Maryland Law Review

Volume 72 | Issue 4

Article 14

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Thomas O. McGarity

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Recommended Citation

Thomas O. McGarity, When Strong Enforcement Works Better Than Weak Regulation: The EPA/DOJ New Source Review Enforcement Initiative, 72 Md. L. Rev. 1204 (2013) Available at: http://digitalcommons.law.umaryland.edu/mlr/vol72/iss4/14

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WHEN STRONG ENFORCEMENT WORKS BETTER THAN WEAK REGULATION: THE EPA/DOJ NEW SOURCE REVIEW ENFORCEMENT INITIATIVE

THOMAS O. MCGARITY^{*}

I. INTRODUCTION

Every regulatory program encounters regulatees who are determined to do as little as possible to comply with regulatory requirements imposed by the applicable statute or, more typically, by regulations promulgated by the implementing agency. When Congress or the regulatory agency uses ambiguous language to establish regulatory requirements or imposes those requirements in highly complex ways, regulatees can interpret critical words or employ complexity to their advantage. In characterizing how regulatees comply with regulatory requirements, Professors Hickman and Hill divide them into three categories.¹ "Maximal compliers" are risk averse with respect to being prosecuted for violating regulations for various reasons, including reputational considerations, a perceived alignment of interest with the regulators, or a preference for stability over uncertainty.² "Flouters" have little regard for regulatory requirements, most of which they believe to be illegitimate, and they are inclined to pursue their economic interests without regard to those requirements.³ Even when the language of the statute or regulation is precise and the regulatory regime lacks complexity, flouters are willing to engage in what they know to be unlawful conduct if the risk of being prosecuted multiplied by the magnitude of the resulting punishment is sufficiently low.⁴

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^{*} Joe R. and Teresa Lozano Long Endowed Chair in Administrative Law, University of Texas School of Law.

^{1.} Kristin E. Hickman & Claire A. Hill, Concepts, Categories, and Compliance in the Regulatory State, 94 MINN. L. REV. 1151, 1159–65 (2010).

^{2.} Id. at 1161.

^{3.} Id. at 1160–61.

^{4.} *Id.*

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The vast majority of regulatees are in the third category of "minimal compliers" who "operate in the gray areas of the law."⁵ Determined to do no more than is minimally necessary to comply with regulatory requirements, aggressive minimal compliers search for ambiguity in the language of the regulatory requirements and exploit complexity to their maximum advantage. They "engage reputable lawyers to help them calculate their compliance with great care, discerning in advance the gray areas of statutory and regulatory text and planning their behavior to conform colorably to the law."⁶ Other minimal compliers are less inclined to press the envelope of compliance, but will follow the more aggressive minimal compliers in adopting the least costly strategies that arguably comply with the regulatory requirements.⁷

Environmental law scholars have recognized two broad environmental enforcement-deterrence-based approaches to compliance assurance and assistance-based compliance assurance.⁸ The former approach provides negative incentives to discourage noncompliance; the latter provides positive incentives to encourage compliance.⁹ The former emphasizes the "stick" of noncompliance penalties; the latter emphasizes the "carrot" of compliance incentives.¹⁰ Advocates of strong environmental regulation prefer the first theory; the regulated industries vastly prefer the latter theory." This Article will apply the distinction between deterrence and assistance more broadly to posit two broad approaches to regulatory implementation in mature regulatory environments where the underlying statutes remain static and complexity increases over time.

The deterrence-based approach to regulation assumes that most regulatees are either flouters or aggressive minimal compliers.¹²

^{5.} *Id.* at 1162.

^{6.} Id. at 1163. Hickman and Hill cite aggressive tax shelter participants as an example. Id.

^{7.} Id. at 1163–64.

^{8.} See, e.g., Clifford Rechtschaffen, Competing Visions: EPA and the States Battle for the Future of Environmental Enforcement, 30 ENVTL. L. REP. (Envtl. Law. Inst.) 10803, 10803 (2000); Ronald H. Rosenberg, Doing More or Doing Less for the Environment: Shedding Light on EPA's Stealth Method of Environmental Enforcement, 35 B.C. ENVTL. AFF. L. REV. 175, 182 (2008); ENVTL. PROT. AGENCY, PRINCIPLES OF ENVIRONMENTAL ENFORCEMENT, at 2-1 to 2-7 (1992) [hereinafter EPA, PRINCIPLES].

^{9.} Rechtschaffen, *supra* note 8, at 10,803–04.

^{10.} *Id*.

^{11.} David L. Markell, *The Role of Deterrence-Based Enforcement in a "Reinvented" State/Federal Relationship: The Divide Between Theory and Reality*, 24 HARV. ENVTL. L. REV. 1, 2–4 (2000).

^{12.} Rechtschaffen, *supra* note 8, at 10,803–04.

Stringent regulations in a deterrence-based regime grow more complex as agency enforcers prosecute flouters, minimal compliers interpret their way around regulations, the agency rewrites the rules to eliminate loopholes, and the process begins all over again as the agency strictly enforces the amended rules. The assistance-based approach assumes that most regulatees are maximal compliers and can be trusted to err on the side of compliance in interpreting regulatory language.¹³ ambiguous Regulatees only need encouragement and occasional assistance in negotiating complex regulatory regimes either by way of guidance with respect to existing regulations or by way of amending the regulations to make them clearer, less complex, or, to the extent that they are unnecessarily burdensome, less stringent.

A good example of a mature regulatory regime is the regulatory program that the Environmental Protection Agency ("EPA") has created and maintained under the Clean Air Act. From EPA's inception, it has encountered regulatees in all three categories. Not infrequently, the language of the statute and implementing regulations is subject to varying interpretations, sometimes because the agency wants to retain discretion to address issues on a case-bycase basis.¹⁴ And the program is constantly evolving as its politically appointed leadership migrates from strict deterrence to helpful assistance, reflecting the broad policy preferences of different presidential administrations.¹⁵ As the program has evolved, it has invariably grown more complex, and minimal compliers and flouters have exploited that complexity and the ambiguity in regulatory language to avoid installing expensive pollution reduction technologies.

This Article will examine the dynamic between deterrence-based and assistance-based implementation in the context of the major enforcement initiative that EPA and the Department of Justice ("DOJ") undertook in the late-1990s to address what they believed to be widespread noncompliance with the Clean Air Act's new source

^{13.} Id. at 10,804.

^{14.} See, e.g., S. Coast Air Quality Mgmt. Dist. v. EPA, 472 F.3d 882, 894–95 (D.C. Cir. 2006) (describing EPA's failed attempt to interpret the Clean Air Act in a manner maximizing its own discretion); see also Rosenberg, supra note 8, at 176 (observing that "EPA has translated . . . diverse statutory directives into a sweeping and complex set of environmental rules affecting a variety of activities undertaken by both private firms and by individuals").

^{15.} *See* Rechtschaffen, *supra* note 8, at 10,804 (noting that "in actual practice, EPA's enforcement has been closer to a hybrid of deterrence and cooperation," and that changes in administrations affect which model dominates).

review ("NSR") requirements. The effort ultimately covered many industries, but the industry that offered the largest payoff was the electric power industry. The Government Accountability Office ("GAO") has characterized the power plant initiative as "perhaps the most comprehensive and coordinated enforcement effort under the Clean Air Act to date."16 Focusing on fossil-fuel-fired power plants, this Article will describe the interaction between the aggressive enforcers in EPA and DOJ who were dedicated to aggressive deterrence-based enforcement of what they believed to be fairly unambiguous regulations and EPA's politically appointed leaders who, during the George W. Bush administration, were such strong advocates of assistance-based implementation that they were willing to amend the underlying rules to legalize previously unlawful activities. It will follow the enforcement initiative through the ups and downs of the Bush administration as the agency leaders vigorously pursued rulemaking initiatives that would clarify the relevant requirements, but would also render them less environmentally protective. And it will describe the reinvigorated enforcement initiative during the Obama administration as agency leaders with a different policy orientation backed the enforcement office's aggressive deterrencebased approach.

Three aspects of this experience are relevant to the broader question of how agency leaders should go about choosing between deterrence and assistance in implementing regulatory programs. First, it offers an example of what can be accomplished when a regulatory agency and DOJ are willing to devote substantial resources to a coordinated deterrence-based enforcement initiative. In short, the NSR enforcement story demonstrates that deterrence-based enforcement vigorously pursued can yield huge public benefits. Second, it offers a cautionary note that successful deterrence-based enforcement efforts take years, even decades, to reach fruition and can entail very large resource commitments. Yet, in the final analysis, a carefully selected enforcement initiative may accomplish more than a major assistance-based rulemaking initiative. Finally, the NSR enforcement experience teaches that, once begun, a serious deterrence-based enforcement initiative is difficult to stop when changes in administrations result in leaders who are committed to an assistance-based approach to regulation.

^{16.} U.S. GOV'T ACCOUNTABILITY OFFICE, GAO 12-590, AIR POLLUTION: EPA NEEDS BETTER INFORMATION ON NEW SOURCE REVIEW PERMITS 21 (2012) [hereinafter GAO, BETTER INFORMATION].

II. THE NSR PROGRAM

A. The Origins of NSR

New source review has its origins in the 1970 amendments to the Clean Air Act, the statute that created the basic structure of the modern Clean Air Act. Under that statute, EPA had to promulgate and periodically revise national primary and secondary ambient air quality standards for pollutants that endangered public health or welfare and were emitted by numerous or diverse mobile or stationary sources.¹⁷ The statute gave the states an initial opportunity to promulgate state implementations plans ("SIPs") capable of ensuring that the primary standards were attained by prescribed statutory deadlines.¹⁸ Thus, EPA established the air quality goals for the nation, and the states imposed source-specific requirements, often in the form of technology-based standards, that were capable of reducing emissions of the relevant pollutants to the extent necessary to ensure that the nation's air attained those goals.

One important exception to this institutional arrangement was the requirement in section 111 that EPA promulgate "new source performance standards" ("NSPS") for listed categories of stationary sources reflecting the best adequately demonstrated control technologies ("BADT").¹⁹ These technology-based standards were automatically incorporated into SIPs and were binding on any company that proposed to construct a new source (sometimes referred to as a "greenfield source") within the relevant category or attempted to modify an existing source in that category.²⁰ The statute defined the critical term "modification" to mean "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."²¹ This brief definition and EPA's various elaborations upon its meaning provide the substantive underpinning for the DOJ/EPA, NSR enforcement initiative.

^{17. 42} U.S.C. § 7408(a) (2006).

^{18.} Id. \$7410(a)(1). The statute recognizes the possibility of an extension for another five years. Id. \$7502(a)(2).

^{19.} Id. § 7411(a)(1), (d). The term "stationary source" was defined to be "any building, structure, facility, or installation which emits or may emit any air pollutant." Id. § 7411(a)(3).

^{20.} See id. § 7411(a)(2) (defining "new source").

^{21.} *Id.* § 7411(a)(4). Existing sources in categories for which EPA had not promulgated an NSPS were free to undertake any physical or operational changes so long as they did not violate the requirements of the relevant SIPs. *Id.* at § 7411(d).

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Insofar as the federal technology-based requirements were concerned, the 1970 statute effectively "grandfathered" existing sources.²² They were subject to any technology-based requirements that the states imposed in their SIPS, but they were only subject to the federal NSPS if they were modified within the meaning of the regulations.²³ Congress apparently understood that industrial facilities were not designed to last forever.²⁴ As companies gradually replaced units with new plants outfitted with modern pollution controls capable of meeting the NSPS, emissions would automatically decrease. Since it was presumably much less costly to design pollution control into a new plant than to retrofit it into an existing plant, Congress may have deemed it more efficient to leave existing sources to state regulation so long as they were not modified in ways that increased emissions.²⁸

The NSPS for coal-fired electric power plants has been, far and away, the most controversial standard in this program for at least three reasons. First, electric power plays a vital role in the U.S. economy and in the comfort and convenience of its citizens.²⁶ Second, coal has traditionally fired the majority of power plants in the country.²⁷ Third, coal-fired power plants are among the largest stationary-source emitters of sulfur dioxide, particulate matter, and

^{22.} Jonathan R. Nash & Richard L. Revesz, Grandfathering and Environmental Regulation: The Law and Economics of New Source Review, 101 NW. U. L. REV. 1677, 1678 (2007). 23. Id.

^{24.} See id. at 1681-82 ("[T]he legislative history of the Clear Air Act's . . . amendments strongly suggests that Congress in 1970 expected grandfathering of these sources to be only temporary."); David B. Spence, Coal-Fired Power in a Restructured Electricity Market, 15 DUKE ENVTL. L. & POLY F. 187, 195 (2005) ("Congress may have intended that this provision operate gradually to widen the scope of coverage of the new source permitting provisions as old plants were replaced or modified, so that over time the number of exempted plants would dwindle to zero."); BRUCE BIEWALD ET AL., NAT'L ASS'N OF REGULATORY UTIL. COMM'RS, GRANDFATHERING AND ENVIRONMENTAL COMPARABILITY: AN ECONOMIC ANALYSIS OF AIR EMISSION REGULATIONS AND ELECTRICITY MARKET DISTORTIONS 11-12 (1998) (citing interviews with participants in the drafting process).

^{25.} ENVTL. PROT. AGENCY, DOCKET A-2001-19, NSR 90-DAY REVIEW BACKGROUND PAPER 2 (2001) [hereinafter NSR BACKGROUND PAPER] ("Congress believed incorporating pollution controls into the design and construction when new units are built or when old ones are modified significantly is generally the most efficient way of controlling pollution from major sources.").

^{26.} See DANIEL YERGIN: THE QUEST (2011) ("Electricity underpins modern civilization.").

^{27.} Sierra Club v. Costle, 657 F.2d 298, 313 (D.C. Cir. 1981); BRUCE A. ACKERMAN & WILLIAM T. HASSLER, CLEAN COAL/DIRTY AIR: OR HOW THE CLEAN AIR ACT BECAME A MULTIBILLION-DOLLAR BAIL-OUT FOR HIGH-SULFUR COAL PRODUCERS AND WHAT SHOULD BE DONE ABOUT IT 1-2 (1981).

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oxides of nitrogen,²⁸ three of the criteria pollutants that have always been the central focus of the Clean Air Act's regulatory regime. All three of these pollutants are major contributors to respiratory disease; two of them (sulfur dioxide and oxides of nitrogen) damage nearby crops and natural vegetation and are transported long distances by the wind and contribute to acid rain; two of them (sulfur dioxide in the form of sulfates and particulate matter) damage visibility in pristine areas; and one of them (particulate matter) is strongly associated with increased human mortality.²⁹ Coal-fired power plants are also major emitters of carbon dioxide, a greenhouse gas pollutant that EPA had not attempted to regulate until recently.³⁰ Finally, even minor differences among options for reducing pollutant emission rates for power plants can have major impacts on human health and the environment over the plants' forty-year life expectancy.³¹

B. Defining "Modification"

At first glance, the definition of "modification" in the statute³² seems straightforward enough. Strictly construed, any physical or operational change, no matter how trivial or tangential to the source's primary functions, that increased the amount of any air pollutant emitted from the relevant source would give rise to an obligation to retrofit technology capable of meeting the NSPS for that source.³³ It soon became apparent to the agency, however, that this straightforward definition needed further elaboration. The agency concluded that Congress did not intend to include "mundane activities" like "the repair or replacement of a single leaky pipe, or a change in the way that pipe is utilized."³⁴ A strict interpretation of the

33. Nash & Revesz, *supra* note 22, at 1681.

^{28.} Sierra Club, 657 F.2d at 313; ACKERMAN & HASSLER, supra note 27, at 129.

^{29.} Sierra Club, 657 F.2d at 313; Richard E. Ayres & David D. Doniger, New Source Standard for Power Plants II: Consider the Law, 3 HARV. ENVTL. L. REV. 63, 74 (1979); William C. Banks, EPA Bends to Industry Pressures on Coal NSPS—and Breaks, 9 ECOLOGY L.Q. 67, 76–79 (1980).

^{30.} See Massachusetts v. EPA, 549 U.S. 497 (2007) (upholding EPA's authority to regulate carbon dioxide under the Clean Air Act); see also Clean Air Act and Increased Coal Use: Environmental Protection Agency Oversight, Hearing Before the H. Subcomm. on Env't, Energy, and Natural Res., 96th Cong. 301–02 (1979) (statement of Alan T. Crane & Steven E. Plotkin, Office of Technology Assessment, U.S. Congress) (acknowledging, presciently, the link between carbon dioxide emissions, coal plants, and global warming and foreshadowing the coming debate).

^{31.} Ayres & Doniger, supra note 29, at 75.

^{32. 42} U.S.C. § 7411(a)(4) (2006).

^{34.} Requirements for Preparation, Adoption and Submittal of Implementation Plans; Approval and Promulgation of Implementation Plans; Standards of Performance for New

definition could also include every maintenance or repair project necessary to keep a plant running safely and efficiently if it also increased the amount of emissions over the amount immediately preceding the project.

The word "modification" was sufficiently vague, the regulators in EPA's Office of Air and Radiation ("OAR") reasoned, that the agency could promulgate a regulation interpreting that word to avoid prosecuting companies that engaged in routine projects designed merely to keep the facility running smoothly. In 1971, EPA promulgated a regulation defining "modification" to exclude routine maintenance, repair, and replacement; an increase in production rate, if the increase did not exceed the operating design capacity of the affected facility; an increase in hours of operation; and use of alternative fuel or raw material if the affected facility could accommodate such use.³⁵

Having assisted the industry by addressing ambiguous statutory language with a clarifying regulation, EPA's first administrator, William Ruckelshaus, adopted a vigorous deterrence-based approach to enforcing the regulations promulgated under the new statute.³⁶ Ruckelshaus later related that "it was important for us . . . to actually show we were willing to take on the large institutions in the society which hadn't been paying much attention to the environment."³⁷ The agency realized that it lacked the manpower to file many lawsuits and pursue them to completion, but it was determined to send a message to flouters and minimal compliers that it meant business.³⁸ The EPA and the states decided on a case-by-case basis in individual enforcement actions whether particular projects came within the routine maintenance, repair and replacement ("RMRR") exclusion based on several factors, including the nature, extent, purpose, frequency, and cost of proposed activities.³⁹

Stationary Sources, 57 Fed. Reg. 32,314, 32,316 (July 21, 1992) [hereinafter 1992 Implementation Plan Rules].

^{35.} Standards of Performance for New Stationary Sources, 36 Fed. Reg. 24,876, 24,877 (Dec. 23, 1971).

^{36.} Joel A. Mintz, Some Thoughts on the Interdisciplinary Aspects of Environment Enforcement, 36 ENVTL. L. REP. (Envtl. Law. Inst.) 10,495, 10,499–500 (2006).

^{37.} William D. Ruckelshaus: Oral History Interview, ENVTL. PROT. AGENCY, http://www.epa.gov/aboutepa/history/publications/print/ruck.html (last updated Dec. 10, 2012).

^{38.} Richard S. Frank, *Environment Report/EPA and Justice Department Clash over Antipollu*tion Enforcement, NAT'L J., Oct. 9, 1971, at 2048.

^{39.} Wis. Elec. Power Co. v. Reilly, 893 F.2d 901, 910 (7th Cir. 1990); Nash & Revesz, *supra* note 22, at 1678, 1684–85; GAO, BETTER INFORMATION, *supra* note 16, at 13.

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The agency promulgated another assistance-based regulation in 1975 to address confusion that had arisen among regulatees concerning the kinds of changes that would and would not subject sources to the NSPS. Among other things, the new regulation clarified that a modification to an "affected facility" within an existing source subjected only that facility, and not the entire source, to the NSPS if EPA had promulgated an NSPS for that facility.⁴⁰ Another change, referred to as "netting," allowed a source to avoid the NSPS for individual units within the source if the net emissions from all units affected by the project did not increase.⁴¹ A "net emissions increase" was defined to be the increase in "emissions from a particular physical or change in the method of operation" together with any other "contemporaneous" increases or decreases in actual emissions from the other affected units, where "contemporaneous" was defined to include any increases or decreases within the previous five years.⁴²

The 1975 regulation defined the critical term "increase" to mean an increase in the number of kilograms of pollutant emitted per hour.⁴³ It also added to the list of exemptions: (1) an increase in a facility's "production rate" if that increase could "be accomplished without a capital expenditure on that facility," and (2) the addition or use of any system or device the "primary function" of which was to reduce air pollution, except for removing an emission control system or replacing one with a system that the Administrator deemed to be "less environmentally beneficial."⁴⁴ Finally, the 1975 rule stated that facilities applied to that underwent the NSPS existing "reconstruction," regardless of whether it resulted in an increase in emissions, if the fixed capital cost of the reconstruction exceeded fifty percent of the fixed capital cost needed to construct a comparable facility and if complying with the NSPS was economically and technologically feasible.⁴⁵

The agency's emphasis on deterrence-based enforcement continued throughout the Carter presidency under Administrator

^{40.} Nash & Revesz, supra note 22, at 1685.

^{41.} Emission Offset Interpretative Ruling, 44 Fed. Reg. 3282, 3282 (Jan. 16, 1979); Nash & Revesz, *supra* note 22, at 1687.

^{42. 40} C.F.R. § 52.21(b)(3) (2012); Notice of Availability; Alternatives for New Source Review ("NSR") Applicability for Major Modifications; Solicitation of Comment, 63 Fed. Reg. 39,857, 39,857 n.1 (July 24, 1998) [hereinafter Notice of Availability].

^{43.} Nash & Revesz, *supra* note 22, at 1686.

^{44. 40} C.F.R. § 60.14(e)(2), (5) (2012).

^{45.} Id. § 60.15(b).

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Douglas Costle.⁴⁶ Assistant Administrator for Enforcement Marvin Durning initiated a "file first/negotiate later" policy under which regional offices were required to refer all major violations directly to EPA headquarters before negotiating with violators.⁴⁷ Having seized greater control over agency enforcement efforts, Durning aggressively exercised the new powers that the 1977 amendments to the Clean Air Act provided to the agency, which included a strong noncompliance penalty.⁴⁸

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C. The 1977 CAA Amendments

The 1977 amendments to the Clean Act⁴⁹ addressed two issues that Congress had not anticipated in 1970. First, EPA was struggling with how to address the many "nonattainment" areas that had not met the NAAQS by the 1977 deadline.⁵⁰ Second, the agency had to address a judicially imposed requirement to prevent significant deterioration of air quality in "clean air" areas of the country where the air currently met the national ambient air quality standards.⁵¹ The 1977 amendments addressed both problems by establishing permit requirements for new sources and modifications of existing sources that had the potential to emit large quantities of pollutants.⁵² The term that practitioners used to describe the process of determining whether new facilities or modifications of existing facilities qualified for the permit requirement was NSR.⁵³

Before a company could obtain a permit for erecting a new major stationary source or undertaking a major modification of an existing major source in a nonattainment area, it had to meet a number of statutory requirements, including installing technology

^{46.} Mintz, *supra* note 36, at 10,500.

^{47.} Id.

^{48. 42} U.S.C. § 7420 (2006).

^{49.} Pub. L. No. 95-95, 91 Stat. 685 (1977) (Clean Air Act Amendments of 1977).

^{50.} Envtl. Law Inst., *History—The Clean Air Act Amendments of 1977*, 2 L. OF ENVTL. PROT. § 12:90 (2012).

^{51.} Sierra Club v. EPA, 540 F.2d 1114, 1141 (D.C. Cir. 1976), vacated as moot in light of 1977 amendments, W. Energy Supply and Transmission Assocs. v. EPA, 434 U.S. 809 (1977).

^{52.} A state had the option of drafting its own NSR program and seeking EPA approval of that program or requesting that EPA delegate the program that EPA had promulgated in its regulations. NSR BACKGROUND PAPER, *supra* note 25, at 2.

^{53.} New York v. EPA, 413 F.3d 3, 12–13 (D.C. Cir. 2005); *see also* Makram B. Jaber, *Utility Settlements in New Source Review Lawsuits*, 18 NAT. RES. & ENV'T 22, 22 (2004) (discussing the enforcement actions brought by the EPA against electric utility companies for alleged violations of the Clean Air Act's NSR); NSR BACKGROUND PAPER, *supra* note 25, at 2 ("The purpose of the [NSR] program is to protect public health and welfare, as well as national parks and wilderness areas, even as new sources are built and existing sources expand.").

capable of meeting the "lowest achievable emissions rate" ("LAER").⁵⁴ To obtain a permit in an area that was not in a nonattainment area, sometimes called a "prevention of significant deterioration" ("PSD") area, a company had to install the "best available control technology" ("BACT"), as determined by the permitting agency on a case-by-case basis.⁵⁵ For purposes of the nonattainment permit program, the term "major stationary source" was defined to include any source with the potential to emit 100 tons per year of any air pollutant.⁵⁶ For purposes of the PSD permit program, the term "major emitting facility" was defined to include any source on a list of twenty-eight specified categories that had the potential to emit 100 tons per year ("tpy") of any air pollutant and any other source with the potential to emit 250 tpy.⁵⁷

For both programs, the statute defined "modification" to have the same meaning as in the NSPS program.⁵⁸ Thus, Congress continued to grandfather existing sources from these more heavily regulated programs so long as they did not undertake a modification.⁵⁹ Since the 100 tpy and 250 tpy thresholds applied to the emissions from the existing source, however, it was unclear whether every physical or operational change that resulted in a very minor increase in emissions from such a large source would subject the entire source to the rigorous NSR requirements or whether EPA could by rule establish separate de minimis thresholds, called "significance levels" for such modifications. The EPA addressed this issue in its implementing regulations for the PSD program by defining "modification" to mean "a physical or operational change that increased a source's 'potential to emit' pollutants, defining that term to mean a source's potential to emit pollutants without any

^{54. 42} U.S.C. § 7503(a)(1)(B)(2) (2006).

^{55.} *Id.* § 7475(a) (4). Neither LAER nor BACT could be less stringent than any applicable new source performance standard. LARRY B. PARKER & JOHN E. BLODGETT, CONG. RESEARCH SERV., RL 30432, AIR QUALITY AND ELECTRICITY: ENFORCING NEW SOURCE REVIEW 19–20 (2000).

^{56. 42} U.S.C. § 7602(j) (2006).

^{57.} Id. § 7479(1).

^{58.} See id. § 7479(2) (C) (defining "construction" for the PSD program as including "the modification (as defined in section 7411...) of any source or facility"); id. § 7501(4) (defining modification for the nonattainment program as meaning "the same as the term "modification is used in section 7411"); see also 1992 Implementation Plan Rules, supra note 34, at 32,315 ("The 1970 CAA required EPA to promulgate technology-based NSPS applicable to the construction or modification of stationary sources that cause or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare." (citation omitted)).

^{59.} Nash & Revesz, *supra* note 22, at 1684–85.

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pollution controls in place, and limiting NSR to "major" modifications that resulted in increased emissions of 100 or 250 tpy, depending on the category.⁶⁰

At the same time that Congress provided for NSR, it empowered ordinary citizens to insist that modified sources comply with the process by creating a procedure for citizen enforcement of those provisions. Section 304 of the Clean Air Act provides that "any person may commence a civil action on his own behalf ... against any person who proposes to construct or constructs any new or modified major emitting facility without a permit."⁶¹ At least sixty days prior to commencing a citizen enforcement action, the citizen must give notice of the violation to EPA, to the state in which the violation took place, and to the violator.⁶² If EPA or the state, within the sixty days, intervenes and is diligently prosecuting a civil action in court, then the citizen enforcement action may not proceed, but the citizen may remain a party to the governmental enforcement action with full participatory rights.⁶³

D. The Alabama Power Litigation

Industry and environmental groups challenged the agency's PSD implementation regulations, and the United States Court of Appeals for the District of Columbia Circuit in late 1979 rendered a decision that sent EPA back to the drawing board on the NSR provisions.⁶⁴ First, the court held that "potential to emit" meant the potential of a source to emit pollutants with all of the pollution control technologies in place.⁶⁵ This had the effect of dramatically reducing the number of new and existing facilities that came within the definition of "major emitting facility" and were therefore subject to NSR.⁶⁶ Second, it held that EPA exceeded its statutory authority in excluding from the definition of modification all physical and operational changes that resulted in emissions of fewer than 100 and 250 tpy.⁶⁷ Although EPA had inherent discretion to promulgate

^{60.} *Id.* at 1687 (quoting Approval and Promulgation of State Implementation Plans: 1977 Clean Air Act Amendments to Prevent Significant Deterioration, 43 Fed. Reg. 26,388, 26,403 (June 19, 1978)).

^{61. 42} U.S.C. § 7604(a)(3) (2006).

^{62.} *Id.* § 7604(b)(1)(A).

^{63.} *Id.* § 7604(b)(1)(B).

^{64.} Ala. Power Co. v. Costle, 636 F.2d 323 (D.C. Cir. 1979).

^{65.} *Id.* at 353.

^{66.} Id.

^{67.} Id. at 399-400.

