Bringing New Source Review Back: The Supreme Court's Surprise (and Disguised) Attack on Grandfathering Old Coal Plants in *Environmental Defense v. Duke Energy Corp*

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INTRODUCTION

The United States Supreme Court is not supposed to be the ultimate arbiter of clean air policy. Yet, with respect to the Clean Air Act ("CAA" or "the Act") and its applicability to older power plants, the Court has had to take on that role after last term's decision in *Environmental Defense v. Duke Energy Corp.* Since the 1970s, the CAA has grandfathered some of the nation's dirtiest power plants, exempting them from special requirements of the CAA. But in *Environmental Defense*, the Court closed part of this loophole — at least for now. *Environmental Defense* developed from an enforcement action against Duke Energy ("Duke"), the nation's third largest generator of coal power, which makes the case important on its own merits.[1] More importantly, *Environmental Defense* was part of a broad enforcement initiative that began in 1999. Many of the enforcement actions initiated around that time are still being litigated today. The outcome of *Environmental Defense* will therefore affect the outcome of many other pending lawsuits against operators of old coal plants, ensuring that a power plant which significantly increases its annual emissions is subject to the New Source Review ("NSR") provisions of the CAA. In the face of an administration that appears not to recognize clean air as a serious policy concern, the Court has finally recognized a limit to the rules that have grandfathered aging power plants for decades.

I. FACTUAL BACKGROUND

Duke, the defendant in *Environmental Defense*, operates 30 coal-fired electric generating units at eight plants in the Carolinas.[2] These units all came online between 1940 and 1975.[3] Because they were built during this period, the units are part of a group of coal power plants that, when enacting the 1970 and 1977 amendments to the CAA, Congress assumed would phase out after a lifetime of forty years.[4] By the late 1980s, many of Duke's older plants had deteriorated to the point of being often or always out of service.[5] A representative for Duke even admitted to state regulators that "[h]istorically, units of this age and

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[1] *See Examining Global Warming Issues in the Power Plant Sector: Hearing Before the S. Comm. on Environment & Public Works*, 110th Cong. 4 (2007) (testimony of James E. Rogers, Chairman, President and CEO, Duke Energy Corporation), http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=96b0a903-32fc-47f8-9a36-b4ddd9805e2b (last visited March 9, 2008).

[2] Environmental Defense v. Duke Energy Corp., 127 S.Ct. 1423, 1430 (2007).

[3] *Id.*

[4] Shi-Ling Hsu, *Reducing Emissions from the Electricity Generation Industry: Can We Finally Do It?*, 14 TUL. ENVTL. L.J. 427, 435 (2001).

[5] Petition for Writ of Certiorari to the United States Court of Appeals for the Fourth Circuit at 9, *Environmental Defense*, 127 S.Ct. 1423 (No. 05-848).

condition would be retired and scrapped."[6]

Despite their age, these plants were not phased out, and may continue to operate well into the future if key componentry is replaced from time to time. The boilers of these units contain thousands of steel tubes arranged in sets.[7] Between 1988 and 2000, Duke replaced or redesigned twenty-nine tube assemblies.[8] In many cases, the cost of replacing these tubes was several times the original cost of the entire generating unit.[9] The renovations sometimes took more than a decade.[10] Duke made these changes "to extend the life of the units and to allow them to run longer each day."[11] The changes did not increase the hourly emissions rate, but Duke planned to operate the plants longer each day, increasing overall emissions.[12] Duke undertook these renovations without seeking an applicability determination on whether the work was subject to CAA review under the NSR provisions. Consequently, the Environmental Protection Agency ("the EPA") brought an enforcement action against Duke under NSR in 2000.[13] The critical dispute in *Environmental Defense* is whether NSR applies only when the *hourly* emissions rate increases as a result of a change to a power plant, or whether it applies whenever such a change creates a significant increase in *annual* emissions.[14]

II. REGULATORY BACKGROUND

In an effort to coordinate state and Federal efforts to combat air pollution,[15] Congress passed the CAA in 1963.[16] However, the CAA became a truly powerful tool for air quality enforcement several years later in 1970, when Congress passed amendments creating the New Source Performance Standard ("NSPS") program.[17] The express purpose of NSPS was "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population."[18] NSPS created rules requiring both new and "modified" sources to employ the best

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[6] *Id.* at 9 n.4.

[7] *Environmental Defense*, 127 S.Ct. at 1430.

[8] *Id.*

[9] Petition for Writ of Certiorari, *supra* note 5, at 9.

[10] *Id.*

[11] *Environmental Defense*, 127 S.Ct. at 1430.

[12] *Id.* at 1431.

[13] *Id.* at 1430.

[14] *Id.*

[15] *See* General Motors Corp. v. United States, 496 U.S. 530, 532 (1990).

[16] Clean Air Act of 1963, Pub L. No. 88-206, 77 Stat. 392 (1963).

[17] Clean Air Act of 1970, Pub L. No. 91-604, 84 Stat. 1676 (1970).

[18] Petition for Writ of Certiorari, *supra* note 5, at 3.

available pollution control technology.[19]

Congress eventually concluded that the NSPS amendments of 1970 were not effective enough to prevent significant degradation of air quality in attainment areas (areas that were already "clean").[20] In 1977, Congress further amended the CAA, creating the NSR amendments under which the EPA brought the instant enforcement action against Duke.[21] These amendments created more stringent requirements to ensure that the air quality in attainment areas would not degrade.[22]

NSR differs from NSPS primarily because NSR focuses on the total emissions at the site rather than merely on the technology used to mitigate those emissions.[23] NSR requires a power plant operator to obtain a permit before constructing a new power source or significantly modifying an existing one.[24] If permitted, the source must then install the best available pollution control technology, identified on a case by case basis.[25] It must also comply with the NSPS and other CAA requirements.[26] Therefore, in a sense, NSPS review is now built into NSR.[27]

The NSR provisions apply to the "construction" of stationary sources,[28] which encompasses both new projects and existing plants that have undergone a "modification."[29] Instead of redefining "modification," the NSR statute initially incorporated that word as defined in NSPS.[30] Congress defined "modification" in the NSPS provisions as "any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted."[31] Congress did not specify any particular method of measurement for determining whether an "increase" in the amount of pollutants has occurred.[32]

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[19] *Id.* at 4. The definition of "modification" has become a hotly contested issue and is at the center of the controversy in *Environmental Defense.*

[20] Petition for Writ of Certiorari, *supra* note 5, at 5.

