

EPA's New Source Review Enforcement Initiative: Legal and Policy Flaws

By

David B. Rivkin, Jr.

Lee A. Casey

Mark W. DeLaquil



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I. Introduction

The last six years of the Environmental Protection Agency's ("EPA") coal-fired power plant New Source Review ("NSR") enforcement initiative have seen many twists and turns. These range from settlements with several large electric utilities, including Virginia Electric Power Co. and Ohio Edison Co., to having part of the Clean Air Act's adjudicatory provisions declared unconstitutional by the United States Court of Appeals for the Eleventh Circuit.¹ However, the last month has seen two occurrences that could lead to an across-the-board resolution of the coal-fired power plant enforcement initiative at some point in the next year.

First, on May 15, the Supreme Court issued a writ of certiorari to the Fourth Circuit in *Environmental Defense v. Duke Energy Corp.* ("*Duke Energy*").² In *Duke Energy*, the Supreme Court will consider several key legal issues that have arisen across the enforcement actions, including the scope of judicial power to review the legal theories underlying the initiative and the meaning of the 1977 Clean Air Act Amendments. Second, the Seventh Circuit heard oral argument in *United States v. Cinergy Co.* on June 2,³ a case that presents the same basic legal issues as *Duke Energy*, and also includes the proper interpretation of EPA's own NSR regulations.

At this juncture, with so many narrowly focused, technical legal issues under consideration, it is easy to lose sight of the policy imperatives behind the NSR program, and how the NSR program fits

¹ See *TVA v. Whitman*, 336 F.3d 1236 (11th Cir. 2003).

² *United States v. Duke Energy Corp.*, 278 F. Supp. 2d 619 (M.D.N.C. 2003), *aff'd*, 411 F.3d 539 (4th Cir. 2005), *cert. granted sub nom.*, *Environmental Def. v. Duke Energy Corp.*, 2006 U.S. LEXIS 3936 (U.S. May 15, 2006) (No. 05-848).

³ No. 1:99-cv-1693 (S.D. Ind.), *on interlocutory appeal*, No. 06-1224 (7th Cir.).

within and supplements the Clean Air Act's comprehensive regime for controlling air pollution. However, these considerations are crucial to interpreting the NSR program in accordance with Congress' intent in enacting the Clean Air Act. Congress intended the NSR program to balance environmental and economic concerns in a way that helped maintain air quality without forcing additional pollution reductions from existing sources through mandatory, cost-ineffective, unit-specific controls. The particular legal issues at play in each enforcement action must be viewed through this policy prism.

The NSR program's primary focus is preventing the construction of new major stationary sources of air pollution unless they install appropriate pollution controls. (New major stationary sources of air pollution include large industrial facilities like power plants, refineries, factories, and cement kilns.) The way in which the NSR program does this is by forcing source owners and operators to undergo preconstruction review and permitting before commencing construction on the source. If the source is sufficiently large, and does not obtain some kind of federally-enforceable emission limitation to avoid the need to undergo preconstruction review, it must install unit-specific pollution controls and possibly take other costly measures before the source can begin construction.⁴ Congress did not mean to limit the NSR program's applicability to new greenfield sources of pollution, however, but also included existing sources of pollution within the program's ambit "at a juncture when it otherwise makes sense to do so."⁵

The time at which Congress decided that it made sense to install pollution controls was when the existing sources were "modified." While the Clean Air Act's definition of "modification" can seem technical, it embodies a fundamental policy choice about what kind of activity at an existing source should subject that source to preconstruction permitting. Unsurprisingly, then, determining what activity constitutes a modification lies at the core of the NSR enforcement initiative. EPA's and the industry's position feature two dramatically different visions of the NSR program.

⁴ One prominent measure in addition to installing pollution control technology is the requirement that a new or modified source proposing to locate in an area not attaining air quality standards—standards that apply to *all* sources—obtain pollution offsets from other sources operating in the region. See 42 U.S.C. § 7503(a)(1)(A).

⁵ See Prevention of Significant Deterioration (PSD) and Non Attainment New Source Review (NSR): Equipment Replacement Provision of the Routine Maintenance, Repair and Replacement Exclusion, 68 Fed. Reg. 61,248, 61,250 (Oct. 27, 2003) [hereinafter ERP Rule].

On one hand, EPA in the coal-fired power plant enforcement initiative would force a source to undertake preconstruction review and likely to install pollution control technology whenever a physical or operational change was “associated” with a source increasing the number of hours it operated the following year, including those instances where a change improves reliability and reduces the number of forced outages. On the other, defendants in the coal-fired enforcement suits argue the NSR program was not designed to force pollution reductions from existing sources of pollution so long as projects at the source simply permitted it to operate as it was designed.

On final consideration, EPA’s attempt to use the NSR program as a way to force pollution reductions from existing sources is bad law and bad policy. The coal-fired power plant enforcement initiative would force source owners and operators into perpetual non-compliance with an NSR program that holds them liable for incorrectly “guessing” whether EPA would consider a repair activity, that was routine within the industry and necessary to prevent facility degradation and maintain the reliability of their sources, to be also sufficiently “associated” with increased utilization so as to subject the source to preconstruction review. This would happen again and again, forcing sources to install round after round of pollution control equipment at progressively greater costs and ever decreasing incremental gains in pollution removal. Such an expensive and inefficient source-by-source emission reduction strategy would not have been a wise regulatory approach even in the early days of the Clean Air Act, when much of the country had unhealthy air. But it is particularly unwise today, after dramatic gains in air quality have been made, after decades of various regulatory programs and after EPA has gained considerable experience with broad, market-based approaches to pollution reduction.

Indeed, EPA itself has started to recognize the coal fired power plant enforcement initiative’s adverse effects. Under the position being advanced in the enforcement initiative, sources are placed in the position of having to go through a lengthy preconstruction permitting process before making efficiency and reliability improvements to their plants. As a result, EPA has in the last five years finalized NSR reform rules that have returned to the traditional understanding of the program, undercutting completely

the policy basis for the NSR enforcement initiative.⁶ EPA has also made commensurate adjustments to its enforcement priorities, deciding to “refocus its resources on other areas that will likely produce significant environmental benefits.”⁷ While these rules are not, of course, retroactive, the fact that EPA itself has embraced the view of the defendants in the enforcement actions demonstrates that, regardless of the legality of the coal-fired enforcement initiative, it is not well-founded as a policy matter.

II. Congress Did Not Intend for Repair Activity to Trigger NSR Unless It Changed the Fundamental Way that the Source Operates

The controversy about the coal-fired enforcement initiative’s legality is a dispute between the proponents of two conflicting visions of the NSR program. One vision of the NSR program is as a means of reducing pollution by requiring installation of pollution control equipment on new pollution sources, but not to require the installation of pollution control equipment on existing sources unless and until those sources become the functional equivalent of “new” sources by adding new capacity to pollute, or by fundamentally changing the nature of the existing units. The other vision of the NSR program is as a way to reduce pollution from existing sources by forcing all of them periodically to install expensive unit specific pollution control equipment, such as flue gas desulphurization systems (also known as “scrubbers”) to reduce SO₂ emissions and selective catalytic reduction devices to reduce NO_x emissions, with existing sources given a limited grandfathering period (that has long since expired).

The NSR program’s history and structure indicate that the former view is correct. “No legislation pursues its purposes at all costs. . . . [I]t frustrates, rather than effectuates legislative intent simplistic ally to assume that *whatever* furthers the statute’s primary objective must be law.”⁸ While the 1977 Clean Air Act Amendments, of which the NSR program was part, were designed to expedite and intensify the war against pollution, the NSR program’s role in this battle was not primarily as a means of reducing

⁶ EPA finalized the ERP Rule, *see id.*, and has proposed a new emission increase test, *see* Prevention of Significant Deterioration and Nonattainment New Source Review, and New Source Performance Standards: Emissions Test for Electric Generating Units, 70 Fed. Reg. 61,081, 61,099 (Oct. 20, 2005) [hereinafter Proposed 2005 NSR Rule].

⁷ Memorandum from Marcus Peacock, Deputy Administrator, EPA, to Regional Administrators and State Environmental Commissioners 2.

⁸ *Rodriguez v. United States*, 480 U.S. 522, 525-26 (1987) (emphasis added).

pollution from existing sources. Confusing the specific goals of one aspect of a regulatory program with the general goals of the program as a whole does nothing but frustrate congressional intent, and this holds true with the NSR program.