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regulations defining de minimis emissions thresholds for changes that would not come within the meaning of the word "modification," it could not merely incorporate the same thresholds that the statute specified for determining whether new construction activities were subject to NSR.⁶⁸ Otherwise, the court explained, grandfathered sources would gain a perpetual immunity from federal technologybased requirements, despite a clear congressional intent to give existing stationary sources only a temporary reprieve.⁶⁹

E. The Post-Alabama Power Regulations (1980)

EPA responded to the court's remand in 1980 with a new set of regulations that, among other things, applied the statutory "majorness" thresholds (100/250 tpy) to new and existing sources and created separate significance levels for modifications of existing major sources. The new significance levels effectively exempted from the statute's NSR requirements any physical or operational change in a relevant unit that resulted in an emissions increase of fewer than forty tpy of sulfur dioxide ("SO₃) or nitrogen oxides ("NOx") in PSD areas and changes that resulted in an increase of fewer than 10-100 tpy in nonattainment areas, depending on the severity of the nonattainment.⁷⁰ Like the NSPS regulations, the NSR regulations also exempted RMRR projects and increases in hours or production rates, and they allowed sources to offset emissions increases in the changed unit with decreases from other affected units within a single source in determining whether there would be a net emissions increase.⁷¹ Although these provisions turned out to be highly contestable in subsequent litigation, they received very little attention from either the agency or the interested parties during the 1980 rulemaking.⁷² In one significant departure from the 1975 NSPS regulations, the NSR regulations measured increases in tons per year, rather than kilograms per hour, to be consistent with the tons per year approach that Congress had used in defining the statutory "majorness"

^{68.} Id.

^{69.} Id. at 400.

^{70.} See NSR BACKGROUND PAPER, supra note 25, at 3; (noting the 10–100 tpy major source threshold range for nonattainment NSR); PARKER & BLODGETT, supra note 55, at 7 (noting that NSR is triggered when a modification will cause a forty-tpy increase in oxides of sulfur and nitrogen).

^{71.} Nash & Revesz, *supra* note 22, at 1688–89; NSR BACKGROUND PAPER, *supra* note 25, at 4. The NSR definition of modification tracked the PSD definition. *Id.*

^{72.} Nash & Revesz, supra note 22, at 1689.

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thresholds.⁷³ As we shall see, this distinction between annual emissions and hourly emissions was fiercely debated in the subsequent NSR enforcement litigation, and the issue ultimately had to be resolved by the Supreme Court.⁷⁴

F. Avoiding NSR During the Reagan Administration

As President Reagan entered office in early 1981, the operators of existing sources were just becoming familiar with the two-step NSR process.⁷⁵ First, the operator of an existing major source had to determine whether the project would result in a physical or operational change.⁷⁶ If the project fell within one of the specified exemptions, such as the RMRR or increased hours of operation exemptions, then it did not constitute a physical or operational change and was therefore not subject to NSR.⁷⁷ If the project did involve a physical or operational change, the operator had to determine whether emissions attributable to the project would exceed the significance level.⁷⁸ In making that determination, the operator had to subtract the baseline level of emissions (the level of emissions from the source just prior to the anticipated project) from the potential emissions from the source after the project's completion, summing contemporaneous increases and decreases of emissions from the project and other units within the source that were affected by the project.⁷⁹ If so, the project had to undergo NSR.⁸⁰ Both steps often involved complex determinations based on multiple factors and imprecise regulatory language, all of which created ample gray areas for minimal compliers to exploit.⁸¹

^{73. 1992} Implementation Plan Rules, supra note 34, at 32,316; PARKER & BLODGETT, *supra* note 55, at 7.

^{74.} Envtl. Defense v. Duke Energy Corp., 549 U.S. 561 (2007).

^{75.} See New Source Review Policy, Regulations and Enforcement Activities, Hearings Before the S. Comm. on Env't and Pub. Works and the S. Comm. on the Judiciary, 107th Cong. 2d Sess. 606 (2002) [hereinafter Senate NSR Policy Hearings] (statement of John Walke, Clean Air Director, Natural Resources Defense Council ("NRDC")) (testifying about the history of NSR enforcement).

^{76. 1992} Implementation Plan Rules, supra note 34, at 32,316; GAO, BETTER INFORMATION, supra note 16, at 13.

^{77.} GAO, BETTER INFORMATION, *supra* note 16, at 13.

^{78. 1992} Implementation Plan Rules, supra note 34, at 32,316.

^{79.} Alternatives for New Source Review (NSR) Applicability for Major Modifications, 63 Fed. Reg. 39,857, 39,857-58 n.l (July 24, 1998).

^{80.} Id. at 39,857.

^{81.} See GAO, BETTER INFORMATION, supra note 16, at 13 (discussing the complexity of the determinations).

The operators of fossil-fuel-fired power plants had strong incentives to avoid NSR.⁸² Electricity deregulation was just getting underway, and utility companies could no longer live the comfortable life of a regulated monopoly in which they could pass through to their customers any expenditures incurred in installing pollution controls.⁸³ In addition, many companies were relying on power plants that were nearing or past the end of their planned lifetimes, and they were contemplating the possibility of replacing them with nuclear power plants.⁸⁴ When the accident at the Three Mile Island nuclear facility rendered that option considerably less attractive, they were left with coal as the only realistically available fuel.⁸⁵ But building new coal plants would be very expensive because of EPA's recently tightened NSPS for fossil-fuel-fired steam electric plants⁸⁶ and because states were not always expeditious in granting the necessary permits.⁸⁷

The Reagan administration adopted a friendly assistance-based approach to implementation.⁸⁹ Administrator Ann Gorsuch was not disposed to file enforcement actions against companies that had not complied with the complex and, to many companies, unfamiliar NSR requirements.⁹⁰ In her view, the goal should be to encourage future

^{82.} See United States v. EME Homer City Generation, L.P., 823 F. Supp. 2d 274, 283 (W.D. Pa. 2011) (acknowledging that "power plant operators have an obvious incentive to make a 'reasonable' prediction that the stricter emissions standards will not be implicated").

^{83.} See Spence, supra note 24, at 203 n.85 (citing legal scholarship).

^{84.} Clearing the Air: An Oversight Hearing on the Administration's Clean Enforcement Program, Hearing Before the S. Dem. Pol. Comm. 2 (2004) (statement of Bruce Buckheit, former enforcement chief, EPA) [hereinafter Buckheit Testimony].

^{85.} Id.

^{86.} See Senate NSR Policy Hearings, supra note 75, at 114 (responses of Jeffrey Holmstead, Assistant Administrator for Air and Radiation, EPA) (stating that it cost one California facility \$100,000 per ton of nitrogen oxide to meet the NSR standard); LARRY B. PARKER ET AL., CONG. RESEARCH SERV., 85–50 ENR, THE CLEAN AIR ACT AND PROPOSED ACID RAIN LEGISLATION: CAN WE GET THERE FROM HERE? 46 (1985) ("With new power-plants costing over \$1000 a Kilowatt to construct, utilities have powerful incentives to avoid construction and to rehabilitate older facilities instead.").

^{87.} *Senate NSR Policy Hearings, supra* note 75, at 114 (responses of Jeffrey Holmstead, Assistant Administrator for Air and Radiation, EPA).

^{88.} Buckheit Testimony, *supra* note 84, at 2.

^{89.} William L. Andreen, Motivating Enforcement: Institutional Culture and the Clean Water Act, 24 PACE ENVTL. L. REV. 67, 72 (2007).

^{90.} JONATHAN LASH ET AL., A SEASON OF SPOILS: THE STORY OF THE REAGAN ADMINISTRATION'S ATTACK ON THE ENVIRONMENT 46 (1984); Senate NSR Policy Hearings, supra note 75, at 606 (statement of John Walke, NRDC); Elizabeth Shogren, Decision Near on Air Rule Review, L.A. TIMES, Aug. 13, 2001, at A2 [hereinafter Shogren, Decision Near].

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compliance, not punish past violations.⁹¹ In this environment, when even flouters escaped close scrutiny, minimal compliers had every incentive to expand the range of reasonable interpretation and little reason to expect that EPA would file enforcement lawsuits if they crossed over the line into illegality.⁹² Subsequently produced industry documents disclosed a conscious strategy during the 1980s of meeting increased demand by building additional capacity into grandfathered plants while studiously avoiding NSR.⁹³ For example, an industry trade association advised its members in 1984 to identify such projects as "upgraded maintenance programs" and to "downplay the life extension aspects of these projects (and extended retirement dates) by referring to them as plant restoration ... projects."⁹⁴ If questions arose, the industry group advised its members to deal exclusively with state and local officials and to avoid "ask[ing] EPA because you won't like the answer."95 Rather than go to EPA or Congress for relief, companies hired lawyers who came up with innovative interpretations of the then-obscure RMRR exemption to characterize as "routine" projects that had the effect of expanding capacity and lengthening plant lifetimes.96 It would be hard to find a better example of the minimal compliance strategy in action.

III. THE WEPCO LITIGATION

During the mid-1980s, EPA and the state permitting authorities determined whether specific projects at existing plants triggered the NSR requirements by employing the two-step analysis described above on a case-by-case basis.⁹⁷ This common sense approach, however, did little to advance the overall statutory policy of ensuring that older units at power plants would be replaced by more efficient and less polluting units. In 1985, the Congressional Research Service reported that the retirement age for power plants had increased from thirty

^{91.} LASH ET AL., *supra* note 90, at 46; Andreen, *supra* note 89, at 72; Barry Boyer & Errol Meidinger, *Privatizing Regulatory Enforcement: A Preliminary Assessment of Citizen Suits Under Federal Environmental Laws*, 34 BUFFALO L. REV. 833, 876 (1985); Mintz, *supra* note 36, at 10,501.

^{92.} Senate NSR Policy Hearings, supra note 75, at 606 (statement of John Walke, NRDC).

^{93.} Clean Air Act: New Source Review Regulatory Program, Hearings Before the Subcomm. on Clean Air, Wetlands, Private Property and Nuclear Safety of the S. Comm. on Env't and Pub. Works, 106th Cong. 99 (2000) [hereinafter Senate Clean Air Act Hearings] (statement of David Hawkins, NRDC).

^{94.} Id. at 100.

^{95.} Id.

^{96.} Buckheit Testimony, supra note 84, at 2.

^{97.} Wis. Elec. Power Co. v. Reilly, 893 F.2d 901, 910 (7th Cir. 1990).

years to as long as sixty years.⁹⁸ Although EPA enforcers occasionally lowered the boom on flouters who built brand new facilities without applying for a PSD permit,⁹⁹ they did not focus much attention on modifications to existing facilities.¹⁰⁰ A new plant was quite visible to state officials and nearby neighbors, but a life-extension project at an existing plant that resulted in only slightly elevated emissions was largely invisible to the public and the press.

A. The 1990 WEPCO Litigation

In 1988, EPA concluded that a major project undertaken by Wisconsin Electric Power Company ("WEPCO") at its Port Washington plant near Milwaukee, Wisconsin had to undergo NSR because the potential emissions from the facility after completion of the project would exceed the actual emissions prior to the project.¹⁰¹ The facility contained five coal-fired steam generating units, each with a design capacity of eighty megawatts, that were constructed between 1935 and 1950.¹⁰² During the intervening years, the output had decreased substantially due to age-related deterioration.¹⁰ After hiring a consultant in 1983 to assess the plant's overall condition, the company decided that the fire units and the plant's common facilities would have to undergo "extensive renovation" to keep the facility in operation.¹⁰⁴ Among other things, the study concluded that the air heaters on four of the units had severely deteriorated, and the rear steam drums on a different four facilities had cracked.¹⁰⁵ The first condition kept four of the units from operating at full capacity, and the second condition required a reduction in pressure to prevent a blowout.¹⁰⁶ The risk of a blowout was so serious at one of the units that the company had shut it down altogether.¹⁰⁷

The company then embarked on what it called a "life extension" project consisting of various renovations that allowed the units to

^{98.} PARKER ET AL., supra note 86, at 46.

^{99.} See, e.g., United States v. La.-Pac. Corp., 682 F. Supp. 1141, 1162–63 (D. Colo. 1988).

^{100.} Cassie N. Aw-yang, EPA's Changes to the Routine Maintenance, Repair and Replacement Rule of the New Source Review Program: An Unlawful Threat to Public Health and Welfare? 27 ENVIRONS ENVTL. L. & POL'Y J. 321, 336 (2004); Spence, supra note 24, at 198.

^{101.} Wis. Elec. Power Co., 893 F.2d at 905-06; PARKER & BLODGETT, supra note 55, at 8.

^{102.} Wis. Elec. Power Co., 893 F.2d at 905.

^{103.} Id. at 905.

^{104.} Id. at 905 (emphasis omitted).

^{105.} Id.

^{106.} Id.

^{107.} Id. at 905–06.

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operate beyond their planned retirement dates of 1992 in the case of two of the units and 1999 in the case of the other three.¹⁰⁸ When WEPCO presented its plan to the Wisconsin Public Service Commission for approval, the commission consulted with the state Department of Natural Resources to determine whether a PSD permit was necessary.¹⁰⁹ The department referred the matter to EPA, which conferred with the company on several occasions.¹¹⁰

On September 1, 1988, the Acting Assistant Administrator for Air, Don R. Clay, circulated a memorandum containing his preliminary conclusion that the project would be subject to NSR.¹¹¹ Among other things, the memorandum rejected WEPCO's claim that the project fit within the RMRR exemption.¹¹² In a separate memorandum, issued on February 15, 1989, Clay determined that WEPCO could not meet its responsibilities merely by switching to lowsulfur coal; it would have to install scrubbers or equivalent technologies capable of removing sulfur dioxide from the gas stream.¹¹³ EPA Administrator Lee Thomas accepted the Clay memorandum, and the company appealed to the Seventh Circuit.¹¹⁴ Amicus briefs were filed on behalf of three major utility companies and trade associations, as well as the National Coal Association, General Electric and Westinghouse.¹¹⁵

On January 19, 1990, the United States Court of Appeals for the Seventh Circuit, in *Wisconsin Electric Power Co. v. Reilly (WEPCO)*, upheld EPA's decision in all but one regard.¹¹⁶ The court first rejected WEPCO's claim that the project did not involve a "physical change."¹¹⁷ It noted that the project included the replacement of four steam drums that were sixty feet long, 50.5 inches in diameter and 5.25 inches thick as well as the air heaters in four units over a four-year period during which each unit would be shut down for nine months.¹¹⁸ In the court's view, these projects clearly constituted "physical change[s]." To WEPCO's argument that a simple replacement of equipment did not modify the facility, the court

^{108.} Id. at 906.

^{109.} Id.

^{110.} Id.

^{111.} Id.

^{112.} Id.

^{113.} Id. at 919 (citing congressional reports).

^{114.} Id. at 906.

^{115.} Id. at 903–04.

^{116.} Id. at 901, 919.

^{117.} Id. at 907–10.

^{118.} Id. at 907-08.

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responded that the statute defined "modification" as "any physical change" that increased emissions, and the life extension project clearly involved physical changes at the facility.¹¹⁹ The court reasoned that "Congress intended to stimulate the advancement of pollution control technology," and allowing companies to avoid NSR indefinitely was inconsistent with that goal.¹²⁰

The court also rejected WEPCO's contention that the changes came within the RMRR exemption. Taking its cue from the Clay memorandum, the court observed that EPA made this determination on a case-by-case basis by "weighing the nature, extent, purpose, frequency, and cost of the work, as well as other relevant factors, to arrive at a common-sense finding."¹²¹ Based on these factors, EPA had determined that WEPCO's proposed changes were not "routine."¹²² The court agreed that "the magnitude of the project (as well as the down-time required to implement it) suggest[ed] that it [was] more than routine."¹²³ Furthermore, the court agreed with EPA that the frequency and cost of the project supported the conclusion that replacing the heaters was far from routine.¹²⁴ In this regard, the court stressed WEPCO's own characterization of the project as a "life extension" project of the sort that "would normally occur only once or twice during a unit's expected life cycle."¹²⁵ Although it was true that any repair of a critical component of a unit would technically extend its life, EPA was not arbitrary in concluding that a project intended to put off retirement of the entire plant by at least ten years was not routine.¹²⁶

WEPCO also argued that the change would not result in an increase in emissions for purposes of the new source performance standard for power plants.¹²⁷ It acknowledged that the replacement program would increase emissions, because the units would again be able to operate at their design capacity, but it argued that the agency had arbitrarily interpreted its regulations to include such increases.¹²⁸ In determining the pre-change emissions, the agency ignored the "design capacity" of the unit and focused exclusively on the "actual

- 127. Id.
- 128. Id.

^{119.} Id. at 909.

^{120.} Id. at 909-10.

^{121.} Id. at 910.

^{122.} Id. at 910–11.

^{123.} Id. at 911.

^{124.} Id.

^{125.} Id. at 911-12 (emphasis omitted).

^{126.} Id. at 912.

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current capacity" of the unit to produce emissions.¹²⁹ Using the most recent year's emissions from all of the units as the baseline, the agency concluded that the life extension project would cause no additional emissions at two of the five plants, but would cause an increase in emissions at the other three units.¹³⁰ Noting that it did not have jurisdiction to overturn the NSPS regulation (because exclusive jurisdiction for challenge to EPA regulations under the Clean Air Act lies in the D.C. Circuit¹³¹), the court upheld EPA's interpretation of that regulation to allow it to compare the most recent year's hourly emissions rate instead of a "representative" year's rate.¹³²

On the separate question of whether the contemplated changes would trigger NSR under EPA's PSD regulations, the agency did not fare as well. The NSR regulations for PSD areas required a permit for any physical change in a "major stationary source" that would result in a "significant" increase in "net emissions."¹³³ EPA interpreted this regulation to require the source's operator to compare "actual prerenovation emissions with potential post-renovation emissions" (measured in tons per year) to determine whether the difference exceeded the "significance" thresholds (ordinarily forty tons per vear).¹³⁴ In determining the baseline emissions the regulations required the source to use the average rate (in tons per year) for the two years preceding the project date, unless EPA determined that a different time period would be more representative.¹³⁵ In WEPCO's case, the agency used the years 1983 and 1984 as the representative years because WEPCO had curtailed production during the year preceding the project due to the safety risks posed by the cracked steam drums.¹³⁶

Although the agency's regulations applied to "an 'increase in actual emissions from a particular physical change," the agency interpreted this language to require a comparison of the plant's baseline emissions with the plant's "potential to emit" after the project was completed.¹³⁷ WEPCO argued that this was an arbitrary and capricious interpretation of the regulations because it was

^{129.} Id. at 913 (emphasis omitted).

^{130.} Id. at 913-14.

^{131. 42} U.S.C. § 7607(b)(1) (2006).

^{132.} Wis. Elec. Power Co., 893 F.2d at 914 n.6, 915.

^{133.} Id. at 915.

^{134.} Id. at 916; see also text accompanying note 70 (describing the forty-tpy requirement).

^{135.} Wis. Elec. Power Co., 893 F.2d at 916.

^{136.} Id.

^{137.} Id. (quoting 40 C.F.R. § 52.21(b)(3)(i)(a) (1988)).

inappropriate in calculating post-renovation emissions to assume that the plant would be operating at 100 percent capacity 24 hours a day for 365 days per year.¹³⁸ EPA responded that WEPCO could avoid that result by agreeing to adhere to federally enforceable production restrictions, but WEPCO did not want to go that route.¹³⁹ Although the court agreed with EPA that it did not have to rely on the company's own unenforceable estimates of future emissions, it was nevertheless inappropriate for EPA to assume that the plant would be operating full-time at maximum capacity in calculating postrenovation emissions.¹⁴⁰ The court therefore set aside EPA's determination that the WEPCO project would increase emissions for purposes of the PSD program.¹⁴¹

B. Response to WEPCO

The electric power industry reacted to the rather disappointing WEPCO holding in two ways. First, recognizing that WEPCO had gotten into trouble when the state environmental agency had sought advice from EPA, companies rarely sought applicability determinations from EPA after WEPCO.¹⁴² Second, the industry sought relief from Congress, which was at that moment deliberating over major amendments to the Clean Air Act offered by the George H.W. Bush administration. The latter effort failed when changes offered at the last minute by the administration failed to make it into the final version of the 1990 Clean Air Act Amendments.¹⁴³ Instead, the conference committee report urged EPA to revise its NSR regulations to ensure that they were not inconsistent with WEPCO and the new amendments to the statute.¹⁴⁴

When industry lobbyists learned that the administration had begun to deliberate over changes to the NSR regulations, the head of the Edison Electric Institute ("EEI") wrote to a friend in the Department of Energy ("DOE") to solicit his aid in securing "a good

^{138.} Id.

^{139.} Id.

^{140.} Id. at 917.

^{141.} Id. at 918.

^{142.} Senate NSR Policy Hearings, supra note 75, at 607 (statement of John Walke, NRDC).

^{143.} Clean Air Act Implementation (Part 1), Hearings Before the Subcomm. on Health and the Env't of the H. Comm. on Energy and Commerce, 102d Cong. 288 (1991) [hereinafter House Clean Air Act Implementation Hearings] (statement of Rep. John Dingell).

^{144.} Id.

WEPCO fix."¹⁴⁵ The letter provided several specific proposals for revising the NSR regulations.¹⁴⁶ Within days, DOE's Acting Assistant Secretary for Fossil Energy wrote to EPA to complain that the current draft of EPA's proposed regulation was "not responsive to the needs of the electric utility industry" and to demand "a good and comprehensive WEPCO fix."¹⁴⁷ Unwilling to trust EPA to draft an acceptable proposal, DOE drafted its own proposal that included EEI's proposed changes.¹⁴⁸ High-level officials in EPA promptly revised the proposal, but the revision was still unacceptable to DOE.¹⁴⁹ Once again, EPA acquiesced.¹⁵⁰ Representative Henry Waxman later criticized the EPA's political appointees for excluding "EPA staffers who spent years on this issue" while allowing the rulemaking process to be "taken over by DOE officials who kn[e]w only what the electric utilities t[old] them."¹⁵¹

In June 1991, EPA proposed a "WEPCO Rule"¹⁵² that would have amended the NSR regulations in three significant ways. First, the agency proposed to amend the definition of "major modification[]" for PSD areas to exclude "pollution control projects" that did not render the relevant unit "less environmentally beneficial" on the theory that they were not "physical or operational changes."¹⁵³ Second, the agency proposed to clarify the methodology for calculating baseline level of actual emissions to create a presumption that "any 2 consecutive years within the 5 years prior to the proposed change" would be "representative of normal source operations for a utility."¹⁵⁴ This methodology would ensure that emissions increases and reductions at other units in the facility were contemporaneous

^{145.} Anne M. Skalyo, *The WEPCO-"Fix": Out of the* Wisconsin Electric Power Co. v. Reilly *Decision, and the Clean Air Act Amendments of 1990, a Pro-Utility Solution Evolved*, 10 PACE ENVTL. L. REV. 331, 373 (1992).

^{146.} SUBCOMM. ON HEALTH AND THE ENVIRONMENT OF THE H. COMM. ON ENERGY AND COMMERCE, AN INVESTIGATION OF EPA'S CLEAN AIR "WEPCO" RULE, STAFF REPORT (undated), *reprinted in House Clean Air Act Implementation Hearings, supra* note 143, at 314 [here-inafter HOUSE WEPCO INVESTIGATION REPORT].

^{147.} Id.

^{148.} Id.

^{149.} Id. at 315.

^{150.} Id.

^{151.} House Clean Air Act Implementation Hearings, supra note 143, at 283 (statement of Rep. Henry Waxman).

^{152.} Requirements for Preparation, Adoption and Submittal of Implementation Plans; Approval and Promulgation of Implementation Plans; Standards of Performance for New Stationary Sources, 56 Fed. Reg. 27,630 (June 14, 1991) [hereinafter EPA WEPCO Rule].

^{153.} Id. at 27,630.

^{154.} Id. at 27,636.

with any emissions increases from the changed unit for netting purposes.¹⁵⁵ Third, the agency responded to the WEPCO remand by replacing the actual-to-potential emissions test for determining whether there was a net increase in emissions with an "actual-tofuture-actual" test for all changes other than the construction of a new unit or replacement of an existing unit.¹⁵⁶ In calculating future actual emissions, the source could use projected utilization of the source during the two years after the change or any other representative twoyear period within the ten years following the change.¹⁵⁷ It could also take into account factors, such as "system-wide demand growth," that "would have occurred and affected the unit's operations even in the absence of the physical or operational change."¹⁵⁸ The agency reasoned that increases in emissions attributable to such independent factors were not caused by the physical change because they would have occurred anyway.¹⁵⁹ The final rule that the agency published on July 1, 1992 did not differ in any significant way from the proposal.¹⁶⁰

Although the WEPCO Rule created even more gray areas for minimal compliers to exploit, EPA continued to leave the NSR application determination to the utility companies undertaking changes without requiring that they inform the permitting authorities of those determinations.¹⁶¹ It did, however, agree to continue its practice of providing applicability determinations to companies that asked for them.¹⁶² Although the regulations did not address the RMRR exemption, the preamble contained language that bore directly on subsequent judicial interpretations of that exemption. The preamble "clarif[ied]" that the determination of whether the

^{155.} *Id.* The agency also proposed to amend its NSPS regulations to allow a source to use as "its pre-change baseline its highest hourly emissions rate achievable during the 5 years prior to the proposed physical or operational change." *Id.* at 27,631.

^{156. 1992} Implementation Plan Rules, *supra* note 34, at 32,323. The agency reasoned that since there was no relevant operating history for wholly new units and replaced units, it would not be possible "to reasonably project post-change utilization for these units, and hence, their future level of 'representative annual actual emissions." *Id.* For other changes, past operating history and other relevant information could provide a basis for reasonable projections. *Id.*

^{157.} EPA WEPCO Rule, *supra* note 152, at 27,637. The actual-to-future-actual test would not, however, apply to greenfield units at existing plants or to "reconstructed" units for which the capital cost exceeded fifty percent of the replacement cost, because there would be no experience upon which to base projections of future utilization. *Id.* at 27,636; 40 C.F.R. § 60.15(b)(1) (2012).

^{158.} EPA WEPCO Rule, *supra* note 152, at 27,637.

^{159.} Id.

^{160. 1992} Implementation Plan Rules, *supra* note 34.

^{161.} Id. at 32,332.

^{162.} Id.

repair or replacement of a particular item of equipment is "routine" under the NSR regulations, while made on a case-by-case basis, should be based on the source operator's evaluation of whether that type of equipment had been repaired or replaced by sources within the relevant industrial category in the past.¹⁶³

C. NSR Simplification Proposals

Deterrence-based enforcement had a brief resurgence at the outset of the Clinton administration,¹⁶⁴ but EPA's focus shifted to assistance as the agency navigated the minefield of the 104th Congress.¹⁶⁵ There was very little action on the regulatory front during President Clinton's first term. An EPA-assembled advisory group consisting of representatives from state agencies and industry and environmental groups struggled with little success to come up with additional changes to the NSR program that would be acceptable to all of the diverse interests.¹⁶⁶ On July 23, 1996, EPA published a proposed "NSR Simplification" rule that would have extended the WEPCO Rule's changes from the electric utility industry to other industries.¹⁶⁷ In addition, the proposal would have created a new exclusion for "clean unit[s]," which it defined as units that had installed technologies meeting the BACT or LAER tests within the past ten years.¹⁶⁸ Finally, the proposal would have allowed sources to use plantwide applicability limits ("PALs") to avoid NSR if they could offset emissions from the project under consideration with emissions reductions from any other unit in the entire plant, not just those affected by the project.¹⁶⁹ After state agencies and environmental

^{163.} Id. at 32,326.

^{164.} See DOJ to Focus on Criminal Enforcement of Environmental Laws, Top Official Says, 24 ENV'T REP. CUR. DEV. (BNA) 1140 (Oct. 15, 1993) ("The new leadership at DOJ is . . . increasingly emphasiz[ing] criminal enforcement of environmental laws"); One-Fifth of Facilities Surveyed by Group Found to be in "Serious" Violation of Act, 24 ENV'T REP. CUR. DEV. (BNA) 733 (Aug. 20, 1993) (noting that the fines EPA assessed for violations of the Clean Water Act increased from \$5–6 million in the late 1980s to \$22 million in 1992).

^{165.} Andreen, supra note 89, at 73; Mintz, supra note 36, at 10,502.

^{166.} David A. Golden, *The Need to Reform NSR Reform*, 12 NAT. RESOURCES & ENV'T 170, 171 (1997); GENERAL ACCOUNTING OFFICE, GAO-03-947, CLEAN AIR ACT: EPA SHOULD USE AVAILABLE DATA TO MONITOR THE EFFECTS OF ITS REVISIONS TO THE NEW SOURCE REVIEW PROGRAM 7 (August 2003) [hereinafter GAO, AVAILABLE DATA]; Bruce Barcott, *Changing All the Rules*, N.Y. TIMES MAG., Apr. 4, 2004, at 38.

^{167.} Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR), 61 Fed. Reg. 38,250 (July 23, 1996).

^{168.} Id. at 38,255.

^{169.} Barcott, supra note 166, at 38; Proposed Changes to New Source Program Could Narrow Applicability of Current Rules, 27 ENV'T REP. (BNA) 621 (July 26, 1996).

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groups strongly objected to the changes, the agency put the proposal on the back burner. $^{^{170}}$

In July 1998, the agency issued another notice of proposed rulemaking soliciting comment on one aspect of the actual-to-futureactual methodology and on a particular approach to PALs that was not clearly specified in the earlier proposal.¹⁷¹ To the utility industry's chagrin, however, the proposal announced that the agency was having second thoughts on whether it should allow sources to discount emissions attributable to future demand in calculating actual-tofuture-actual emissions.¹⁷² In addition to proposing to disallow the "demand growth" exemption for other industries, the agency was now proposing to repeal the "demand growth" provision in the WEPCO Rule.¹⁷³ The EPA explained that in the increasingly competitive environment of the deregulated marketplace, demand projections were less dependable and incentives to cut corners were much higher.¹⁷⁴ The agency also expressed concern that utility companies were not filing the reports required by the WEPCO Rule detailing actual emissions for five years following the change.¹⁷⁵ Minimal compliers had apparently been exploiting the vagueness in the regulations to avoid both NSR and their reporting obligations.¹⁷⁶ This time the affected industries objected strongly to the proposal, and the agency returned to the drawing board.¹⁷⁷

IV. THE DOJ/EPA NSR ENFORCEMENT INITIATIVE DURING THE CLINTON ADMINISTRATION

A. Preparing a Deterrence-Based Enforcement Initiative

While EPA's Office of Air and Radiation ("OAR") spent the entire Clinton administration attempting to draft an NSR reform proposal on which all affected parties could agree, the agency's

^{170.} NSR Proposal Supported by Industry; States, Environmental Groups Cite Harm, 27 ENV'T REP. (BNA) 1139 (Sept. 20, 1996).