[21] Clean Air Act Amendments of 1977, Pub L. No. 95-95, 91 Stat. 685 (1977) (codified as amended at 42 U.S.C. §§ 7401 et seq. (2006)).

[22] 42 U.S.C. § 7470(1).

[23] *Id.*

[24] § 7475.

[25] § 7479(3).

[26] § 7475(a)(3).

[27] These NSR provisions are the basis for the enforcement action in *Environmental Defense*, and this is where the grandfathering issue enters the discussion.

[28] 42 U.S.C. § 7475(a).

[29] § 7479(2)(C).

[30] *Id.* (stating that "[t]he term 'construction' when used in connection with any source or facility includes the modification [as defined in NSPS] of any source or facility.").

[31] 42 U.S.C. § 7411(a)(4).

[32] *Id.*

The statutory NSR definition of "modification" is identical to the NSPS statutory definition.[33] Therefore, there is only one statutory definition of "modification" at issue in *Environmental Defense* — an increase in "the *amount* of any air pollutant emitted."[34] However, a conflict between NSPS and NSR arose when the EPA issued more detailed regulations stating that the test for a "modification" under NSPS would be different from that under NSR. The EPA established the regulatory NSPS test first, in a 1975 regulation that defines a "modification" as any physical or operational change to a facility that increases its hourly emissions rate.[35] Then, in 1980, the EPA created the test for a "modification" under the NSR rules, issuing a regulation that stated that an "increase" in the amount of emissions for NSR purposes is to be measured by total annual emissions.[36] Essentially, the EPA decided that NSR should be triggered not only if a change to a power plant increases the hourly emissions rate (as with NSPS), but also if the change increases the total annual emissions as well. The work Duke did on its power plants increased only the annual emissions and not the hourly emissions.[37] Therefore, in *Environmental Defense*, Duke argued that because the NSR statute referenced the NSPS provisions for its definition of a modification, the EPA was bound by its regulations issued under NSPS.[38] That is, the EPA could find a modification only upon an increase in hourly emissions. The EPA responded by arguing that its two regulatory tests for a modification under NSPS and NSR are both consistent with the NSPS statute.[39]

III. THE DECISION

NSPS and NSR apply whenever a power plant is "constructed," which includes "modification" to an existing plant.[40] Duke argued the NSR definition of "modification" incorporates not only the statutory NSPS definition, but also whatever subsequent regulatory gloss the EPA puts on that definition.[41] The EPA issued regulations under the NSPS provisions defining a "modification" as a physical or operational change increasing the hourly rate of emissions.[42] Duke claimed it was therefore only subject to NSR if its modifications caused an

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[33] *See* 42 U.S.C. § 7411(a)(4); § 7479(2)(C).

[34] § 7411(a)(4).

[35] 40 C.F.R. §§ 60.14(a)-(b) (2008).

[36] 40 C.F.R. § 51.166(b)(2)(i); *see* Environmental Defense v. Duke Energy Corp., 127 S.Ct. 1423, 1434 (2007).

[37] *Environmental Defense*, 127 S.Ct. at 1431.

[38] *Id.* at 1434.

[39] *Id.* at 1430.

[40] 42 U.S.C. § 7479(2)(C) (2006).

[41] *See Environmental Defense*, 127 S.Ct. at 1434.

[42] 40 C.F.R. §§ 60.14(a)-(b) (2008).

increase in the hourly rate of emissions.[43]

The government argued that the EPA is free to create differing definitions of "modification" in the NSPS and NSR regulations.[44] The EPA may do so, the government argued, so long as the definitions are not inconsistent with the broad statutory definition in NSPS.[45] The dispute in *Environmental Defense* was therefore whether the EPA may use two different definitions of "modification" in its regulations.

The Court held that the EPA is free to put a different regulatory "gloss" on the definition of "modification" for both NSPS and NSR.[46] This is true despite the fact that the NSR statute incorporates by reference the NSPS statutory definition of "modification." To be valid, the varying "glosses" must only be consistent with the NSPS statutory definition of "modification."[47] Because the NSPS statutory definition could support either hourly or annual emissions tests, the Court deemed the EPA's varying regulatory glosses proper.[48]

IV. DISCUSSION

The Court's decision has brought needed clarity to the legal standard that courts should apply in NSR enforcement actions. Any physical change leading to an increase in annual emissions will subject a power plant to the CAA's NSR provisions. The decision also resolves a split between the Fourth and Seventh Circuits as to whether the EPA may put varying constructions on the same term in its regulations.[49] This is important for the actions that are already pending as a result of the 1999 enforcement drive. It also ensures that NSR will continue to apply to any plant which undergoes a change that increases its annual emissions.

Environmental Defense is significant in that it is only the third environmental law case in thirty-five years to be taken up by the Supreme Court where environmental groups alone sought review.[50] By the time the case reached the

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[43] *Environmental Defense*, 127 S.Ct. at 1430-31.

[44] *Id.* at 1430.

[45] *Id.*

[46] *Id.* at 1434 ("EPA's construction need do no more than fall within the limits of what is reasonable, as set by the Act's common definition.").

