public utility shall be required to comply with this section [the ten percent rule] if to do so would result in the utility exceeding any of its state or federal air quality emissions standards or any other conditions of its environmental permits." Id.
129 Ind. Code Ann. § 5-17-3-1 (West 1989).
130 Id. at § 8-1-27-6(b)(6).
131 Id. at § 8(b)(6)(A)(i).
132 Id. at § 8(b)(6)(A)(ii).
133 Id. at § 8-1-27-8(1)(D)(ii).
135 Id. at § 73.7.
production utilizing energy sources other than fossil or nuclear fuel. . ."\textsuperscript{137} Additionally, the MEIA is authorized to help finance the development and marketing of "[f]ossil fuels and recycled fossil fuels which are indigenous energy resources produced in the state of Missouri, including coal, heavy oil and tar sands."\textsuperscript{138}

Tennessee, like Missouri, directs state agencies and institutions to purchase coal mined in Tennessee if the delivered price is equal to or less than that of coal mined outside Tennessee.\textsuperscript{139}

While the approach of all of these states is to promote but not to require the use of state-mined coal, Illinois has gone further. Some of Illinois's coal laws express the typical preference for state-produced coal. Illinois requires institutions supported in whole or in part by public funds, or those owned by municipal corporations or political subdivisions, to purchase coal mined in Illinois if the cost of that coal does not exceed by more than ten percent the cost of coal mined in other states.\textsuperscript{140} Also, Illinois desires that Illinois coal use be consistent with environmental standards.\textsuperscript{141} Unlike these typical requirements, however, Illinois's Public Utilities Act of 1991\textsuperscript{142} went beyond expressing a preference for the use of locally produced coal. The Public Utilities Act actually required the installation of scrubbers on Illinois's large generating units to enable the units to continue to burn Illinois coal.\textsuperscript{143} The District Court for the Northern District of Illinois, responding to a constitutional challenge on commerce clause grounds, enjoined enforcement of the Public Utilities Act.\textsuperscript{144}

Arkansas, Indiana, Iowa, Missouri, and Tennessee employ precautionary language to aid their high-sulfur coal industries. These states' laws neither directly nor indirectly inhibit emissions trades. In fact, a percentage requirement like that of Arkansas, that a utility use ten percent state-produced coal unless there are valid reasons not to,\textsuperscript{145} could encourage Arkansas utilities to buy emissions to offset continued use of in-state coal. Illinois's law, on the other hand, would have foreclosed Illinois utilities from trading. Units that installed scrub-

\textsuperscript{137} Id. at § 260.035.1(15)(a).
\textsuperscript{138} Id. at § (15)(b).
\textsuperscript{139} TENN. CODE ANN. § 12-3-811 (1993).
\textsuperscript{140} ILL. ANN. STAT. ch. 30, para. 555/1 (Smith-Hurd 1993).
\textsuperscript{141} Id. at ch. 20, para. 3515/2(a)(1).
\textsuperscript{142} Id. at ch. 220, para. 5/8-402.1.
\textsuperscript{143} The Public Utilities Act affected the four largest public utility plants in Illinois. Alliance for Clean Coal v. Craig, 840 F. Supp. 554, 559 (N.D. Ill. 1993).
\textsuperscript{144} See infra notes 176-98 and accompanying text.
\textsuperscript{145} See ARK. CODE ANN. § 23-18-105(a) (Michie 1993).
bers to continue burning Illinois coal would not be in the market to buy emissions credits.

b. States That Are Heavily Dependent on High-Sulfur Coal Production

Since the major way for utilities to reduce SO$_2$ emissions is to cut down on their use of high-sulfur coal, commentators have suggested that Title IV may have a disproportionately heavy adverse effect on the high-sulfur coal mining industries in Kentucky, Ohio, Pennsylvania, and West Virginia, states that are leaders in coal production.\textsuperscript{146} So far, industry reactions indicate awareness but not panic. For example, in the March 29, 1993 auction of emissions allowances, of the 150,010 allowances sold,\textsuperscript{147} midwest utilities accounted for only a small percentage of sales. Kentucky Utilities Company bought 12,900 spot allowances and no advance allowances. PSI Energy, Inc. of Indiana bought 10,000 spot allowances, and Illinois Power bought 5,000 spot allowances. In contrast, Carolina Power and Light Company bought 85,103 spot and advance allowances.\textsuperscript{148}

The legislative reaction is similarly low-key. Ohio created a coal development office in 1985,\textsuperscript{149} which must submit to the governor an annual coal development agenda.\textsuperscript{150} Among other things, the agenda must include a “characterization of the current and potential markets for Ohio coal”\textsuperscript{151} and a description of projects to enhance “user markets for Ohio coal.”\textsuperscript{152} The Ohio Legislature proposed a bill in 1991 expressly to protect Ohio rate payers and coal miners from the impact of Phase I of the 1990 Amendments.\textsuperscript{153} The bill would have required

\textsuperscript{146} But see Clean Air Act Title X, Disadvantaged Business Concerns, codified at 42 U.S.C. § 7601, and Title XI, Clean Air Employment Transition Assistance, codified at 29 U.S.C. §§ 1502 & 1662e. These titles offer relief to businesses and workers, providing funds for research, job searches, relocation, and education.