^{171.} Notice of Availability, *supra* note42.

^{172.} Id. at 39,860.

^{173.} Notice of Availability, *supra* note 42, at 39,860.

^{174.} Id.; Alec Zacaroli, NSR Measures to be Coordinated, Scheduled for Promulgation by May 1999, 29 ENV'T REP. (BNA) 406 (June 19, 1998).

^{175.} Notice of Availability, supra note 42, at 39,860.

^{176.} Id.

^{177.} Alec Zacaroli, Utilities Contend Proposed Changes to NSR Would Jeopardize Efficiency; EPA Disagrees, 29 ENV'T REP. (BNA) 1230 (Oct. 23, 1998); Alec Zacaroli, Latest Attempt to Rewrite Regulations Draws Objections from States, Industry, 29 ENV'T REP. (BNA) 1190 (Oct. 16, 1998).

enforcement office was building strong cases for prosecuting dozens of companies for violating the regulations that were already on the books. By the mid-1990s, EPA enforcers were puzzling over economic data suggesting that production had increased in several sectors of the economy that were not experiencing much in the way of new construction.¹⁷⁸ In the electrical power generation sector, for example, there was very little new plant construction, but coal consumption and electricity generation were increasing primarily due to the efforts of utility companies to "optimize performance of existing coal-fired facilities despite their increasing age."¹⁷⁹ In a classic example of minimal compliance, utility companies found it cheaper to keep the grandfathered plants running through life extension projects than to invest in new capacity.¹⁸⁰ The Office of Enforcement and Compliance Assurance ("OECA") decided to launch a major deterrence-based enforcement initiative aimed at the electric utility industry and three other industries.

Preparing an enforcement case against a major utility company was no easy task. First, EPA had to obtain information about the projects that the target company had completed during the relevant time period. EPA could obtain a great deal of relevant information by submitting information requests under section 114 of the Clean Air Act.¹⁸¹ The responses to these requests could fill dozens of banker's boxes, and it could take the agency staff a long time to wade through the documents and separate the wheat from the chaff. After that, the agency could send a team of investigators to the plant to conduct a physical inspection of the operations and on-site records.¹⁸² If these two steps yielded sufficient information to support a conclusion that the source had undertaken a major modification without undergoing NSR, the agency would typically present that information to the company and initiate settlement negotiations. If the negotiations stalled, EPA enforcement officials would prepare a file to refer to DOJ attorneys, who would review the file and decide whether it merited further prosecution. If DOJ decided to proceed with the case, it

^{178.} Nash & Revesz, *supra* note 22, at 1692–93; GENERAL ACCOUNTING OFFICE, GAO 04-58, CLEAN AIR ACT: NEW SOURCE REVIEW REVISIONS COULD AFFECT UTILITY ENFORCEMENT CASES AND PUBLIC ACCESS TO EMISSIONS DATA 10 (Oct. 2003) [hereinafter GAO, NEW SOURCE REVIEW REVISIONS].

^{179.} PARKER & BLODGETT, *supra* note 55, at 5–6; *see also* Buckheit Testimony, *supra* note 84, at 3.

^{180.} Senate NSR Policy Hearings, supra note 75, at 607 (statement of John Walke, NRDC); PARKER & BLODGETT, supra note 55, at 6.

^{181. 42} U.S.C. § 7414(a)(1) (2006).

^{182.} *Id.* § 7414(a)(2).

would typically initiate another round of settlement negotiations before filing the case in a federal district court.¹⁸³ This cumbersome process could take years to complete.

An internal OECA memorandum outlined a strategy for a major enforcement initiative aimed at public utility companies. The office planned to "investigate this industry in a way quite different from earlier, more traditional inspections" by focusing its inquiry on "only a few issues and pollutants and expending considerable initial effort on understanding this industry so as to be better equipped to identify and recognize less-than-obvious changes/modifications that may have been made."¹⁸⁴ The office would then "develop a list of possible changes on which it would focus its inspections."¹⁸⁵ Next, it would conduct inspections, demand information, and, if necessary, "depose key plant personnel" at around twenty-five power plants.¹⁸⁶ OECA was "prepared to take enforcement action for noncompliance attributable to triggering events that occurred since 1977" and to demand the installation of technologies determined to be BACT and LAER at the time the changes were made.¹⁸⁷

The agency followed up on the memorandum by sending more than 100 investigators to more than thirty power plants.¹⁸⁸ The investigations revealed that many of the nation's largest power companies had engaged in significant renovations without undergoing NSR.¹⁸⁹ In many cases the companies' own accounting books revealed major improvement projects that could not possibly have avoided increases in emissions that should have subjected them to NSR.¹⁹⁰ The head of the air enforcement office concluded that "'[c]ompanies understood what was going on, and a lot of them

^{183.} See GAO, BETTER INFORMATION, supra note 16, at 18.

^{184.} Alec Zacaroli, Agency Request for Data on Boilermakers Prompts Alarm Among Coal-Fired Utilities, 29 ENV'T REP. (BNA) 638 (July 24, 1998) [hereinafter Zacaroli, Alarm].

^{185.} Id.

^{186.} Alec Zacaroli, Utility Group Asks OMB to Halt Efforts to Gather Data on Boiler Modification, 29 ENV'T REP. (BNA) 833 (Aug. 21, 1998); Zacaroli, Alarm, supra note 184.

^{187.} Zacaroli, Alarm, supra note 184.

^{188.} *N.Y. to Sue Midwest Plant Owners over Pollution*, GENERATION WK., Sept. 22, 1999, at 1 [hereinafter *N.Y. to Sue*].

^{189.} ROBERT S. DEVINE, BUSH VS. THE ENVIRONMENT 134–35 (2004); OFFICE OF LEGAL POLICY, DEP'T OF JUSTICE, NEW SOURCE REVIEW: AN ANALYSIS OF THE CONSISTENCY OF ENFORCEMENT ACTIONS WITH THE CLEAN AIR ACT AND IMPLEMENTING REGULATIONS, JANUARY 2002 [hereinafter OLP ANALYSIS], *reprinted in Senate NSR Policy Hearings, supra* note 75, at 108.

^{190.} Barcott, supra note 166.

thought they could evade the law.^{"191} It was, in her view, "the most significant noncompliance pattern E.P.A. had ever found."¹⁹² A vigorous deterrence-based enforcement effort could bring about widespread adoption of state-of-the-art control technologies capable of reducing emissions by eighty-five to ninety-five percent.¹⁹³ If the rule writers in OAR could not achieve closure on NSR simplification reforms, perhaps OECA could achieve some useful clarification through the litigation process.¹⁹⁴

On November 17, 1998, Eric V. Schaeffer, the head of the regulatory enforcement division, issued a guidance document setting out the agency's policies for seeking injunctive relief in settling NSR cases.¹⁹⁵ The purpose of the memorandum was to prevent minimal compliers from gaining a competitive advantage by gaming the system.¹⁹⁶ The memo required EPA enforcement officials to insist at a minimum that the sources install control technology or agree to process changes that would result in emissions reductions equivalent to BACT or LAER.¹⁹⁷ In addition, companies should ordinarily not be allowed to dismantle the project or submit to an emissions cap or limit on hours of operation in order to avoid installing BACT or LAER once EPA had filed an enforcement action against it.¹⁹⁸

EPA was not the only enforcement authority investigating NSR violations by the electric utility industry. Like EPA, the State of New York and several environmental groups had sent investigators to Ohio to examine documents at the state public utility commission and the state environmental agency.¹⁹⁹ In September 1999, New York Attorney

^{191.} Id. (quoting Sylvia Lowrance, Principal Deputy Assistant Administrator, Office of Enforcement and Compliance Assurance, EPA).

^{192.} Id.

^{193.} PARKER & BLODGETT, supra note 55, at 9; Barcott, supra note 166.

^{194.} See Christopher W. Armstrong, EPA's New Source Review Enforcement Initiatives, 14 NAT. RESOURCES & ENV'T 203, 203 (2000) ("The goal of these initiatives is to obtain civil penalties and, more importantly, new emission controls which EPA has been unable thus far to obtain through the formal rulemaking process."); see also Elliot Eder & Robin L. Juni, Has EPA Fired up Utilities to Clear the Air?, 15 NAT. RESOURCES & ENV'T 8, 8–9 (2000) (listing the enforcement actions); Nash & Revesz, supra note 22, at 1695 & n.104 (same).

^{195.} Memorandum from Eric V. Schaeffer, Director, Office of Regulatory Enforcement, Guidance on the Appropriate Injunctive Relief for Violations of Major New Source Review Requirements (Nov. 17, 1998), *available at* http://www.epa.gov/region07/air/nsr/ nsrmemos/nsrguida.pdf.

^{196.} Id. at 2.

^{197.} Id.

^{198.} *Id.* at 3.

^{199.} Pamela Najor, Environmental Groups to Sue Utility over Air Act Violations, 30 ENV'T REP. (BNA) 1173 (Oct. 29, 1999) [hereinafter Najor, Air Act Violations]; N.Y. to Sue, supra note 188.

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General Eliot Spitzer sent "60-day notices" to the owners of seventeen power plants in five Midwestern states informing them that New York planned to sue them under the Clean Air Act's citizen enforcement provisions for violating the statute's NSR requirements.²⁰⁰ Soon thereafter, several national and local environmental groups sent a letter notifying American Electric Power that they were planning to sue it for failures by eleven of its plants in five states to comply with the NSR requirements.²⁰¹ Because the statute allows EPA to assume the lead role if it files a lawsuit within sixty days²⁰² of the notices of intent, the notices prodded EPA into action.²⁰³

B. Filling Enforcement Actions

After almost two years of intense investigations and analyses of industry documents, public utility submissions, employee testimony, and the like,²⁰⁴ EPA sent a large number of referrals to DOJ for prosecution.²⁰⁵ DOJ attorneys reviewed EPA's submissions, prepared legal memoranda to support proposed allegations, hired independent experts to provide testimony in upcoming trials, and met with company lawyers in an attempt to settle the cases in advance of filing them.²⁰⁶ On November 3, 1999, DOJ filed lawsuits against seven large power companies representing thirty percent of the coal-fired electrical generating capacity in the United States alleging that they had engaged in major modifications without undergoing NSR at more than twenty-five power plants.²⁰⁷ The complaints sought both monetary penalties of up to \$27,000 per day and injunctive relief

^{200.} Richard Perez-Pena, *Possible Federal Pullout Clouds Northeast States' Pollution Suits*, N.Y. TIMES, Aug. 20, 2001, at A1; *N.Y. to Sue, supra* note 188. Six other Northeastern states joined the subsequently filed lawsuit as plaintiffs. Perez-Pena, *supra*.

^{201.} Najor, Air Act Violations, supra note 199.

^{202. 42} U.S.C. § 7604(b)(1)(B) (2006).

^{203.} See Eder & Juni, supra note 194, at 9 (arguing that the state notices were probably filed to stimulate action on EPA's part).

^{204.} See Pamela Najor, Government Sues Electric Companies over New Source Review at 17 Power Plants, 30 ENV'T REP. (BNA) 1269 (Nov. 12, 1999) [hereinafter Najor, 17 Power Plants] ("It was a very complicated analysis that we had to do plant by plant." (quoting Carol Browner, Administrator, EPA)).

^{205.} OLP ANALYSIS, supra note 189, reprinted in Senate NSR Policy Hearings, supra note 75, at 108; GAO, NEW SOURCE REVIEW REVISIONS, supra note 178, at 10.

^{206.} OLP ANALYSIS, *supra* note 189, *reprinted in Senate NSR Policy Hearings*, *supra* note 75, at 108; Buckheit Testimony, *supra* note 84, at 3.

^{207.} OLP ANALYSIS, supra note 189, reprinted in Senate NSR Policy Hearings, supra note 75, at 109; Najor, 17 Power Plants, supra note 204. The government later added twelve more power plants operated by the same companies to the lawsuit. Pamela Najor, EPA Amends Suits Against Utilities to Allege Violations at 12 More Plants, 31 ENV'T REP. (BNA) 375 (Mar. 3, 2000).

requiring companies to install controls equivalent to current BACT or LAER, depending on the plant's location.²⁰⁸ At the same time, EPA filed an administrative enforcement action against the Tennessee Valley Authority ("TVA") making similar allegations.²⁰⁹ In December 2000, DOJ sued Duke Energy Co., one of the country's largest utility companies, accusing it of violating the NSR requirements at all eight of its power plants.²¹⁰ The states and environmental groups that had filed the earlier actions joined EPA in all of the lawsuits.²¹¹ It was the largest enforcement effort EPA had ever launched.²¹²

The modifications at issue fell into four general categories: (1) construction of new power generating units without seeking a permit; (2) capacity expansion projects that increased the hourly generating capacity of the affected units; (3) redesign of units after installation in ways that eliminated or mitigated original design defects; and (4) life extension projects that extended the useful life of boilers beyond that contemplated when the plants were originally built.²¹³ The agency argued that these projects were clearly physical changes that increased net emissions, even under the liberal definitions of the WEPCO Rule, and that they were not covered by the RMMR exception because they were too extensive, too costly, and too infrequently undertaken.²¹⁴ The industry responded that the activities targeted by EPA enforcers were meant merely to "refurbish or

^{208.} Jaber, *supra* note 53, at 23; OLP ANALYSIS, *supra* note 189, *reprinted in Senate NSR Policy Hearings, supra* note 75, at 109. The agency also issued notices of violation to operators of eight additional plants not named in the lawsuits. Jack Torry, U.S. Sues Utilities for *Pollution at Coal-Fired Plants*, PITTSBURGH POST-GAZETTE (Nov. 4, 1999), *available at* http://old.post-gazette.com/headlines/19991104pollution1.asp.

^{209.} Barcott, *supra* note 166, at 38; Najor, *17 Power Plants, supra* note 204. Since TVA was technically an agency of the federal government, EPA attorneys believed that it would be inappropriate to pursue a civil action against it in a federal district court. *Cf.* Michael Janofsky, *Court Rulings on Emissions Sharply Split Two Groups*, N.Y. TIMES (May 4, 2004), *available at* http://www.nytimes.com/2004/05/04/us/court-rulings-on-emissions-sharply-split-two-groups.html (noting that while the administration could file the TVA case in federal court, "that would involve one federal agency, the E.P.A., suing another, T.V.A., which rarely happens").

^{210.} Andrew M. Ballard, *Duke Power Claims EPA Is Changing Definition of "Routine Mainte-nance" Unfairly*, 32 ENV'T REP. (BNA) 11 (Jan. 5, 2001) [hereinafter Ballard, "*Routine Maintenance*"].

^{211.} Senate NSR Policy Hearings, supra note 75, at 99 (statement of Thomas L. Sansonetti, Assistant Att'y Gen., Environment & Natural Resources Division, DOJ).

^{212.} John H. Stam, Clinton's Big Enforcement Initiative Poses Major Challenge for Bush Team, Lawyer Says, 32 ENV'T REP. (BNA) 293 (Feb. 16, 2001).

^{213.} NSR BACKGROUND PAPER, *supra* note 25, at 10; Nash & Revesz, *supra* note 22, at 1693–94.

^{214.} Nash & Revesz, *supra* note 22, at 1693.

maintain and improve the reliability and efficiency" of their facilities and were therefore not "major modifications."²¹⁵

C. Responding to the Enforcement Actions

The electric utility industry responded to the lawsuits in two forums. In the courts, the individual companies played a defensive game, responding to EPA's accusations with highly technical legal arguments designed to persuade the judges to dismiss the cases.²¹⁶ In the halls of the White House, Congress, and state regulatory agencies, industry lobbyists seized the offensive with a number of strategies designed to bring a halt to the government's enforcement initiative before the courts could rule on the merits of the claims.²¹⁷ The amount of money at stake was so high (billions of dollars in potential fines and pollution control costs) that the companies invested substantial sums in both efforts.²¹⁸ In the meantime, they kept up their efforts to optimize output and extend the lives of their older plants.²¹⁹

1. Notice

The industry raised a host of objections to EPA's enforcement actions in both forums. The most frequently raised argument was that EPA was unfairly changing the rules in the middle of the game and had failed to give regulatees fair notice of its radical new interpretations of the regulations.²²⁰ Companies had been

^{215.} Jaber, *supra* note 53, at 23.

^{216.} See, e.g., John H. Stam, Supreme Court Ruling in Duke Energy Case Overturns Attempt to "Interpret" Regulations, 38 ENV'T REP. (BNA) 789 (Apr. 6, 2007) [hereinafter Stam, Duke Energy Case] (describing the legal arguments made by Duke Energy).

^{217.} Senate NSR Policy Hearings, supra note 75, at 608 (statement of John Walke, NRDC).

^{218.} Barcott, supra note 166, at 38

^{219.} Aw-yang, *supra* note 100, at 336; Jeff Goodell, *Blasts From The Past*, N.Y. TIMES MAG., July 22, 2001, at 31.

^{220.} PARKER & BLODGETT, *supra* note 55, at 16 ("[I]ndustry is charging EPA with changing the rules in the middle of the game."); Eder & Juni, *supra* note 194, at 11; (arguing that EPA failed to give "fair notice of [its] legal interpretation of a ponderous, self-implementing regulatory scheme"); Ballard, "*Routine Maintenance*," *supra* note 210 (quoting Duke Power's spokesman as stating that EPA "is unfairly and retroactively changing some of its rules in the middle of the game"); Steven D. Cook, *EPA Redefined Emissions Increase in Clean Air Act Case, Duke Energy Says*," 37 ENV'T REP. (BNA) 1946 (Sept. 22, 2006) ("The Environmental Protection Agency changed its interpretation of the rules governing the new source review program well after it issued the regulations in 1980" (citing Brief for Respondent at 4, Environmental Defense v. Duke Energy Corp., 549 U.S. 561 (2007) (No. 05-848), 2006 WL 2689784, at *4)); Najor, *17 Power Plants, supra* note 204 (reporting that the Edison Electric Institute believed that EPA's interpretation of the law was "a case, at bottom, of revisionist history"); Pamela Najor, *TVA Tells Court EPA Failed to Give Notice to*

undertaking major efficiency-enhancing and life-extending projects for twenty years, they argued, without EPA voicing serious objections.²²¹ The agency had therefore "tacitly accepted" the industry's interpretation of the rules by "not objecting to state and permits."² nonapplicability determinations Industry representatives maintained that companies had been asking EPA for guidance on how to meet the NSR requirements, but the "guidance never came."²²³ EPA, they claimed, was therefore estopped from claiming that activities undertaken pursuant to those interpretations violated the regulations.²²⁴

EPA, environmental groups, and the downwind states had a number of responses.²²⁵ EPA maintained that the agency had not changed its interpretation of the rules, but had merely stepped up its enforcement of those rules in light of new information showing that they were routinely being violated.²²⁶ The agency had in fact issued numerous letters, guidance documents, and applicability determinations that should have made the industry well aware of EPA's positions on the issues.²²⁷ Moreover, *WEPCO*, which was

Power Producers of "New" NSR Reading, 31 ENV'T REP. (BNA) 1921 (Sept. 15, 2000) [hereinafter Najor, "*New" NSR Reading*] ("TVA asked the court to set aside EPA's new source review enforcement actions because of the lack of notice" of EPA's "new interpretation" of Clean Air Act provisions (citing Reply Brief of Petitioner, Tenn. Valley Auth.v. EPA, 278 F.3d 1184 (11th Cir. 2002) (No. 00-12310-EE), 2000 WL 34538031)).

^{221.} Armstrong, *supra* note 194, at 204; Eder & Juni, *supra* note 194, at 9; Julie R. Domike & Alec C. Zacaroli, Analysis & Perspective, *Reinterpretation of NSR Regulations Could Have Costly Implications for Businesses*, 31 ENV'T REP. (BNA) 407 (Mar. 3, 2000).

^{222.} Domike & Zacaroli, *supra* note 221; *see also Senate Clean Air Act Hearings, supra* note 93, at 102 (statement of Bill Tyndall, Vice President of Environmental Services, Cinergy Corp.) (describing EPA's historical treatment of the modification rule); *Senate NSR Policy Hearings, supra* note 75, at 66, (statement of Bill Pryor, Att'y Gen., Alabama) (describing EPA's enforcement actions as an "abrupt reversal of course without notice and comment rulemaking and without consulting the States, which had the primary responsibility to implement NSR standards for over 20 years").

^{223.} Barcott, *supra* note 166, at 38 (quoting Dan Riedinger, Edison Electric Institute); *see also* Domike & Zacaroli, *supra* note 221 (describing EPA's failure to provide guidance regarding NSR requirements).

^{224.} See, e.g., Najor, "New" NSR Reading, supra note 220 (reporting TVA's objections).

^{225.} See Barcott, supra note 166, at 38 (quoting Eric Schaeffer, a former EPA official, as stating that industry claims were "complete[] hokey"); see also Senate NSR Policy Hearings, supra note 75, at 64 (statement of Eliot Spitzer, Att'y. Gen., New York) (rebutting industry arguments).

^{226.} Shogren, Decision Near, supra note 90; Laura Mahoney, New Source Review: California, Colorado Regulators Disagree on Need to Change Controversial Program, 32 ENV'T REP. (BNA) 1399 (July 20, 2001) (quoting Carol Holmes, attorney, EPA & Steven Barhite, engineer, EPA).

^{227.} See Senate Clean Air Act Hearings, supra note 93, at 99–100 (statement of David Hawkins, NRDC) (stressing EPA's "numerous communications," including letters and applica-

initiated in 1988, put the industry on notice that EPA was strictly interpreting the RMRR exemption, and it ratified the agency's reliance on five factors-the "nature, extent, purpose, frequency, and cost of the work"—in making case-by-case applicability determinations.²²⁸ If a company wanted further guidance, all it had to do was ask EPA for an applicability determination.²²⁹ In fact, very few companies after WEPCO asked EPA for applicability determinations because they preferred to determine the applicability of NSR to particular projects on their own.²³⁰ Despite fair warning, EPA and the states argued, the minimal compliers in the industry had pressed ahead with unreasonable interpretations of the NSR rules to avoid the cost of complying with the law.²³¹

That response was supported by documents and testimony that emerged during the litigation. Long before the Seventh Circuit issued its *WEPCO* decision, the Utility Air Regulatory Group ("UARG"), an industry trade association devoted exclusively to regulatory issues, made its members aware of EPA's 1988 applicability determination regarding the WEPCO facility. A UARG memorandum advised readers that in order to qualify for the RMRR exemption, a project had to be "frequent, inexpensive, able to be accomplished at a scheduled outage, [could] not extend the normal economic life of the unit, [and] be of standard industry design."²³² At conferences sponsored by the Electric Power Research Institute ("EPRI") dating back to the mid-1980s, participants recognized that "life extension projects" would be needed to meet rising demand by plants that

bility determinations); *Senate NSR Policy Hearings, supra* note 75, at 74 (statement of Eric Schaeffer, Environmental Integrity Project) (emphasizing EPA's consistent guidance); Barcott, *supra* note 166, at 38 ("E.P.A officials issued frequent letters and bulletins telling power companies exactly where the agency was drawing the line."); Mahoney, *supra* note 226 (quoting EPA engineer Steven Barhite as stating that "[g]uidance letters and responses from EPA" were common). *But see* Domike & Zacaroli, *supra* note 221 (stating that EPA has provided "scarce, if any, guidance or input" since the NSR requirements were first promulgated).

^{228.} Wis. Elec. Power Co. v. Reilly, 893 F.2d 901, 910 (7th Cir. 1990); *Senate NSR Policy Hearings, supra* note 75, at 64 (statement of Eliot Spitzer, Att'y. Gen., New York).

^{229.} Public Health and Natural Resources: A Review of the Implementation of Our Environmental Laws—Parts I and II: Hearings Before the S. Comm. on Gov't. Affairs, 107th Cong. 61 (2002) [hereinafter Senate Public Health Hearings] (statement of Eric V. Schaeffer, Former Director, Office of Regulatory Enforcement, EPA); Senate Clean Air Act Hearings, supra note 93, at 99–100 (statement of David G. Hawkins, NRDC).

^{230.} Senate NSR Policy Hearings, supra note 75, at 607 (statement of John Walke, NRDC).

^{231.} *See* Barcott, *supra* note 166, at 38 (stating that the "cost of installing new equipment [to comply with NSR] was, of course, the reason the companies had . . . skirted the new–source review rules in the first place").

^{232.} *Senate NSR Policy Hearings, supra* note 75, at 175 (statement of Eliot Spitzer, Att'y Gen., New York) (quoting the UARG document).

exceeded their thirty-year designed lifetimes and that this required "a different approach than routine maintenance."²³³ At a 1984 EPRI workshop, participants were advised that since "[s]ome aspects of life extension projects may not be considered routine repair/maintenance/replacement," companies should identify such projects as "upgraded maintenance programs."²³⁴ They were also advised to review their accounting practices because they "play a significant role here."²³⁵

A report prepared by DOJ's Office of Legal Counsel concluded that EPA had "a reasonable argument under existing law that enforcement of the new source review provisions in these cases [did] not amount to an interpretation of the regulations that depart[ed] from a prior authoritative interpretation."²³⁶ More important, the courts were not at all receptive to the industry's notice argument.²³⁷ For example, in *United States v. Southern Indiana Gas & Electric Co.* (*SIGECO*),²³⁸ the court concluded that SIGECO could have known with "ascertainable certainty" how EPA interpreted the term "routine" in the context of life extension projects.²³⁹

2. Complexity

The industry argued that the rules were far too complex to be comprehensible.²⁴⁰ EPA had issued far too many complicated guidance documents, memos, letters and the like, some of which were inconsistent with each other.²⁴¹ Because the permitting authorities

^{233.} *Id.* at 174 (statement of Eliot Spitzer, Att'y Gen., New York) (quoting an industry document).

^{234.} Id.

^{235.} Id. at 175.

^{236.} Office of Legal Policy, dep't of Justice, New Source Review: An Analysis of the Consistency of Enforcement Actions with the Clean Air Act and Implementing Regulations, at v (2002).

^{237.} See, e.g., United States v. Cinergy Corp., 495 F. Supp. 2d 892, 908–09 (S.D. Ind. 2007); United States v. S. Ind. Gas & Elec. Co., 245 F. Supp. 2d 994, 1024 (S.D. Ind. 2003); United States v. Murphy Oil USA, Inc., 143 F. Supp. 2d 1054, 1121–22 (W.D. Wis. 2001); Steven D. Cook, *EPA to Proceed With Emissions Test Rule in Face of U.S. Supreme Court Decision*, 38 ENV'T REP. (BNA) 790 (Apr. 6, 2007) [hereinafter Cook, *EPA to Proceed*] ("'The track record for the fair notice defense is abysmal.'" (quoting testimony of John Walke, NRDC)).

^{238. 245} F. Supp. 2d 994 (S.D. Ind. 2003).

^{239.} S. Ind. Gas & Elec. Co., 245 F. Supp. 2d at 1023.

^{240.} GAO, BETTER INFORMATION, *supra* note 16, at 14; Bebe Raupe, *EPA Program Too* Complex, Unfair, Witnesses Tell Senate Field Hearing, 31 ENV'T REP. (BNA) 373 (Mar. 3, 2000).

^{241.} See Senate NSR Policy Hearings, supra note 75, at 85 (statement of Donald Elliott, Co-Chair, Environmental Practice Group, Paul, Hastings, Janofsky & Walker) ("EPA's many changing interpretations of NSR over the years have created a legal mess of baffling com-

determined whether NSR applied to projects on a case-by-case basis, it was difficult for companies to know in advance whether any of the many repair and renovation projects they undertook at their facilities would subject the affected units to NSR.²⁴²

EPA responded that the complexity of the regulations and the proliferation of guidance documents stemmed from the fact that the rules had to cover "over 20,000 diverse factories and power plants with an almost infinite number of fact patterns."²⁴³ They pointed out that the companies that were targets of the enforcement actions were not mom-and-pop companies with limited resources to spend on ascertaining the meaning of the applicable regulations. Instead, they were huge companies with a sophisticated trade association and access to high quality legal advice.²⁴⁴ To a large degree, the complexity was attributable to minimal compliers in the industry who had "lobbied EPA for exemptions, special rulings and interpretations to address perceived or real inequities or policy goals."²⁴⁵

3. RMRR Exemption

The companies argued that many of the changes at issue were covered by the "routine maintenance, repair and replacement" ("RMRR") exemption.²⁴⁶ That they might also extend the life of the plants was fortuitous.²⁴⁷ Because it was very difficult to store electricity for use in emergencies when equipment malfunctioned, it was essential for utility companies to keep all of their generating units in operating order at all times, and this required constant

plexity."); *Senate NSR Policy Hearings, supra* note 75, at 626 (statement of Joseph Bast, President, Heartland Institute on New Source Review Reform) ("Since 1980, EPA has released some 4,000 pages of 'guidance' and produced may (often conflicting) letters and several proposals for NSR revision, none of them finalized."); Mahoney, *supra* note 226 ("[T]here is a lot of unnecessary complexity caused by the existence of far too many guidance documents, memos and letters that have been produced by EPA" (quoting Dave Ouimette, Colorado Department of Public Health and the Environment)).