[47] The NSPS statute defines a "modification" as a "physical change" causing an increase in "the amount of any air pollutant emitted." 42 U.S.C. § 7411(a)(4) (2006).

[48] *Environmental Defense*, 127 S.Ct. at 1434. The plain language of the NSR statutory definition of "construction" refers only to the NSPS statutory definition in the NSPS title, not to subsequent regulations issued under NSPS. 42 U.S.C. § 7479(2)(C) ("The term "construction" when used in connection with any source or facility, includes the modification (*as defined in section 7411(a) of this title*) of any source or facility.") (emphasis added).

[49] *See* David B. Rivkin, Jr., SCOTUSBlog, *Discussion Board: Initial Thoughts on* Duke Energy, http://www.scotusblog.com/wp/uncategorized/discussion-board-initial-thoughts-on-duke-energy (last visited Mar. 25, 2008). Rivkin was a participant in the *Environmental Defense* litigation; he filed an amicus brief.

[50] *U.S. Supreme Court to Hear Duke Energy Air Pollution Case*, ENVIRONMENT NEWS

Supreme Court, the government no longer claimed error. This is remarkable because if the case is truly about the EPA's regulatory power, as the opinion suggests, then the government is the party that should have the greatest interest in the outcome. But this case is not really about the EPA's regulatory power. Nor is it "just about an enforcement action against a single regulated entity."[51] In a very understated way, this case is about closing a grandfathering loophole left open by Congress for decades.

A. The Understated Nature of the Opinion Hides Its True Significance

It is difficult to grasp the full significance of the *Environmental Defense* decision by simply reading the text of Justice Souter's opinion. The opinion is austere and uncontroversial in its language, discussing principles of statutory interpretation without ever mentioning United States energy policy. It was proper for the Court to avoid discussing national energy policy because statutory construction was the only issue before it in *Environmental Defense*. Yet the statutory construction issue was already decided in *Chevron v. National Resources Defense Council*, making it unnecessary for the Court to revisit the issue.[52] Perhaps the extended statutory construction discussion in *Environmental Defense* served merely as a proxy to allow the Supreme Court to weigh in on a case it considered important for other reasons.

In many environmental cases, the legal issues being debated seem far afield from what is truly important in the case.[53] Perhaps the most visible example of

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SERVICE, May 16, 2006, *available at* http://www.ens-newswire.com/ens/may2006/2006-05-16-04.asp (last visited March 25, 2008).

[51] Brief of Former EPA Administrators Carol M. Browner & Russell E. Train as Amici Curiae Supporting Petitioners at 1, Environmental Defense v. Duke Energy Corp., 127 S.Ct. 1423 (2007) (No. 05-848).

[52] 467 U.S. 837, 842-43 (1984). In *Chevron*, the Court held:

> When a court reviews an agency's construction of the statute which it administers, it is confronted with two questions. First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress. If, however, the court determines Congress has not directly addressed the precise question at issue, the court does not simply impose its own construction on the statute, as would be necessary in the absence of an administrative interpretation. Rather, if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute.

Id.

[53] *See, e.g.*, Lujan v. Defenders of Wildlife, 504 U.S. 555, 564 (1992) (holding that ability of citizen environmentalist to bring lawsuit to prevent extinction of a species in another part of world turned on whether citizen-plaintiff environmentalist could produce plane ticket showing that she had recently visited the species or had firm plans to visit species in near future); Rancho Viejo v. Norton,

this phenomenon is the judiciary's tendency to take on cases of great environmental significance and then address only relatively trivial and technical aspects in the opinion.[54] Professor Richard Lazarus has observed that environmental law is full of such "seemingly nonsensical riddles."[55] Why are so many important cases decided in a way that does not adequately reflect their significance?

Lazarus posits that the answer lies at least partly in the "nature of the nation's lawmaking institutions."[56] The United States Constitution was revolutionary in its scheme of dividing power as a way to prevent an individual or a group from taking too much power.[57] As a result, the defining characteristic of our political system is fragmentation.[58] The Constitution divides the powers of government into three branches and gives each branch of government a part of the total government power. The result of this system is that the fragments — or branches — of government end up competing with each other and constantly overstepping their political boundaries to test the full extent of their power.[59]

The Supreme Court historically has walked a delicate line to maintain its power. In the early years of the United States, the Court had relatively little power, and it had to build up its jurisdiction very cautiously. In *Marbury v. Madison* the Court carefully established that it has jurisdiction to interpret the meaning of the Constitution.[60] The fragmented nature of the United States political system requires the Supreme Court to be particularly cautious not to overstep its bounds. As a result, when the Court wants to address the law in a certain area, it must take up cases that involve issues over which it has jurisdiction, even if those issues are trivial compared to the issue truly at stake in the case.[61] In *Environmental Defense*, the Court seems to have decided a case with huge environmental implications by reviewing largely secondary issues of statutory construction and jurisdiction. In this way, the Court was able to make a major impact (at least for now) on CAA enforcement without explicitly trying to use its jurisdiction for that purpose.

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323 F.3d 1062, 1068 (D.C. Cir. 2003) (holding that constitutionality of Endangered Species Act turns on whether prevention of extinction of a species is regulation of commerce).

[54] Richard J. Lazarus, *Human Nature, the Laws of Nature, and the Nature of Environmental Law*, 24 VA. ENVTL. L.J. 231, 233 (2005).

[55] *Id.*

[56] *Id.*

[57] *Id.* at 241.

[58] *Id.*

[59] *Id.* at 245-46.

[60] Marbury v. Madison, 5 U.S. 137 (1803).

[61] Lazarus, *supra* note 54, at 247-48.