\textsuperscript{147} Two kinds of allowances were sold at the auction: spot and advance. “Allowances sold in the spot sale in any year are allowances which may only be used in that year (unless banked for use in a later year).” 42 U.S.C. § 7651(d)(2) (Supp. V 1993) (explanation following Tbl. 2). “Allowances sold in the advance auction in any year are allowances which may only be used in the seventh year after the year in which they are first offered for sale (unless banked for use in a later year).” Id.

\textsuperscript{148} First Auction of Pollution Allowances Produces Lower Than Predicted Bids, AIR WATER POLLUTION REP., Apr. 5, 1993, No. 14, Vol. 31.


\textsuperscript{150} Id. at § 1551.34 (Supp. 1993).

\textsuperscript{151} Id. at § 1551.34(B).

\textsuperscript{152} Id. at § 1551.34(D)(3).

utilities that were going to seek repayment of compliance costs incurred in the implementation of the 1990 Amendments to submit their plans to the Public Utilities Commission for prior review. The Public Utilities Commission would review design, cost, and the utility's efforts to continue using coal mined in Ohio. The legislature has not passed this protectionist measure to date.\textsuperscript{154} Ohio's boldest step is to encourage the use of local coal through a tax credit for electric companies that use Ohio coal in coal-fired electric generating units connected to flue gas desulfurization systems or to other equipment to handle the byproducts of coal combustion.\textsuperscript{155}

Kentucky implemented air pollution control with findings that there should be maintained "a reasonable degree of purity of the air resources . . . consistent with maximum employment and full industrial development."\textsuperscript{156} Kentucky employs various strategies to make continued use of Kentucky coal competitive. Facilities that adopt fluidized bed combustion technology\textsuperscript{157} may apply for tax exemption.\textsuperscript{158} Corporations receive tax credits for making additions or adjustments to heat-generating facilities that will enable these facilities to use coal.\textsuperscript{159}

Under Pennsylvania's public utilities statutes, the Public Utilities Commission will not approve contracts between a Pennsylvania public utility and a cogeneration facility that supplies electricity for resale to the public if the cogeneration facility burns coal mined in a foreign country.\textsuperscript{160}

West Virginia statutes are the most protective in this group of states. The West Virginia legislature, in passing its Public Energy Authority Act in 1985,\textsuperscript{161} found that reliable energy sources were essential to the health and economy of the United States\textsuperscript{162} and that West Virginia has coal and other resources in abundance.\textsuperscript{163} It further found that:

\begin{footnotesize}
\begin{itemize}
\item\textsuperscript{154} Id. H.B. 370 was introduced May 19, 1993. The last action taken was to remove it to the House Committee on Finance and Appropriations on May 25, 1993.
\item\textsuperscript{155} \textsc{Ohio Rev. Code Ann.} § 5727.391(B) (Anderson 1991 & Supp. 1993).
\item\textsuperscript{156} \textsc{Ky. Rev. Stat. Ann.} § 224.20-100 (Baldwin 1993).
\item\textsuperscript{157} Coal can be "cleaned" at one of several stages: pre-combustion, combustion, or post-combustion. Fluidized bed combustion technology occurs at the combustion stage. \textit{See} S. Rep. No. 228, 101st Cong., 1st Sess. at 294–95, \textit{reprinted in} 1990 U.S.C.C.A.N. at 3677–78.
\item\textsuperscript{158} \textsc{Ky. Rev. Stat. Ann.} § 211.392(9).
\item\textsuperscript{159} Id. at § 141.041.
\item\textsuperscript{160} \textsc{66 Pa. Cons. Stat. Ann.} § 528(B) (1994).
\item\textsuperscript{161} \textsc{W. Va. Code} § 5D-1-2(a).
\item\textsuperscript{162} Id.
\item\textsuperscript{163} Id. at § 50-1-2(b).
\end{itemize}
\end{footnotesize}
[With all due regard to the protection of the environment and husbandry of the natural resources of this state, the health, happiness, safety, right of gainful employment, and general welfare of the citizens of this state will be promoted by the establishment and operation of coal fired electric generating plants and transmission facilities. . . .]