A. The NAAQS System

The Clean Air Act as it exists today was enacted by a series of laws known as the 1970, 1977, and 1990 Clean Air Act Amendments to the Clean Air Act of 1963. The Act, as it currently stands, is a comprehensive regulatory framework that governs nearly all sources of air pollution. This includes the large stationary sources of air pollution that are subject to the NSR program. Stationary sources of air pollution include factories and power plants (as opposed to mobile sources of air pollution, which are mostly cars and off-road vehicles, like tractors), and are subject to federal regulation depending on how much pollution they can emit (and what pollutants they emit). The Clean Air Act in general, and the provisions governing “major” stationary sources in particular,⁹ are predicated on the National Ambient Air Quality Standards (“NAAQS”) system.

Under the NAAQS system, which was established by the 1970 Clean Air Act Amendments, EPA sets an ambient air quality standard for each pollutant that “may reasonably be anticipated to endanger public health or welfare.”¹⁰ These ambient air quality standards are formulated not just to protect public health, but to do so “allowing an adequate margin of safety.”¹¹ EPA then determines whether each part of the country complies with, or “attains,” the NAAQS for each pollutant.¹² Areas that comply are deemed to be “attainment” areas; areas that do not comply are called “nonattainment” areas.

⁹ What is commonly called a “major stationary source” is called by the Clean Air Act a “major emitting facility.” A major emitting facility is defined by the Act as a stationary source which emits, or has “the potential to emit, one hundred tons per year of any air pollutant” if the source is included in an enumerated industrial source category for which EPA had promulgated a new source performance standard at the time of the 1977 Clean Air Act Amendments, or if it is not in that source category, has “the potential to emit two hundred and fifty tons per year or more of any air pollutant.” 42 U.S.C. § 7479(1).

¹⁰ 42 U.S.C. § 7408(a)(1)(A).

¹¹ 42 U.S.C. § 7409(b)(1).

¹² For purposes of determining attainment with the NAAQS, the country is divided into different air quality control regions (“areas”). The determination of these regions was made pursuant to Clean Air Act § 107, 42 U.S.C. § 7407, and are listed at 40 C.F.R. Pt. 81.

After designating each area, the Clean Air Act delegates to the states in which these areas are located primary responsibility for ensuring air quality.¹³ The means by which states must do this is through State Implementation Plans (“SIPs”). “Congress believed it important that the states retain wide latitude in choosing how best to achieve national standards, given local needs and conditions.”¹⁴ As a result, the states determine what unit-specific controls are appropriate for the different types of pollution sources in each area, and EPA “is relegated by the [Clean Air] Act to a secondary role in the process of determining and enforcing the specific, source-by-source emission limitations which are necessary if the national standards it has set are to be met.”¹⁵

Besides containing emission limitations and other measures necessary to ensure attainment of the NAAQS, SIPs must also contain a program for the preconstruction review and permitting of new and modified sources of pollution not already accounted for under the SIP. While the NSR program is often treated as a unified whole because of the similarities between its component programs, the NSR program is composed of several individual programs. “Major stationary sources” and “major modifications” are subject to either the Prevention of Significant Deterioration (“PSD”) program in attainment areas, and the Nonattainment New Source Review (“NNSR”) program in nonattainment areas. Stationary sources and modifications that are not “major” are subject to review to ensure compliance with the NAAQS (a program sometimes referred to as “minor” NSR).

B. The 1977 Clean Air Act Amendments’ Regulation of Existing Sources of Pollution

The 1977 Clean Air Amendments codified the basic framework of the Act regarding attaining or maintaining air quality. It was the 1977 Amendments that gave rise to a statutory distinction between “attainment” and “nonattainment” areas. In attainment areas, where public health was not at risk because

¹³ See 42 U.S.C. § 7407(a) (“Each state shall have the primary responsibility for assuring air quality within the entire geographic area comprising such State within the entire geographic area comprising such State . . .”). Even more generally, the Clean Air Act states that “air pollution prevention . . . at its source is the primary responsibility of States and local governments.” 42 U.S.C. § 7401(a)(3).

¹⁴ *United States v. Gen. Motors Corp.*, 876 F.2d 1060, 1062 (1st Cir. 1989).

¹⁵ *Train v. Natural Resources Def. Council*, 421 U.S. 60, 79 (1975).

the ambient air in these areas met the primary NAAQS—meaning that the air was clean enough not only to protect public health from known adverse effects, but to do so with a margin of safety that allows for scientific uncertainty—there is sufficient regulation of existing major stationary sources to ensure continued attainment of the NAAQS. In the 1977 Clean Air Act Amendments, Congress also made existing sources subject to the PSD “increment” program, under which states may allow new emissions from existing and modified facilities to consume only a portion (or “increment”) of air quality better than the NAAQS (defined by reference to air quality on a statutorily specified “baseline date”). The PSD increment program was designed to prevent significant deterioration in air quality that is better than the NAAQS. By contrast, “new” construction was required to go through preconstruction review, but in this area, Congress did not indicate a desire to *reduce* pollution from existing sources unless they were modified, as described above. Congress explained the PSD program as a growth management program, intended “to protect health and public welfare from any actual or potential adverse effects . . . notwithstanding attainment,” but only in a way that would “insure that economic growth will occur in a manner consistent with the preservation of existing clean air resources.”¹⁶

For major stationary sources in nonattainment areas, the 1977 Clean Air Act Amendments provided for additional programs designed to reduce pollution from existing sources to ensure progress towards attainment. The goal in these areas was “reasonable further progress [RFP],” defined as “such annual incremental reductions in emissions of the relevant air pollutant . . . for the purpose of ensuring attainment of the applicable [NAAQS] by the applicable date.”¹⁷ As a result, the Clean Air Act mandated that each SIP require “existing sources to achieve such reduction in emissions in the area as may be obtained through the adoption, at a minimum of reasonably available control technology [RACT].”¹⁸ Indeed, the 1977 Clean Air Act Amendments’ legislative history suggests that Congress intended the RFP requirements, including RACT on existing stationary sources, to be sufficient to attain the NAAQS

¹⁶ 42 U.S.C. § 7470.

¹⁷ 42 U.S.C. § 7501(1).

¹⁸ Pub. L. No. 95-95, § 129(a)

without reductions at existing sources through the NNSR program. In the words of Senator Edmund Muskie, a principal architect of the Amendments, “[i]t is [Congress’] intent that ‘reasonable further progress’ means pollution control will reduce emissions at a rate that will lead to attainment of the ambient standards in the time required.”¹⁹

As such, Congress expressly specified in what areas and by what means Congress wanted emission reductions from existing sources: (1) in attainment areas, to the extent necessary to attain and maintain the NAAQS and PSD increments; and (2) in nonattainment areas through RACT and RFP requirements. These comprehensive programs would have little, if any, meaning if all existing facilities were required to install new source controls at relatively frequent intervals.²⁰ Rather, in both attainment and nonattainment areas, best available control technology (“BACT”) or lowest achievable emission rate (“LAER”) technology apply through the preconstruction review program only to the construction of a “new” or “modified” facility.

C. Congress Did Not Intend to Expand NSR Program Coverage to Existing Sources that Were Merely Maintained as they Were Designed to Operate

The provisions where Congress expressed a clear and unambiguous desire to obtain immediate and concrete reductions from existing major stationary sources of pollution, RACT requirements for existing sources in nonattainment areas, are not at issue in *Duke Energy* or *Cinergy*. As a result, it is important to determine what Congress was thinking when it used the term “modified.” In conducting this inquiry, it is also important to understand the plain language of Congress’ “modification” definition. It is equally critical, however, to understand that the plain language of “modification” is insufficient evidence

¹⁹ LEGISLATIVE HISTORY OF THE CLEAN AIR ACT AMENDMENTS OF 1977, at 18019 (1977).

²⁰ Indeed, under EPA’s view of the NSR program reflected in the NSR enforcement initiative, everything that Congress did in 1977 and 1990 was unnecessary. The NSR program alone would have caused the greatest possible emission reductions from every major stationary source and, having done it once, would have continued to do so again and again. Needless to say, an interpretation of an individual statutory provision that renders the rest of the statute entirely unintelligible is not to be favored.

of how Congress intended the major NSR program to function when it enacted the 1977 Clean Air Act Amendments.

1. History of the Term Modification

a. Modification Under the 1970 Clean Air Act Amendments and the 1971 NSPS Rule

The term “modification” first entered the Clean Air Act lexicon as part of the 1970 Clean Air Act Amendments’ New Source Performance Standards Program (“NSPS”). The NSPS program required stationary sources in industrial source categories that EPA determined “may reasonably be anticipated to endanger public health and welfare” to comply with a performance standard determined by EPA.²¹ These performance standards reflect the degree of emission limitation achievable by applying the best system of emission reduction that EPA determines has been adequately demonstrated.²² Congress did not require existing sources to retrofit their facilities to meet the new source performance standards. Instead, Congress concluded that it was more cost-effective to require only new or “modified” sources to meet the performance standards.²³ Modification was defined for the program as “any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted.”²⁴ As a result, the term modification became the trigger for existing source applicability in the NSPS program in the same way that the term “modification” was later incorporated by Congress to trigger existing source applicability under the NSR program.