B. The United States Continues to Rely Heavily on Coal Power

Congress passed the CAA amendments at issue in *Environmental Defense* in the 1970s.[62] Since then, the world's ability to generate energy has changed dramatically.[63] Natural gas is widely available as a far cleaner source of power than coal.[64] Wind power is now the most rapidly growing energy resource in the world.[65] After a federal tax credit reducing its cost by 1.9 cents per kilowatt-hour, it is also largely cost competitive with coal and natural gas power.[66] Yet America continues to rely primarily on coal power — one of the most primitive and dirty of the power generation methods available.[67]

Consider this illustrative example of America's stagnant energy sector: in the 1980s, fifty-three percent of America's power came from coal while thirteen percent came from natural gas.[68] A decade later (when Congress had anticipated widespread retirement of America's old coal plants), those figures remained almost exactly the same: fifty-one percent of the nation's energy came from coal, and fifteen percent came from natural gas.[69] As of 2006, those figures remained almost exactly the same as they were in the 1980s: forty-nine percent of our power is derived from coal, while twenty percent comes from natural gas.[70]

America's dependency on coal is particularly troubling because of the great proportion of the nation's air pollution generated by coal-fired power plants. In 1999, coal-fired power plants were responsible for sixty percent of sulphur dioxide emissions, twenty-five percent of all nitrous oxide emissions, thirty-two percent of all carbon dioxide emissions, and twenty-one percent of all airborne mercury in the nation.[71]

Comparing coal-fired power to natural gas power illustrates the impropriety of America's reliance on coal power. Despite the fact that natural gas, like coal, is a fossil fuel, it is arguably a far better source of power. Most importantly to the current administration, natural gas is cheaper. Over the lifetime of a newly

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[62] Clean Air Act Amendments of 1977, Pub L. No. 95-95, 91 Stat. 685 (1977); Clean Air Act of 1970, Pub L. No. 91-604, 84 Stat. 1676 (1970).

[63] Hsu, *supra* note 4, at 437-38.

[64] *Id.* at 433-34.

[65] Christopher E. Cotter, *Wind Power and the Renewable Portfolio Standard: An Ohio Analysis*, 32 U. DAYTON L. REV. 405 (2007).

[66] *Id.* at 408-09.

[67] *See* Hsu, *supra* note 4, at 430-31.

[68] *Id.* at 434.

[69] *Id.*

[70] ENERGY INFORMATION ADMINISTRATION, ELECTRIC POWER ANNUAL — NET GENERATION BY ENERGY SOURCE BY TYPE OF PRODUCER (October 22, 2007), http://www.eia.doe.gov/cneaf/electricity/epa/epat1p1.html (last visited March 25, 2008).

[71] Hsu, *supra* note 4, at 430.

constructed coal plant, each kilowatt-hour will cost 4.1 cents.[72] Over the same time period for a new natural gas plant, the cost ranges from 3 to 3.5 cents per kilowatt-hour.[73]

Natural gas is also much cleaner than coal. A unit of power from natural gas creates only thirty-three percent of the carbon dioxide, ten percent of the nitrous oxide, and virtually none of the sulphur dioxide emissions created per unit of coal power.[74] The Kyoto Protocol target for carbon dioxide emissions in the United States is a reduction of seven percent below 1990 levels.[75] If the United States retired eighty percent of America's coal-fired power plants and replaced the lost generating capacity with natural gas-fired plants, without any other changes, it would accomplish the carbon dioxide emissions reductions necessary for it to meet its Kyoto target.[76] Why, then, are other cleaner, more economical methods of producing power still eclipsed by coal power in today's energy market? The answer is grandfathering.

C. The Prevalence of Coal Power in the United States Is Largely Due to Grandfathering

"Grandfathering" is an exception that allows an old rule to continue to apply to an existing entity. When a regulated entity has developed an expectation that the rules it faces will remain a certain way, it often seems fair to exempt that entity from sudden changes in the rules. Grandfathering also reduces political resistance to new regulations because it protects existing economic interests.[77] Reducing political resistance is especially important in the clean air context because Congress holds primary authority over the nation's air quality. Congress is an ever-changing body of politicians who are highly accountable for their actions. This means that members of Congress must constantly act in ways which please their constituents and contributors. A law that subjects existing power plants to costly new pollution control requirements is likely to be unpopular with the regulated entities. Passing such a law could be costly to the congress members who pass the law. Power companies are unlikely to give their financial and political support to those who advocate for stricter controls on the industry. Grandfathering tempers the bite of new legislation by exempting existing power plants from its requirements.

When Congress passed the CAA, it chose to grandfather older power plants. The CAA is the product of an era when America relied primarily on coal power.

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[72] *Id.* at 433-34.

[73] *Id.* at 433.

[74] *Id.* at 431.

[75] *Id.*

[76] *Id.* at 430.

[77] Holly Doremus, *Precaution, Science, and Learning While Doing in Natural Resource Management*, 82 WASH. L. REV. 547, 551-52 n.4 (2007).