^{242.} Armstrong, *supra* note 194, at 205; GAO, BETTER INFORMATION, *supra* note 16, at 12–13.

^{243.} Buckheit Testimony, *supra* note 84; *see also* GAO, BETTER INFORMATION, *supra* note 16, at 13.

^{244.} Senate Public Health Hearings, supra note 229, at 35 (statement of Eric V. Schaeffer).

^{245.} Buckheit Testimony, *supra* note 84; *see also id.* (finding it "somewhat disingenuous for industry to request complicating provisions and then complain that the result is a more complex program").

^{246.} ENVTL. PROT. AGENCY, NEW SOURCE REVIEW: REPORT TO THE PRESIDENT 9 (2002) [hereinafter EPA NSR REPORT]; PARKER & BLODGETT, *supra* note 55, at 16.

^{247.} PARKER & BLODGETT, supra note 55, at 16.

maintenance.²⁴⁸ At the same time, power plants operated under conditions of extreme temperature and pressure where parts wear out at different rates and must be replaced periodically to ensure against unanticipated operational failures.²⁴⁹ If minor projects could trigger NSR, then every power plant would fall within its ambit.²⁵⁰

EPA took the position that the RMRR exemption was applicable only to minor maintenance activities engaged in on a regular basis.²⁵¹ The projects that the DOJ/EPA lawsuits had targeted, by contrast, were major projects that required very large capital expenditures and were undertaken infrequently, if ever, at the targeted plants.²⁵² They often caused the relevant units to be removed from service for periods much longer than typical maintenance shutdowns,²⁵³ and they sometimes involved years of planning in company departments that were not responsible for maintenance.²⁵⁴ In many cases, companies had redesigned the replacement component to increase capacity, regain lost capacity, or extend the lifetime of the unit.²⁵⁵

In the many cases in which the plant had never undertaken a project like the one at issue, the company typically argued that other companies had engaged in such projects on a regular basis and that the regulations required EPA to adopt an "industry-wide" approach to defining "routine."²⁵⁶ EPA was unwilling to accept the "everyone is doing it" defense. It took the position that EPA could properly look to the company's own past practices as well as industry experience in making the "routineness" determination.²⁵⁷ The district court in *SIGECO* agreed that EPA was reasonable to focus its "frequency"

^{248.} *Senate Clean Air Act Hearings, supra* note 93, at 101 (statement of William F. Tyndall, Vice President, Environmental Services & Federal Affairs, Cinergy Services, Inc.).

^{249.} Id.; EPA NSR REPORT, supra note 246, at 10.

^{250.} EPA NSR REPORT, supra note 246, at 9; Senate Clean Air Act Hearings, supra note 93, at 86 (statement of Bob Slaughter, Gen. Counsel, National Petrochemical & Refiners Association); Bebe Raupe, New Source Review Program No Block to U.S. Supply, EPA Public Hearing Told, 32 ENV'T REP. (BNA) 1357 (July 13, 2001) [hereinafter Raupe, No Block].

^{251.} Jaber, *supra* note 53, at 23.

^{252.} CONRAD SCHNEIDER, CLEAN AIR TASK FORCE, POWER TO KILL, DEATH AND DISEASE FROM POWER PLANTS CHARGED WITH VIOLATING THE CLEAN AIR ACT 8 (2001).

^{253.} Id.

^{254.} Id.

^{255.} Id.; see also Domike & Zacaroli, supra note 221 (describing EPA's position).

^{256.} Jaber, supra note 53, at 24; Steven D. Cook, Federal Court Says Industry Interpretation Can Help Determine "Routine Maintenance," 37 ENV'T REP. (BNA) 491 (Mar. 10, 2006); Najor, "New" NSR Reading, supra note 220.

^{257.} SCHNEIDER, supra note 252, at 8.

inquiry on the specific unit at issue, and not on the frequency of similar projects throughout the industry.²⁵⁸

4. Hourly Emissions

As we have seen, the emissions rate adopted by the regulations for new source performance standards (kilograms per hour) differed from the rate adopted in the NSR regulations for PSD and nonattainment areas (tons per year) because the 1977 amendments employed the latter measure in defining major stationary sources.²⁵⁹ EPA, state attorneys general, and environmental groups took the position that it was entirely appropriate to define modification differently in the two programs given the historical context.²⁶⁰ The industry argued that EPA could not interpret the word "modification" to mean one thing in the NSPS program and another in the PSD and nonattainment program.²⁶¹

The difference mattered. The RMRR regulations excluded emissions increases due exclusively to an increase in operating hours or production rate at a facility that had undergone no physical or operational change; they did not speak to increases in emissions attributable to an increase in hours of operation or production rate that resulted from a construction activity.²⁶² The Supreme Court of the United States ultimately held that the agency could find that a physical or operational change that increased hours of operation and thereby increased emissions subjected the source to NSR.²⁶³

5. Statute of Limitations

A far more successful claim for the industry was that actions based upon projects completed long ago were barred by the general five-year statute of limitations for federal enforcement actions.²⁶⁴ EPA responded that it took so long to file the lawsuits because the evidence that the sources had violated the law was hidden in industry

^{258.} United States v. S. Ind. Gas & Elec. Co., 245 F. Supp. 2d 994, 1008–09 (S.D. Ind. 2003).

^{259.} See supra text accompanying note 73.

^{260.} Envtl. Def. v. Duke Energy Corp., 549 U.S. 561, 569-70 (2007).

^{261.} Id.; Jaber, supra note 53, at 24.

^{262.} Duke Energy Corp., 549 U.S. at 579.

^{263.} Id. at 581.

^{264. 28} U.S.C. § 2462 (2006); *see also, e.g.*, United States v. EME Homer City Generation L.P., 823 F. Supp. 2d 274, 287–88 (W.D. Pa. 2011) (holding that the statute of limitations barred claims involving a project that had been completed fifteen to twenty years prior to the action).

financial files and was therefore not easily accessible to agency inspectors.²⁶⁵ Because owners were not required to notify EPA or a state permitting authority before beginning a project that might trigger the NSR requirement, the agency did not even know that the project was initiated much less whether it should have triggered NSR.²⁶⁶ The courts were not especially sympathetic to EPA's reasons for belated filings. Several courts held that the statute of limitations barred claims for civil penalties involving projects that had been completed more than five years prior to the action.²⁶⁷ The U.S. Court of Appeals for the Sixth Circuit, however, held that the violations were of a continuing nature and the statute of limitations did not begin to run until they were corrected.²⁶⁸ Since the statute of limitations refers only to monetary damages, some courts allowed claims for injunctive relief to proceed.²⁶⁹

D. Litigation End Runs

The electric utility industry also developed strategies for avoiding the DOJ/EPA lawsuits. One strategy was to strike a sweetheart settlement deal with a state agency before the federal lawsuit was filed.²⁷⁰ Soon after EPA sued Tampa Electric Company ("TECO"), for example, the company entered into a settlement agreement under which it agreed to decrease emissions over a ten-year period by converting its largest plant from coal to natural gas and using highefficiency technologies to control emissions at its other plants.²⁷¹ Although EPA and DOJ strongly objected to the Florida settlement when it was announced,²⁷² the strategy appeared to work as the federal government ultimately settled its claims against TECO on terms very

^{265.} GAO, BETTER INFORMATION, supra note 16, at 16-17.

^{266.} Id.

^{267.} See, e.g., EME Homer City Generation, 823 F. Supp. 2d at 287–88; United States v. Westvaco Corp., 144 F. Supp. 2d 439, 444 (D. Md. 2001); United States v. Am. Elec. Power Serv. Corp., 136 F. Supp. 2d 808, 811 (S.D. Ohio 2001); see generally Thaddeus R. Lightfoot, Sand Through the Hourglass: PSD Enforcement and the Statute of Limitations, 32 ENVTL. L. REP. (Envtl. Law Inst.) 11342 (2002) (providing a detailed overview of different factors that affect whether statute of limitations bars claims relating to PSD violations).

^{268.} Nat'l Parks Conservation Ass'n., Inc. v. Tenn. Valley Auth., 480 F.3d 410, 418–19 (6th Cir. 2007).

^{269.} See, e.g., Westvaco Corp., 144 F. Supp. 2d at 445; Am. Elec. Power Serv. Corp., 136 F. Supp. 2d at 814; see also Lightfoot, supra note 267.

^{270.} Eder & Juni, *supra* note 194, at 59.

^{271.} Id.; EPA Official Bashes Tampa Electric NOx Plan, MEGAWATT DAILY, Dec. 9, 1999.

^{272.} EPA Official Bashes Tampa Electric NOx Plan, supra note 271; Justice Dept. Slams TECO Settlement with Florida, 4 MEGAWATT DAILY, Dec. 15, 1999.

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similar to the Florida arrangement except for the addition of a \$3.5 million fine and specific milestones over the ten-year period.²⁷³

Utility industry lobbyists also sought to undermine EPA's enforcement initiative by persuading sympathetic members of Congress to attach a rider to a pending appropriations bill during the waning days of the 106th Congress to allow companies to continue their past optimization and life extension practices while the litigation was pending.²⁷⁴ In a November 10, 1999 letter to several of its allies, the Edison Electric Institute and several other industry organizations warned that the enforcement action had "effectively paralyzed the electric utility industry's repair and maintenance programs" with potentially "severe implications for supply reliability in the near future."²⁷⁵ The move failed, however, when the chairman of the House Appropriations Committee objected that it was another one of the special interest riders that he had been struggling to keep out of the bill.²⁷⁶

E. Preparing New Cases

The EPA/DOJ enforcement initiative continued unabated for the remainder of the Clinton administration. Predicting that a George W. Bush administration would rein in EPA enforcement, the head of regulatory enforcement at EPA pushed his staff to build as many case files as possible for referral to DOJ.²⁷⁷ Working fourteenhour days, the staff referred violations at twelve more power plants owned by the original defendants to DOJ for prosecution.²⁷⁸ In addition, EPA investigators sent demands for information to twentyfive to thirty companies that were not included in the original lawsuits.²⁷⁹

^{273.} Eder & Juni, *supra* note 194, at 59; *EPA Files More Charges Against Utilities*, GENERATION WK., Mar. 8, 2000.

^{274.} Atmospheric Pollution; EPA Bares Its Teeth at Polluters with Legal Action, POWER ECON., Jan. 31, 2000, at 17; Utilities Want Protection from Suits, GENERATION WK., Nov. 17, 1999.

^{275.} Utilities Want Protection From Suits, supra note 274.

^{276.} Barcott, supra note 166.

^{277.} Peyton Sturges, *DOJ, EPA Officials Detail Priorities, Future Initiatives at ABA Conference,* 31 ENV'T REP. (BNA) 497 (Mar. 17, 2000); Samantha Levine, *At the Top of His Lungs,* U.S. NEWS & WORLD REP., Dec. 2, 2002, at 28.

^{278.} Levine, supra note 277; EPA Files More Charges Against Utilities, supra note 273.

^{279.} EPA Targeting More Coal Plants, Attorney Charges, PLATTS ENERGY REP., Nov. 6, 2000.

F. Settlements

Many of the defendants were anxious to settle the cases on terms quite favorable to the government.²⁸⁰ By the end of the Clinton administration, EPA had reached settlement agreements with owners of one-third of the country's refining capacity in which they agreed to pay hundreds of millions of dollars in penalties and to install modern pollution-control technologies.²⁸¹ Electric utility companies were more inclined to force EPA to prove that they had violated the NSR regulations at trial.²⁸² By the end of the Clinton administration, EPA had reached only one settlement with a major utility company.²⁸³ The government reached agreements in principal with Cinergy Corp. and Dominion Corp., under which Cinergy agreed to spend \$1.4 billion and Dominion agreed to spend \$2.3 billion for pollution-reduction upgrades and both companies agreed to pay a total of almost \$69 million in civil penalties and supplemental environmental projects.²⁸⁴ Neither agreement was finalized, however, before the Bush administration radically changed the direction of EPA's policies regarding NSR.

V. THE GEORGE W. BUSH ADMINISTRATION REWRITES THE RULES

At the outset of the George W. Bush administration, it appeared that the comfortable unregulated world that grandfathered power plants inhabited was about to undergo dramatic change as DOJ and EPA pressed forward with their aggressive deterrence-based enforcement agenda. The agencies had sued thirty-four power plants, entered into one major settlement, and were on the verge of settling two other actions.²⁸⁵ Many of the original defendants were in serious settlement negotiations, and EPA was in similar negotiations with sixty facilities that had already received notices of violation but had not yet

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^{280.} Nash & Revesz, supra note 22, at 1694-95.

^{281.} Senate NSR Policy Hearings, supra note 75, at 98 (statement of Thomas L. Sansonetti, Assistant Att'y Gen., Environment & Natural Resources Division, DOJ); Levine, *supra* note 277; Nash & Revesz, *supra* note 22, at 1694–95.

^{282.} Jaber, *supra* note 53, at 25.

^{283.} Id.; Pamela Najor, EPA Settles with One of Seven Utilities Sued for New Source Review Violations, 31 ENV'T REP. (BNA) 374 (Mar. 3, 2000).

^{284.} Brian Broderick, Enforcement: Ohio-Based Utility to Reduce Emissions at 10 Coal-Fired Plants in Air Act Settlement, 32 ENV'T REP. (BNA) 10 (Jan. 5, 2001); Cinergy to Settle on Air Pollution Charges, GENERATION WK., Dec. 27, 2000; Dominion Settles EPA, N.Y. Emissions Inquiries, GENERATION WK., Nov. 22, 2000.

^{285.} NSR BACKGROUND PAPER, *supra* note 25, at 10 (settlements); Perez-Pena, *supra* note 200 (lawsuits).

been sued.²⁸⁶ At the same time, EPA was busily investigating more than 100 facilities for potential NSR violations.²⁸⁷

Yet, just as the litigation was on the verge of bringing about major upgrades at grandfathered plants, the George W. Bush administration launched major legislative and administrative initiatives to change the rules in ways that would ensure that aging power plants could continue to emit pollutants at the same rates that they were emitting in the 1970s.²⁸⁸ The message that the litigation defendants received was that they should prolong their lawsuits until the Bush administration or Congress put less restrictive requirements in place, and then ask the judge to dismiss the cases on the ground that the agency no longer adhered to its former interpretation of the rules. Not surprisingly, many public utility companies adopted a strategy of resistance and delay that put off the day of reckoning for many years.

During the 2000 presidential campaign, George W. Bush projected the image of a pro-business conservative with a rather benign view of the environment.²⁸⁹ His running mate, Dick Cheney, by contrast, had no use for environmentalists and was disinclined to compromise with people who did not share his views about the need to dramatically expand the nation's energy resources.²⁹⁰ When the Supreme Court declared the Bush/Cheney ticket to be the winners of the closely contested election, the electric utility and coal industries were pleased.²⁹¹ President Bush appointed New Jersey governor Christie Todd Whitman, a pro-business Republican moderate who had been an outspoken proponent of the NSR lawsuits, to be Administrator of EPA.²⁹² He appointed Jeffrey Holmstead, a lawyer/lobbyist for an electric utility trade group, to be the Assistant Administrator for Air and Radiation.²⁹³ As it turned out, however, the locus of power on environmental issues in the Bush administration was in the Office of the Vice President.²⁹⁴

^{286.} John J. Fialka and David S. Cloud, *White House Review Freezes EPA Inquiry*, WALL ST. J., June 28, 2001, at A3; Perez-Pena, *supra* note 200.

^{287.} Perez-Pena, *supra* note 200.

^{288.} Nash & Revesz, *supra* note 22, at 1678; Barcott, *supra* note 166, at 38.

^{289.} See Margaret Kriz, Power Struggle, 33 NAT'L J. 942 (Mar. 31, 2001) (observing that "Bush sought to appeal to voters on opposite sides of environmental issues").

^{290.} BARTON GELLMAN, ANGLER: THE CHENEY VICE PRESIDENCY, at ch.4 (2008).

^{291.} Bush v. Gore, 531 U.S. 98 (2000); Barcott, supra note 166, at 38.

^{292.} Barcott, supra note 166; Goodell, supra note 219, at 31.

^{293.} Barcott, supra note 166; John Judis, King Coal, AM. PROSPECT, Dec. 5, 2002.

^{294.} GELLMAN, supra note 290, at ch.4.

A. Industry Demands Relief

Well aware of the fact that many NSR enforcement lawsuits had been filed during the last two years of the Clinton administration and that many more cases were in the queue,²⁹⁵ industry groups that had contributed heavily to the Bush presidential campaign began to exert pressure at the highest levels.²⁹⁶ The industries affected by NSR spent millions of dollars on a massive lobbying campaign headed by former Republican National Committee Chairman Haley Barbour and former Montana governor Marc Racicot.²⁹⁷ The president of the Edison Electric Institute, a college classmate of the president who had raised hundreds of thousands of dollars for his campaign, met three times with Deputy Energy Secretary Francis S. Blake to press the On the enforcement front, the stakeholder industry's case.²⁹⁸ negotiations over NSR reforms that had been going on since the WEPCO decision were suddenly terminated by the industry participants who concluded that they could get a better deal by appealing directly to the White House.²

Though vastly outgunned, environmental groups did what they could to keep the enforcement initiative alive. The threat that rolling back the NSR regulations would pose to the ongoing litigation was a dominant theme in environmental group opposition to all of EPA's NSR rulemaking initiatives.³⁰⁰ They attempted to seize the offensive with a major publicity campaign, replete with media events, advertising and internet organizing, to force the Southern Company, one of the country's largest emitters of SO₂ and NOx and a target of EPA's enforcement initiative, to close some of its ancient coal-fired power plants and to reduce emissions dramatically from the others.³⁰¹

300. See, e.g., Raupe, No Block, supra note 250.

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^{295.} See supra text accompanying notes 207-210.

^{296.} See Barcott, supra note 166 (campaign contributions); Kriz, supra note 289 (lobbying); Douglas Jehl, Push for Oil Prompts Review of Pollution Law, N.Y. TIMES, May 19, 2001, at A1 (lobbying by energy giant ExxonMobil); Pamela Najor, Business RoundTable Proposes "Blueprint" to Protect Environment by Using Technology, 32 ENV'T REP. (BNA) 319 (Feb. 16, 2001) (lobbying); Eric Pianin & Dan Morgan, EPA Will Ease Coal Plant Rules; Incentives to Replace Pollution Lawsuits, WASH. POST, Mar. 18, 2002, at A1.

^{297.} Barcott, supra note 166; Shogren, Decision Near, supra note 90.

^{298.} Pianin & Morgan, supra note 296.

^{299.} Senate NSR Policy Hearings, supra note 75, at 91 (statement of John Walke, NRDC).

^{301.} Steve Cook, Emissions from Southern Electric Utility Target of Campaign by Environmental Groups, 32 ENV'T REP. (BNA) 636 (Apr. 6, 2001).

B. The Cheney Task Force Report

The Bush administration was quite receptive to the industry overtures. Nine days after the inauguration, President Bush asked Vice President Cheney to chair a task force of high-level government officials to recommend a national energy policy.³⁰² During the task force's deliberations, an aide to Secretary of Energy Spencer Abraham sent an email to energy company executives asking what they would do to meet the nation's energy needs if they were "King, or Il Duce."³⁰³ Several of the respondents put NSR reform at or near the top of their lists.³⁰⁴ The executives promised that halting the lawsuits would increase electricity generation more quickly than any other suggestion on the task force's agenda.³⁰⁵ Senators John Breaux (D-Louisiana) and James Inhofe (R-Oklahoma) wrote to Cheney to urge him to suspend the ongoing lawsuits pending a full investigation of EPA's NSR policies and their impact on electricity and fuel supplies.³⁰⁶

Although EPA Administrator Christie Todd Whitman was a member of the task force, EPA officials did not have the same degree of access to the task force's behind-the-scenes deliberations as some of the other participants. When Associate Administrator Tom Gibson attempted to correct inaccurate language and erroneous assumptions in a draft of the report, his input was ignored.³⁰⁷ Two weeks before the task force's report was published, Whitman wrote a memorandum to Cheney noting that the real issue for the industry was the enforcement cases, and warning that the ongoing settlement negotiations with the defendants in those cases would "likely slow down or stop."³⁰⁸ She advised Cheney that the administration would "pay a terrible political price if [it] undercut or walk[ed] away from" the enforcement cases.³⁰⁹ Whitman's overtures, however, were no

^{302.} NAT'L ENERGY POLICY DEV. GRP., NATIONAL ENERGY POLICY REPORT: RELIABLE, AFFORDABLE, AND ENVIRONMENTALLY SOUND ENERGY FOR AMERICA'S FUTURE (2001) [hereinafter NEPDG ENERGY POLICY REPORT].

^{303.} Barcott, supra note 166.

^{304.} Id.

^{305.} Bush Administration Conflicted Where EPA Lawsuits Concerned, U.S. COAL REV., May 14, 2001.

^{306.} Jehl, supra note 296; Pamela Najor, Inhofe, Breaux Ask Bush Administration to Suspend New Source Review Enforcement, 32 ENV'T REP. (BNA) 583 (Mar. 30, 2001) [hereinafter Najor, Suspend NSR Enforcement].

^{307.} Barcott, supra note 166.

^{308.} Steve Cook, Whitman Warned Administration in 2001 Against Attack on Plant Modification Rules, 34 ENV'T REP. (BNA) 2277 (Oct. 17, 2003) [hereinafter Cook, Whitman Warned].

^{309.} Christopher Drew & Richard A. Oppel, Jr., *How Power Lobby Won Battle of Pollution Control at E.P.A.*, N.Y. TIMES, Mar. 6, 2004, at A1 (quoting Whitman memo).

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match for a "parade of industry groups—including the CEOs of major electric utilities" that met with Cheney and other members of the task force to complain about the lawsuits.³¹⁰

The task force's report, published in May 2001, projected the energy industry's message that environmental regulations had unduly constrained the nation's ability to modernize its energy infrastructure.³¹¹ The report recommended that the president direct EPA, in consultation with DOE and other agencies, to "review [NSR] regulations, including administrative interpretation and implementation, and report to the President within 90 days on the impact of the regulations on investment in new utility and refinery efficiency, generation capacity, energy and environmental protection."³¹² It also recommended that the president direct DOJ "to review existing enforcement actions regarding NSR to ensure that the enforcement actions are consistent with the Clean Air Act and its regulations."³¹³ On the legislative front, the task force recommended that the president direct EPA to propose "multi-pollutant legislation" that would "establish a flexible, market-based program to significantly reduce and cap emissions of sulfur dioxide, nitrogen oxides, and mercury from electric power generators."³¹⁴

^{310.} Michael Isikoff, *A Plot to Foil the Greens*, NEWSWEEK, June 4, 2001, at 36; *see also* Drew & Oppel, *supra* note 309 (describing the meetings and EPA's warnings).

^{311.} NEPDG ENERGY POLICY REPORT, *supra* note 302, at xii; *see also* Goodell, *supra* note 219 ("[I]t was clear that Big Coal's message had been heard.").

^{312.} NEPDG ENERGY POLICY REPORT, *supra* note 302, at app.1.

^{313.} Id.

^{314.} Id. The National Coal Council, an industry-dominated advisory committee assembled by the Secretary of Energy to advise him on various coal-related issues, issued another influential report the same month. NAT'L COAL COUNCIL, INCREASING ELECTRICITY AVAILABILITY FROM COAL-FIRED GENERATION IN THE NEAR TERM 1 (May 2001); see also Steve Cook, Federal Coal Panel Calls for Loosening Clean Air Act Requirements for Power Plants, 32 ENV'T REP. (BNA) 856 (May 4, 2001) (reporting on the National Coal Council's recommendations); Goodell, supra note 219 ("[C]ritics claim [the National Coal Council] is stacked with coal-industry representatives "); CONRAD SCHNEIDER, CLEAN AIR TASK FORCE, SCRAPING THE "BOTTOM OF THE BARREL" FOR POWER 1 (2001) ("[A] review of the membership of the Coal Council makes clear that it is dominated by pro-coal interests."). The report concluded that the industry's potential to add an additional 40,000 megawatts of electrical power production could only be realized if there was "a significant change in regulatory interpretation and enforcement regarding the installation of new technologies at existing power plants." NAT'L COAL COUNCIL, supra, at 3. The report claimed that EPA's recent changes in enforcement procedure, which consisted of "reinterpreting as violations of the Clean Air Act what had heretofore been considered routine maintenance at power plants," had had a "direct and chilling effect on all maintenance and efficiency improvements and clean coal technology installations at existing power plants." Id. A subsequent investigation revealed that the principle author of the report was an attorney who was defending two companies in the EPA/DOJ litigation and that it was rushed into draft form in order to be useful to the Vice President's Energy Task Force. Steve Cook, *Refining*

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The industry response to the task force report was quite positive. A spokesperson for EEI said that it was "very encouraged the new source review program is receiving considerable attention from the administration and the energy task force."³¹⁵ Asked about the report's impact on the pending settlement negotiations in the NSR cases, he expressed the view that "it would make sense for them to wait and see what direction the review takes."³¹⁶ Environmental groups were shocked by the recommendation to DOJ and charged that the Bush administration was inserting politics into the law enforcement process by sending a thinly veiled message to the defendants in the litigation not to settle with the government.³¹⁷ Environmental groups and state attorneys general made it clear that they would continue to pursue their citizen enforcement actions if the government backed out of the litigation.³¹⁸

Both EPA and DOJ put into place an immediate freeze on new NSR enforcement actions pending the completion of the 90-day review by EPA of its NSR policies and DOJ's review of the pending litigation.³¹⁹ EPA even sent a letter to recipients of its demands for information instructing them to put the demands on hold.³²⁰ Secretary of Energy Spencer Abraham took the position that DOJ should abruptly drop at least some of the lawsuits, but Whitman strongly supported moving ahead with the suits that had already been filed so as not to send a message to all EPA regulatees that they could violate the environmental laws with impunity.³²¹ Not surprisingly, the companies participating in the settlement negotiations were not nearly as eager to agree to expensive upgrades while EPA and DOJ were seriously re-evaluating the bona fides of the original lawsuits.³²² With the announcement of the reviews, sales of pollution control devices declined sharply because companies were not inclined to

[&]quot;Routine Maintenance" Definition Considered in Program Reform, Official Says, 32 ENV'T REP. (BNA) 2193 (Nov. 16, 2001) (citing John Walke, NRDC); Isikoff, *supra* note 310.

^{315.} Steve Cook, White House Plan Offers Possible Relief to Power Companies in Pollution Lawsuits, 32 ENV'T REP. (BNA) 950 (May 18, 2001) [hereinafter Cook, White House Plan]. 316. Id.

^{317.} Id. (citing John Coequyt, Environmental Working Group, and John Walke, NRDC).

^{318.} Steve Cook, Utility, Refinery Lawsuits Going Ahead Despite Bush-Mandated Policy Review, 32 ENV'T REP. (BNA) 1794 (Sept. 14, 2001) [hereinafter Cook, Lawsuits Going Ahead] (states); Cook, White House Plan, supra note 315 (environmental groups).

^{319.} Fialka & Cloud, supra note 287.

^{320.} Letter from James Inhofe and Arlen Specter to Christine Todd Whitman (June 20, 2001) [hereinafter Letter], *reprinted in Senate NSR Policy Hearings, supra* note 75, at 22.

^{321.} Perez-Pena, supra note 200, at A1.

^{322.} Shogren, Decision Near, supra note 90 (citing Connecticut Att'y Gen. Blumenthal).

spend a lot of money on technologies that might not be required by the new administration. $^{\scriptscriptstyle 323}$

As the Justice Department's internal investigation of the NSR cases proceeded apace in the Office of Legal Counsel, attorneys in the Environment and Natural Resources Division quietly pressed ahead with the discovery, expert preparation, and motions practice in the existing cases.³²⁴ The Justice Department's 90-day report, published on January 16, 2002, concluded that EPA's interpretation of its NSR regulations and its position in the ongoing litigation were "reasonable."³²⁵ In particular, EPA's position that it had not departed from its previous interpretations of the regulations was reasonable, the report concluded.³²⁶ Since the ongoing enforcement actions were "supported by a reasonable basis in law and fact, any decision to withdraw, terminate, or otherwise circumscribe them would constitute policy determinations ... that properly rest[ed] with EPA."327 Industry representatives disagreed with the DOJ conclusion, but they noted that the administration could adopt a different policy in the future, and, in their view, it should do just that.³²⁸

Attorney General John Ashcroft told the press that DOJ would continue to pursue the litigation that had already been filed until and unless EPA changed either its enforcement policy or the regulations.³²⁹ For the next several months, DOJ pursued the lawsuits quite vigorously. In January, it entered into a proposed settlement agreement with PSEG Fossil in which the New Jersey utility company agreed to spend \$337 million over a ten-year period on scrubbers and selective catalytic reduction technologies capable of reducing SO₂ emissions by ninety percent and NOx emissions by eighty percent at its plants in Jersey City and Hamilton Township.³³⁰ The company also agreed to pay \$1.4 million in civil penalties and spend \$6 million on supplemental environmental projects.³³¹

331. Id.

^{323.} Id.

^{324.} Cook, Lawsuits Going Ahead, supra note 318.