EPA did not consider modification to be sufficiently unambiguous so as to be readily understood by regulated entities and the general public. The Agency therefore promulgated several sets of regulations interpreting the term. In its first regulations interpreting “modification,” finalized in 1971, EPA excluded from its interpretation of modification: (1) “routine maintenance repair, and replacement”

²¹ 42 U.S.C. § 7411(b)(1)(A).

²² See 42 U.S.C. § 7411(a)(1).

²³ See S. Rep. No. 1196, 91st Cong., 2d Sess., at 16 (1970).

²⁴ 42 U.S.C. § 7411(a)(4).

activities, (2) increases “in the production rate, if such increase does not exceed the operating design capacity of the affected facility,” (3) an “increase in the hours of operation,” or (4) switching to “an alternative fuel . . . if . . . the affected facility is designed to accommodate such alternative use.”²⁵

Similarly, EPA interpreted a non-excluded physical or operational change to cause a modification only when there was a change in productive capacity, i.e., when the source was changed in a way that would actually permit it to emit more pollution. In one fairly typical determination of this early period, Richard D. Wilson, the Director of Stationary Source Enforcement, informed a regional enforcement director that under the NSPS program, there can be “no increase in emissions” if a non-excluded physical or operational change did not increase the source’s “productive capacity.”²⁶

The activities expressly excluded from the NSPS program in 1971, and EPA’s contemporaneous interpretation requiring a non-excluded physical or operational change to increase the source’s capacity to emit before the NSPS program was triggered, share a common thread: they permit existing sources that are not changed in a fundamental way, altering the way in which a source was designed to operate, from having to meet applicable new source performance standards. This makes sense, because under Clean Air Act § 111, a physical or operational change must increase emissions, that is, the change must cause emissions to increase.²⁷ As long as a source is operating according to its design and without increasing its rate of emission, any increased utilization at the source is not “caused” by the change—it is caused by the market pressures that have precipitated the increased utilization. In this way, EPA’s interpretation of the term “modification” established a consistent practice of permitting sources to conduct activity that did not create “new” pollution, but which instead permitted source owners to operate the sources as they had been designed.

²⁵ Standards of Performance for New Stationary Sources, 36 Fed. Reg. 24,876, 24,877 (Dec. 23, 1971).

²⁶ See Letter from Richard D. Wilson, Director, Division of Stationary Source Enforcement, EPA, to James O. McDonald, Director of Enforcement Division, EPA Region V (Nov. 18, 1975); see also Letter from Gerald K. Gleason, Acting Associate General Counsel, EPA, to Harmon Wong Koo, California Air Resources Board (Aug. 6, 1975) (noting that “[a]ddition of new capacity to a batch plant or any other change that increases its emissions may, of course, amount to a ‘modification’ of the plant for purposes of section 111 standards . . .”);

²⁷ See Requirements for Preparation, Adoption, and Submittal of Implementation Plans; Approval and Promulgation of Implementation Plans; Standards of Performance for New Stationary Sources, 57 Fed. Reg. 32,314, 32,327 (July 21, 1992) (explaining that causation has always been a requirement of the NSR statutory scheme).

b. Modification and the 1975 NSPS Rule

In 1975, EPA clarified its 1971 NSPS Rule, further indicating that existing sources were subject to the NSPS Rule *only* when they fundamentally changed the way in which the source can operate. The purpose of the 1975 revisions to the NSPS program was simple: to cure the “confusion [that] exists outside [EPA] as to what ‘changes’ can be made to an existing source without the Administrator considering the source to have been modified.”²⁸ This is not only clear from EPA’s notice of proposed rulemaking, but from the text of the Rule itself. For instance, the “routine maintenance” exclusion was clarified to indicate that only activities that are “routine for a source category” are encompassed by the exclusion. This makes sense because an activity that is not routine in the industry and that increases the source’s emission capacity is very likely to fundamentally change the way in which a source can operate.

Similarly, the 1975 NSPS Rule’s emission rate methodology codified EPA’s methodology for determining if an emission increase has occurred by emphasizing that increases are measured by comparing the “kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable.”²⁹ The only ways in which a change can increase a source’s emission rate is if the change increases the rate at which fuel is introduced into the source for combustion,³⁰ or if the change increases the amount of pollution emitted per unit of fuel combusted.³¹ Conceptually, such a change would be like grafting a new source onto the existing source—a fundamental change to the facility that should not permit the source to escape pollution controls.

c. Modification and the Regulatory PSD Program

Beginning in the mid-1970s, modification was not merely the trigger for applicability of the NSPS program. The 1970 Act also required that states include in their SIPs programs for the preconstruction review of new and modified sources (as defined under the NSPS program), to ensure that

²⁸ Standards of Performance for New Stationary Sources: Modification, Notification, and Reconstruction, 39 Fed. Reg. 36,946, 36,946 (Oct. 15, 1974) (emphasis added) [hereinafter Proposed 1975 NSPS Rule].

²⁹ Standards of Performance for New Stationary Sources: Modification, Notification, and Reconstruction, 40 Fed. Reg. 58,416, 58,419 (Dec. 16, 1975) [hereinafter 1975 NSPS Rule].

³⁰ This rate is called the source’s “throughput.”

³¹ This rate is called the source’s “instantaneous rate.”

any proposed new pollution would be regulated to attain and maintain the NAAQS.³² This preconstruction review program applied only to new and modified sources, because existing sources were already subject to regulation to ensure compliance with the NAAQS.

This preconstruction review program of the 1970 Act was supplemented in 1974 by the regulatory PSD program. The 1974 PSD program came in response to litigation about whether the 1970 Clean Air Act Amendments required EPA to promulgate mandatory SIP provisions to ensure not only that new pollution was reviewed for compliance with the NAAQS, but also to ensure that air quality in areas of the country that met the applicable NAAQS did not degrade.³³ Like nearly all other aspects of the 1970 Clean Air Act Amendments, the way EPA was required to prevent air quality in clean areas from eroding under the 1974 program was by establishing regulations that mandated states include provisions to prevent air quality erosion in their SIPs.

In formulating the regulatory PSD program, EPA created a program that was minimally intrusive and did not require emission reductions from existing sources in areas that met the NAAQS. This is demonstrated by EPA's statement in the preamble to the regulatory PSD rule, which explained that the regulatory PSD program would have "no practical impact" in areas where the NAAQS were violated because "emissions in such areas are being reduced under the [SIPs], while these regulations provide for limited allowable increases in emissions."³⁴ It is not plausible to believe that EPA desired or expected pollution reductions from existing sources forced to install BACT in a program designed to permit an increased amount of pollution. After all, where air quality is sufficiently good to preserve public health,

³² See Pub. L. No. 91-604 §§ 110(a)(2)(D) (requiring that State Implementation Plans ("SIPs") include "a procedure . . . for review (prior to construction or modification) of the location of new sources to which a standard of performance will apply"), -(a)(4) (requiring the § 110(a)(2)(D) procedure for review to "provide for adequate authority to prevent the construction or modification of any new source to which a standard of performance . . . will apply," and to "require that prior to commencing construction or modification of any such source, the owner or operator thereof shall submit to such State such information as may be necessary" to make the determination of NAAQS compliance), 84 Stat. 1676, 1680, 1681 (1970).

³³ See *Sierra Club v. Ruckelshaus*, 344 F. Supp. 253 (D.D.C. 1972), *aff'd* 4 ERC 1815 (D.C. Cir. 1972) (per curiam), *aff'd by an equally divided court sub nom., Fri v. Sierra Club*, 412 U.S. 541 (1973).

³⁴ Approval and Promulgation of Implementation Plans: Prevention of Significant Air Quality Deterioration, 39 Fed. Reg. 42,510, 42,511 (Dec. 5, 1974) [hereinafter 1974 PSD Rule].

there is great economic cost and no public health benefits to requiring pollution reductions from existing sources of pollution.