Many of these coal plants were built as early as the 1940s[78] with a projected life span of only forty years.[79] Although Congress surely wanted the CAA to apply widely in the energy sector, it grandfathered the plants then in existence. Moreover, Congress has consistently drafted and redrafted the CAA to at least partially exclude from its requirements plants which had already been built at the time of the legislation.[80]

The reason for this partial exclusion for existing coal plants was economic. When creating energy policy, Congress necessarily balances between environmental and economic concerns.[81] Pollution control is expensive, and any new pollution control law will have significant economic consequences.[82] Because of the cost, Congress granted a qualified exemption from the NSR requirements to plants that were in existence before it enacted NSR.[83] Congress reasoned that for some of the older and smaller sources, "it [was] not physically or economically feasible to retrofit . . . control technology."[84] Because Congress believed the plants would soon expire on their own, they were not viewed as a significant threat to the future of the nation's air quality.[85] Noting that there were about 200 old coal-fired plants over twenty years of age at the time, Congress even went so far as to predict that "[m]ost [would] be totally phased out of operation in the next 5 to 20 years."[86]

As its commentary highlights, Congress failed to anticipate the magnitude of the loophole it created for old coal-fired power plants. Instead of phasing out their older plants, older energy companies like Duke realized that the exclusions from NSPS and NSR gave them a significant advantage over new entrants to the energy sector. Not only were these coal plants already built and fully amortized, but the cost of building new power plants had also gone up significantly because of the extra compliance requirements.[87] The cost of producing a kilowatt-hour of power from a new coal-fired source, over its lifetime, is 4.1 cents.[88] The cost of producing the same unit of power from a new natural gas-fired source over its

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[78] Environmental Defense v. Duke Energy Corp., 127 S.Ct. 1423, 1430 (2007).

[79] Hsu, *supra* note 4, at 435.

[80] *Id.*

[81] *See, e.g.*, New York v. E.P.A., 413 F.3d 3, 13 (D.C. Cir. 2005).

[82] Petition for Writ of Certiorari, *supra* note 5, at 5. Interestingly, Christine Todd Whitman, a former EPA Administrator, believes that pollution control need not always have economic consequences, but she does not explain exactly how this can be true. *See* CHRISTINE TODD WHITMAN, IT'S MY PARTY TOO 188 (Emily Loose, ed., Penguin Group 2005).

[83] Petition for Writ of Certiorari, *supra* note 5, at 5.

[84] *Id.*

[85] *Id.*

[86] *Id.* at 5-6.

[87] Hsu, *supra* note 4, at 435.

[88] *Id.* at 433-34.

lifetime ranges from 3 to 3.5 cents.[89] Although from this data coal power appears to be more expensive than natural gas, when the CAA's grandfathering treatment enters the equation, the cost of producing a kilowatt-hour from an existing coal-fired plant drops down to 2.1 cents.[90] This explains why coal power remains such a staple of America's energy diet.

America's addiction to coal and its air pollution policy with regard to power plants has not changed significantly since the 1970s.[91] Since then, the world has seen profound changes in international energy policy. Perhaps the most recognizable example is the Kyoto Protocol. There are just over 190 nations in the world, and over 160 of them have ratified the Protocol.[92] The Protocol shows that pollution control need not be economically crippling. Indeed, it was designed to generate a new market of its own in the form of carbon credits.[93] However, the United States still refuses to ratify.[94] Despite the fact that the rest of the world has become increasingly concerned with carbon dioxide emissions over the past decade, Congress has done nothing to address carbon dioxide emissions under the CAA. This is because America remains very cautious about making even much smaller changes in policy that could impact the economy.[95] The last amendments Congress made which restrict emissions from power plants were passed in 1977.[96] Since then, Congress has left the EPA on its own to address the problem of aging coal plants that have slipped through the cracks in the CAA.

It remains unclear exactly why NSPS and NSR evolved to have two different tests for an "increase" in emissions. One possibility is that the EPA felt NSPS was better suited to an hourly test, while NSR was better suited to a total annual emissions test. NSR is now the primary method of regulating power plants in attainment areas, and NSPS compliance is required as part of the NSR program.

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[89] *Id.* at 433.

[90] *Id.* at 436.

[91] *See* discussion *supra* Part IV.B.

[92] Cass R. Sunstein, *On the Divergent American Reactions to Terrorism and Climate Change*, 107 COLUM. L. REV. 503, 511 n.42 (2007).

[93] Christopher Carr & Flavia Rosembuj, *Flexible Mechanisms for Climate Change Compliance: Emission Offset Purchases Under the Clean Development Mechanism*, 16 N.Y.U. ENVTL. L.J. 44, 47-48 (2008).

[94] Sarah A. Peay, *Joining the Asia-Pacific Partnership: The Environmentally Sound Decision?*, 18 COLO. J. INT'L ENVTL. L. & POL'Y 477, 479 (2007).

[95] Richard Lazarus explains that this averseness to change, even in the face of potentially large future problems, derives from human nature. Over thousands of years, humans have survived not by being good long-term planners, but rather by consuming what they find as soon as possible. Professor Lazarus observes that "[s]hort term needs always trumped the government's willingness and ability to expend the massive resources necessary to guard against long-term, low-risk events, even if those events could have potentially catastrophic consequences." He offers the Katrina disaster as an example. Although the risks facing New Orleans had been known for decades, it took a catastrophic disaster to spur people into action. *See* Lazarus, *supra* note 54, at 236-38.

[96] Clean Air Act Amendments of 1977, Pub L. No. 95-95, 91 Stat. 685 (1977).

Therefore, NSPS has taken a somewhat secondary role in addressing emissions from power plants. Furthermore, NSR functions differently than NSPS. NSPS focuses on the technology used to reduce emissions.[97] The EPA could have decided to use the hourly test to determine when NSPS applies because it felt that technology was only required when hourly emissions increased. NSR, on the other hand, requires the entire plant to comply with government objectives, taking into account the total impact of the plant on its specific area.[98] Because the functions of NSPS are so different from NSR, it makes sense to allow the EPA some discretion in applying the two regimes differently. Since Congress has declined to extend NSR any further than it did in the 1970s, the EPA decided for itself to ensure that NSR applies to any modified power plant that increases its annual emissions.[99]

If the Court had not granted review in *Environmental Defense*, the main provisions of the CAA would apply to old coal plants only when they make changes that increase their hourly emissions rate. This would mean that old coal plants could be endlessly repaired and modified, and operated for longer hours throughout the year, without any governmental review (so long as their hourly emissions did not increase). In theory, they could operate twice as long during each twenty-four hour period and generate double the total annual emissions originally contemplated in their preconstruction environmental impact review. The EPA would be powerless to use NSR to prevent this because NSR would only apply if the hourly emissions rate increased. The law would therefore eternally grandfather old coal plants, even if their contribution to the nation's air pollution dramatically increased. Our system already allows plants built seventy years ago to continue to operate at their current levels without any environmental review.[100] If we also allow them to be exempt from review when they raise their actual emissions, these older plants would essentially be completely exempt from the requirements of the CAA.