^{325.} Steve Cook, DOJ Announces New Source Review Cases May Proceed, Asserting Law Supports Them, 33 ENV'T REP. (BNA) 117 (Jan. 18, 2002) [hereinafter Cook, Cases May Proceed]; Christopher Marquis, E.P.A. Power Plant Cases to Proceed, Ashcroft Says, N.Y. TIMES, Jan. 16, 2002, at A12.

^{326.} Cook, Cases May Proceed, supra note 325, at 117; Justice Backs EPA on New Sources . . . Sort of, ELEC. DAILY, Jan. 22, 2002.

^{327.} Cook, Cases May Proceed, supra note 325.

^{328.} Id.

^{329.} Marquis, supra note 325.

^{330.} Steve Cook, New Jersey Electric Utility Will Spend \$337 Million for Controls at Power Plants, 33 ENV'T REP. (BNA) 222 (Feb. 1, 2002).

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The NSR enforcement initiative suffered a major blow in February 2002 when Eric Schaeffer, the Director of the Office of Regulatory Enforcement, resigned.³³² In a letter that was widely reported in the press, Schaeffer complained that the NSR reforms that were emerging from the negotiations between EPA, the White House and the Department of Energy would completely undermine his office's attempts to enforce the existing regulations.³³³ Indeed, the prolonged debate was itself affecting the settlement negotiations.³³⁴ He complained that the agency was about to "snatch defeat from the jaws of victory" in its ongoing enforcement efforts as reports of the agency's largely unsuccessful battles with "a White House that seems determined to weaken the rules we are trying to enforce" caused defendants in existing enforcement actions to walk away from settlement negotiations.³³⁵

The government's enforcement efforts suffered another blow when Administrator Whitman testified on March 7, 2002 before the Senate Committee on Governmental Affairs that NSR review was "a program that needs to be fixed."336 She also complained that the agency spent "an awful lot of money" on legal fees "that could go to enhancing the environment."³³⁷ But she promised that the Bush administration was "not going to undermine the Clean Air Act," and it was not going to "stop enforcing the environmental laws."³³⁸ Nevertheless, she conceded that if she were a plaintiff's attorney, she would "not settle anything until I knew what happened" in the lawsuit against TVA,³³⁹ which at that time was pending in the Sixth Circuit. That concession, which was widely reported in the press,³⁴⁰ generated much criticism for sending a message to defendants in the NSR should abandon litigation that they ongoing settlement

^{332.} Manimoli Dinesh, Frustrated EPA Official Quits over Reforms, OIL DAILY, Feb. 28, 2002.

^{333.} Kenneth W. Betz, *Energy and Environmental Interests Collide over New Source Review*, ENERGY USER NEWS, Apr. 1, 2002, at 1; Levine, *supra* note 277.

^{334.} Betz, *supra* note 333.

^{335.} Dinesh, *supra* note 332; *see also* Letter, *supra* note 320 (describing EPA's largely unsuccessful battles with the White House).

^{336.} Senate Public Health Hearings, supra note 229, at 18 (statement of Christine Todd Whitman, Administrator, EPA).

^{337.} Id. at 30.

^{338.} Id. at 18.

^{339.} Id. at 30.

^{340.} See, e.g., Katharine Q. Seelye, E.P.A. Chief Says Pollution Suits Will Probably Stay Unsettled Until Related Case Is Decided, N.Y. TIMES, Mar. 8, 2002, at A17.

negotiations.³⁴¹ A prominent utility company lawyer allowed that it should not "shock anybody that a good lawyer would want to see how" the TVA lawsuit was resolved.³⁴²

C. Changes to the NSR Regulations

EPA's 90-day report, which finally came out in June 2002, concluded that "the NSR program ha[d] not significantly impeded investment in new power plants,"³⁴³ but it had "impeded or resulted in the cancellation of projects which would maintain and improve reliability, efficiency and safety of existing energy capacity."³⁴⁴ This, in turn, had "result[ed] in lost capacity, as well as lost opportunities to improve energy efficiency and reduce air pollution."³⁴⁵ A large volume of anecdotal evidence suggested that "concern about the scope of the routine maintenance exclusion" was having an "adverse impact on projects that affect availability, reliability, efficiency, and safety."346 This was exactly what the industry had been arguing ever since EPA launched the NSR enforcement initiative in 1999. Overall, the report concluded that the NSR program had significant but difficult to quantify environmental and public health benefits,³⁴⁷ but those benefits could be achieved "much more efficiently and at much lower cost" if Congress enacted the administration's proposed "Clear Skies" cap-and-trade legislation.³⁴⁸ Pending legislative reform, the agency would implement changes to the existing NSR program to "add to the clarity and certainty of the scope of the routine maintenance exclusion."349

Simultaneously with the release of the report, EPA Administrator Whitman announced two major rulemaking initiatives related to NSR. The first action would be to revive and finalize the NSR Simplification Rule.³⁵⁰ The second initiative, called the "Safe Harbor" Rule, would greatly expand the RMRR exemption by providing a safe harbor for any changes for which the capital expenditure did not exceed a

^{341.} Id. (citing Sen. Joseph Lieberman and John Stanton, National Environmental Trust).

^{342.} Id. (quoting Scott Segal, attorney, Bracewell & Guiliani).

^{343.} EPA NSR REPORT, supra note 246, at 1.

^{344.} Id.

^{345.} Id.

^{346.} Id. at 11.

^{347.} Id. at 1. 2.

^{348.} Id. at 2.

^{349.} Id. at 11.

^{350.} Steve Cook, Long-Awaited Administration Reforms Seek Relaxed Requirements for Power Plants, 33 ENV'T REP. (BNA) 1309 (June 14, 2002) [hereinafter Cook, Relaxed Requirements].

specified threshold, whether or not the change resulted in an increase in emissions.³⁵¹ The agency was considering cost thresholds in the range of 1.5% through 15% of the asset value of the changed unit.³⁵²

The Office of Enforcement and Compliance Assurance staff urged the OAR staff to draft the rules with enforcement in mind, and Office of Air and Radiation changed the NSR Simplification Rule slightly to meet their concerns.³⁵³ OECA's more serious concerns, however, were with the Safe Harbor Rule.³⁵⁴ Noting that nearly all of the cases in the ongoing NSR litigation raised issues under the RMRR regulations, OECA attorneys were concerned that a regulation providing a bright-line threshold would undermine their argument that the RMRR exemption had to be applied on a case-by-case basis based on factors highlighted in WEPCO.³⁵⁵ It would also limit their selection of remedies, because a judge was unlikely to require a source to install expensive pollution controls to remedy violations of rules that were no longer in effect.³⁵⁶ OECA warned that a threshold any greater than 1% to 2% of the unit's cost would mean that 95% to 98% of modifications challenged in the ongoing litigation would come within the Safe Harbor Rule.³⁵⁷

The final NSR Simplification Rule³⁵⁸ that the agency published on December 31, 2002 had five major components. First, in determining "baseline" emissions, sources were allowed to use any consecutive two-year period from the previous ten years,³⁵⁹ rather than the two-year period immediately preceding the change. Second, the rule prescribed an "actual-to-future-actual" test for all sources that was

^{351.} Id.

^{352.} Id.

^{353.} GAO, NEW SOURCE REVIEW REVISIONS, *supra* note 178, at 15–16.

^{354.} *See id.* at 17 (noting that "EPA enforcement staff expressed concern that more explicitly defining what facility changes qualify for the routine maintenance exclusion [the Safe Harbor Rule] . . . had the most potential to negatively affect" ongoing NSR litigation).

^{355.} Id. at 17; see also supra text accompanying note 228 (describing the WEPCO factors).

^{356.} GAO, NEW SOURCE REVIEW REVISIONS, *supra* note 178, at 17.

^{357.} Id. at 17–18.

^{358.} Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR): Baseline Emissions Determination, Actual-to-Future-Actual Methodology, Plantwide Applicability Limitations, Clean Units, Pollution Control Projects, 67 Fed. Reg. 80,186 (Dec. 31, 2002) [hereinafter NSR Simplification Rule] (codified at 40 C.F.R. §§ 51, 52).

^{359.} *Id.* at 80,189. Interestingly, the rule left in place the WEPCO Rule, which limited power plants to the five years preceding the change. *Id.*; Nash & Revesz, *supra* note 22, at 1698 n.119.

virtually identical to the test that the WEPCO Rule had adopted for power plants.³⁶⁰ The agency did not eliminate the demand growth discount in calculating future actual emissions as it had proposed in 1998.³⁶¹ As a practical matter, the operator's ability to pick and choose baseline years and to make optimistic projections of future demand growth greatly reduced the universe of changes that would be subject to NSR.³⁶²

Third, the rule allowed sources to establish plantwide applicability limits ("PALs") that allowed them to avoid NSR so long as any changes to equipment within a plant that increased actual emissions were accompanied by other changes that brought about offsetting decreases in actual emissions within the same plant.³⁶³ The PAL could be determined on the basis of any consecutive two-year period in the previous ten years.³⁶⁴ Since the PAL was renewable for another ten years if the source was emitting at eighty percent of its PAL or higher,³⁶⁵ the new rule effectively rewarded sources that did little to reduce emissions. Fourth, the rule provided a shield from NSR for "Clean Units" that had already undergone NSR and were therefore subject to BACT or LAER.³⁶⁶ The rule went a step further, however, to allow units that had not undergone NSR to qualify as a clean unit if they had installed emissions control technology comparable to BACT or LAER technology within the previous ten years.³⁶⁷ Fifth, the rule created a new list of environmentally beneficial technologies that qualified as pollution control projects and were therefore exempt from NSR.³⁶⁸

The rule allowed the source to conclude that NSR was inapplicable to a project if there was not a "reasonable possibility" that the change would trigger NSR, but the rule did not specify how the source would go about making that determination.³⁶⁹ Nor did the rule require companies to keep records supporting that

^{360.} NSR Simplification Rule, *supra* note 358, at 80,198; John Boyd, Note, *The* New *New Source Review: Teaching Old Sources New Tricks*? 11 SE. ENVTL. L.J. 401, 411–12 (2003).

^{361.} Nash & Revesz, supra note 22, at 1698 n.123.

^{362.} *Id.* at 1699; Boyd, *supra* note 360, at 411. Therefore, according to GAO, "under the rule, some estimates of expected emissions most likely w[ould] be smaller than in the past. GAO, NEW SOURCE REVIEW REVISIONS, *supra* note 178, at 24.

^{363.} NSR Simplification Rule, *supra* note 358, at 80,189; Boyd, *supra* note 360, at 413.

^{364.} NSR Simplification Rule, *supra* note 358, at 80,208.

^{365.} Id. at 80,209–10; Nash & Revesz, supra note 22, at 1700.

^{366.} NSR Simplification Rule, *supra* note 358, at 80,189; Boyd, *supra* note 360, at 414.

^{367.} NSR Simplification Rule, *supra* note 358, at 80,190

^{368.} Id.

^{369.} GAO, NEW SOURCE REVIEW REVISIONS, *supra* note 178, at 21.

determination.³⁷⁰ Many state and local air pollution control agencies were concerned that this "self-policing" aspect of the rule would make enforcement very difficult.³⁷¹ Nine northeastern states and several environmental groups challenged the rule in the D.C. Circuit.³⁷² In June 2005, the court upheld all but a few relatively minor aspects of the rule.³⁷³

On the last day of 2002, EPA published its safe-harbor proposal.³⁷⁴ The agency proposed two approaches to defining a bright-line test for inclusion of a project within the RMRR exemption. Under the first approach, a project would fall within the RMRR exemption if its total costs did not exceed an annual maintenance, repair and replacement allowance (expressed as a prescribed percentage of the unit's replacement cost), even if it resulted in an increase in emissions.³⁷⁵ If the project exceeded the allowance, it could still come within the RMRR exemption under the five-factor *WEPCO* test.³⁷⁶ Under the second approach, a project designed to replace existing equipment with equipment that served the same function and did not alter the unit's basic design would come within the RMRR exemption if its cost did not exceed a specified cost threshold (expressed as a percentage of the fixed capital cost of rebuilding a comparable new unit), even if it resulted in an increase in emissions.³⁷⁷

The proposal encountered a storm cloud of opposition from environmental groups, state air control agencies, and attorneys general from downwind states.³⁷⁸ Thousands of modifications that were clearly covered by the statute would be exempted, they argued, and ancient facilities would escape NSR in perpetuity.³⁷⁹ Many of the

^{370.} *Id.* at 25.

^{371.} Id.

^{372.} Boyd, supra note 360, at 401; Steve Cook, EPA Issues Changes to Enforcement Program; Nine States File Lawsuit to Block Final Rule, 34 ENV'T REP. (BNA) 5 (Jan. 3, 2003).

^{373.} New York v. EPA, 413 F.3d 3, 10–11 (D.C. Cir. 2005); see also John H. Stam, Court Mostly Upholds Rule Issued in 2002 Revising Provisions on Plant Modifications, 36 ENV'T REP. (BNA) 1337 (July 1, 2005).

^{374.} Prevention of Significant Deterioration (PSD) and Non-attainment New Source Review (NSR): Routine Maintenance, Repair and Replacement, 67 Fed. Reg. 80,290, 80,290 (Dec. 31, 2002) (codified at 40 C.F.R. §§ 51, 52).

^{375.} Id. at 80,294.

^{376.} Id. at 80,293-94.

^{377.} Id. at 80,295-96, 80,301.

^{378.} See, e.g., Senate NSR Policy Hearings, supra note 75, at 604 (statement of John Walke, NRDC) (characterizing the Safe Harbor Rule as "the most sweeping and aggressive attack that the Clean Air Act has faced in its thirty-year history"); Cook, *Relaxed Requirements, supra* note 350 (citing John Walke, NRDC).

^{379.} Nash & Revesz, *supra* note 22, at 1703–04.

positions that the agency was taking in the proposal directly repudiated the positions that the agency was taking in the NSR litigation.³⁸⁰ They were confident that "wily and sophisticated" industry lawyers would "read the writing on the wall" and either delay or terminate the ongoing settlement negotiations in the NSR litigation.³⁸¹ It was "a shame to see the administration directly undercutting career prosecutors at the Department of Justice, who have a very strong case proving a pattern of violation industry-wide."³⁸²

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The electric utility industry supported the proposed revisions as a "critical first step" toward NSR reform.³⁸³ They agreed with the agency that the rules would "create certainty and remove complexity and delay."³⁸⁴ Indeed, they claimed, the rule would benefit the environment by allowing sources to proceed ahead with pollution control and efficiency-enhancing projects more expeditiously.³⁸⁵ They criticized the agency for not making the rule immediately effective so as to provide defendants in the NSR enforcement actions with a strong argument that their lawsuits should be dismissed.³⁸⁶

The final rule that EPA published on October 27, 2003 allowed companies to replace components of a process unit with

identical components or their functional equivalents..., provided the cost of replacing the component [fell] below 20 percent of the replacement value of the process unit..., the replacement d[id] not change the unit's basic design parameters, and the unit continue[d] to meet enforceable

^{380.} Cook, Relaxed Requirements, supra note 350 (citing John Walke, NRDC).

^{381.} Pamela Najor, EPA Reform Proposal to Trigger Lawsuits, New York Official, Environmental Groups Say, 33 ENV'T REP. (BNA) 1311 (June 14, 2002).

^{382.} Id. (quoting David Wooley, Clean Air Task Force).

^{383.} Kenneth W. Betz, New Source Review Revisions Fail to Satisfy, ENERGY USER NEWS, Jan. 1, 2003, at 1; see also Steve Cook, Comments on Plant Modification Rules Sharply Disagree on Environmental Impacts, 34 ENV'T REP. (BNA) 2006 (Sept. 12, 2003) [hereinafter Cook, Comments] ("'[The rule] finally produced much-needed NSR reforms." (quoting the National Association of Manufacturers)); Gerald B. Silverman, New York Officials Lead Opposition; Power Firms Say Rule Will "Create Certainty," 34 ENV'T REP. (BNA) 774 (Apr. 4, 2003).

^{384.} Silverman, *supra* note 383; *see also Senate NSR Policy Hearings, supra* note 75, at 619 (statement of Donald Elliott, Paul, Hastings, Janofsky & Walker) (supporting the new NSR rules but lamenting that they did not go far enough to clear the "[m]assive uncertainty" created by "EPA's misguided NSR enforcement").

^{385.} Cook, Comments, supra note 383.

^{386.} See, e.g., Senate NSR Policy Hearings, supra note 75, at 619–20 (statement of Donald Elliott, Paul, Hastings, Janofsky & Walker).

emission and operational limitations [in the source's permit].³⁸⁷

The rule defined "functionally equivalent" to preclude changes in the "basic design parameters" of the affected unit, but not to preclude changes that enhanced the efficiency of the unit.³⁸⁸ The replacement could result in an increase in emissions, so long as the increase did not cause the unit to exceed any legally enforceable emissions limitation or operational limitation otherwise applicable to the unit.³⁸⁹

D. Inconsistent Enforcement of the Existing Rules

At the same time that it was supporting EPA's efforts to promulgate the NSR Simplification and Safe Harbor rules, the industry and its allies were putting pressure on the Bush administration to dismiss the pending lawsuits.³⁹⁰ At the staff level, however, EPA was continuing to assemble new cases for prosecution.³⁹¹ Assistant Administrator for Enforcement and Compliance Assurance John Peter Suarez initially told the press that the agency was vigorously prosecuting existing cases and building new cases against violators of the old rules.³⁹² The enforcement effort was, however, hampered by staff reductions required by Bush administration budget cuts.³⁹³ Citing resource limitations, DOJ agreed to stay cases against Georgia Power and Alabama Power for several years.³⁹⁴

Then, in November 2003, Suarez announced that he had instructed the EPA staff to refrain from bringing new enforcement

^{387.} 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, 61,251 (Oct. 27, 2003) (codified at 40 C.F.R. §§ 51 and 52) [hereinafter Safe Harbor Rule].

^{388.} Id. at 61,253.

^{389.} Id. at 61,252.

^{390.} See, e.g., Editorial, Rescuing the Clean Air Act, WALL ST. J., June 20, 2002, at A16 (criticizing Administrator Whitman for continuing to pursue lawsuits based on the Clinton administration's "bizarre" interpretation of the Clean Air Act even after taking a position in the rulemaking that contradicted the government's position in the lawsuits).

^{391.} Steve Cook, EPA Requesting Information from Utilities as Part of Ongoing Enforcement Program, 34 ENV'T REP. (BNA) 6 (Jan. 3, 2003); Mike Ferullo, EPA Pursuing New Source Review Violations Amidst Efforts to Revise Rules, Official Says, 33 ENV'T REP. (BNA) 2261 (Oct. 18, 2002).

^{392.} Ferullo, supra note 391.

^{393.} Buckheit Testimony, *supra* note 84, at 3–4; *Senate Public Health Hearings, supra* note 229, at 35 (statement of Eric Schaeffer, former director, Office of Regulatory Enforcement, EPA).

^{394.} Buckheit Testimony, *supra* note 84, at 5.

actions against companies for modifications that violated existing regulations but did not violate the rules as amended by the NSR Simplification and Safe Harbor rules.³⁹⁵ Suarez had reluctantly concluded that the two regulations represented more than a mere policy change; they represented "a fundamental change in NSR enforcement and interpretation that harmed OECA's enforcement of NSR violations."³⁹⁶ He instructed the staff, however, to press ahead with the cases that the Justice Department had already filed.³⁹⁷

Following that announcement, OECA abandoned ongoing investigations into seventy suspected violators of the old NSR rules, and it ceased work on forty-seven cases for which it had already issued notices of violation to the sources.³⁹⁸ An EPA enforcement official concluded that under the twenty-percent safe harbor, "almost everything we worked to achieve is wiped out."399 The Justice Department's environmental enforcement division, now headed by a former lobbyist for the coal industry,400 likewise abandoned claims under the pre-amendment versions of the RMRR regulations.⁴⁰¹ The Justice Department filed only three lawsuits against energy companies during the first three years of the George W. Bush administration, down ninety percent from the previous three years.⁴⁰² The agency's clear lack of concern for the pending cases precipitated an exodus of experienced enforcement attorneys.⁴⁰³ Two of the high-level career employees who departed said that they had warned Administrator Whitman that the rule changes would undermine the pending cases,

399. Barcott, *supra* note 166, at 77.

401. Pianin, Rule Revisions, supra note 398.

^{395.} Steve Cook, EPA Asked to Provide Enforcement Files on Cases Dropped Because of New Rules, 34 ENV'T REP. (BNA) 2478 (Nov. 14, 2003) [hereinafter Cook, Cases Dropped].

^{396.} OFFICE OF THE INSPECTOR GEN., ENVTL. PROT. AGENCY, NEW SOURCE REVIEW RULE CHANGE HARMS EPA'S ABILITY TO ENFORCE AGAINST COAL-FIRED ELECTRIC UTILITIES 11 (Sept. 30, 2004) [hereinafter OIG, NSR REPORT].

^{397.} Mike Ferullo, EPA's Compliance Chief Defends Review of Existing New Source Review Investigations, 34 ENV'T REP. (BNA) 2583 (Nov. 28, 2003).

^{398.} Cook, *Cases Dropped, supra* note 395; *see also, e.g.*, Eric Pianin, *EPA Rule Revisions Roil* U.S. *Case Against Power Plant*, WASH. POST, Oct. 6, 2003, at A8 [hereinafter Pianin, *Rule Revisions*] (explaining how the change affected the government's case against a facility operated by Dynegy Midwest Generation Inc.).

^{400.} People: Thomas L. Sansonetti, HOLLAND & HART, http://www.hollandhart.com/tlsansonetti/ (last visited Mar. 30, 2013).

^{402.} Steve Cook, Antipollution Lawsuits Down by 75 Percent During Bush Administration, Report Says, 35 ENV'T REP. (BNA) 2141 (Oct. 15, 2004).

^{403.} Jennifer 8. Lee, 3 Top Enforcement Officials Say They Will Leave E.P.A., N.Y. TIMES, Jan. 6, 2004, at A20.

but they were overruled. $^{404}\,$ According to one career employee, "[t]he rug was pulled out from under us." $^{405}\,$

The agency persisted in its new enforcement policy even after the D.C. Circuit in late December stayed the Safe Harbor Rule.⁴⁰⁶ This was, of course, precisely the outcome that the coal-burning utilities had desired when they were vigorously lobbying the agency to amend the NSR rules. Outraged environmental groups charged the agency with shirking a major responsibility by not prosecuting companies that violated the rules that were in effect at the time.⁴⁰⁷ They also noted that since the new rules would not become effective for up to three years in most states, the agency was effectively giving scofflaws a get-out-of-jail-free pass for ongoing violations of the rules that remained in effect until the Safe Harbor Rule was finalized.⁴⁰⁸ The state attorneys general who were also parties to the lawsuit vowed to pursue the existing cases to completion, with or without EPA, and they asked DOJ to make the government's files available to them.⁴⁰⁹

The criticism had an impact on newly arrived EPA Administrator Michael Leavitt. Less than three months after Suarez's announcement, Leavitt announced that EPA would continue to initiate enforcement actions against owners of plants that violated the old rules.⁴¹⁰ Leavitt told the enforcement staff that "enforcement is an essential part of our mission, and we will enforce the law."⁴¹¹ Soon thereafter, in late January 2004, the Justice Department filed the first new NSR enforcement case against a power plant since the onset of the Bush administration.⁴¹² To defuse criticism during the election season, the agency "abruptly took a tougher approach to the utility industry" and warned of new lawsuits if plants did not clean up in anticipation of the new policies.⁴¹³ In one major settlement, an Ohio

^{404.} Drew & Oppel, supra note 309.

^{405.} Id.

^{406.} Katharine Q. Seelye & Jennifer 8. Lee, *Court Blocks U.S. Effort to Relax Pollution Rule*, N.Y. TIMES, Dec. 25, 2003, at A1.

^{407.} Joe Truini, *States May Act If EPA Drops Probes*, WASTE NEWS, Nov. 10, 2003, at 1. 408. *Id.*

^{409.} Cook, *Cases Dropped, supra* note 395; Sherie Winston & Thomas F. Armistead, *EPA Moves Away from Enforcement*, ENGINEERING NEWS-REC., Nov. 17, 2003, at 12.

^{410.} David McIntosh, Airy Conspiracy: NRDC Accuses Utilities of Collusion to Violate Air Quality Standards, ENERGY, Jan. 1, 2004, at 38.

^{411.} Eric Pianin, Justice Dept. Sues Ky. Utility for Breach of Clean Air Act, WASH. POST, Jan. 29, 2004, at A2 [hereinafter Pianin, DOJ Sues Ky.].

^{412.} Id.; EPA Cracking Whip Again, Strikes Blow Against EKPC Coal Burners, U.S. COAL REV., Feb. 2, 2004.

^{413.} Eric Pianin, Bush Moves to Defuse Environmental Criticism, WASH. POST, Feb. 2, 2004, at A5.

utility company agreed to pay \$1.1 billion in fines and pollution controls for four of its power plants.⁴¹⁴

E. The Hourly Emissions Rule (August 31, 2005)

After the 2004 elections returned George W. Bush to the White House, EPA unveiled more deregulatory initiatives designed to reduce the impact of the NSR program on power plants. First on the list was a new "Hourly Emissions" rule. As we have seen, EPA's new source performance standards were stated in units of kilograms per hour, whereas the NSR regulations were stated in tons per year because the thresholds in the PSD and nonattainment provisions of the 1977 Amendments for "majorness" were stated in tons per year.⁴¹⁵ In the government's lawsuit against Duke Energy, the Fourth Circuit agreed with the company that a source did not have to undergo NSR for projects that increased annual emissions if they did not increase hourly emissions.⁴¹⁶ But the state attorneys general and environmental groups who brought the *Duke Energy* challenge appealed to the Supreme Court,⁴¹⁷ and the D.C. Circuit had reached the opposite result in an earlier case.⁴¹⁸ The agency hoped to render the case moot by amending the NSR regulations to shift the focus to hourly emissions.⁴¹⁹ As with the other rules easing the NSR restrictions, EPA explained that the Clean Air Interstate Rule ("CAIR") would more than offset any emissions increases attributable to moving to the hourly emissions approach.⁴²⁰

^{414.} Ohio Utility to Pay \$1 Billion in Pollution Case, WASH. POST, Mar. 19, 2005, at A7.

^{415.} PARKER & BLODGETT, supra note 55, at 10; 1992 Implementation Plan Rules, supra note 34, at 32,316.

^{416.} United States v. Duke Energy Corp., 411 F.3d 539, 550-51 (4th Cir. 2005), vacated sub nom. Envtl. Def. v. Duke Energy Corp., 549 U.S. 561 (2007).

^{417.} Envtl. Def. v. Duke Energy Corp., 547 U.S. 1127 (2006) (granting certiorari).

^{418.} New York v. EPA, 413 F.3d 3, 20 (D.C. Cir. 2005). The Seventh Circuit later wrote an opinion that agreed with the D.C. Circuit's position. United States v. Cinergy Corp., 458 F.3d 705, 710 (7th Cir. 2006).

^{419.} Steven D. Cook, EPA Moving Forward with Rulemaking to Ease Pollution Controls for Large Plants, 36 ENV'T REP. (BNA) 1813 (Sept. 9, 2005).

^{420.} Id.; Dean Scott, EPA Proposes Hourly Emissions Tests for Measuring Increases After Modifications, 36 ENV'T REP. (BNA) 2093 (Oct. 14, 2005) (quoting EPA Administrator Stephen Johnson as stating that more uniform emissions testing under new NSR regulations "will encourage installation of new, innovative technologies that promote greater energy emissions efficiency and reliability at our nation's plants").

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Although it would take another two years for EPA to publish a notice of proposed rulemaking,⁴²¹ the radical shift in policy affected the ongoing litigation. In the Duke Energy case, the Solicitor General filed a brief with the Supreme Court opposing review of the Fourth Circuit decision.⁴²² The brief noted that EPA was considering revisions to the NSR regulations that would render the Fourth Circuit opinion "of limited practical import."⁴²³ More important, Deputy Administrator Marcus Peacock ordered OECA to stop working on potential new cases that involved violations of the annual emissions NSR rule along with cases that involved projects that would have come within the twenty-percent safe harbor.⁴²⁴ The memo noted that other "rulemakings, particularly CAIR, will reduce power plant emissions deeper, faster, and more efficiently than would be achieved by continuing costly and uncertain litigation in case-by-case enforcement actions of existing . . . regulations."425 This, of course, assumed that the rules would go into effect expeditiously. After the memo issued, the flow of NSR enforcement actions slowed to a trickle. During 2007, DOJ filed only two NSR cases against the utility companies.⁴ Another immediate effect of the Peacock memo was to inspire companies that had taken the same position as Duke Power in the NSR litigation to file motions to dismiss the lawsuits.⁴²⁷

^{421.} Supplemental Notice of Proposed Rulemaking for Prevention of Significant Deterioration and Nonattainment New Source Review: Emissions Increases for Electric Generating Units, 72 Fed. Reg. 26,202 (May 8, 2007).

^{422.} Steven D. Cook, Government Opposes Supreme Court Review of Appeals Court Ruling in Duke Energy Case, 37 ENV'T REP. (BNA) 544 (Mar. 17, 2006).

^{423.} Id.

^{424.} Steven D. Cook, Power Company Seeks Stay of Lawsuit Pending Separate Ruling, Proposed Rule, 36 ENV'T REP. (BNA) 2288 (Nov. 11, 2005) [hereinafter Cook, Stay of Lawsuit]; Tom Tiernan, New-Source Ruling Leaves Utilities Seeking New Law, Other Side Hoping for Enforcement, ELEC. UTIL. WK., Mar. 27, 2006, at 1.