West Virginia further requires that West Virginia electric utilities favor use of domestic fuel sources in deficit capacity purchase arrangements.165

Although these four states' economies are heavily dependent on their high-sulfur coal mining industries, their coal laws indicate preferences for the continued use of in-state coal and the development of alternate uses for in-state coal. The laws do not currently restrict allowance trading between or among utilities.

IV. ANALYSIS

Lawsuits and restrictive state laws pose various dangers to allowance trading. New York's lawsuit calls for EPA to incorporate regional controls into emissions trades, the very restriction that Congress rejected in passing Title IV. Thus a suit like New York's is little more than an annoyance to the implementation of Title IV. Far more threatening to the tradeable emissions program are the regional controls that states such as New York and Wisconsin are contemplating.

There are two dangers to allowance trading in the New York and Wisconsin legislative approaches of implementing regional controls on utilities. One is that if utilities must wade through layers of regulation in addition to those already incorporated in Title IV, they may be deterred from trading at all. This would increase each utility's cost of complying with the mandates of Title IV. A utility that can freely acquire allowances can obtain excess allowances so that it can continue operations without facing costly fines while it puts in place the mechanisms, finding a source of clean coal or installing clean-coal technology, to meet the increasingly more stringent emissions requirements. This approach has been characterized as a sort of "environmental dispatching" that would integrate SO2 emissions control into the "customary power-pooling and economic dispatching practices" already used by electric utilities to adjust volumes of electricity.166 Using allowances will enable utilities to limit total emissions

164 Id. at § 5D-1-2(e).
165 Id. at § 24-2-1d.
166 Joseph Goffman, Senior Attorney, Environmental Defense Fund, Testimony on Title IV of
while still responding to economic growth. In regions where utilities' overall costs are high, the sale of allowances generates revenue to help offset costs. In areas of burgeoning population, where the demand for energy also keeps increasing, the acquisition of allowances enables the utility to avoid having to rely solely on high-cost clean-coal technologies to maintain the statute's mandates.  

The other danger inherent in the kind of state control of emissions trades that New York and Wisconsin are calling for is that such controls will impede the development of the emissions allowances market. A seven-state survey of the compliance plans of Phase I utilities suggests that these particular utilities will achieve, at a minimum, 2.5 million tons more reductions than mandated by Title IV during the five-year period of Phase I.  

Thus, the utilities are motivated to "overcontrol," since the reductions translate into tradable allowances that are worth money.  However, "[i]f utilities face an allowance market burdened by regulations and restrictions on allowance trading . . . beyond those imposed by the Clean Air Act, the financial justification for overcontrol will be weakened and the prospect of achieving early extra reductions will be dimmed."  

The implementation of regional controls such as those that New York or Wisconsin contemplate could directly deter allowance trading between in-state and out-of-state utilities. It is also possible that states could use their acid deposition control laws to inhibit trading indirectly. States' acid deposition control laws could deter trading if they require in-state utilities to cut emissions rather than handle excess emissions through other means, including the purchase of additional allowances. Even though some New York legislators would like to implement state control of emissions trades, New York utilities are currently free under New York's acid deposition laws to adopt any feasible control technique.  

In Wisconsin, another state where some legislators seek state control of trading, the Department of Natural Resources oversees agreements for emissions trades between Wisconsin utilities.
current laws encourage local government units to handle air pollution problems on a local and regional basis. Wisconsin statutes do not yet address trades between a major Wisconsin utility and an out-of-state utility.

Neither Maine's, New Hampshire's, Pennsylvania's, nor Iowa's acid deposition control laws mention emissions trades. Maryland merely requires its Department of Natural Resources to analyze the effect of emissions trading. While acid deposition control laws could be used to restrict utilities' emissions trades, none appears to do so currently.

Similarly, states could use their coal laws to deter emissions trades. No state overtly restricts allowance trading between utilities. Rather, states generally protect their high-sulfur coal industries through a statutorily expressed preference that in-state utilities burn state-mined coal.

Illinois's coal laws, however, went beyond the typical preference for use of state-mined coal. The Illinois Public Utilities Act declared that every generator composed of two or more units with a capacity greater than 500 megawatts must include in its Clean Air Act compliance plans the installation of scrubbers to enable the units to continue to burn Illinois coal. The Alliance for Clean Coal, a group of low-sulfur coal interests located in western states, sued in federal court to enjoin enforcement of the Public Utilities Act. The Federal District Court for the Northern District of Illinois granted the injunction, finding that the Illinois Public Utilities Act violated the commerce clause.