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[97] Petition for Writ of Certiorari, *supra* note 5, at 4.

[98] 42 U.S.C. § 7470(1) (2006).

[99] 40 C.F.R. § 51.166(b)(2)(i) (2008).

[100] The EPA has recently made clear that it does not currently intend to ever force grandfathered power plants that have not increased their emissions into compliance. In denying a petition for reconsideration of its 2003 routine maintenance exception, EPA said:

> We do not believe, however, the modification provisions of the CAA should be interpreted to ensure that all major facilities either must eventually trigger NSR or must degrade in performance, safety, and reliability . . . . Thus, a facility can conceivably continue to operate indefinitely without triggering NSR . . . as long as the changes do not result in emissions increases.

Prevention of Significant Deterioration (PSD) and Non-attainment New Source Review (NSR): Equipment Replacement Provision of the Routine Maintenance, Repair and Replacement Exclusion: Reconsideration, 70 Fed. Reg. 33,838, 33,844 (June 10, 2005).

D. The Environmental Defense Decision Will Boost the NSR Enforcement Initiative

By establishing that the law will not eternally protect old coal power plants, the *Environmental Defense* decision will breathe new life into the ongoing NSR enforcement initiative. This initiative is a relatively recent aspect of the fight to subject old power plants to NSR. The *Environmental Defense* case is a result of this enforcement initiative, and its outcome is important in that it legitimizes the initiative after setbacks during the George W. Bush presidency. Viewing the enforcement history in chronological order demonstrates the way in which the *Environmental Defense* decision plays its part.

For two decades, the electric power industry was largely immune to the NSR provisions at issue in *Environmental Defense*.[101] This is not because those provisions were not on the books, but rather because the EPA never enforced them. Near the end of President Clinton's term, in 1999, several states and the EPA brought enforcement actions against owners of power plants.[102] Environmentalists were relieved to see that the government had finally begun to enforce the NSR provisions. The energy industry and conservatives, however, were angry. They disapproved of the sudden decision to enforce NSR after two decades of inaction.[103] Some were also concerned that the NSR provisions were too vague in defining which "modifications" would subject a power plant to NSR.[104] Former EPA Administrator Christine Whitman has stated that she disapproved of these enforcement actions, and felt that the first step should have been to define the types of modifications that would trigger NSR.[105] Furthermore, the nation was reeling from energy crises in California and in the Northeast, in 2001 and 2003 respectively.[106] These crises provided the energy lobby with strong arguments that energy security should come before environmental concerns.[107]

To make matters worse, in 2002 Christine Whitman advised power plants sued for pollution violations to hold off settlement of their cases until a pending challenge to the EPA's NSR regulations came down.[108] This "advice" emerged

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[101] WHITMAN, *supra* note 82, at 183.

[102] *Id.*

[103] *Id.* at 184.

[104] *Id.* at 183.

[105] *Id.* at 183-84.

[106] *Id.* at 181-82.

[107] *See* FRED SISSINE, CONGRESSIONAL RESEARCH SERVICE, CRS ISSUE BRIEF FOR CONGRESS: ENERGY EFFICIENCY: BUDGET, OIL CONSERVATION, & ELECTRICITY CONSERVATION ISSUES 3 (Order Code IB10020, Mar. 27, 2006) (noting 2001 terrorist attack, Iraq war, power shortages in California, and 2003 Northeast-Midwest blackout brought renewed emphasis on energy security, efficiency, and demand); Christopher M. Crane, *State Authority in Siting of Liquified Natural Gas Import Terminals*, 14 BUFF. ENVTL. L.J. 1, 6 (2006).

[108] John Heilprin, *Ex-EPA Official Blasts Christy Whitman's Remarks*, ASSOCIATED PRESS,

from a hearing before the Senate Governmental Affairs Committee on the Bush administration's environmental record.[109] It caused the EPA's director of civil enforcement, Eric Schaeffer, to resign in protest of what he said was a White House determination to weaken clean air regulations.[110]

It is significant that the EPA has taken actions which compromise its own enforcement lawsuits, some of which have been in litigation since the beginning of the NSR enforcement initiative in 1999.[111] NSR enforcement lawsuits are enormous endeavors. The EPA begins the process by submitting a request for documents to the power plant being regulated.[112] The EPA may then take years reviewing these documents before attempting settlement, filing an administrative complaint or referring the case to the Department of Justice ("DOJ") for enforcement.[113] In the *Environmental Defense* case alone, discovery produced 4.6 million pages of documents.[114] The extensive briefs submitted to the trial court were accompanied by thousands of pages of exhibits.[115] Despite the amount of time and money involved in these lawsuits, the EPA and the DOJ are still apparently willing to squander these resources simply to cater to the Bush Administration's desire to grandfather power plants.

After the controversy surrounding Whitman's "advice," the Bush administration decided that the best solution to its problems with NSR was to do away with NSR entirely, proposing the "Clear Skies" Initiative, which includes no limitations on greenhouse gases and has been criticized by environmental groups.[116] The legislation failed.[117] The administration responded by enacting new NSR regulations, which included a safe harbor provision stating that CAA review would not apply to modifications and renovations of grandfathered plants which cost less than twenty percent of the replacement cost of the unit.[118] These regulations were eventually overturned in court.[119] However, the failed regulations made clear the Bush administration's priorities. Christine Whitman resigned because she felt she could never fulfill her job in defending new regulations which provide such blatant exceptions from the CAA to established

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March 8, 2002, *available at* http://www.commondreams.org/headlines02/0308-05.htm.