The regulatory PSD program was also designed to be easily administrable due to its congruence with the applicability provisions of preexisting NSPS review program, which applied to new or modified facilities subject to the NSPS program.³⁵ As EPA explained when it enacted the program:

Procedurally and administratively, the significant deterioration review is virtually identical to existing new source review procedures included in the implementation plan and, in fact, application could probably be made on the same form. No additional sources would be covered by the significant deterioration review. *The only difference between the two new source reviews is in the tests which must be met before approval will be granted.* Instead of meeting only the emission limitations which are part of the applicable plan, sources covered by the significant deterioration review must also meet an emission limitation which is consistent with the application of best available control technology.³⁶

Other EPA statements demonstrate this proposition as well. For instance, EPA noted that the definition of “modification,” which was promulgated at 40 C.F.R. § 52.01(d) in the PSD regulations, was altered between the notice of proposed rulemaking and the final rule “to be more specific and to be consistent with the definition used in Part 60 [governing the NSPS program]. . . . It is the Administrator’s intent to change the definition of modification . . . to be consistent with the final definition of the term under Part 60.”³⁷ As explained above, the NSPS program did not provide for pollution reductions from existing sources unless the source owners fundamentally changed the way in which the sources were designed to operate. It is therefore implausible to believe that EPA, by emphasizing the consistent applicability between the regulatory PSD³⁸ and NSPS³⁹ programs, expected pollution reductions from existing sources either.

d. Modification and the 1976 Interpretive Rule

³⁵ See *supra* note 32 and accompanying text.

³⁶ 1974 PSD Rule, *supra* note 34, at 42,512 (emphasis added).

³⁷ *Id.* at 42,513. EPA has recognized this fact on later occasions as well. See ERP Rule, *supra* note 5, at 61,269 (noting that EPA’s reference in the regulatory PSD rule to NSPS modification decision “was a deliberate choice,” not a matter of happenstance).

³⁸ See 40 C.F.R. § 51.01(d).

³⁹ See 40 C.F.R. § 60.14.

The term modification was used in one additional place before Congress enacted the 1977 Clean Air Act Amendments: a 1976 interpretive rule applying a particularly stringent version of the regulatory PSD program for stationary sources proposing to locate in areas that had yet to attain the NAAQS.⁴⁰ This regulatory measure established a new regulatory requirement defining when § 111 modifications would be subject to the *additional* requirements of the nonattainment NSR program. Under this interpretive rule, only “modifications” that were “major” triggered nonattainment NSR. A “major modification” occurred when a source’s “allowable emission rate” was increased by 100 tons per year or more,⁴¹ with the “allowable emission rate” based on the “maximum annual-rated capacity of the source” or the applicable new source performance standard. Of course, as with the NSPS rules described above, routine maintenance, increased hours of operation, and fuel-switching were excluded. As a result, this measure, which would require pollution reductions from modified sources through the imposition of the most stringent pollution control technology required under federal law, and would force those sources to offset their capacity by purchasing other sources’ emission capacity, could only be triggered when a non-excluded physical or operational change “changed” the way in which a source operates to depart from the way in which it was designed. That is, under this rule, there could not be a “major modification without a “modification” that reflected the established undertaking of that term, as discussed above.

In its 1976 interpretation, EPA articulated one more important feature of its nonattainment program: that it was not intended to supersede the requirement that states ensure that areas meet the NAAQS through SIP control strategies. Indeed, while EPA did permit states not to “account for” new source emissions in their SIPs that were subject to the offset requirements, EPA ensured that “[t]he ruling is not intended to replace the requirement for a SIP control strategy to attain and maintain standards.”⁴²

⁴⁰ Requirements for Preparation, Adaption [sic], and Submittal of Implementation Plans: Air Quality Standards; Interpretive Ruling, 41 Fed. Reg. 55,524 (Dec. 21, 1976) [hereinafter the “1976 Interpretive Rule”].

⁴¹ The exception to the 1976 Interpretive Rule’s general requirement that a “major modification” occurred when a source increased its emissions by more than 100 tons per year occurs in the case of carbon monoxide, where no major modification was deemed to occur unless the change increased carbon monoxide emissions by more than 1000 tons per year.

⁴² 1976 Interpretive Rule, *supra* note 40, at 55,527.

That is, while the control technology requirements of the nonattainment program might help an area attain the NAAQS, it was never intended to be a primary means of forcing attainment with the NAAQS.

2. The 1977 Clean Air Act Amendments and their Legislative History

Suggest That Congress Did Not Intend the NSR Program to Create

Mandatory Pollution Reductions from Existing Sources

This brings us back to the 1977 Clean Air Act Amendments. As previously mentioned, under the 1977 Amendments, large existing stationary sources of air pollution were forced to undergo review for pollution control retrofit in two instances: when they were modified (in attainment or nonattainment areas), and when they were located in nonattainment areas, which subjected the sources to immediate and mandatory RACT requirements. What then, did Congress mean when it premised pollution reductions at existing sources upon “modification?”

a. Congress was Familiar with the Preexisting Regulatory

Interpretation of Modification

The programs established by the 1970 Clean Air Act Amendments did not require pollution reductions from existing stationary sources of air pollution, unless the resources expanded their capacity or otherwise were changed in a way that caused them to operate fundamentally differently from the way that they were designed. Moreover, the way in which each of the 1970 Clean Air Act Amendments programs—NSPS, the statutory preconstruction review, the regulatory PSD program, and the 1976 nonattainment program—ensured that existing sources that undertook such activity were forced to reduce pollution, and that sources that did not undertake such activity were left alone, was through a common term: “modification.”

So then, the question becomes whether or not Congress intended to incorporate the preexisting regulatory definition of “modification” into the 1977 Clean Air Act Amendments’ statutory NSR provisions. In answering this question, it is important to start with the Amendments’ text and ask whether or not Congress was familiar with the regulatory gloss that EPA had given the term “modification.”

Once this question is examined, it becomes apparent from the Clean Air Act’s text and history that the 95th Congress was quite familiar with the regulatory program created by EPA since it had last amended the Clean Air Act. In fact, Congress demonstrated that recognition by incorporating certain regulatory provisions into the Amendments. For one thing, Congress did not vitiate the federal implementation plan provisions (that then applied in all states) of the 1974 rules. Instead, it stated in the text of the 1977 Amendments that these programs would “remain in effect to prevent significant deterioration of air quality in any such area.”⁴³ And, for sources on which construction commenced between June 1, 1975 and August 7, 1977, Congress did not apply the Clean Air Act Amendments’ statutory NSR program, instead directing that the “review and permitting . . . be in accordance with the regulations for the prevention of significant deterioration in effect prior to August 7, 1977.”⁴⁴ Most importantly, Congress amended the then effective federal implementation plans to incorporate new requirements of the Act, but did *not* amend, or call for an amendment of the § 52.01(d) definition of “modification.”

Finally, Congress continued the Interpretive Rule definition of “major modification” as a trigger for certain NSPS “modifications,”⁴⁵ and called for SIPs to use NSPS “modification” as the trigger for nonattainment NSR review by July 1, 1979.⁴⁶ In other words, Congress endorsed NSPS “modification” as the trigger for NNSR permit review, and rejected “major modification” as a statutory trigger.

While these three provisions explicitly refer to the preexisting regulatory regime and the national federal permit program promulgated under it, there are other structural features of the 1977 Clean Air Act statutory NSR regime that demonstrate how the preexisting regulatory regime influenced Congress. As previously mentioned, the regulatory PSD program did not provide for emission reductions in a particular area—instead, it presupposed that emissions would increase, but not enough to seriously harm air quality.

⁴³ 42 U.S.C. § 7478(a).

⁴⁴ 42 U.S.C. § 7478(b).

⁴⁵ Pub. L. No. 95-95, § 129(a)(1).

⁴⁶ Id. § 128(a), *codified at* Clean Air Act § 172(b)(6) (SIPs must require permits for construction of “new and modified” major stationary sources), *codified at* § 171(4) (the “term[] . . . ‘modified’ mean[s] the same as used in section 111(a)(4)”)

The means by which the regulatory PSD program did this was by establishing a PSD increment, that is, an amount of pollution above permitted pollution levels, within which new pollution would be permitted.⁴⁷ The statutory PSD and NNSR program carried forward other aspects of the regulatory system as well. For instance, the statutory PSD program adopted the Class I-III system in the regulatory PSD program for determining to what extent air quality in a particular area would be permitted to degrade. Similarly, the statutory NNSR program contained offset requirements very similar to those contained in EPA's 1976 Interpretive Rule. All this led to the conclusion reinforced by Representative Stockman in his separate statements on H.R. 6161 (the bill that ultimately became (with some alterations) the Clean Air Act Amendments): that the statutory PSD program "is in essence the same approach taken by EPA in its regulations."⁴⁸

b. Congress Generally did not Intend the NSR Program to be as Stringent as the Regulatory PSD Program

Numerous members of Congress believed that the statutory NSR program was less stringent than EPA's previous regulatory endeavors, not more stringent. One Representative stated that the statutory PSD program "would provide congressional guidance as to how the policy of significant deterioration should be defined and implemented, *replacing harsh EPA regulations* and 'no-growth' court orders."⁴⁹ Another Senator stated that the NNSR provisions "contain[s] greater flexibility than the EPA regulations governing new sources."⁵⁰ On a scale of severity, that Senator stated that the statutory NNSR provisions "while allowing greater flexibility than the EPA requirements [in the 1976 Interpretive Rule], establish controls more stringent than the new source review process that existed prior to the December 1976 ruling by EPA."⁵¹

⁴⁷ This description is somewhat simplistic. For instance, each area is classified into one of three categories, and the amount of air quality degradation that is permitted in each of these areas varies accordingly.