The state argued that the coal act did not burden interstate commerce because it did not mandate the use of Illinois coal. Rather, the law required public utilities and the public utilities commission to take into account two factors: the need to use Illinois coal and the need to preserve the mining of coal in the state as a valuable resource. The state argued that its mere requirement that the state's largest electric plants include the installation of scrubbers in clean air compliance plans was not a requirement that scrubbers actually be in-

174 WIS. STAT. ANN. § 144.31(1)(c).
176 These are the four largest electric generating plants in Illinois.
177 A pollution-control device.
180 Id. at 559.
181 Id.
182 Id.
stalled; the requirement would insure that installation of scrubbers would be considered as an option. 183

The court rejected Illinois's position. It found that the Illinois Public Utilities Act impermissibly restricted the free flow of interstate commerce. 184 The court described two different tests to determine the constitutionality of a state statute. 185 Under the first test, a statute that burdens interstate commerce "on its face" can only stand if the state demonstrates that the statute fulfills a legitimate local purpose for which there is no less-discriminatory means. 186 Under the second test, a statute that is neutral on its face and has indirect effects on interstate commerce can stand if the state shows that any burdens on interstate commerce flowing from the statute are outweighed by the local benefits. 187 The court found the Public Utilities Act to be discriminatory on its face 188 because its requirement to consider the use of Illinois coal discriminated in favor of the Illinois coal industry. 189 Since the act was discriminatory on its face, it would be unconstitutional unless the state could demonstrate a legitimate local purpose that could not be achieved through non-discriminatory means. 190

The state attempted to justify the Act because it would preserve both the state's coal industry and the state's economy. 191 The state also argued that its Act was the cheapest way for the state to comply with the Clean Air Act. 192

The court found this reasoning fallacious. With regard to clean air compliance, the court found that the state overestimated compliance costs because it combined actual costs of compliance, such as the cost of buying low-sulfur coal or the cost of building scrubbers, with what compliance could cost Illinois in a worst-case scenario under which its coal mines were closed. 193 Combining actual costs with potential economic effects was not "preservationism and environmental efficiency," 194 as Illinois claimed. Rather, it amounted to "naked protectionism." 195 With regard to the state's argument that the act protected the state's

183 Id.
184 Id. at 562.
185 Id. at 559.
186 Id. (quoting Hughes v. Oklahoma, 441 U.S. 322, 336 (1979)).
188 Alliance for Clean Coal, 840 F. Supp. at 561.
189 Id. at 560.
190 Id. at 559.
191 Id. at 561.
192 Id. at 562.
193 Id. at 561.
194 Id. at 562.
195 Id.
economy, the court pointed out that the protection of a state’s economy has never been a legitimate local purpose.\textsuperscript{196} Illinois’s coal act thus did not fulfill a legitimate local purpose,\textsuperscript{197} and the court enjoined the Illinois Commerce Commission from enforcing it.\textsuperscript{198}

The effect of \textit{Alliance for Clean Coal} may be felt beyond Illinois. Under \textit{Alliance}, a preference to use in-state coal that does not elevate use of such coal to a factor in clean air compliance plans should pass commerce clause review. The coal laws discussed in this Article aim to protect their states’ coal industries. They achieve this aim without discriminating against interstate commerce because they have built-in safety valves. The percentage requirements and other directives may go unfulfilled if there are overriding economic or environmental reasons. A statute such as West Virginia’s statute on deficit capacity purchase arrangements,\textsuperscript{199} however, which requires utilities to use or to favor the use of in-state coal, may fail constitutional challenges.

\textbf{V. Conclusion}

Threats to the private trading of emissions allowances are still incipient. Whether they materialize into full-fledged barriers remains to be seen. Presently, state acid deposition and coal laws do not seem to restrict utilities’ ability to structure trades. Lawsuits such as New York’s create a degree of uncertainty about the viability of emissions trading. However, the suit is unlikely to succeed: under the 1990 Clean Air Act Amendments, EPA has no authority to restrict trades because Congress rejected regional limitations on allowance trading when it debated and passed Title IV.

More troubling for the future of allowance trading is the threat of legislation like that proposed in New York and Wisconsin. State statutes that require public disclosure and state oversight before an in-state utility is allowed to enter into an emissions trade with an out-of-state utility could have serious repercussions. Such statutes could undermine the free-market incentives for private emissions trading built into Title IV. The fledgling national market for tradeable emissions would become a patchwork if individual states could require state oversight of their utilities’ trades. Under the free-market approach, utilities that have traded emissions have treated the trades as routine business transactions, without having to open the contracts

\begin{itemize}
  \item \textsuperscript{196} Id.
  \item \textsuperscript{197} Id.
  \item \textsuperscript{198} Id.
  \item \textsuperscript{199} \textsc{W. Va. Code} § 24-2-1d (1992).
\end{itemize}
underlying the trades to public scrutiny.200 Restrictive state statutes would make trading cumbersome and could stifle utilities’ creative attempts to lower their SO₂ emissions. Title IV’s free-market approach can only work if the market is free.

200 Kriz, supra note 64, at 1698.