[109] *Id.*

[110] *Id.*

[111] *See* Whitman, *supra* note 80, at 183.

[112] Brief of Former EPA Administrators Carol M. Browner & Russell E. Train, *supra* note 51, at 13.

[113] *Id.*

[114] *Id.*

[115] *Id.*

[116] Jonathan Martel, Janet Kester, & Elliott Zenick, *Power Plants, Particulates, and the Uncertain Science of Public Health*, 18 NAT. RESOURCES & ENV'T 31, 37 (Winter 2004).

[117] Katherine K. Ravkin, Note, *Big Win for Environmentalists in New York v EPA May Have Limited Impact on Air Quality*, 34 ECOLOGY L.Q. 837, 858 (2007).

[118] 68 Fed. Reg. 61,248, 61,251 (2003).

[119] New York v. E.P.A., 443 F.3d 880 (D.C. Cir. 2006).

coal power generators.[120]

During all these events, *Environmental Defense* continued to work its way up through the judicial system. The case culminated in a unanimous Supreme Court decision that instilled much needed life into NSR enforcement.[121] Proof of NSR's renewed vitality arrived quickly. In October 2007, an NSR enforcement lawsuit between the DOJ and American Electric Power resulted in the largest environmental settlement in U.S. history.[122] The settlement involved the installation of a staggering $4.6 billion of pollution control equipment, as well as a $15 million fine and a $60 million contribution to environmental mitigation projects.[123] If this settlement is any indication of the impact the *Environmental Defense* decision will have on NSR enforcement, it is easy to assume that the days of grandfathering are limited.

E. Several Factors Call into Question the Lasting Impact of the Decision

The *Environmental Defense* decision can be viewed as a victory for the environment and as a sign that the federal government has not completely turned its back on air pollution. Yet a look at how the rules and regulations of the CAA come into (and vanish from) existence casts some doubt as to the lasting effect of this decision. First, Congress has ultimate power over national clean air issues. It passed the CAA and the amendments that enable the EPA to regulate air emissions in the first instance. If Congress were so inclined, it could reverse the Supreme Court's holding in *Environmental Defense* by passing new laws further excluding old power plants from NSR.

The EPA, however, may pose a larger threat to the legacy of the Court's decision in *Environmental Defense*. The EPA is an imperfect agency for enforcing environmental laws. It is less accountable for what it does than are members of Congress. It is an arm of the executive branch, so its loyalty is primarily to the executive, which is empowered to appoint many of its officers.[124] As an example of the compromised nature of the EPA, consider Christine Whitman. Although she served as the head of the main agency responsible for protecting the environment of the entire Nation, Whitman was hardly an environmentalist. In her book, *It's My Party Too*, her key theme with

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[120] Jo Becker & Barton Gellman, *Leaving No Tracks*, WASH. POST, June 27, 2007, at A1.

[121] Environmental Defense v. Duke Energy Corp., 127 S.Ct. 1423 (2007).

[122] Press Release, U.S. EPA, U.S. Announces Largest Single Environmental Settlement in History — Historic Pollutant Reductions Will Save $32 Billion in Health Costs Annually (Oct. 9, 2007), *available at* http://yosemite.epa.gov/opa/admpress.nsf/b1ab9f485b098972852562e7004dc686/8998 1cc632fd09b a8525736f00427072!OpenDocument (last visited March 25, 2008).

[123] *Id.*

[124] Reorganization Plan No. 3 of 1970, 50 Fed. Reg. 26,721-01 (June 28, 1985), *reprinted in* 5 U.S.C. App. 1 Reorg. Plan 3 1970 (establishing Environmental Protection Agency).

regard to the environment is compromise.[125] She disapproves of the approaches of both the environmental left and the regulation-averse right,[126] favoring instead a shift to the "sensible center."[127] She proudly quotes an article from the *Philadelphia Inquirer* about her previous governorship in New Jersey that states that "nearly two years into her first term, Whitman is neither as hostile to some of the goals of environmentalists — nor as friendly to business — as many anticipated when she took office."[128] Whitman then states that with regard to environmental policy, "[y]ou're probably on the right track if neither side feels it's getting everything it wants."[129] It is important to keep in mind that this is the former head of the EPA speaking, not an officer of some other agency, such as the Forest Service, which is supposed to balance environmental and economic concerns. Should the EPA be doing this balancing between environmental interests and big business? Or should it simply be responsible for enforcing our nation's environmental laws to the fullest extent justice permits?

Even more troubling, Whitman resigned because she felt that she was too environmentally friendly for the incumbent administration.[130] After her resignation, Whitman spoke with the *Washington Post* about the pressure Vice President Cheney exerted on her to cater ever more to the energy industry.[131] In her book, she noted that Cheney tracked her down while she was on vacation in Colorado to urge her to allow his Energy Task Force to take over the task of NSR reform.[132] To the Bush administration, Whitman's already compromised role as enforcer of America's environmental laws was still too favorable to the environment, and she knew she had to go.

The EPA also failed to follow through with the *Environmental Defense* lawsuit, which it brought in the first place, withdrawing from the litigation before it reached the Supreme Court. In fact, the United States Attorney General filed a brief *in opposition to* the petition for writ of certiorari.[133] The United States government's reason for doing this was that the EPA believed it could "address any difficulties caused by the court of appeals' decision through rulemaking."[134] While the United States Attorney General's concern for judicial economy is commendable, it is also possible that the Bush administration simply did not want NSR to apply to power plants which undergo modifications that

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[125] WHITMAN, *supra* note 82, at 188.