⁴⁸ H.R. Rep. No. 95-294, 95th Cong., 1st Sess. 534 (1977).

⁴⁹ LEGISLATIVE HISTORY OF THE CLEAN AIR ACT AMENDMENTS OF 1977, at 16961 (emphasis added).

⁵⁰ *Id.* at 18017.

⁵¹ *Id.* at 18018.

To be sure, none of these statements or statutory provisions directly states that Congress intended to preclude EPA from interpreting the term “modification” for the NSR program in a way that would cause sources that conducted maintenance and repairs necessary to preserve the source in operating order to undergo NSR preconstruction permitting, and likely to install pollution controls. However, given the well-established understanding of the meaning of “modification” across all of the new source programs, there was no need for such an explicit statement. Indeed, in light of Congress’ clear intent to make the statutory NSR program less stringent than the previous regulatory PSD and 1976 Interpretive Rule programs, and because Congress did not change the PSD or nonattainment NSR regulatory definition of “modification” as it had done with other terms used in the program (e.g., “commenced” in the definition of BACT, and the numerical “increments”) it is implausible to conclude that Congress intended by its silence to subject a massive number of sources that were not subject to those regulatory programs to be impacted by the statutory NSR program. This intent is also wholly consistent with the plain language of the 1977 Clean Air Act Amendments, which incorporate by reference not only the term “modification” used under the NSPS program to permit sources to maintain their sources in proper working order, but does so by reference to the United States Code section in which the NSPS definition of modification is located.

III. The Coal-Fired Enforcement Initiative Interpretation of the 1980 NSR Rule is Fundamentally Flawed

If courts were to accept EPA’s coal-fired power plant enforcement initiative interpretation of the 1980 NSR Rule, they would be retroactively forcing sources into an NSR program with which compliance was impossible. The regulatory program at issue in the coal-fired power plant enforcement initiative is EPA’s 1980 NSR Rule. Yet, EPA has never been able to locate in its 1980 Rule any methodology for measuring emission increases from existing major stationary sources of air pollution that have begun normal operations and not undertaken an NSPS “modification.” (EPA’s 1980 rules explicitly require a “modification” that is *also* a “major modification.”) While the Agency promulgated such a methodology as an optional measure for one source category in 1992, and for all major sources in 2002,

the reason EPA has not been able to locate this methodology in the 1980 rules is because it did not exist there. Instead, from the late 1980s onward, EPA interpreted the 1980 NSR rule in a variety of ways that ensured that a regulated entity could never prove that a non-excluded physical or operational change would not lead to an emissions increase.

A. EPA Did Not Articulate a Clear Actual-to-Projected-Actual Methodology Before the Coal-Fired Power Plant Enforcement Initiative

At the inception of the regulations at issue in the enforcement initiative, it is undisputed that the high-level officer at EPA charged with enforcing the NSR program, Edward E. Reich, EPA's Director of Stationary Source Enforcement, did not believe that a "major modification" could occur if a source did not fundamentally change the way in which it operated by, *inter alia*, increasing its productive capacity to emit.⁵² The only dispute about these determinations is whether or not Reich was authorized to speak for the Agency.⁵³

However, after some number of years, EPA reinterpreted the term "major modification" as eliminating the requirement that there be a "modification" before there can be a "major" modification, and instead imposing an "actual-to-potential" emissions test for triggering NSR at existing units that have begun normal operations. The actual-to-potential test has the effect of vesting ultimate prosecutorial discretion in EPA by permitting the Agency to determine that any change, as opposed to a "change" that increases "emission rate" as the NSPS and PSD "modification" definition requires, always increased a source's annual emissions.

This is because with virtually no exceptions, sources operate below peak capacity. As a result, any change that lets a facility operate the way in which it is designed, with its sub-capacity historic

⁵² Letter from Edward E. Reich, Director of Stationary Source Enforcement, EPA, to Amasjit S. Gill, Gas Turbine Div., General Electric 1 (June 24, 1981) (finding that "PSD applicability [at a previously operating source] is determined by evaluating any change in emissions rates caused by" the change); Letter from Edward E. Reich, Director of Stationary Source Enforcement, EPA, to Charles Whitmore, Chief of Technical Analysis, EPA Region VII (January 22, 1982).

⁵³ See *United States v. Duke Energy Corp.*, 278 F. Supp. 2d 619, 642 (M.D.N.C. 2003) (noting that this official was charged with providing guidance and final recommendations on the PSD program's requirements).

operating practices compared to its post-change potential operating capacity, will trigger an emissions increase under this EPA test. To avoid tripping this test, the source must either operate at full capacity before the change or the change must actually degrade the source's operating capacity to the point where the difference between historic emissions and post-change capacity is insignificant. Both these hypotheticals are inherently implausible, making it clear that the Seventh Circuit's characterization in *Wisconsin Electric Power Co. v. Reilly* of this test is correct—it is an agency interpretation that assumes what it seeks to prove.⁵⁴

Following the *WEPCo* decision, EPA promulgated in 1992 by legislative rule a methodology that electric utilities, but no other industries, could voluntarily use to calculate post-change projected emissions.⁵⁵ The methodology was called an “actual-to-projected-actual” test. The actual-to-projected-actual methodology was first suggested by the Wisconsin Electric Power Co. as an alternative to the actual-to-potential test.⁵⁶ There, WEPCo asked EPA to “compare representative actual emissions prior to the change with ‘projected’ actual emissions after the renovations.”⁵⁷ In response, EPA refused, stating that “[t]he PSD regulations provide no support for this view. Where, as here, a source is not currently subject to a PSD permit containing operational limitations, EPA must presume that the source will operate at its maximum capacity”⁵⁸ In other words, according to EPA in 1987, the actual-to-projected-actual test was not authorized under the 1980 NSR Rule.

The 1992 WEPCo rule, however, was optional and was less favorable to electric utilities than EPA's original interpretation of the 1980 NSR Rule. As a result, no electric utilities that were charged in the coal-fired power plant enforcement initiative opted into the Rule by submitting the necessary data. When EPA began the coal-fired enforcement initiative, it was left with two choices: either apply the actual-to-potential test that the Seventh Circuit had rejected in *WEPCo*, or the actual-to-projected-actual

⁵⁴ 893 F.3d 901, 917 (7th Cir. 1990).

⁵⁵ See 57 Fed. Reg. 32,314, 32,317 (July 21, 1992).

⁵⁶ See Memorandum from Don R. Clay, Acting Assistant Administrator for Air and Radiation, EPA, to David A. Kee, Air and Radiation Division, EPA Region V, at 7 n.4 (Sept. 9, 1988).

⁵⁷ *Id.*

⁵⁸ *Id.*

test for which EPA had disclaimed authority in its WEPCo applicability determination. EPA chose a third way, however, and applied both tests in the coal-fired enforcement initiative, sometimes applying both tests in the same enforcement action.⁵⁹ After some amount of litigation, EPA settled on the actual-to-projected-actual test, for any “change” at an existing facility that has begun normal operations.

B. It is Impossible for Electric Utilities to Comply Retrospectively With EPA’s Coal-Fired Power Plant Enforcement Initiative Interpretation of Modification

1. The 1980 NSR Rule Contains No Methodology for Projecting Future Emissions

In practice, however, the actual-to-projected-actual test, advocated now by EPA for projects undertaken under the 1980 rules, has proven as impossible to meet as the actual-to-potential interpretation. For one thing, electric utilities could not have projected their annual emissions into the future based on a methodology that even EPA itself stated is not contained in the 1980 NSR Rule eight years after it was promulgated. Indeed, the reason EPA found that the 1980 rules do not authorize the actual-to-projected actual emission increase test is because there are no regulatory provisions in the 1980 NSR Rule that allow for a projection of future emissions. The 1980 Rule does not contain any requirement calling for estimating future annual emissions, as the 2002 rule does. Nor does the 1980 rule contain a process or authority to whom the utility must submit “projections,” as the 2002 rule does. In other words, the 1980 NSR Rule differs in this way from the 1992 Rule, which provides a comprehensive means for projecting “representative actual annual emissions,”⁶⁰ and the 2002 NSR Rule, which similarly contains a comprehensive methodology for projecting future emissions.⁶¹ As a result, the electric utilities charged in the coal-fired power plant enforcement initiative have been charged under a *post hoc*

⁵⁹ See *United States v. Duke Energy Corp.*, 278 F. Supp. 2d 619, 640 nn.16-17 (M.D.N.C. 2003) (stating that the government attempted to apply “the ‘actual-to-potential’ test” . . . to determine whether emissions increased after a physical change was made to an existing source that had begun normal operations,” but later abandoning the test in live court at a summary judgment hearing); *In re TVA*, 9 E.A.D. 357, 359 (2000) (noting that EPA originally based its NSR allegations on “an emissions increase test commonly referred to as the ‘actual-to-potential’ test,” but that later EPA decided to compare pre -modification emissions “with ‘projected actual emissions’ after the modification, in order to establish an NSR violation”).