^{425.} Juliet Eilperin, *EPA Joins Settlement of Lawsuit but Adds a Waiver*, WASH. POST, Oct. 11, 2007, at A3 (alteration in original) (quoting the Peacock memo); *see also* Steven D. Cook, *Effect of New Source Review Decision Limited by EPA Policy, Proposed Rule*, 37 ENV'T REP. (BNA) 662 (Mar. 31, 2006) [hereinafter Cook, *Effect Limited*] (quoting the Peacock memo as instructing investigators to focus on other areas "that will likely produce significant environmental benefits"); Cook, *Stay of Lawsuit, supra* note 424 (quoting the Peacock memo as stating that "other EPA anti-pollution programs will make greater emissions cuts faster than new source review and be more cost-effective").

^{426.} Michael Bologna, Midwest Generation, Commonwealth Edison Hit for Alleged New Source Review Violations, 38 ENV'T REP. (BNA) 1709 (Aug. 10, 2007); Steven D. Cook, EPA Announces Plans to File Cases Against Utilities Lacking Modern Controls, 38 ENV'T REP. (BNA) 718 (Mar. 30, 2007) [hereinafter Cook, EPA Announces Plans]; Michael Hawthorne, EPA Cites Coal Plants, CHI. TRIB., Aug. 7, 2007, at A1.

^{427.} AEP, Cinergy Seek Dismissal of EPA Lawsuits in Light of Agency's New Proposed Rules for NSR, ELEC. UTIL. WK., Nov. 14, 2005, at 14.

In a quixotic effort to demonstrate that it had not abandoned NSR enforcement altogether, OECA in April 2006 sent letters to three companies asking for more information about recent maintenance and repair projects.⁴²⁸ Eric Schaeffer, now of the Environmental Integrity Project, gave the OECA staff credit because, like the Energizer bunny, they kept on trying.⁴²⁹ Scott Segal of the Electric Reliability Coordinating Council hoped that the letters did not represent a change in policy, noting that the CAIR "probably pushe[d] most facilities beyond where NSR settlements would be expected in any event."⁴³⁰ That conclusion was supported by a July 2006 report by the National Academy of Sciences' National Research Council, which concluded that by the time that CAIR was fully implement in twelve years, the emissions reductions from old power plants required by that rule would largely offset the additional emissions allowed by the changes to the NSR program.⁴³¹ This assessment, too, assumed that CAIR would in fact go into effect and be fully enforced.

During oral argument before the Supreme Court in November 2006, the government switched gears and sided with the environmental groups and downwind state attorneys general.⁴³² Justice Ruth Bader Ginsburg asked the DOJ lawyer how its position was consistent with the fact that EPA would now allow Duke to avoid NSR under an hourly emissions test.⁴³³ He replied that the hourly emissions proposal was just that—a proposal.⁴³⁴ Justice Antonin Scalia interjected that companies could get "whipsawed" by EPA's inconsistent positions.⁴³⁵

On April 2, 2007, the Supreme Court unanimously held that EPA could properly employ an annual emissions test for determining whether a project qualified for NSR and an hourly test for determining whether the new source performance standards applied to a change to an existing unit.⁴³⁶ The Fourth Circuit's construction

^{428.} Steven D. Cook, EPA Letters to Three Power Companies Seek Information on Possible Violations, 37 ENV'T REP. (BNA) 998 (May 12, 2006).

^{429.} Id. [sic].

^{430.} Id.

^{431.} Steven D. Cook, Impact of Changes to Enforcement Program Offset by EPA's Interstate Rule, Report Says, 37 ENV'T REP. (BNA) 1555 (July 28, 2006).

^{432.} Charles Lane, Justices Challenge EPA's Arguments in Clean Air Act Case, WASH. POST, Nov. 2, 2006, at A10.

^{433.} Id.

^{434.} Id.

^{435.} Id.

^{436.} Envtl. Def. v. Duke Energy Corp., 549 U.S. 561, 564, 573–76 (2007).

of the NSR regulations to conform to the NSPS regulations was simply not permissible.⁴³⁷ Environmental groups were pleased with their victory but warned that EPA still had an agenda to "abolish the NSR program altogether for the benefit of the utility sector."⁴³⁸ EPA called the decision "an important victory for EPA,"⁴³⁹ but it made it clear that it would proceed with its proposal to adopt an hourly standard for NSR.⁴⁴⁰

Later that month, EPA published the long-awaited notice of proposed rulemaking for the Hourly Rate Rule.⁴⁴¹ The proposed rule would have allowed sources to avoid NSR if a modification did not increase the hourly rate of emissions, even if it increased annual emissions because it allowed the plant to operate for more hours during the year.⁴⁴² If the hourly emissions increased, the agency would then examine whether annual emissions increased, the agency would then examine whether annual emissions increased.⁴⁴³ Only if both hourly and annual emissions increased would the source have to undergo NSR.⁴⁴⁴ The agency said that the Supreme Court's *Duke Energy* opinion did not affect the rulemaking in any way.⁴⁴⁵ EPA predicted that CAIR would more than make up for any emissions increases due to the move to hourly emissions.⁴⁴⁶

F. The Demise of the Safe Harbor Rule

Two major assumptions underlying the Peacock memo were that the agency would in fact promulgate the Hourly Rate Rule and that the Safe Harbor Rule would survive judicial review. The second premise disappeared when, on March 17, 2006, the D.C. Circuit vacated the rule because it so clearly departed from the plain

^{437.} Id. at 577.

^{438.} Brian Hansen, *EPA to Proceed on NSR Rule Despite Court Decision*, INSIDE ENERGY WITH FED. LANDS, Apr. 9, 2007, at 1; *see also* Cook, *EPA to Proceed, supra* note 237 (quoting several leaders of environmental advocacy groups expressing support for the Supreme Court decision in *Duke Energy*).

^{439.} Hansen, supra note 438.

^{440.} Cook, EPA to Proceed, supra note 237; Stam, Duke Energy Case, supra note 216.

^{441.} Supplemental Notice of Proposed Rulemaking for Prevention of Significant Deterioration and Nonattainment New Source Review: Emissions Increases for Electric Generating Units, 72 Fed. Reg. 26,202 (May 8, 2007).

^{442.} Steven D. Cook, *EPA Proposes to Narrow Definition of "Emissions Increase" for Power Plants*, 38 ENV'T REP. (BNA) 949 (Apr. 27, 2007) [hereinafter Cook, *Narrow Definition*].

^{443.} Id.

^{444.} Id.

^{445.} EPA's New NSR Rule Features Hourly Emissions Test, But Based on "Output," ELEC. UTIL. WK. Apr. 30, 2007, at 4.

^{446.} Cook, Narrow Definition, supra note 442.

meaning of the statutory definition of "modification."⁴⁴⁷ The court found that the words "any physical change" in that definition were unambiguous and clearly included equipment replacements.⁴⁴⁸ The court agreed with the environmental groups that Congress's use of the modifier "any" demonstrated that the term "physical change" included "any activity at a source that could be considered a physical change that increases emissions."⁴⁴⁹ In a rather gratuitous slam on the agency, the court noted that "[o]nly in a Humpty Dumpty world would Congress be required to use superfluous words while an agency could ignore an expansive word that Congress did use."⁴⁵⁰ The agency was empowered to exclude activities that resulted in de minimis amounts of emissions, but the emissions permitted by the twentypercent safe harbor were hardly trivial.⁴⁵¹

The decision did not affect many ongoing projects, because the industry had complied with the old rules after the court stayed the Safe Harbor Rule.⁴⁵² The industry complained, however, that continuing uncertainty over EPA's case-by-case application of the *WEPCO* factors would have a "chilling effect" on investments in maintenance and repair.⁴⁵³ The court's decision therefore lent urgency to the efforts in Congress to enact NSR amendments to the Clean Air Act.⁴⁵⁴ Because it was an election year and the Republican majorities in both houses were at considerable risk, it was not a good time to push through legislation that environmental activists would characterize as a free pass for polluters.⁴⁵⁵

Environmental groups and downwind state attorneys general were delighted with the holding. New York Attorney General Eliot Spitzer predicted that it would "encourage industry to build new and cleaner facilities, instead of prolonging the life of old, dirty plants."⁴⁵⁶ Industry lawyers, however, urged the agency to exercise its enforcement discretion to continue to allow projects that fell within the twenty-percent safe harbor.⁴⁵⁷ EPA declined that invitation and, in

^{447.} New York v. EPA, 443 F.3d 880, 890 (D.C. Cir. 2006).

^{448.} Id. at 884.

^{449.} Id. at 885.

^{450.} *Id.* at 887.

^{451.} *Id.* at 883, 888.

^{452.} Cook, Effect Limited, supra note 425; Tiernan, supra note 424.

^{453.} Tiernan, *supra* note 424 (quoting Dan Riedinger, Edison Electric Institute).

^{454.} Id.

^{455.} *Id.*

^{456.} Juliet Eilperin, Looser Emission Rules Rejected, WASH. POST, Mar. 18, 2006, at A1.

^{457.} Cook, *Narrow Definition, supra* note 442 (citing Kevin Gaynor, attorney, Vinson & Elkins).

late May 2008, it did not renew the Peacock memo.⁴⁵⁸ Soon thereafter, the director of EPA's air enforcement division announced that it was currently investigating ten to twenty power companies for possible violations of the NSR regulations.⁴⁵⁹

G. Effect of the Rulemaking Activities on the Ongoing Litigation

Whether EPA's NSR rulemaking initiatives had an adverse effect on the ongoing NSR litigation was a matter of some debate at the time. The head of the DOJ environmental enforcement division denied that the regulations had any impact on the ongoing settlement negotiations, but he acknowledged that whether they would affect the outcomes of the cases going to trial would depend on the judges.⁴⁶⁰ A senior DOJ attorney who was familiar with the litigation predicted that the ten utility companies that were subject to the outstanding lawsuits at the outset of the Bush administration were unlikely to settle, and, if they did, the settlements would most likely be on terms dictated by the rules that were in effect at the time.⁴⁶¹

The upper level politically appointed officials at EPA who were responsible for promulgating the rules steadfastly denied that they would have any impact on the litigation.⁴⁶² Then-Assistant Administrator for Air and Radiation Jeffrey Holmstead testified that the impact of the NSR Simplification and Safe Harbor rules on the ongoing litigation was "one of the primary issues that was discussed" at meetings attended by EPA and DOJ attorneys, and they did "not believe these changes w[ould] have a negative impact on the enforcement cases."⁴⁶³

This account, however, was inconsistent with the position of OECA during the internal agency deliberations.⁴⁶⁴ A June 2002

^{458.} Andrew Childers, Annual Actual Emissions Standard Test for New Source Review Reinstated by EPA, 39 ENV'T REP. (BNA) 1045 (May 30, 2008).

^{459.} Steven D. Cook, EPA Says Violations of New Source Review by Power Plants Top Enforcement Priority, 39 ENV'T REP. (BNA) 303 (Feb. 15, 2008).

^{460.} *Senate NSR Policy Hearings, supra* note 75, at 32–33, 101 (statement of Thomas Sansonetti, Assistant Att'y Gen., Environment and Resources Division, DOJ).

^{461.} Elizabeth Shogren, Administration Sticking with Clinton Pollution Suit, L.A. TIMES, Jan. 16, 2002, at A14.

^{462.} Senate NSR Policy Hearings, supra note 75, at 30, 34 (statement of Jeffrey Holmstead, Assistant Adm'r for Air and Radiation, EPA); Cook, *Relaxed Requirements, supra* note 350 (reporting EPA Administrator Christie Todd Whitman's intention not to "relent" in pursuing the lawsuits despite the rule changes).

^{463.} Senate NSR Policy Hearings, supra note 75, at 34.

^{464.} OIG, NSR REPORT, *supra* note 396, at 12, tbl.2.1 (detailing differences between EPA's Office of Air and Radiation and its Office of Enforcement and Compliance Assurance); *Senate Clean Air Act Hearings, supra* note 75, at 71 (statement of Eric Schaeffer, Dir.,

memorandum written by Sylvia K. Lowrance, a deputy assistant administrator in OECA, warned that the changes effectuated by the NSR Simplification and Safe Harbor rules would "undermine" the ongoing enforcement litigation.⁴⁶⁵ EPA officials who were directly involved in the NSR enforcement initiative from its inception warned that the rule changes were having a devastating impact on the settlement negotiations.⁴⁶⁶ One dejected EPA enforcement officer who had been with the agency since its inception decided to retire out of frustration at seeing "some or our significant advances taken away."467 A report by the agency's Inspector General concluded that the proposed NSR changes had "seriously hampered" the agency's "settlement activities, existing enforcement cases, and the development of future cases."468

As discussed above, two major companies, Cinergy and Dominion walked away from settlement negotiations in which they had already entered into agreements in principle with the government to spend a total of about \$1.9 billion on additional pollution controls.⁴⁶⁹ According to Eric Schaeffer, who was present at the negotiations, "[t]hey put their tons of pollution on the table, they shook hands with us," and then EPA proposed to change the underlying regulations.⁴⁷⁰ Two years later, in April 2003, Dominion agreed to a settlement with EPA and five states that was virtually identical to the earlier agreement in principle.⁴⁷¹ By contrast, Cinergy never returned to the settlement table, preferring instead to litigate every conceivable issue in a long and drawn out war of attrition that lasted for more than a decade.⁴⁷²

Environmental Integrity Project) ("Enforcement has consistently expressed concern about some of these changes and their impact on the cases.").

^{465.} Elizabeth Shogren, *EPA Official Backed Air Act Changes Despite Warnings*, L.A. TIMES, Oct. 24, 2003, at A33.

^{466.} Letter from Eric V. Schaeffer to Christine Whitman (Feb. 28, 2002).

^{467.} Barcott, *supra* note 166 (quoting Rich Biondi, Associate Director, Office of Enforcement and Compliance Assurance, EPA).

^{468.} OIG, NSR REPORT, supra note 396, at ii.

^{469.} Eric Schaeffer, *Clearing the Air: Why I Quit Bush's EPA*, WASH. MONTHLY, July 1, 2002, at 20; Eric Pianin, U.S. Presses Utilities on Pollution Settlements, WASH. POST, Apr. 13, 2002, at A5; Perez-Pena, *supra* note 200.

^{470.} Pianin & Morgan, *supra* note 296. New York Attorney General Eliot Spitzer, whose office was also part of the settlement negotiations, agreed with Schaeffer. *Senate NSR Policy Hearings, supra* note 75, at 172 (statement of Eliot Spitzer, Att'y Gen., New York).

^{471.} Jaber, *supra* note 53, at 27–28 (providing a detailed account of the terms of the settlement); Mike Ferullo & Steve Cook, *Virginia Electric Utility Will Spend \$1.2 Billion to Cut Air Pollution From Eight Power Plants*, 34 ENV'T REP. (BNA) 925 (Apr. 25, 2003); Jennifer 8. Lee, *Utility to Spend \$1.2 Billion to Cut Emissions*, N.Y. TIMES, Apr. 19, 2003, at A9.

^{472.} Steve Cook, Government, Cinergy Unlikely to Reach Settlement of Litigation, Company Says, 35 ENV'T REP. (BNA) 529 (Mar. 12, 2004).

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The companies made effective use of the NSR Simplification and Safe Harbor rules in the litigation.⁴⁷³ According to Eric Schaeffer, attorneys for TVA "walked right into court" in the pending Eleventh Circuit litigation and "waved a copy of the proposed changes, and said very clearly that the court should consider putting off or postponing hearing the case or making a decision because the government was still making its mind up as to what the law was."474 In another case, the government was forced to concede that the Clean Air Act did not require a narrow interpretation of the RMRR exemption when confronted with the agency's own contemplated changes in the Safe Harbor proposal.⁴⁷⁵ In still another case, the defendant argued that "EPA now admits what is obvious: Industry . . . has not been provided ascertainable certainty regarding what is 'routine."⁴⁷⁶ One district court concluded that "[g]iven EPA's zigs and zags... the court cannot say that EPA's interpretation of its rules is due to be afforded . . . deference."477 The changes also affected litigation filed by environmental groups and state attorneys general in which EPA did not participate.⁴⁷⁸ Cinergy even argued that the government's lawyers should be sanctioned for bringing the case in the first place.⁴⁷⁹

H. NSR Enforcement During the Bush Administration

By the end of the George W. Bush administration, it was clear that its on-again-off-again approach to NSR enforcement had resulted in: a number of important settlements of the cases that DOJ had initiated at the end of the Clinton administration; a few new cases

^{473.} OIG, NSR REPORT, supra note 396, at ii; Tiernan, supra note 424; Cook, Stay of Lawsuit, supra note 424; Tripp Baltz, Xcel Energy Said to Violate Pollution Rules at Two Coal-Fired Power Plants in Colorado, 33 ENV'T REP. (BNA) 1538 (July 12, 2002); Utility Cites New Source Review Proposal in Bid to Dismiss Government's Lawsuit, 34 ENV'T REP. (BNA) 175 (Jan. 24, 2003).

^{474.} *Senate Clean Air Act Hearings, supra* note 75, at 71 (statement of Eric Schaeffer, Director, Environmental Integrity Project).

^{475.} Cook, *Whitman Warned, supra* note 308 (citing Eric Schaeffer, Director, Environmental Integrity Project); *see also* Pianin, *Rule Revisions, supra* note 398 (describing the incident). The move impelled the Illinois Attorney General to file a motion to intervene in the case to argue the government's original position that the exemption had to be narrowly construed. *Id.*

^{476.} Utility Cites New Source Review Proposal in Bid to Dismiss Government's Lawsuit, 34 ENV'T REP. (BNA) 175 (Jan. 24, 2003).

^{477.} Steven D. Cook, Federal Court in Alabama Deals Setback to EPA in Case Against Power Company, 36 ENV'T REP. (BNA) 1165 (June 10, 2005) [hereinafter Cook, Alabama Court].

^{478.} Eric Pianin, Bush Plan to Ease Clean Air Rules Roils Court Cases Against Utilities, WASH. POST, July 16, 2002, at A2.

^{479.} Brian Hansen, Utilities Press Court to Throw out NSR Lawsuits Brought by Clinton EPA, INSIDE ENERGY WITH FED. LANDS, Nov. 14, 2005, at 8.

(mostly during the first term and near the end of the second term), most of which were still in litigation at the end of the administration; and a few major trials in the holdover cases from the Clinton administration. Unwilling to trust the administration to bring and vigorously prosecute NSR enforcement actions, several environmental groups filed citizen enforcement actions against several companies for NSR violations.

1. Settlements

EPA's perennial problem of lack of enforcement resources made settlements far more attractive than full-scale litigation, and the cuts to the agency's enforcement budget during the George W. Bush years made things even worse.⁴⁸⁰ The point of the exercise was not so much to extract large fines from the companies as it was to force them either to install the modern technologies that they should have employed years ago or to retire the old plants.⁴⁸¹ The agency's settlement negotiations were, as discussed above, affected by the changes to the NSR program that the agency was attempting to implement through rulemaking in response to Vice President Cheney's Energy Task Force.⁴⁸²

In late 2001 and early 2002, EPA entered into a series of settlements with owners of major oil refineries, a major paper company, a major coal company, a major aluminum company, and the owner of fifty-two ethanol plants.⁴⁸³ The public utility companies were not as anxious to settle as companies in the other industries, but fifteen electric utility companies over the course of the George W.

^{480.} Barcott, *supra* note 166 (settlements); Buckheit Testimony, *supra* note 84, at 3–4 (budget cuts).

^{481.} Barcott, supra note 166.

^{482.} See supra Part V.B.

^{483.} Senate NSR Policy Hearings, supra note 75, at 97 (statement of Thomas L. Sansonetti, Assistant Att'y Gen., Environment and Natural Resources Division, DOJ) (discussing the settlement with paper company Boise Cascade); Steve Cook, *Two Companies Will Spend \$685 Million to Cut More Than 100,000 Tons of Pollution*, 34 ENV'T REP. (BNA) 797 (Apr. 11, 2003) (discussing the settlements with Alcoa (coal plant) and Archer Daniels Midland (ethanol plants)); Steve Cook, *Notices to Refineries Said to Indicate EPA Enforcement Actions Moving Forward*, 33 ENV'T REP. (BNA) 7 (Jan. 4, 2002) (discussing settlements with refinery operators Conoco, Navajo Refining, and Montana Refining); Pamela Najor, *Refiners Will Install \$400 Million in Controls to Settle Alleged Violations at Nine Facilities*, 32 ENV'T REP. (BNA) 589 (Mar. 30, 2001) (discussing settlements with refinery operators Motiva Enterprises, Equilon Enterprises, and Deer Park Refining); John H. Stam, *Marathon Ashland to Pay \$265 Million for Pollution Control at Seven Refineries*, 32 ENV'T REP. (BNA) 961 (May 18, 2001) (discussing the settlement with refinery operator Marathon Ashland); *Murphy Oil to Pay \$13 Million to Resolve Allegations at Northern Wisconsin Refinery*, 33 ENV'T REP. (BNA) 223 (Feb. 1, 2002) (discussing the settlement with oil refiner Murphy Oil).

Bush administration entered into major settlements in which they agreed to pay a total of \$57,450,000 in fines, spend \$224,450,000 on supplemental projects, and invest \$11,127,000,000 in pollution control equipment at 174 units with a predicted reduction in SO₂ emissions of 1,288,745 tons per year and in NOx emissions of 434,844 tons per year.⁴⁸⁴ The largest settlement was an October 9, 2007 agreement with American Electric Power in which the company agreed to pay a fine of \$15 million, support supplementary environmental projects worth \$60 million, and spend \$4.6 billion to clean up twenty-five power plants.⁴⁸⁵ The settlement, which was the largest in EPA's history, came at the end of a long trial but before the judge had rendered a decision.⁴⁸⁶ The predicted SO₂ emissions reductions from that single settlement exceeded the total SO₂ emitted by all sources in forty-five states.⁴⁸⁷

All of the settlements contained similar features, including a denial of liability by the defendants, retirement or installation of control technologies on existing units, a prohibition on selling or trading any excess emissions allowances from controls required by the consent decrees (to ensure that the emissions reductions actually occurred), relatively low fines, a requirement to invest in supplemental environmental projects, and protection from future NSR enforcement actions for a specified number of years.⁴⁸⁸ Although the Bush administration took credit for these impressive settlements, many of their benefits would have resulted if the government had walked away from the lawsuits because state attorneys general and environmental groups would have pursued them.

2. Cases That Went to Trial

The Justice Department and EPA also brought several of the pending cases to trial.⁴⁸⁹ Those trials frequently revealed internal documents demonstrating that the companies were consciously disregarding EPA guidance documents and letters that made it clear

^{484.} GAO, BETTER INFORMATION, supra note 16, at 30 app.III.

^{485.} Steven D. Cook, AEP Settles Lawsuit Alleging Violations, Will Spend \$4.6 Billion on Emissions Cuts, 38 ENV'T REP. (BNA) 2165 (Oct. 12, 2007) [hereinafter Cook, AEP Settles]. 486. Id.

^{487.} Id.

^{488.} Jaber, *supra* note 53, at 25–26.

^{489.} See, e.g., Bebe Raupe, Modifications at Ohio Edison Plant Violated Clean Air Act Provisions, Federal Court Says, 34 ENV'T REP. (BNA) 1757 (Aug. 8, 2003) (discussing the 2003 case brought against Ohio Edison); Christopher Brown, Federal Trial Opens in Clean Air Lawsuit Alleging Violations by Illinois Electric Utility, 34 ENV'T REP. (BNA) 1261 (June 6, 2003) (discussing the case brought by the EPA against Illinois Power Co.).

that the projects at issue would trigger NSR.⁴⁹⁰ The real motivation appeared to be to avoid the cost of complying with the law.⁴⁹¹ The Justice Department won several of these cases and in the process set some important precedents.⁴⁹² In some cases, however, DOJ lawyers were unable to convince courts and juries that the companies had engaged in unlawful life extension activities.⁴⁹³ And in one case, the Seventh Circuit reversed a jury verdict for EPA on appeal.⁴⁹⁴

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3. Filing New Cases

EPA and DOJ brought only three new cases against power plants during the George W. Bush administration, and one was simply to gain judicial approval for an agreed-upon settlement. In January 2002, DOJ entered into a settlement with PSEG Power, a New Jersey power company, for PSEG Power's stated purpose of avoiding expensive litigation.⁴⁹⁵ Two years later, DOJ filed the first full-fledged enforcement action against East Kentucky Power Cooperative claiming that the company had, on several occasions, modified coalburning units at two plants.⁴⁹⁶ The lawsuit was filed soon after Administrator Leavitt announced that the agency would take a tougher approach to enforcement.⁴⁹⁷ More than three years after that, DOJ filed an enforcement action against Kentucky Utilities Co. for violations occurring at its E.W. Brown power plant in Mercer County, Kentucky. The violations were so egregious that they would have violated both the Safe Harbor and Hourly Rate rules.⁴⁹⁸ Frank O'Donnell, the head of Clean Air Watch, observed near the end of

^{490.} See, e.g., United States v. S. Ind. Gas & Elec. Co., 245 F. Supp. 2d 994, 1024 (S.D. Ind. 2003).

^{491.} See Barcott, supra note 166 (describing the "enormous" amount of money at stake in these lawsuits).

^{492.} See, e.g., Envtl. Def. v. Duke Energy Corp., 549 U.S. 561 (2007); United States v. Ohio Edison Co., 276 F. Supp. 2d 829 (S.D. Ohio 2003).

^{493.} See, e.g., Andrew Childers, Cinergy Cleared of 10 of 14 Charges That It Violated New Source Review, 39 ENV'T REP. (BNA) 1048 (May 30, 2008); Steven D. Cook, U.S. Court Adopts Electric Utilities' View on Definition of "Routine Maintenance", 36 ENV'T REP. (BNA) 1814 (Sept. 9, 2005); Cook, Alabama Court, supra note 477; Bob Matyi, Jurors Rule in Duke Energy's Favor on Four of Six Projects in Federal Clean Air Act Suit, ELEC. UTIL. WK., May 25, 2009, at 8.

^{494.} Matthew Bandyk, Duke Energy Gets Victory on Appeal in Wabash River NSR Case, SNL FERC POWER REP., Oct. 20, 2010.

^{495.} John J. Fialka, *PSEG Settles Accord to Settle Probe on Air Pollution*, WALL ST. J., Jan. 25, 2002, at A14.

^{496.} Steve Cook, Government Resumes Enforcement Actions Under Clean Air New Source Review Program, 35 ENV'T REP. (BNA) 197 (Jan. 30, 2004);

^{497.} Pianin, DOJ sues Ky., supra note 411.

^{498.} Cook, EPA Announces Plans, supra note 426.

the Clinton administration that "the U.S. electric industry was frantically on the run because federal enforcers were going after them at every turn," but "[t]hen the Bush administration called off the dogs."⁴⁹⁹

4. State and Environmental Group Lawsuits

State attorneys general and environmental groups were far more active than the Bush administration in filing lawsuits against power plant operators for violating the NSR regulations, especially during the times that EPA enforcers were not allowed to pursue cases that did not involve violations of its Safe Harbor and Hourly Rate rules. The citizen enforcement actions included the following:

NRG Energy (January 2002)—The State of New York sued NRG Energy, Inc. for failing to undergo NSR with respect to more than fifty projects undertaken over a seventeen-year period at two coal-burning power plants near Buffalo.⁵⁰⁰

Dayton Power & Light (July 2004)—The Sierra Club initiated the process of suing Dayton Power & Light Co. following up on a notice of violation that EPA issued in 2000 to the plant for failing to undergo NSR after having engaged in major modifications at its Stuart Station near Cincinnati.⁵⁰¹

Southwestern Electric Power (March 2005)—Several environmental groups sued American Electric Power and its Southwestern Electric Power Co. subsidiary alleging that the company had violated the NSR regulations at its Welsh power plant near Pittsburg, Texas.⁵⁰²

Allegheny Energy (June 2005)—Four northeastern states initiated the process of suing Allegheny Energy, Inc. for projects that significantly increased emissions at five West Virginia coal plants. New York Attorney General Elliot Spitzer found it "disturbing that the federal government is no longer enforcing the Clean Air Act."⁵⁰³

^{499.} Juliet Eilperin, EPA Joins Settlement of Lawsuit but Adds a Waiver, WASH. POST, Oct. 11, 2007, at A3.

^{500.} Gerald B. Silverman, New York Sues Two Coal-Fired Power Plants over Alleged Clean Air Violations, 33 ENV'T REP. (BNA) 118 (Jan. 18, 2002).

^{501.} Bebe Raupe, Sierra Club Notifies Utility of Plan to Sue over Unaddressed Clean Air Act Violations, 35 ENV'T REP. (BNA) 1630 (July 30, 2004).

^{502.} Kurt Fernandez, Public Citizen, Sierra Club Take Large Utility to Court over East Texas Plant Emissions, 36 ENV'T REP. (BNA) 530 (Mar. 18, 2005).

^{503.} Steve Cook, Four Northeastern States Plan to Sue over Pollution from West Virginia Power Plants, 35 ENV'T REP. (BNA) 1144 (May 28, 2004).