⁶⁰ See, e.g., 40 C.F.R. § 51.165(a)(1)(xxi) (1993).

⁶¹ See, e.g., 40 C.F.R. § 51.165(a)(1)(xxvii) (2006) (defining “projected annual emissions”).

projection method EPA alleges that they should have undertaken *before* conducting a non-excluded change at the source that was *not* a “modification” because it did not increase the “emission rate” of an existing facility. Perhaps unsurprisingly, in retrospect, EPA has been able to argue that none of the electric utilities “complied” with this recently invented methodology. Like the actual-to-potential methodology rejected in *WEPCO*, this methodology provides EPA nothing but ultimate discretion, and places regulated entities entirely at the Agency’s mercy retrospectively.⁶²

2. The Coal-Fired Enforcement Initiative Interpretation of “Major Modification” Assumes what it Seeks to Prove

Moreover, because sources conduct repair activity to maintain the ability to conduct normal operations (generally by reducing the number of forced outages at a source), any actual-to-projected-actual methodology suffers from the same flaw as the actual-to-potential interpretation: it assumes what it seeks to prove. The reason electric utilities conduct physical activities at a source that do not increase its capacity to emit is to permit the source to handle increased utilization by reducing the number of forced outages. As a result, an actual-to-projected-actual test that presumes increased utilization following a change results from the change will do exactly what the discredited actual-to-potential test does: result in a projected emission increase in all situations where utilization might increase.

Complicating this issue is the fact that over the last twenty years, electricity demand has grown by over 50 percent, a number expected to rise to 90 percent in the next ten years.⁶³ Predictably, some sources have increased their utilization to meet this increased demand, and this increased utilization coincides with changes that are routine industry practice to maintain the source’s capability to meet this new demand.

⁶² In this regard, EPA has shown no compunction in bringing enforcement actions after much time has passed, even where a regulated entity has obtained a determination from its state permitting authority that an activity was permitted. While the Supreme Court recently suggested that it is “confident” that EPA would “not indulge in the inequitable conduct . . . while the federal courts sit to review EPA’s actions” by invalidating state determinations long after they are made, *see Alaska Dep’t of Env’tl. Conserv. v. EPA*, 540 U.S. 461, 495 (2003), that is, in fact, exactly what EPA has done in the coal-fired power plant enforcement initiative.

⁶³ FOUND. FOR CLEAN AIR PROGRESS, *AMBIENT AIR QUALITY TRENDS: AN ANALYSIS OF DATA COLLECTED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY* 73 (2004).

This result could potentially have been avoided if EPA had been serious about requiring that a non-excluded change cause an emission increase, rather than merely be associated with an emission increase. To prevent such a result in its coal-fired power plant enforcement initiative interpretation of the actual-to-projected-actual test, EPA applied another heretofore unannounced wrinkle—the Agency read all causation requirements out of the Rule. That is, the government argued that, in assessing whether a non-excluded physical or operational change caused an emission increase, there is an irrebuttable presumption that any increased emissions following the change are caused by that change unless the projected increase in emissions would be “completely unrelated to the . . . change and entirely caused by independent factors.”⁶⁴

As a practical matter, it is impossible for electric utilities to meet increased demand without conducting maintenance activities at their sources, and it is impossible to prove that any projected increase in utilization is “completely unrelated to the . . . change.” The way in which electric utilities determine what sources will or will not operate at a particular time to meet electric demands on a system is on a least-cost dispatch basis. This system depends heavily not only on the number of forced outages a particular source will need to take if a repair is or is not made to the source, but on a multitude of other considerations that may or may not occur. These factors include fluctuations in the price of fuel, problems on, or upgrades to, the transmission system, unplanned outages at other sources in the system, and the like. Moreover, a change of less than one percent utilization caused by one of these factors can, at a large power plant, cause emissions that would exceed the NSR “major modification” significance level for a particular pollutant and, under the coal-fired power plant enforcement initiative interpretation, trigger NSR.

IV. The Coal-Fired Power Plant Enforcement Initiative Is Bad Policy

A. The Coal-Fired Power Plant Enforcement Initiative is a Costly and Ineffective Means of Reducing Pollution from Existing Sources

⁶⁴ See *United States v. Cinergy Corp.*, 2005 U.S. Dist. LEXIS 28755 *11 (No. 1:99-cv-1693) (S.D. Ind. 2005).

Beyond frustrating Congress' intent in enacting the 1977 Clean Air Act Amendments, the coal-fired enforcement initiative is simply bad policy. The regulatory approach embodied by the coal-fired power plant enforcement initiative eschews any attempt to get cost-effective pollution reductions from existing sources, instead requiring expensive source retrofits based upon the occurrence of a particular event taking place long in the past that was nearly impossible for a regulated entity to predict when undertaken. In this regard, it is significant that, in the years that have passed since the 1977 Clean Air Act Amendments, EPA has in its rulemaking capacity moved away from regulation based on forcing units to adopt what it deems the best available technology (and similar command-and-control schemes) toward market-based approaches that will create not only more cost-effective, but more effective reductions in pollution from existing sources. The coal-fired power plant enforcement initiative is an attempt by EPA to regulate through litigation—and regulate in an ineffective, discredited way.

1. The NSR Program is An Inefficient Regulatory Tool

As a matter of first principles, few believe that the NSR program is actually a good way to control air pollution. Academic criticism of the 1970's era command-and-control air regulation dates back almost to the Amendments themselves, and in particular finds fault with the Amendments' focus on forcing sources to install the best available technology.⁶⁵ In the words of one environmental commentator:

The best and most comprehensive solution would be to replace existing standards with a stringent emission cap and allowance trading system, created on a national or regional basis, that includes all sources. This solution would not only be extremely effective environmentally, but also would eliminate virtually all of the problems . . . that are caused by the use of rate standards.⁶⁶

After thirty years of experience regulating air pollution on the national level, it is simply disingenuous to suggest that the NSR program is a cost-effective way of reducing air pollution.

⁶⁵ See, e.g., Bruce A. Ackerman & Richard B. Stewart, *Reforming Environmental Law: The Democratic Case for Market Incentives*, 13 COLUM. J. ENVTL. L. 171 (1988).

⁶⁶ Byron Swift, *Command Without Control: Why Cap-and-Trade Should Replace Rate Standards for Regional Pollutants*, 31 Entl. L. Rep. (Envtl. L. Inst.) 10,330, 10,340 (Mar. 2001).

2. U.S. Air Quality Improved Dramatically During the Time EPA Claims that Nearly All Electric Utilities Failed to Comply with the NSR Program

During the nearly thirty years in which EPA has alleged that the electric utility industry has refused to comply with the NSR program by undertaking projects that were known to regulators and were in fact demanded them,⁶⁷ the Clean Air Act has largely succeeded in regulating emissions to ensure that economic growth occurs in a manner consistent with the preservation of air quality. For instance, “average NO₂ concentrations are well below the NAAQS and are currently at the lowest levels recorded in the past 20 years. All areas of the country that once violated the NAAQS for NO₂ now meet that standard.”⁶⁸ While “[o]nly 10 percent of monitored counties and 5 percent of the monitored population met the 1-hour [ozone] NAAQS in 1980—this has increased to 90 percent of monitored counties and 70 percent of the monitored population in 2003.”⁶⁹ By 2001, only .01 percent of the United States population lived in areas that had NAAQS exceedances for carbon monoxide.⁷⁰ Lead pollution is similarly a non-issue, with only .003 percent of the United States population living in areas that had NAAQS exceedances for lead.⁷¹ While there are eighteen areas currently classified as nonattainment for SO₂, none registered a NAAQS exceedance in 2001.⁷²

To be sure, this is not to say that there is no room for air quality to improve, or that some areas still do not comply with the NAAQS for one or more pollutants. The United States is a large country, and certain areas have localized issues that may make compliance with a particular air quality standard—often ozone—nearly impossible. Similarly, this analysis does not address the controversial topic of carbon emissions, which are not regulated under the Clean Air Act. However, the fact remains that air quality in the United States has dramatically improved in the three decades of the Clean Air Act—three decades

⁶⁷ Electric utilities have “duty to serve” obligations imposed by their respective state public utility commissions, and maintaining the reliability of their sources is necessary to comply with these obligations. *See, e.g.*, Ind. Code § 8-1-2-4.