Mirant (July 2005)—Four environmental groups filed notices of intent to sue Mirant Corp. for NSR violations at its Dickerson power plant in Montgomery County, Maryland.⁵⁰⁴

Rochester Gas & Electric (October 2006)—The State of New York sent a notice of intent to sue Rochester Gas & Electric for long-standing violations of the NSR rules.⁵⁰⁵

5. The Barack Obama Administration

The 2008 elections sent to the White House a dynamic young president who had run on a platform of hope and change.⁵⁰⁶ It also increased the Democratic majorities in both houses of Congress.⁵⁰⁷ Environmental groups and downwind state attorneys general had every reason to believe that the new administration would aggressively pursue the existing NSR enforcement cases, file many more new cases against companies that continued to undertake life extension projects without undergoing NSR, and withdraw or rescind the controversial proposals of the Bush years. When President Obama appointed Lisa Jackson, the aggressive Commissioner of New Jersey's Department of Environmental Protection, to be his EPA administrator, they were delighted.⁵⁰⁸ Their hopes, however, were only partially fulfilled.

The Obama administration moved rapidly to reinvigorate the NSR enforcement initiative that had gone moribund during the Bush administration. On February 4, 2009, EPA and DOJ issued a joint release announcing a new "national initiative, targeting electric utilities whose coal-fired power plants violate the law."⁵⁰⁹ In deciding whether projects came within the RMMR exclusion, the agency employed the *WEPCO* multi-factor test that it had employed prior to

^{504.} Meredith Preston, Environmental Groups Allege Violations at Mirant Maryland Plant, Threaten Lawsuit, 36 ENV'T REP. (BNA) 1553 (July 29, 2005).

^{505.} Spitzer Targets Rochester Gas & Electric for Alleged Violations of Clean Air Laws, U.S. COAL REV., Oct. 16, 2006.

^{506.} Adam Nagourney, *Obama Wins Election; McCain Loses as Bush Legacy is Rejected*, N.Y. TIMES (Nov. 4, 2008), *available at* http://www.nytimes.com/2008/11/05/us/politics/05 campaign.html?pagewanted=all.

^{507.} Id.

^{508.} Administrator Lisa P. Jackson, ENVTL. PROT. AGENCY, available at http://www.epa.gov/aboutepa/administrator.html (last updated Dec. 10, 2012); see also, e.g., Press Release, Natural Resources Defense Council, Obama's Appointments Signal a New Approach to Environment and Energy for America (Dec. 15, 2008), available at http://www.nrdc.org/media/2008/081215.asp.

^{509.} Alexander Duncan, "Nervous" Utilities Brace for Clinton-Scale NSR Crackdown Against Coal-Fired Plants, ELEC. UTIL. WK., Feb. 23, 2009, at 13.

the promulgation and reversal of the Safe Harbor Rule.⁵¹⁰ An attorney for utility companies said that it looked like government prosecutors were "starting out where they left off in 2000."⁵¹¹

EPA followed up on the announcement with a raft of new lawsuits.⁵¹² The first lawsuit was filed on the day of the announcement against Westar Energy, Inc. alleging that it had engaged in major modifications without undergoing NSR at its Jeffrey Energy Center in St. Marys, Kansas.⁵¹³ Later that month, DOJ/EPA sued NRG Energy for several major modifications it had undertaken at its Big Cajun 2 power plant in Louisiana without undergoing NSR.⁵¹⁴ In March, DOJ/EPA sued American Municipal Power Corp. for violations at its Gorsuch plant near Marietta, Ohio.⁵¹⁵ Five months later, DOJ/EPA sued Midwest Generation alleging that it made numerous modifications to six coal-burning power plants in Illinois.⁵¹⁶

At this point the initiative slowed, but did not come to a complete stop. In August 2010, DOJ/EPA sued DTE Energy for NSR violations at its Monroe power plant in Monroe, Michigan.⁵¹⁷ In that case, however, the court held that the company's modifications were not unlawful because they complied with the 2002 NSR Simplification Rule.⁵¹⁸ In January 2011, DOJ/EPA filed a lawsuit against Ameren Missouri for failing to comply with the NSR regulations at its Rush Island coal-fired power plant.⁵¹⁹ In some of these later filed cases, the courts dismissed some or all of the claims for civil penalties because the violations had occurred more than five years prior to the filing of

^{510.} Glen Boshart, EPA Lists Curbing Smokestack Emissions as a Top 2011–2013 Enforcement Goal, SNL FERC POWER REP., Mar. 3, 2010.

^{511.} Duncan, supra note 509 (quoting Richard Alonso, Bracewell & Giuliani).

^{512.} Id.

^{513.} Andrew Childers, New Source Review Lawsuit Signals Focus on Enforcement at Obama EPA, 40 ENV'T REP. (BNA) 2095 (Sept. 11, 2009).

^{514.} Wayne Barber, *EPA Sues NRG Energy over Operation of Big Cajun 2 Plant*, SNL ELEC. UTIL. REP., March 2, 2009; Duncan, *supra* note 509.

^{515.} Steven D. Cook, Utility Settles New Source Review Charges by Retiring Coal-Fired Power Plant in Ohio, 41 ENV'T REP. (BNA) 1117 (May 21, 2010).

^{516.} Michael Bologna, Government Brings Clean Air Act Charges Against Midwest Generation in Illinois Case, 40 ENV'T REP. (BNA) 2094 (Sept. 11, 2009); Childers, supra note 513.

^{517.} Jennifer Zajac, DTE Energy Calls EPA Lawsuit over Monroe Plant Modifications "Absurd," SNL DAILY COAL REP., Aug. 11, 2010.

^{518.} Robert C. Cook, Court Finds No New Source Review Violation in Detroit Edison's Renovation of Steam Unit, 42 ENV'T REP. (BNA) 1969 (Sept. 9, 2011); Bob Matyi, DTE Energy Prevails in Federal Government Lawsuit over Michigan's Largest Power Plant, ELEC. UTIL. WK., Sept. 19, 2011.

^{519.} Ameren Missouri Defends Itself Against Alleged New Source Review Violations, U.S. COAL REV., Jan. 17, 2011.

the lawsuits and were therefore barred by the general five-year statute of limitations.⁵⁵

The new enforcement initiative included a major effort to settle pending cases. According to the Government Accountability Office, between January 2009 and December 2011, DOJ/EPA settled seven cases against public utility companies and TVA in which the companies agreed to pay \$21.5 million in fines, spend \$395 million on supplemental environmental projects, spend \$5.6 billion on pollution control equipment at eighty-six units with a predicted reduction in SO₂ emissions of 445,684 tons per year and in NOx emissions of 160,582 tons per year.⁵²¹ By far the largest of these settlements was with one of the original nine defendants, TVA, which agreed to pay \$10 million in civil penalties, invest \$350 million in supplemental environmental projects, and spend up to \$5 billion on new controls at fifty-nine units that would reduce SO2 emissions by 225,757 tons per year and NOx emissions by almost 116,000 tons per year.⁵²² In July 2012, after GAO had tabulated the figures summarized above, DOJ/EPA entered into a settlement with Dairyland Power Cooperative, a small Wisconsin utility company, in which it agreed to pay a fine of \$950,000, pay for supplemental environmental projects worth \$5 million, and spend \$150 million on pollution controls predicted to reduce total emissions by more than 29,000 tons per year.⁵²³

As part of the National Power Plant Enforcement Initiative, EPA issued another round of information requests and began issuing notices of violation to electric utility companies, some of which resulted in settlements in which sources agreed to install state-of-theart pollution controls or to retire old units.⁵²⁴ When one company

^{520.} See, e.g., Matthew Bandyk, Federal Court Again Dismisses Most Claims Against Midwest Generation, SNL GENERATION MARKETS WK., Mar. 29, 2011; Glen Boshart, 8th Circuit Rejects Challenge to S.D. Coal Plant, Finding No Ongoing Obligations, SNL ELEC. UTIL. REP., Aug. 23, 2010; Jessica Coomes, Court Says Statute of Limitations Prevents EPA Claims over Power Plant Modifications, 43 ENV'T REP. (BNA) 261 (Feb. 3, 2012).

^{521.} GAO, BETTER INFORMATION, supra note 16, at 30 app.III.

^{522.} Id.; Andrew M. Ballard, TVA to Spend up to \$ 5 Billion to Upgrade Pollution Controls at Coal-Fired Power Plants, 42 ENV'T REP. (BNA) 789 (Apr. 15, 2011).

^{523.} Dairyland Power Cooperative Reaches Agreement with EPA, Department of Justice, U.S. COAL REV., July 9, 2012.

^{524.} See, e.g., Matthew Bandyk, Portland General Electric Receives Notice of Violation from EPA on Boardman Plant, SNL GENERATION MARKETS WK., Oct. 12, 2010 (describing the notice of violation sent to Portland General Electric); Barry Cassell, EPA Targets 2 PPL Corp. Coal Plants with NSR Actions, SNL COAL REP., May 11, 2009 (describing notices of violation EPA sent to PPL Corp. regarding its Keystone plant); Andrew Childers, Hoosier Energy to Spend up to \$300 Million on Plant Upgrades to Resolve Air Allegations, 41 ENV'T REP. (BNA) 1687 (July 30, 2010) (describing the consent decree between Hoosier Energy and EPA).

refused to comply with EPA's request for information on its future construction plans, EPA filed a lawsuit seeking a court order for the information.⁵²⁵ Environmental groups were pleased to see that EPA was "trying to be more diligent about enforcing plants across the country."⁵²⁶

Hoping to stimulate the government into greater action, environmental groups and downwind states sent sixty-day notices of intent to sue to several more power plants alleging that they had violated the NSR regulations.⁵²⁷ In some of those cases, the strategy worked as EPA intervened and, as the statute provides,⁵²⁸ took over control of the litigation. For example, the DOJ/EPA lawsuit against Midwest Generation was filed less than a month after environmental groups filed a sixty-day notice of intent to sue the plant for the same violations.⁵²⁹ Noting that EPA and the company had been negotiating for years, the head of one of the local groups observed that "[t]hey were either going to give up on negotiations and file suit, or they were going to continue to negotiate and let a ragtag group of environment and health organizations actually enforce the law."⁵³⁰

VI. DETERRENCE VERSUS ASSISTANCE AS VEHICLES FOR ADVANCING STATUTORY GOALS

The federal government's multi-year NSR enforcement initiative generated a great deal of controversy over whether a deterrencebased approach was the most effective way to incentivize owners of grandfathered power plants to clean up or retire their most polluting units. The debate over EPA's NSR initiative is part of a larger debate over the efficacy of deterrence versus assistance as a tool for implementing environmental policy. Drawing on the DOJ/EPA case study, this Part examines this broader question. The lessons drawn from this analysis should be applicable in other contexts in which an

^{525.} Andrew Childers, EPA Seeking More Power Plant Closures, Information in New Source Review Cases, 41 ENV'T REP. (BNA) 2731 (Dec. 10, 2010).

^{526.} Bandyk, supra note 524 (quoting Cesia Kearns, Sierra Club).

^{527.} See, e.g., Michael Bologna, Groups Threaten to Sue State Line Energy, Dominion over Air Act Violations in Indiana, 41 ENV'T REP. (BNA) 2056 (Sept. 17, 2010); Matthew Bandyk, New York, Pennsylvania to Sue Homer City Coal Plant over Emissions, SNL GENERATION MARKETS WK., July 27, 2010; Susanne Pagano, Environmental Groups Sue Texas Utility over Pollution from Coal-Fired Power Plant, 42 ENV'T REP. (BNA) 479 (March 11, 2011).

^{528. 42} U.S.C. § 7604(b)(1)(A)-(B) (2006).

^{529.} Michael Bologna, Government Brings Clean Air Act Charges Against Midwest Generation in Illinois Case, 40 ENV'T REP. (BNA) 2094 (Sept. 11, 2009).

^{530.} *Id.* (quoting Brian Urbaszewski, Director, Environmental Health Programs, Respiratory Health Association of Metropolitan Chicago).

agency has a choice between deterrence and assistance in crafting regulatory policy. This Part should also shed light on the less analyzed issue of the weight that agencies should give to ongoing enforcement efforts when they are contemplating reducing the stringency of the rules that are at the heart of the ongoing litigation.

Evaluating the impacts of the DOJ/EPA enforcement initiative (or any enforcement effort, for that matter) is not a straightforward exercise. Many different programs that EPA administers under the Clean Air Act affect power plant emissions, and it can be difficult to disaggregate the effects of one program from those of other programs.⁵³¹ For example, it may be difficult to distinguish the impact of CAIR, which the D.C. Circuit set aside but left in place on an interim basis,⁵³² from the impact of the DOJ/EPA NSR initiative. As we have seen, Bush administration officials belittled the NSR enforcement initiative because it did not compare favorably with CAIR or the Clear Skies legislation in terms of pollution reduction.⁵³³ As it turned out, however, the comparison was illusory because neither of those alternatives became law.⁵³⁴

To some extent, the debate over the DOJ/EPA enforcement initiative has been a debate over EPA's aggressive interpretation of the word "modification" in the Clean Air Act, its narrow interpretation of the RMRR exemption in its NSR regulations, and the overall desirability of any NSR program. Although the purpose of this Article is not to defend the concept of NSR and EPA's interpretations of its statute and regulations, to the extent that substantive criticisms and defenses of the NSR program bleed into arguments about the desirability of the EPA/DOJ enforcement initiative as a vehicle for implementing that program, the Article will address them as well.

The most carefully designed regulatory program imaginable will have no impact on environmental quality if the sources to which the program applies may ignore its requirements with impunity. EPA has frequently stressed that "an effective federal enforcement and compliance assurance program is an indispensable element of the

^{531.} See PARKER & BLODGETT, supra note 55, at 19–21 (describing alternative means of reducing emissions under the Clean Air Act).

^{532.} North Carolina v. EPA, 531 F.3d 896 (D.C. Cir. 2008) (setting aside CAIR); North Carolina v. EPA, 550 F.3d 1176 (D.C. Cir. 2008) (holding that vacatur of CAIR was not required prior to EPA's promulgation of a revised rule).

^{533.} See supra text accompanying note 348.

^{534.} *North Carolina*, 531 F.3d 896 (setting aside CAIR); Mary Curtius & Tom Hamburger, *Bush's Clear Skies Act Stalls in the Senate*, L.A. TIMES, Mar. 10, 2005, at A12 (reporting on the failure of the Clear Skies Act).

national environmental protection system."⁵³⁵ The theory of deterrence-based enforcement is based on the common sense premise that corporations are rational economic actors seeking to maximize profits and will therefore behave lawfully when the costs of noncompliance outweigh the benefits.⁵³⁶ The effectiveness of a sanction is a function of both the size of the penalty and the probability that the government will identify and prosecute violative conduct.⁵³⁷

A. Specific Deterrence

One uncontroversial advantage of strict deterrence-based enforcement is that "it convinces the violator not to violate again," a phenomenon known as "specific deterrence."⁵³⁸ Specific deterrence speaks loudly and directly to flouters. Once a flouter has been caught and punished, the flouter should be less likely to flout again. Flouters who have no respect for the regulatory requirements may respect the power of the Department of Justice to drag them into court and to force them to pay stiff penalties for unlawful conduct.⁵³⁹ The extent to which the specific deterrence advantage of deterrence-based enforcement is realized in any given regulatory setting depends on the probability and the consequences of getting caught. A slap on the wrist may not discourage recidivism, especially if the likelihood of getting caught is low.

B. General Deterrence

A second great advantage of strict enforcement is the message that it sends to other companies that they also risk punishment if they violate the law.⁵⁴⁰ No matter how sensible the rule and no matter how persuasive the relevant regulatory agency is in explaining the need for compliance, the power of the government to punish errant conduct gives the agency a credibility that allows it to focus the attention of the

^{535.} ENVTL. PROT. AGENCY, MEASURING THE PERFORMANCE OF EPA'S ENFORCEMENT AND COMPLIANCE ASSURANCE PROGRAM: FINAL REPORT OF THE NATIONAL PERFORMANCE MEASURES STRATEGY 1 (1997).

^{536.} Rechtschaffen, *supra* note 8.

^{537.} EPA, PRINCIPLES, supra note 8, at 2–3.

^{538.} Markell, *supra* note 11, at 11.

^{539.} *See* Barcott, *supra* note 166 ("Having long flouted the new-source review law, many of the nation's biggest power companies were facing, in the last months of the 1990's, an expensive day of reckoning. E.P.A. investigators had caught them breaking the law.").

^{540.} Matthew D. Zinn, Policing Environmental Regulatory Enforcement: Cooperation Capture, and Citizen Suits, 21 STAN. ENVTL. L.J. 81, 96 (2002).

regulated entities on their responsibilities to others.⁵⁴¹ This "general deterrence" function of strict enforcement depends upon the perception of members of the regulated community that sanctions will be swiftly implemented in a consistent fashion.⁵⁴²

Minimal compliers carefully weigh the cost of compliance against the magnitude of the relief that the government is likely to seek discounted by the probability that the violation will be detected and prosecuted. Strict deterrence-based enforcement increases both the magnitude of the probable penalty and the likelihood that the violation will be prosecuted, thereby sending to minimal compliers the message that they should not press the envelope of compliance. Numerous empirical studies demonstrate that deterrence-based enforcement is effective in achieving compliance with regulatory requirements and that "lack of meaningful sanctions has a significant adverse effect on compliance rates."⁵⁴³ The approach appeared to work in the case of the DOJ/EPA NSR enforcement initiative. EPA's Office of Inspector General concluded in 2004 that the initiative was an effective way to ensure that utility companies installed pollution control devices when they were making other modifications.⁵⁴⁴

C. Effective Implementation

If the assumption that minimal compliers and flouters make up a substantial percentage of regulated industry is accurate, then strict deterrence-based enforcement may be the best way to ensure that the policies underlying the relevant statute are implemented. The Clean Air Act's NSR program, for example, was the result of a grand legislative compromise under which existing sources were not subject to federally mandated pollution reduction technologies until they undertook significant modifications.⁵⁴⁵ Without strict federal enforcement of standards broadly defining "modification" and narrowly defining the RMRR exemptions, flouters and minimal

^{541.} JOHN BRAITHWAITE, TO PUNISH OR PERSUADE 118 (1985) (noting that "[t]he power to punish helps give legitimacy to regulators who wish to persuade").

^{542.} EPA, PRINCIPLES, *supra* note 8, at 2–3.

^{543.} See Rechtschaffen, supra note 8, at 10,815–18 (summarizing existing studies); see also Andreen, supra note 89, at 76 ("Breakdowns in federal enforcement seriously undercut law enforcement efforts,... encourage non-compliance, and subject the EPA to ridicule."); James R. May, Now More Than Ever: Trends and Environmental Citizen Suits at 30, 10 WIDENER L. REV. 1, 46 (2003) (citing studies conducted by EPA).

^{544.} OIG, NSR REPORT, supra note 396, at i.

^{545.} *Senate Public Health Hearings, supra* note 229, at 47 (statement of Gregory Wetstone, NRDC).

compliers will avoid NSR, thereby undermining the protective policies underlying the grand compromise.

D. Affirming Moral Values

There is also a moral dimension to deterrence-based enforcement that emphasizes the importance of punishing companies that have been getting away with unlawful conduct.⁵⁴⁶ Connecticut Attorney General Richard Blumenthal called the defendants in the NSR litigation "brazen, blatant environmental outlaws" who deserved to be punished, not freed of their responsibilities by the assistancebased policies of the Bush administration.⁵⁴⁷ Strict deterrence-based enforcement has the potential to "shore up the moral authority of the regulatory rule and the enforcement agency."548 Compromise, conciliation, and promises to do better in the future in lieu of punishment "may delegitimize the rule violated and actually encourage noncompliance by others who would otherwise comply voluntarily."549 The closed door negotiations that frequently characterize assistancebased approaches to enforcement fail to convey the important message to the regulated community that violating regulations designed to protect citizens is not just inefficient, it is wrong.⁴

E. Level Playing Fields

Strict deterrence-based enforcement levels the playing field for maximal compliers who err on the side of compliance with the environmental laws.⁵⁵¹ To the extent that they get away with conduct that violates the law, flouters and minimal compliers obtain a competitive advantage over maximal compliers that can be reflected in the prices of their competing products.⁵⁵² This competitive advantage is especially clear in the case of NSR where owners of older units cross over the line of illegality to avoid installing expensive pollution controls that maximal compliers and owners of new sources will have to install. Although they compete in the same deregulated

^{546.} Goodell, *supra* note 219.

^{547.} Shogren, Decision Near, supra note 90.

^{548.} Zinn, *supra* note 540, at 97.

^{549.} Id. at 97–98.

^{550.} Id. at 98.

^{551.} *Senate NSR Policy Hearings, supra* note 75, at 97 (statement of Thomas L. Sansonetti, Assistant Att'y Gen., Environment and Natural Resources Division, DOJ) ("[A]n important component of our efforts [is] to discourage non-compliance and to ensure a level playing field between those who comply with the law and those who fail to do so.").

^{552.} Markell, supra note 11, at 11; EPA, PRINCIPLES, supra note 8, at 1-4.

market for electricity, flouters and minimal compliers can produce electricity at lower cost than maximal compliers because they do not invest in pollution reduction technology.

F. Uncovering Information

The lawsuits that characterize deterrence-based enforcement allow plaintiffs to uncover information that would otherwise remain buried in industry files. For example, discovery in the NSR litigation turned up several "smoking gun" documents revealing that the electric utility industry, despite its protestations to the contrary, had known that projects causing large increases in emissions should have triggered NSR.⁵⁵³ Other documents discovered in the litigation showed that the Electric Power Research Institute had advised its members to identify life extension projects as "upgraded maintenance programs" and to "downplay the life extension aspects of these projects (and extended retirement dates) by referring to them as plant restoration . . . projects."⁵⁵⁴

G. Innovative Remedies

One very attractive attribute of strict deterrence-based enforcement is the wide and flexible variety of remedies that are available through judicial orders and consent decrees. In addition to substantial monetary penalties of up to \$27,500 per day, a court in a Clean Air Act case can mandate the installation of the state-of-the-art technologies that the company should have installed at the time of the change.⁵⁵⁵ Judicial injunctions or consent decrees can also require sources to fund "supplemental projects," like installing additional pollution controls on municipal trucks and municipal wastewater facilities or specific actions to protect watersheds and forests in national parks, which are important to the surrounding communities.⁵⁵⁶

^{553.} McIntosh, supra note 410.

^{554.} Senate Clean Air Act Hearings, supra note 93, at 100 (statement of David Hawkins, NRDC).

^{555.} PARKER & BLODGETT, supra note 55, at 8.

^{556.} See, e.g., Cook, AEP Settles, supra note 485; Steven D. Cook, Valero Energy Agrees to Spend \$232 Million on New Controls, Pay \$4.25 Million Penalty, 38 ENV'T REP. (BNA) 1805 (Aug. 24, 2007). With its share of the fines from the massive American Electric Power settlement, the State of New York paid for a \$1.9 million energy efficiency program for low-income families that saved them money and reduced greenhouse gas emissions. Lawsuit Funds N.Y. Energy Program, INSIDE ENERGY WITH FED. LANDS, Nov. 17, 2008, at 17.

H. Political Influence

Like the legislative process, the rulemaking process is vulnerable to political influence. Lobbyists for affected interest groups press their cases in private meetings with agency staff, high-level agency political appointees, officials in the Office of Management and Budget, White House staffers, and members of important congressional committees. In high-stakes rulemaking, companies may take their cases to the general public through staged media events, advertisements, websites, and appeals by industry-funded "Astroturf" public interest groups.557 These efforts can easily shape the substantive outcome of rulemaking initiatives, especially when the motivation behind the rulemaking exercise is to assist the regulated industry. For example, Connecticut Attorney General Blumenthal attributed EPA's 2002 decision to finalize the 1996 NSR Simplification rulemaking and to initiate the Safe Harbor Rule to political pressure from the energy industry through the Cheney Energy Task Force.⁵⁰⁸

While deterrence-based approaches are not immune to political influence, they are considerably less vulnerable to political overtures than assistance-based rulemaking. Media reports of strict deterrencebased enforcement actions against politically powerful companies contribute to a public sense that wrongdoers are being held accountable for their unlawful activities and thereby enhance public trust in the regulatory regime.⁵⁵⁹ By contrast, the spectacle of an agency restraining enforcers or rewriting the rules to shield companies from enforcement actions of past violations of the law can destroy public faith in government, especially when it appears that violations are widespread and flagrant.⁵⁶⁰ For this reason, internal White House rules "typically prohibit White House staffers from contacting agencies about specific enforcement actions, without preclearance from the White House counsel's office."561 Even

^{557.} Thomas O. McGarity, Administrative Law as Blood Sport: Policy Erosion in a Highly Partisan Age, 61 DUKE LJ. 1671, 1708–09 (2012). An Astoturf campaign "is a fake grassroots movement." George Monbiot, The Tea Party Movement: Deluded and Inspired by Billionaires, GUARDIAN, Oct. 25, 2010, at A31.

^{558.} See Martha Kessler, Utility Groups, State Officials Disagree on Enforcement of Program by Agency, 32 ENV'T REP. (BNA) 1401 (July 20, 2001) ("The nation's biggest air polluters would have the Bush administration pull the rug out from under efforts to clean up some of the most out-dated and polluting power plants in the country." (quoting Rob Sargent, MASSPIRG)).

^{559.} Markell, supra note 11, at 11.

^{560.} Andreen, *supra* note 89, at 76.

^{561.} Kate Andrias, *The President's Enforcement Power*, 88 NYU L. REV. (forthcoming 2013) (manuscript at 32).

committed industry friends like Senators John Breaux (R-Louisiana) and James Inhofe (R-Oklahoma) were careful to deny that they were attempting to "tell EPA not to enforce the law" even as they were urging the Cheney Task Force to suspend all of the NSR prosecutions pending an investigation into the legitimacy of the government's position in those lawsuits.⁵⁶²

I. The Case for Assistance

Underlying assistance-based approaches to regulation is the assumption that most regulatees are maximal compliers who are motivated by civic responsibilities beyond the simple maximization of profits. Because their employees and the compliance consultants that they hire are professionals, regulatory agencies can trust companies to act lawfully to the extent that those professionals are able to ascertain the correct path from the complex, vague, and sometimes conflicting regulations that the agency has promulgated.⁵⁶³ The government should therefore treat regulatees as partners in the common pursuit of the agreed-upon goal of maximum compliance.⁵⁶⁴ Proponents of assistance-based approaches predict that educational programs, technical assistance, and subsidies will yield greater environmental improvement than "bean counting" exercises involving numbers of citations issued and amounts of fines assessed.⁵⁶⁵

1. Nonadversarial Relationships

The primary disadvantage of deterrence-based regulation is its strong tendency to push the regulator and the regulatee into an adversarial relationship. Proponents of assistance-based approaches argue that minimal compliers are far more likely to engage in contentious disputes over interpretations of vague requirements, rather than compromise in an effort to achieve a beneficial environmental outcome, when the government insists on strict enforcement of its interpretation of the relevant statutes and regulations.⁵⁶⁶ Supporters of assistance-based approaches view punishment as a legalistic last resort.⁵⁶⁷ Instead of filing deterrencebased lawsuits, the agency should attempt to build a foundation of

^{562.} Najor, Suspend NSR Enforcement, supra note 306.

^{563.} Peter J. May, *Regulatory Regimes and Accountability*, 1 REGULATION & GOVERNANCE 8, 12 (2007).

^{564.} Rechtschaffen, supra note 8, at 10,804.

^{565.} Markell, *supra* note 11, at 8.

^{566.} Rechtschaffen, supra note 8, at 10,804.

^{567.} Markell, supra note 11, at 4.

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mutual trust and respect to support cooperative efforts to come up with innovative and flexible solutions when differences in interpretation arise.⁵⁶⁸ Government officials can make compliance more palatable by demonstrating that compliance will produce measurable environmental improvements, by praising responsible companies in public forums, and by helping regulatees to identify and implement feasible compliance options (for example, through creative financing arrangements).⁵⁶⁹ Assistance-based tools like tollfree "hotlines," workshops and conferences, newsletters, and onsite visits will yield better results more quickly than seeking large fines in contentious enforcement litigation.⁵⁷⁰

Supporters of deterrence-based approaches respond that it is surprisingly naïve to believe that most corporations are maximal compliers who are anxious to comply with the law.⁵⁷¹ While cooperation between agency investigators and regulatees is an altogether laudable goal, corporations face strong incentives to violate the laws.⁵⁷² When the government resorts to persuasion instead of deterrence, it is effectively conceding that the relevant rules are soft and negotiable.⁵⁷³ Flouters will ignore regulatory requirements until they are caught, and minimal compliers will interpret the requirements narrowly and the exemptions broadly to avoid spending scarce resources on controls that will not increase corporate profits. Civic responsibility may inspire some companies to become maximal compliers for some of the time, but shareholder demands for greater returns on their investments will ensure that most companies will remain minimal compliers.574 Supporters of deterrence-based enforcement are skeptical of the ability of professionals within corporations or in company-hired consulting companies to ensure that companies comply with the rules. They are cynical enough to believe that the one who pays the piper calls the tune. They worry that even professional organizations can become captured by the companies that hire their members.⁵⁷⁵

^{568.} Rechtschaffen, *supra* note 8, at 10,804.

^{569.} EPA, PRINCIPLES, *supra* note 8, at 5–3 to 5–5.

 $^{570.\} See$ Envtl. prot. Agency, Guide for Measuring Compliance Assistance Outcomes 4 (1999) (listing tools).

^{571.} BRAITHWAITE, *supra* note 541, at 100.

^{572.} Id.; Peter Mascini, The Blameworthiness of Health and Safety Rule Violations, 27 LAW & POL'Y 472, 479–80 (2005); Zinn, supra note 540, at 89, 96.

^{573.} BRAITHWAITE, *supra* note 541, at 112.

^{574.} RENA I. STEINZOR, MOTHER EARTH AND UNCLE SAM 90 (2008).

^{575.} May, *supra* note 563, at 23.

The experience of the electric power industry during the years between the 1977 Clean Air Act Amendments, which created NSR, and the Clinton administration's NSR enforcement initiative in 1999 bears this assessment out. As we have seen, documents and analyses presented to the courts in the NSR enforcement litigation demonstrated that while EPA was adhering to the compliance assistance approach during the early years of NSR, owners of power plants were spending millions of dollars on projects that increased emissions and did not come within the RMRR exemption.⁵⁷⁶

2. Fewer Resources

Another convincing argument in favor of the assistance-based approach is that it consumes fewer agency resources than strict deterrence-based programs.⁵⁷⁷ As a practical matter, "the capacity of company lawyers to exploit the complexity of the law and assert every legal right of their clients" means that full-scale prosecution "becomes very expensive and time-consuming."578 NSR enforcement cases, for example, require investigators to review a huge volume of records on capital and maintenance expenditures over the life of every unit at the target facility, to analyze reams of historical data on the plant's emissions, and to respond to document demands and other discovery requests from the defendants.⁵⁷⁹ The DOJ/EPA NSR enforcement initiative consumed a large proportion of OECA's dwindling enforcement resources, and it consumed the time of about one-third of the attorneys in the Justice Department's environmental enforcement division.⁵⁸⁰ The twenty-two settlements that resulted from the initiative as of mid-2012 took an average of seven years to complete.⁵⁸¹

^{576.} See supra Parts II-IV.

^{577.} BRAITHWAITE, *supra* note 541, at 109; GRAHAM K. WILSON, THE POLITICS OF SAFETY AND HEALTH 11 (1985); Markell, *supra* note 11, at 4.

^{578.} BRAITHWAITE, *supra* note 541, at 110.

^{579.} GAO, BETTER INFORMATION, *supra* note 16, at 17; *see also Senate NSR Policy Hearings*, *supra* note 75, at 113 (statement of Jeffrey Holmstead, EPA) (stating that "the filing of the power plant suits in 1999 was the culmination of 2 years of effort by dozens of EPA Head-quarters and Regional personnel, who investigated and developed the cases").

^{580.} See GAO, BETTER INFORMATION, supra note 16, at 19 (EPA resources); OIG, NSR REPORT, supra note 396, at 22–23 (OECA (EPA) resources); Steve Cook, Enforcement Cases Against Power Companies Move Slowly, Assistant Attorney General Says, 36 ENV'T REP. (BNA) 110 (Jan. 21, 2005) (DOJ resources).

^{581.} GAO, BETTER INFORMATION, supra note 16, at 19

3. Fewer Delays

In addition to consuming many resources, the process of building and prosecuting consumes a great deal of time.⁵⁸² Referring to the ongoing NSR litigation, EPA Administrator Stephen Johnson complained that "[n]o one's air gets any cleaner when you're sitting in a courtroom."⁵⁸³ Likewise, the head of DOJ's environmental enforcement unit characterized the NSR litigation as "a slow boat to China."584 Compliance assistance, by contrast, can proceed quite expeditiously at the ground level as the agency and the regulatee cooperatively search for the most efficient way to comply with the relevant requirements. Promulgating clarifying regulations can achieve compliance more rapidly than lawsuits that may wend their way through the courts for years before regulatees obtain a definitive interpretation of ambiguous regulatory language. The Duke Energy case, for example, went on for six-and-a-half years before public utility companies knew for certain that yearly, not hourly emissions were the relevant measure for determining whether projects crossed the NSR significance thresholds.⁵⁸⁵

4. Encouraging Maximal Compliance

Supporters of assistance-based approaches believe that the "iterative process" of negotiation, mediation, technical assistance, bargaining and compromise is the most effective way to ensure compliance with comprehensive and sometimes cross-cutting regulatory requirements.⁵⁸⁶ The negotiations offer government enforcers an opportunity to "mitigate the perceived irrationality and unfairness of generally applicable regulations" promulgated by agencies that could not possibly have anticipated every regulatee's

^{582.} Eric Pianin, U.S. Presses Utilities on Pollution Settlements, WASH. POST, Apr. 13, 2002, at A5 (citing statements made by EPA Administrator, Christie Todd Whitman, at a Senate hearing).

^{583.} Brian Hansen, Familiar Arguments Divide Sides as EPA Pitches 3rd New Source Review Change, INSIDE ENERGY WITH FED. LANDS, Oct. 17, 2005, at 3.

^{584.} Steve Cook, Enforcement Cases Against Power Companies Move Slowly, Assistant Attorney General Says, 36 ENV'T REP. (BNA) 110 (Jan. 21, 2005) (quoting Thomas Sansonetti, Assistant Att'y Gen. for Environment and Natural Resources, DOJ); see also id. (characterizing NSR litigation as "a quagmire that will not be resolved soon" (quoting Robert Sussman, attorney, Latham and Watkins)).

^{585.} See Stam, Duke Energy Case, supra note 216 (providing an overview of the highlights of the Duke Energy lawsuit). The government filed the Duke Energy case in December 2000, and the Supreme Court decided the appeal in April 2007. *Id.*

^{586.} Zinn, supra note 540, at 89.

unique situation.⁵⁸⁷ During the negotiations, companies are more likely to accept advice from inspectors on protective steps that may be taken beyond those strictly required by the written rules, including developing and implementing new safety technologies.⁵⁸⁸ If treated as adversaries, however, they "will become resentful and less cooperative" minimal compliers, doing only what is absolutely required and no more.⁵⁸⁹

5. Reducing Unnecessary Burdens

When an agency makes law on a case-by-case basis by applying broadly articulated factors to the facts before it in an enforcement action, it is hard for a company to know in advance how the agency will come out with respect to a particular project to which the company may need to devote millions of dollars and much staff time.⁵⁹⁰ This is especially true in the case of exemptions like the RMRR exclusions.⁵⁹¹ Deterrence-based enforcement places a great burden on companies to anticipate in advance how the agency will react to their actions long after it is possible to reverse them.⁵⁹² In addition to fostering uncertainty, enforcement litigation is economically burdensome to defendants who must hire lawyers, comply with broad discovery requests, and engage in public relations efforts to burnish their public images.⁵⁹³

Supporters of deterrence-based approaches respond that uncertainties can usually be reduced a considerable degree by consulting agency guidance documents and by consulting with agency officials in advance of making heavy investments. For example, companies concerned about whether a project will subject a source to NSR can ask EPA for an applicability determination prior to initiating a project.⁵⁹⁴ The argument that litigation subjects companies to

^{587.} Id. at 99.

^{588.} GRAHAM K. WILSON, THE POLITICS OF SAFETY AND HEALTH: OCCUPATIONAL SAFETY AND HEALTH IN THE UNITED STATES 11 (Oxford University Press 1985); Zinn, *supra* note 540, at 100–01.

^{589.} *See* Rechtschaffen, *supra* note 8, at 10,804 (describing the position of advocates of cooperative approaches).

^{590.} Senate Clean Air Act Hearings, supra note 93, at 87 (statement of Bob Slaughter, National Petrochemical and Refiners Association); Eder & Juni, supra note 194, at 9.

^{591.} Aw-yang, *supra* note 100, at 337.

^{592.} Domike & Zacaroli, supra note 221.

^{593.} See CHARLI E. COON, HERITAGE FOUND., TIME FOR EPA TO REEVALUATE ITS REINTERPRETATION OF NEW SOURCE REVIEW RULES (Nov. 19, 2001), available at www.heritage.org/research/reports/2001/11/time-for-epa-to-reevaluate-its-reinterpretation; GAO, BETTER INFORMATION, *supra* note 16, at 19.

^{594.} See supra text accompanying note 162.

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burdensome discovery requests presumes that the companies are in fact innocent. The information that the litigation turned up in the NSR enforcement litigation, however, demonstrated that most of the defendants were far from innocent victims of arbitrary government attacks. They had known for years that the expensive life extension projects they had undertaken were subject to NSR and did not come within any reasonable interpretation of the RMRR exemption.⁵⁹⁵ To a large extent, then, the burdens of litigation were self-imposed.

The critics of the DOJ/EPA deterrence-based enforcement initiative raised a number of concerns specific to that litigation to bolster their argument that EPA should rely more heavily on assistance-based measures. First, they argued that EPA should have public comment on its broad interpretation solicited of "modification" and narrow interpretation of the RMRR exemption in a full-fledged notice-and-comment rulemaking.⁵⁹⁶ In a collateral attack on the enforcement actions, a group of nonutility companies calling itself the Coalition for Responsible Regulations filed a separate action in the D.C. Circuit challenging the NSR enforcement initiative as a transparent attempt to avoid notice-and-comment rulemaking.⁵⁷ EPA enforcers responded that the agency had already promulgated a set of rules, and the projects that it was pursuing in the litigation clearly violated those existing rules.⁵⁹⁸ The industry's notice concerns were misplaced because each defendant had a full opportunity to respond to the agency's interpretations of the regulations in the judicial hearings. In any event, NSR enforcement actions were unsuited to rulemaking because the relevant facts varied from case to case, and the issues were therefore more appropriately addressed in individual adjudications.⁵⁹⁹

^{595.} See supra text accompanying notes 189-190.

^{596.} Senate Clean Air Act Hearings, supra note 93, at 88 (statement of Bob Slaughter, National Petrochemical and Refiners Association); Armstrong, supra note 194, at 204; Eder & Juni, supra note 194, at 9; see also Domike & Zacaroli, supra note 221 (explaining that "[o]ne of the most troubling aspects of EPA's recent NSR activity is the agency's attempt to rewrite the rules governing NSR permitting through the enforcement context" rather than through formal rulemaking).

^{597.} See Pamela Najor, Petition to Review Agency Enforcement Voluntarily Withdrawn by Industry Coalition, 31 ENV'T REP. (BNA) 226 (Feb. 11, 2000) (reporting that the Coalition asked the court to dismiss its challenge after receiving assurance from EPA that member of the coalition were not under investigation).

^{598.} See Pamela Najor, Enforcement Against Utilities Seen as Shift Away from Rules to Achieve Pollution Cuts, 31 ENV'T REP. (BNA) 278 (Feb. 18, 2000) ("'There is enough low-hanging fruit' with violations of existing regulations to keep the office occupied...." (quoting Bruce Buckheit, EPA)).

^{599.} GAO, BETTER INFORMATION, supra note 16, at 22.

Second, the industry and upwind states argued that the litigation was adversely affecting state regulatory programs. In many cases, state permitting authorities had issued NSR "nonapplicability" determinations concluding that specific projects were within the RMRR exemption.600 Second-guessing state agency decisions with federal enforcement actions, they argued, was inconsistent with the Clean Air Act's clear preference for allowing states to function autonomously within the confines of their SIPs.⁶⁰¹ Furthermore, if EPA's narrow view of the RMRR exemption were correct, overworked state agencies would be deluged with thousands of additional requests for nonapplicability determinations.⁶⁰² EPA responded that it simply could not trust state agencies in some upwind states to apply the NSR regulations stringently against local plants to protect air quality in downwind states. 603 Since the NSR regulations did not require companies to report projects that, in their estimation, did not cross the significance thresholds or that came within the RMRR exemptions, state agencies would not necessarily even be aware of projects that violated the regulations.⁶⁰⁴

Third, the critics argued that the litigation was discouraging efficiency-enhancing repairs and improvements that were necessary to protect worker safety and expand generating capacity.⁶⁰⁵ In the long

^{600.} Eder & Juni, *supra* note 194, at 10.

^{601.} Id. at 9–11; see also Senate Clean Air Act Hearings, supra note 93, at 66 (statement of Bill Pryor, Att'y Gen., Alabama) ("EPA's course eviscerated the cooperative federalist approach that is the heart of Congress' design."); Kessler, supra note 558 ("The EPA should allow states having effective minor NSR programs more flexibility in determining how federal requirements will be met." (quoting Dale Beebe-Farrow, Assistant Director, Air Permits Division, Texas Natural Resource Conservation Commission)).

^{602.} Senate Clean Air Act Hearings, supra note 93, at 87 (statement of Bob Slaughter, National Petrochemical and Refiners Association).

^{603.} Eder & Juni, *supra* note 194, at 10. The agency's inspector general cited several instances of upwind state agency failures to report significant violations of the NSR regulations to EPA. OFFICE OF INSPECTOR GEN., ENVTL. PROT. AGENCY, REPORT NO. E1GAE7-03-0045-8100244, CONSOLIDATED REPORT ON OECA'S OVERSIGHT OF REGIONAL AND STATE AIR ENFORCEMENT PROGRAMS 7–14 (1998).

^{604.} See New York v. EPA, 413 F.3d 3, 34 (D.C. Cir. 2005) (discussing the lack of reporting requirements).

^{605.} See Senate NSR Policy Hearings, supra note 75, at 26 (statement of Ande Abbott, International Brotherhood of Boilermakers) (addressing worker safety); EPA NSR REPORT, supra note 246, at 14 ("[A] significant number of industry commenters stated that an inappropriately narrow routine maintenance, repair and replacement exclusion would prevent electricity generators from taking advantage of opportunities to improve their generating efficiency."); Kessler, supra note 558 (referencing statements made by C. Boyden Gray of the Electricity Reliability Coordinating Council that EPA's enforcement program "is discouraging efficiency improvements and cutting the potential for expanding generating capacity").

run, this would threaten the reliability of the nation's electricity grids.⁶⁰⁶ It would also have the perverse effect of discouraging power plants from undertaking projects that would enhance environmental quality by increasing efficiency.⁶⁰⁷ Supporters of the initiative responded that strict deterrence-based enforcement of NSR would not discourage efficiency improvement projects that did not result in an increase in actual emissions, and assisting the industry by turning a blind eye on projects that did increase emissions would run contrary to the intent of the statute.⁶⁰⁸ According to EPA, the power plants that it had sued had not suffered any loss in capacity.⁶⁰⁹ Environmental groups scoffed at the notion that assisting companies by facilitating projects at existing plants would result in environmental improvements, because the modest efficiency gains available through tweaking existing plants would result in an equally modest reduction in pollutants per kilowatt hour. The companies could achieve vastly greater efficiency gains by replacing older units with much more efficient (and less polluting) new units.⁶¹⁰

Fourth, critics of the NSR enforcement initiative argued that the settlements required "little more, if anything, than what the settling companies had already started doing for business and regulatory reasons."⁶¹¹ In particular, while the litigation was pending, EPA had promulgated CAIR, which would have established a cap-and-trade regime for power plans in twenty-eight states.⁶¹² High-level EPA officials frequently cited CAIR in support of the agency's attempts to revise the NSR regulations, arguing that any emissions increases brought about by the changes would be more than offset by emissions

^{606.} Eder & Juni, *supra* note 194, at 11; Goodell, *supra* note 219; Marquis, *supra* note 325 (quoting Scott Segal, Bracewell & Guiliani); Shogren, *Decision Near, supra* note 90 (quoting Paul King, Vice President, Cinergy Power Generation).

^{607.} See Senate Clean Air Act Hearings, supra note 93, at 90 (statement of W. Henson Moore, President, American Forest & Paper Association); EPA NSR REPORT, supra note 246, at 15–16 (describing the industry argument that discouraging efficiency improvements results in higher emissions); Industry Calls on Senate to Support NSR Changes, OIL & GAS J., Aug. 19, 2002; Matthew L. Wald, Cleaning Coal-Fired Plants: The Debate Burns on, N.Y TIMES, Aug. 27, 2002, at F1.

^{608.} EPA NSR REPORT, *supra* note 246, at 16; Kessler, *supra* note 558 274 (quoting Lauren Liss, Massachusetts Department of Environmental Protection and Peter Lehner, New York Attorney General's Office).

^{609.} Senate NSR Policy Hearings, supra note 75, at 73 (statement of Eric Schaeffer, Environmental Integrity Project).

^{610.} Buckheit Testimony, supra note 85, at 4.

^{611.} Jaber, supra note 53, at 29.

^{612.} Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule); Revisions to Acid Rain Program; Revisions to the the NOX SIP Call, 70 Fed. Reg. 25,162 (May 12, 2005) (codified at 40 C.F.R. §§ 51, 72–74, 77–78, and 96).

reductions attributable to CAIR.⁶¹³ In fact, the rule had little impact on emissions from existing sources because it was set aside by the D.C. Circuit, though the court allowed EPA to leave it in effect pending remand.⁶¹⁴

J. Deterrence in Practice: A Very Successful NSR Enforcement Initiative

By virtually any measure, the DOJ/EPA NSR enforcement initiative was a great success. Of the 831 electricity- generating units that EPA investigated prior to 2012, it took some kind of enforcement action against 467, representing about forty-five percent of the coalfired electricity generating units in the United States.⁶¹⁵ The initiative resulted in twenty-two major settlements covering 263 units, about thirty-two percent of the 831 units.⁶¹⁶ According to the calculations of the Government Accountability Office, the companies that were parties to the settlements agreed to spend around \$12.8 billion on pollution controls and pay around \$80 million in fines.⁶¹⁷ When fully implemented, the settlements are estimated to reduce SO₂ emissions by more than 1.8 million tons per year and NOx emissions by more than 596,000 tons per year.⁶¹⁸ An early analysis of EPA's NSR enforcement initiative prepared for the Clean Air Task Force in 2002 found that 5,500-9,000 deaths per year and 106,000-165,000 asthma attacks were attributable to the fifty-one power plants that were the subjects of the NSR lawsuits at that time.⁶¹⁹ The study also determined

^{613.} Steven D. Cook, Impact of Changes to Enforcement Program Offset by EPA's Interstate Rule, Report Says, 37 ENV'T REP. (BNA) 1555 (July 28, 2006) (quoting Bill Harnett, EPA); Juliet Eilperin, EPA Issues Draft Rules on Plants' Emissions, WASH. POST, Oct. 14, 2005, at A4 (quoting Stephen L. Johnson, EPA). EPA also took the position that CAIR encouraged companies in lawsuits to come "to the table for settlement discussions." Susan Bruninga, Ohio Edison Co. Agrees to Pay \$1.1 Billion to Cut Emissions 212,000 Tons from Plants, 36 ENV'T REP. (BNA) 573 (Mar. 25, 2005) (quoting Thomas Skinner, EPA); Steve Cook, Illinois Power Agrees to Reduce Emissions in \$500 Million Settlement of EPA Lawsuit, 36 ENV'T REP. (BNA) 463 (Mar. 11, 2005) (quoting Thomas Skinner, EPA).

^{614.} North Carolina v. EPA, 531 F.3d 896 (D.C. Cir. 2008) (setting aside CAIR); North Carolina v. EPA, 550 F.3d 1176 (2008) (holding that vacatur of CAIR was not required prior to EPA's promulgation of a revised rule).

^{615.} GAO, BETTER INFORMATION, supra note 16, at 20-21.

^{616.} Id. at 21. The initiative resulted in 31 settlements with 108 refineries in 32 states and territories representing more than 90% of the nation's refining capacity in which companies agreed to spend more than \$6 billion on pollution controls. Lorraine McCarthy, *Hess Corp. Agrees to Spend \$45 Million on Advanced Pollution Controls at Refinery*, 43 ENV'T REP. (BNA) 1067 (Apr. 27, 2012).

^{617.} GAO, BETTER INFORMATION, *supra* note 16, at 21.

^{618.} Id.

^{619.} L. BRUCE HILL, CLEAN AIR TASK FORCE, A PRELIMINARY ANALYSIS OF THE BENEFITS AND COSTS OF CURRENT NEW SOURCE REVIEW LITIGATION 3 (2002).

that 4,300–7,000 of those deaths and 80,000–120,000 of the asthma attacks could be avoided if the plants were required to install BACT.⁶²⁰ Cleaning up the plants to BACT levels would cost about \$3.6 billion per year and would yield health benefits of between \$24–38 billion.⁶²¹

VII. CONCLUSIONS: LESSONS FOR THE FUTURE

The highly successful DOJ/EPA NSR enforcement initiative can serve as a model for accomplishing major change through deterrencebased enforcement. In the late 1990s, at a time when political attacks on EPA were at a low point and its administrator was determined to bring about significant environmental improvement, the agency devoted a substantial share of its enforcement resources to the NSR program.⁶²² It focused on the electric utility industry because preliminary investigations revealed that most of the companies were minimal compliers and a few were flouters. The minimal compliers had grown quite accustomed to their own narrow interpretations of the word "modification" and expansive interpretations of the RMRR exemption, in part because EPA had done little to prevent the steady erosion of the meaning of its regulations.⁶²³

When EPA finally did act, the industry cried foul, arguing that the agency was attempting to foist off a radical new interpretation of its regulations on the courts.⁶²⁴ Unfortunately for the industry, the courts did not accept its attempt to frame the issue, in part because a wealth of documents turned up during discovery strongly suggested that many companies knew full well that they were pressing the outer edges of reasonable interpretation as they undertook expensive lifeextension projects without undergoing NSR.⁶²⁵ Although the political dynamics of NSR shifted dramatically with the onset of the George W. Bush administration as EPA's air office proposed changes that would have legalized much of the conduct that EPA enforcers had targeted, DOJ and EPA persisted in their efforts to enforce the law that existed at the time of the violations.⁶²⁶ The Obama administration reinvigorated the initiative in 2009 with positive results, indicating

^{620.} Id.

^{621.} *Id.* at 3–4. The report also concludes that "NSR enforcement holds significant promise for reducing particulate matter, ozone, haze and acid rain where impacts are most severe and emissions reductions will have the most benefit." *Id.* at 4.

^{622.} See supra Part II.A.

^{623.} See supra Parts II.B, II.F.

^{624.} See supra Part IV.C.

^{625.} See supra text accompanying notes 189–190.

^{626.} See supra Part V.H.

that many more companies had crossed the line between minimal compliance and illegality. $^{^{627}}$

In the end, the enforcement initiative yielded settlements with virtually all of the targeted companies, which should bring about major reductions in emissions of SO₂ and NOx.⁶²⁸ The initiative went on for more than a decade and it consumed many valuable resources, but it ultimately accomplished more than the Clear Skies proposal, which went nowhere in Congress, CAIR, which was overturned by the D.C. Circuit, and all of the Bush administration's proposed changes to the NSR regulations, which, to the extent that they went into effect, gave sources greater latitude to avoid NSR.⁶²⁹ Although the DOJ/EPA initiative was clearly not favored by the Bush administration or by Republican members of Congress, it moved inexorably forward in neutral forums where the law, not political considerations, determined the outcome.

One very powerful lesson that the NSR experience offers for the future is that old-fashioned deterrence-based enforcement works. The statistics on settlements lodged, pollution reduction promised, penalties paid, and lives saved in the last Part demonstrate the potential of a determined enforcement effort to accomplish genuine environmental gains.⁶³⁰ It is possible, of course, that the NSR enforcement is sui generis: EPA enforcers encountered an industry composed largely of flouters who had left behind an easily uncovered paper trail and could not craft a credible legal strategy to explain its unlawful conduct. That explanation, however, does not square with the facts. While there were no doubt flouters in the industry, most of the companies appeared to be aggressive minimal compliers who were careful to stay within the bounds of a credible, if ultimately unpersuasive, interpretation of the NSR regulations. More important, the NSR initiative included more than one industry. For example, many of the defendants were petroleum refineries and paper companies that also entered into settlements that produced large reductions in emissions.⁶³¹

A second lesson to take away from the NSR experience is that strict enforcement is far less susceptible to political manipulation than rulemaking. Once a lawsuit has been filed, the professional attorneys in DOJ and EPA take over, and it becomes very difficult for even

^{627.} See supra Part V.H.5.

^{628.} See supra Part VI.J.

^{629.} See supra Parts V.E-F, VI.J.

^{630.} See supra Part VI.J.

^{631.} See supra note 483.

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powerful political actors such as Senator Inhofe and Vice President Cheney to wrest control of the lawsuits away from the professionals.⁶³² Even a sustained effort by the Bush administration to change the underlying rules in ways that undercut the enforcement effort failed to cause the EPA and DOJ enforcers to back away from the pending cases, though these efforts did periodically prevent EPA investigators from pursuing new NSR enforcement cases.⁶³³ In the final analysis, accusations of political interference with DOJ efforts to bring wrongdoers to justice are usually enough to cause politicians to back off.

The third lesson of the NSR enforcement initiative is that strict deterrence-based enforcement consumes large quantities of scarce enforcement resources.⁶³⁴ In a time of governmental austerity, this is an important impediment to deterrence-based enforcement programs in the federal government. More than any other factor, the availability of enforcement resources determines the probability that violations will be detected and vigorously prosecuted. Yet, vigorous enforcement will always be needed to bring flouters to justice and to send a message to minimal compliers that they should think twice about getting too close to the line between lawful and unlawful conduct.⁶³⁵ Congress must therefore recognize its continuing responsibility to appropriate sufficient funds to EPA and DOJ for them to undertake major enforcement initiatives in the future.

A fourth lesson is that agency attempts to amend the regulations underlying an enforcement initiative to assist the relevant industry will inevitably undermine that initiative, despite the agency's protestations to the contrary.⁶³⁶ In theory, a company is bound by the rules that were in effect at the time that it engaged in the allegedly unlawful conduct, even if those rules are changed to legalize that particular conduct in the future. Respect for the rule of law demands that violators be punished for their actions, even if they successfully lobby

^{632.} Cook, *Lawsuits Going Ahead*, *supra* note 318 (quoting Connecticut Attorney General Richard Blumenthal who described the professionals at DOJ and EPA as "'emotionally and professionally invested in this effort'").

^{633.} See supra Part V.H.

^{634.} See supra Part VI.I.2.

^{635.} See Senate Public Health Hearings, supra note 229, at 30 (statement of Christie Todd Whitman, EPA) ("[T]here will always be companies against which we are going to need to bring action").

^{636.} Steve Cook, Second Former EPA Enforcement Official Criticizes Bush Administration's Reform Plan, 33 ENV'T REP. (BNA) 2297 (Oct. 25, 2002) ("'Regulators trying to enforce the Clean Air Act now do so on a shifting floor of promised exemptions and regulatory uncertainty....'" (quoting Sylvia Lowrance, former deputy assistant administrator, EPA)).

the agency to change the rules before the completion of the enforcement actions. In practice, however, the fact that the government no longer thinks that the regulation is needed can have a profound effect on the ongoing litigation.⁶³⁷ Judges may be less inclined to allow the cases to go forward when it is not clear that the government believes that compliance will bring about needed improvements, and they may be even less inclined to administer stiff penalties to minimal compliers for conduct that pressed the outer interpretational limits of regulations that are no longer applicable.

A fifth lesson is that citizen enforcement provisions in statutes allow representatives of the beneficiaries of regulatory programs to play a vital backup role in cases in which the federal government is unwilling or unable to enforce the law.⁶³⁸ The purpose of the sixty-day notice requirement is to allow the federal government to initiate and control the course of the enforcement action before the citizens file their lawsuits.⁶³⁹ State attorneys general and environmental groups can effectively force the federal government's hand by filing a sixtyday notice and daring the government not to intervene. More important, they can discourage DOJ from abandoning a lawsuit that it has already filed by threatening to take over the litigation in the government's absence. After President Bush mandated a DOJ review of the pending NSR litigation, for example, it was clear that Vice President Cheney and Secretary of Energy Spencer Abraham wanted DOJ to drop some or all of those cases.⁶⁴⁰ The environmental groups and state attorneys general who had intervened in those cases made it clear, however, that they would press ahead with the cases if the federal government withdrew.⁶⁴¹ The net effect of the citizen enforcement provisions of the Clean Air Act was to act as an inertial force against the government's attempt to reverse course in the middle of a major enforcement initiative.

The choice between deterrence-based approaches and assistancebased approaches is not an all-or-nothing proposition. Any particular regulatory regime lies on a spectrum with strict deterrence at one extreme and gratuitous assistance at the other. A regulatory regime

^{637.} Devine, supra note 189, at 142-45; Mintz, supra note 36, at 10,503.

^{638.} Barry Boyer & Errol Meidinger, *Privatizing Regulatory Enforcement: A Preliminary Assessment of Citizen Suits Under Federal Environmental Laws*, 34 BUFF. L. REV. 833, 838 (1985); May, *supra* note 563, at 8.

^{639.} In fact, the mailing of a sixty-day notice letter is a legal prerequisite to filing any action in court. Boyer & Meidinger, *supra* note 638, at 869 n.89.

^{640.} See supra Part V.B.

^{641.} See supra Part V.H.4.

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can provide assistance to regulatees through guidance documents, seminars, and training sessions and still be deterrence-based when the agency makes it clear that it will vigorously prosecute flouters and minimal compliers who go too far in exploiting gray areas. The question for EPA and other regulatory agencies is where to locate their programs on the spectrum.

In a society that prides itself on adherence to the rule of law, the expectation is that most companies are maximal compliers who do their best to ascertain and comply with the laws and regulations that protect consumers, workers, and the environment from unacceptable risks. The economics of compliance, however, ensure that companies are more likely to be minimal compliers who are determined to divert the fewest possible resources to compliance with regulations that do not add to their bottom lines. And every regulatory regime will encounter flouters who are happy to ignore legal restrictions until they are caught. How the regulatory agency goes about enforcement depends on its assessment of the proportions of its regulatees that fall into each of these three categories. EPA's experience with the electric utility industry's compliance with the Clean Air Act's NSR requirements suggests that when an agency encounters an industry dominated by aggressive minimal compliers, a deterrence-based strategy is likely to be more successful than an assistance-based strategy that assumes that most regulatees happily obey that law.