⁶⁸ *See* EPA Air Trends Nitrogen Dioxide, at <http://www.epa.gov/airtrends/nitrogen.html>.

⁶⁹ FOUND. FOR CLEAN AIR PROGRESS, *supra* note 63, at 2.

⁷⁰ *Id.* at 10.

⁷¹ *Id.*

⁷² *Id.* at 12.

where, according to EPA's coal-fired power plant enforcement initiative, the entire electric utility industry did not comply with the NSR program.

3. Existing Sources are Subject to Numerous Other Clean Air Act Programs, Many of Which are More Effective at Reducing Pollution than NSR

Electric utilities, the eponymous target of the coal-fired power plant enforcement initiative, are subject to a host of air quality programs. Since the NSR program's enactment, Congress and EPA have enacted two major regional cap-and-trade programs, the NO_x SIP Call and the Title IV trading program. Under these programs, any increased power plant utilization that would not be accompanied by pollution control equipment installation would be accompanied by concomitant pollution reductions elsewhere, as the sources from which pollution control allowances were purchased reduced their pollution by an equal amount. At the same time this occurred, however, there would be an across-the-board reduction in pollution, as the trading programs reduced the aggregate amount of pollution permitted by all sources subject to the programs.

Meanwhile, the Clean Air Act's Best Available Retrofit Technology ("BART") program forces sources that impair visibility in certain areas, particularly national parks, to install pollution control equipment that ensures the source's compliance with a stringent emission limitation requirement. (In at least one case, this requirement has necessitated installing billion dollar pollution controls.⁷³) Moreover, to the extent these sources are located in nonattainment areas, the sources would be subject to RACT requirements, as well as any more stringent reductions that the state in which they are located decides to impose on the sources to speed the area's climb to attainment. In the future, sources will be subject to even more stringent requirements as the Clean Air Interstate Rule ("CAIR") takes effect. CAIR, which has been finalized but whose operative provisions have not yet become mandatory, is a cap-and-trade program that will amplify the pollution reductions that have accrued through the NO_x SIP Call and the

⁷³ In this instance, the Navajo Power Plant was required to install scrubbers to prevent visibility impairment in the Grand Canyon. *See* 40 C.F.R. § 52.145(d).

Title IV cap-and-trade program. As a result, these programs completely undermine the claim that sources could simply crank up their utilization if they are permitted to make repairs that reduce the number of forced outages at a source. Moreover, all of these programs (with the possible exception of BART and RACT requirements) reduce pollution far more cost-effectively than the NSR program.

As applied to the electric utility industry—the target of the coal-fired power plant enforcement initiative—these programs have proven effective in reducing pollution. Over the last 20 years, during which time the nationwide demand for electricity grew over 56 percent, total emissions of NO_x from the electric utility sector have been reduced by 21 percent and SO₂ by 32 percent,⁷⁴ and the unit-specific rates for each pollutant have been cut even further, by 48 and 55 percent, respectively.⁷⁵ Simply put, the parade of horrors bandied about in these enforcement cases does not fit.

Even if the aforementioned environmental gains did not occur as quickly as originally intended by Congress in promulgating the Clean Air Act, one final irony about the coal-fired power plant enforcement initiative is that it did not occur at a time where installing stringent pollution controls on existing sources of air pollution would have created environmental benefits. In 1977, air quality across the United States was far worse than it is today, with much of the country failing to attain one or more of the NAAQS. Today, however, air quality has greatly improved and the sources are subject to a variety of far more cost-effective market-based pollution control programs. Were there, as a policy matter, ever a “right time” for what the coal-fired power plant enforcement initiative seeks to accomplish, that time is not today.

**B. The Coal-Fired Power Plant Enforcement Initiative Interpretation of
“Major Modification” is not Necessary**

Despite these policy imperatives, proponents of EPA’s initiative advance several policy-based arguments in support of their claim that existing sources are subject to the NSR program whenever they conduct repair activity that might permit a source to operate more hours following the change, even if the

⁷⁴ FOUND. FOR CLEAN AIR PROGRESS, *supra* note 63, at 73-75.

⁷⁵ *Id.* at 76.

activity only permitted the source to operate the way it was designed. The first argument is that the Congress' purposes in protecting the environment would be frustrated under this interpretation of the NSR program because sources would be permitted to emit far in excess of their historic levels so long as the source was operating within its historic capacity. The second argument is that Congress intended to grandfather existing sources of pollution from the NSR program only for a limited period of time, and that allowing a source to conduct projects that enable it to fulfill its expected service life—often 65-70 years—without installing pollution controls, violates that intent.

1. The Coal-Fired Power Plant Enforcement Initiative is not Necessary to Prevent Increased Emissions from Existing Source Utilization

It is true that permitting a source to maintain its historic capacity without undergoing NSR preconstruction permitting could allow the source to increase the amount of pollution it emitted by operating more hours in a year. But because existing sources are regulated under the Clean Air Act to attain the NAAQS and to meet other air quality objectives based on their capacity to emit, increasing utilization does not result in a single pound of unregulated emissions. Moreover, this concern with increased utilization is overblown as a factual matter, and does not frustrate Congress' intent in enacting the NSR program.

As a policy matter, the implication that emissions from existing stationary sources could increase with no stopping point, merely because of the inapplicability of NSR, grossly oversimplifies the ways in which existing sources are regulated under the Clean Air Act. These sources are all subject to the restrictions described above—restrictions that will become all the more stringent as the CAIR enters into effect.

As a legal matter, from the first days of the NSR program, EPA and the courts have realized that sources could, in certain circumstances, increase the amount of pollution they emit without undergoing NSR so long as the sources operated in the way they were intended. This is perhaps best demonstrated by

the United States Court of Appeals for the D.C. Circuit's decision in *Alabama Power v. Costle*.⁷⁶ In *Alabama Power*, the court considered a challenge by the state of Texas and other industry petitioners to an EPA rule that forced states to count, as consumption against the PSD increment, increased pollution from a source that began burning a more-polluting fuel (like high sulfur coal), but was consuming a less-polluting fuel (like low sulfur coal) at the time the baseline air pollution concentration was determined for the area. In such a situation, the source was not subject to the NSR program because it was excluded by the fuel-switching exclusion. In so doing, the court recognized that EPA interpreted Congress' intent as being that the NSR program would permit existing sources to increase their short-term and annual emissions without going through NSR preconstruction permitting if the sources were operated as they were designed.⁷⁷ At the same time, the Court explained that, in contrast to the preconstruction review program, Congress had written the PSD increment program to apply to increased emissions from existing sources over emissions on the baseline date, even where those increased emissions resulted from an activity excluded from NSR. In other words, the *Alabama Power* court confirmed that the coverage of the NSR program under the statute extends to activity that creates new pollution, whereas the increment protection program can extend to increased utilization of existing capacity beyond what existed on the baseline date.

This, of course, was a rejection of an argument eerily similar to that made by many environmentalists today: that activity that is not a "modification" cannot be allowed to consume the PSD increment. As the *Alabama Power* court emphasized, the PSD increment and the PSD preconstruction permitting program have different yet complementary functions. Not all "construction" activity is meant to be included within the ambit of the NSR program *even if it consumes the PSD increment*.

⁷⁶ 636 F.2d 323 (D.C. Cir. 1979).

⁷⁷ *See id.* at 377-78 ("EPA has held, first, that voluntary fuel switches by emissions sources which were designed to accommodate the alternate fuel prior to January 6, 1975, *do not constitute modifications within the meaning of Section 111(a)(4)*, and accordingly that such changeovers are not subject to the review and permitting strictures imposed by Section 165.") (emphasis added).

2. The NSR Program was Never About Grandfathering Existing Sources for a Limited Period of Time

Second, contrary to countless statements about the NSR program, there is no indication in either the Clean Air Act or its legislative history that Congress intended the NSR program to “grandfather” sources for a limited period of time. Instead, the Act’s history and structure demonstrate that Congress intended for existing sources to undergo new source review only when the source owner or operator changed the fundamental way it was designed to operate.

The grandfathering argument derives from the distortion and misunderstanding of several sources. First, various Northeast states and environmental groups have relied on a statement in a House report quoting an industry representative’s statement that “[p]roven FGD [flue gas desulfurization] systems are justified for new plants utilizing higher sulfur fuel where sizable emission reductions are needed to meet new source performance standards. * * * [I]t is imprudent to backfit FGD into existing plants, especially older units facing retirement within 10-15 years” as evidence that Congress intended for sources to retrofit at some time.⁷⁸ This, however, is a blatant distortion of this statement. The House report in which this statement was contained provided for complete grandfathering of all existing sources from any NSR preconstruction permitting, subjecting them only to the NSPS program, and did not provide for calculating the baseline ambient air concentrations on actual air quality.⁷⁹ In contrast, the Senate approach, which was ultimately adopted by the Conference and embodied in the 1977 Clean Air Act Amendments, calculated baseline emissions based on ambient air quality at the time the first source underwent preconstruction review, but excluded from the definition of modification activities at a source that did not change the way the source was designed to operate. It is utterly implausible to view this as indicia of legislative intent to grandfather sources for a limited period of time when under the bill the

⁷⁸ H. Rep. No. 95-294, 95th Cong., 1st Sess. 186 (1977).

⁷⁹ *See id.* at 144 (noting that “[n]o [PSD] permits are required for existing sources, *since they* and their emissions’ capacity are ‘grandfathered’.”).

House report described, the very sources that the coal-fired power plant enforcement initiative argues were “grandfathered” for a limited time were completely exempt from all PSD considerations.

Similarly, proponents of this view often cite *Alabama Power Co. v. Costle*, which stated that the 1977 Clean Air Act Amendments intended “to ‘grandfather’ existing industries; but the provisions concerning modifications indicate that this is not to constitute a perpetual immunity from all standards under the PSD program. If these plants increase pollution, they will generally need a permit.”⁸⁰

However, when the *Alabama Power* court referred to changes that “increase pollution,” the court did not say that a change that failed to increase the capacity of a source to pollute would “increase pollution.” “Increased pollution” had always previously meant new pollution due to activity that caused an “emission rate” increase under EPA’s regulations, including the regulation being reviewed by the *Alabama Power* court. Indeed, this aspect of EPA’s regulation was not even challenged in *Alabama Power*, and the court’s decision must therefore be read in light of this regulatory context. As a result, what the *Alabama Power* court meant by this statement was that, unlike H.R. 6161, which as described above excluded existing sources from the NSR program entirely, existing sources were not immune from the PSD program *if they increased their capacity to emit*—an unremarkable proposition with which no one disagrees.

Finally, the enforcement initiative’s proponents take out of context a particular statement made by the Seventh Circuit in *Wisconsin Electric Power Co. v. Reilly* (“*WEPCo*”). There, the court rejected an interpretation of the term “physical change” as not including like-kind equipment replacements reasoning that, under such an approach, “the application of NSPS and PSD to important facilities might be postponed into the indefinite future,” opening “vistas of indefinite immunity from the provisions of NSPS and PSD.”⁸¹ When the *WEPCo* court made this statement, however, it was in response to an argument by the petitioner claiming that certain unprecedented changes that increased the source’s capacity to emit beyond its historic capacity should not be subject to the NSPS or PSD program because they were

⁸⁰ 636 F.2d at 400; *see also* *New York v. EPA*, 413 F.3d 3, 27 (D.C. Cir. 2005) (quoting *Alabama Power*).

⁸¹ 893 F.2d 901, 909-10 (7th Cir. 1990).

“routine,” not that changes that permit a source to operate in the way it was designed to operate were forbidden without application of the NSR program because there would be “vistas of indefinite immunity” or “indefinite postponement” of the program. This is why the court equated the NSPS and PSD programs in its analysis—not because the court believed that every existing source, so long as it merely operated the way in which it was designed, should be forced to undergo pollution controls.

To be sure, many other persons have advanced the view that the NSR program provided existing sources a limited grandfathering period based on some sort of penumbral view of the Clean Air Act, without attempting to tie the view to any particular statutory provision or legislative history. The structural inference drawn by these commentators is a flawed one based on wishful thinking, not any valid observation about the Clean Air Act.

Perhaps the most compelling proof that Congress did not intend a limited grandfathering period for existing sources is shown by the term they adopted to subject existing sources of pollution to preconstruction review—“modification.” As that term had been interpreted by EPA in the NSPS and regulatory PSD programs, programs of which Congress was clearly aware, modification activity had never occurred when a source stayed within its maximum capacity to emit, even when utilization levels following the change increased beyond historic levels. When Congress incorporated this term across the PSD and NNSR programs, which themselves were created in the first instance to be easily cross-administrable with the NSPS program, the proper inference is not that Congress wanted a grandfathering that had never been caused by the NSPS program, but that it wanted to have the same trigger for both programs. Any thoughts that grandfathering would, in this instance, somehow occur are at very best instances of legislative expectation—not legislative intent to subject existing sources to NSR preconstruction permitting for maintaining their sources as they were intended to operate.

Where Congress’ intended the Clean Air Act to embody a definite grandfathering program, rather than simply premising pollution controls on an event that may or may not occur, it did so explicitly. Just one such example is Clean Air Act § 112, which gives existing sources three years to comply with Maximum Available Control Technology (“MACT”) standards for air toxics (and also grants EPA the

ability to extend the deadline on a source-by-source basis).⁸² If Congress really believed that all existing sources, in order to operate normally, should be forced to undergo NSR preconstruction permitting at some point in the relatively near future, they could have just forced them to do so, as with the MACT requirements. Congress did not do so, however, and rewriting the NSR program to include some ethereal grandfathering requirement does not vindicate its intent.

Indeed, at least three later Congresses considered amending the Clean Air Act to mandate new source control technology retrofits to existing coal-fired sources, including power plants.⁸³ These proposed bills were ultimately rejected in favor of the Title IV cap-and-trade approach, and manifest congressional understanding that grandfathering was not the inevitable result of the NSR program.

Perhaps the best that can be said for the grandfathering argument is that there may have been some sort of legislative “expectation” in some members of the 95th Congress in 1977 that existing sources would all be forced by the NSR program to install pollution controls when the source changed the way in which it operated by expanding capacity. However, by imposing such stringent costs on expanding a source’s capacity—pollution controls and, if in a covered source category, compliance with the new source performance standards—source owners changed the way in which they operated, refusing to increase source’s capacity for fear of triggering these requirements. Indeed, the *WEPCo* court suggested as much. There, WEPCo had attempted to rebuild various units that it had let degrade to the point where the sources were no longer functional, and which no longer were capable of operating the way that they were designed. This was not common industrial practice following the Clean Air Act, and EPA was unable to identify any similar projects. As a result, the court surmised that “the ‘case of first impression’ character of the project may reflect historical practice in the electric utility industry of replacing old plants (at the expiration of their useful lives) with new plants, employing improved technologies and achieving improved efficiencies. This was the typical practice, rather than the mere

⁸² 42 U.S.C. § 7412(i)(3).

⁸³ *See, e.g.*, S. 316, 100th Cong. (1987); S. 2813, 99th Cong. (1986); S. 52, 99th Cong. (1985); H.R. 5555, 97th Cong. (1982).

extension of life of existing plants through massive like-kind replacements [that increased the source's capacity to emit].”⁸⁴

V. Conclusion

The coal-fired power plant enforcement initiative is premised on the idea that the entire electric utility industry has refused to comply with the NSR program because, thirty years after the program was enacted, many have not yet retrofitted their sources. From the premise that retrofitting is mandatory because the NSR program was meant to “grandfather” existing sources, to unfounded claims about “uncontrolled” emissions, this idea is flawed. The NSR program was never intended to force emission reductions from existing sources as a matter of course—only if changes to the sources altered the fundamental way that they operated.

At a time when air quality is the best it has been since the Clean Air Act's enactment, and EPA has finally broken free of the shackles of command-and-control regulation, shifting instead to market-based solutions to address air pollution, it is perverse that the worst kind of regulation—regulation by litigation—threatens to undermine Congress' intent and force cost-ineffective pollution reductions. But this is the inevitable result if EPA succeeds in its coal-fired power plant enforcement initiative. The Supreme Court and Seventh Circuit should do the right thing and end the enforcement initiative.

* David B. Rivkin, Jr. served in the White House Counsel's Office and the Departments of Justice and Energy under Presidents Ronald Reagan and George H.W. Bush, and is a partner at Baker & Hostetler LLP in Washington, D.C.

** Lee A. Casey served at the Justice Department under Presidents Ronald Reagan and George H.W. Bush, and is a partner at Baker & Hostetler in Washington, D.C.

*** Mark W. DeLaquil is an associate at Baker & Hostetler LLP in Washington, D.C.

⁸⁴ *WEPCo*, 893 F.2d at 911.