[126] *Id.*

[127] *Id.* at 195.

[128] *Id.* at 191.

[129] *Id.*

[130] Jo Becker & Barton Gellman, *Leaving No Tracks*, WASH. POST, June 27, 2007, at A01.

[131] *Id.*

[132] WHITMAN, *supra* note 82, at 184.

[133] Brief of the United States in Opposition at 1, Environmental Defense v. Duke Energy Corp., 127 S.Ct. 1423 (2007) (No. 05-848), 2006 WL 575231.

[134] *Id.* at 9.

enable them to run longer hours. The U.S. Government did not simply withdraw from the action; it took an active role in opposing the petition for certiorari. This alone raises a significant question as to the commitment of the EPA and the Attorney General to enforcing the CAA, at least under the Bush administration.

The Court in *Environmental Defense* also did nothing to prevent the EPA from revising its rules. In fact, if anything, the decision gave the EPA more power to shape the provisions of the CAA. All the Court actually did in *Environmental Defense* was hold that the EPA is free to decide how to measure "increases" in emissions which subject a power source to NSR.[135] It did not expressly hold that any modification to a power source which produces an actual increase in emissions will always subject that power source to NSR. If the EPA changes the NSR definition of an "increase" in emissions, which it may do under the holding in *Environmental Defense*, the law would be right back to where Duke claimed it was in that litigation. In short, the lasting environmental benefits of *Environmental Defense* depend almost entirely on whether or not the EPA takes subsequent action to lessen the reach of NSR.

The Bush administration also has posed a threat to NSR, but so far it has not succeeded in changing the program significantly. In 2003, it tried (and failed) to completely replace NSR with its "Clear Skies" Initiative.[136] In her book, Whitman made clear her disdain for NSR, at one point asking "[h]ow better to reform NSR than by eliminating it?"[137] More recently, while the *Environmental Defense* litigation was pending, the EPA was already considering revisions to the NSR provisions that would have completely negated any environmental benefit that the Court's decision produced.[138] The new rule would change the NSR provisions so that an upgraded or modified plant must comply with NSR only if the changes would increase maximum potential *hourly* pollution.[139] Furthermore, the proposed rule would apply retroactively, meaning that the enforcement actions still pending would be resolved in favor of the power plants.[140] In essence, the EPA is trying to create through rulemaking the exact standard demanded by the power company in *Environmental Defense*. Actions such as this seriously undermine the possibility of environmentally favorable settlements in the enforcement actions which are still pending.

The NSR program is also vulnerable in that other agencies could attempt to strip it away from the EPA. During Whitman's time as EPA Administrator,

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[135] Environmental Defense v. Duke Energy Corp., 127 S.Ct. 1423, 1433-34 (2007).

[136] WHITMAN, *supra* note 82, at 186.

[137] *Id.*

[138] Prevention of Significant Deterioration, Nonattainment New Source Review, and New Source Performance Standards: Emissions Test for Electric Generating Units, 70 Fed. Reg. 61,081-01 (proposed Oct. 13, 2005).

[139] *Id.*

[140] *Id.*

Vice President Cheney almost succeeded in transferring the NSR policymaking authority from the EPA to the Department of Energy.[141] The Bush administration regarded NSR as an issue of energy production rather than environmental protection.[142] At the time, the nation was still concerned with the recent energy crisis in California, and energy security had become a national issue.[143] Whitman has stated that she had to fight tooth and nail to ensure that NSR policymaking authority would remain with the EPA rather than with the Department of Energy.[144] This Article has already noted that the EPA under the Bush administration takes business concerns strongly into consideration.[145] If NSR policymaking authority went to the Department of Energy, it is hard to imagine how NSR would retain any continued power to regulate emissions from the energy sector.

Whether the *Environmental Defense* decision will have any lasting environmental value thus depends on the priorities of the EPA, which in turn depend on the incumbent administration. We are not far off from a new administration, which means the composition of the EPA could change significantly in the near future.

CONCLUSION

With regard to the stated goals of the Clean Air Act, Congress has made enormous missteps in its treatment of power plants.[146] Although some would come to the defense of the Congress of the 1970s in pointing out that it expected the plants it exempted from NSR and NSPS requirements to be retired after forty years. However, even if Congress did base these exemptions on that assumption, it should have included provisions covering the possibility that phase-out would not occur. In this case, the amendments should have included provisions stating that the older plants would at some point in the future be subject to NSR. This would be fair, as it would allow the then-existing plants a grace period before NSR kicked in without giving the old plants a significant advantage over new power plants (which are always subject to NSR).

Today, Congress and the current administration have already seen the effects of their past mistakes, yet they continue to take no action in remedying those errors by creating new amendments to the CAA. As the *Washington Post* appropriately put it, "[i]t should not take the Supreme Court to determine what it

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[141] WHITMAN, *supra* note 80, at 184.

[142] *Id.* at 185.

[143] *Id.* at 182.

[144] *Id.* at 185.

[145] *See* discussion *supra* Part IV.D.

[146] *See* 42 U.S.C. §§ 7401(b)-(c) (2006).

means to 'increase' the air pollution put out by power plants."[147] Yet this is what happened in *Environmental Defense*. On a very fundamental level, this decision makes sense. It is a basic principle of environmental review that the approval of a project is made based on the then-foreseeable impacts of that project. When power plants originally receive government permission to operate, the government grants that permission after evaluating the impact the plant will have on the environment.[148] When operators make changes to a power plant, those changes may not have been contemplated at all when the original environmental review was done. If these changes adversely affect the environment in a way not contemplated by the original government approval, it is proper that the project proponent should again have to seek governmental review of its plans. This is true especially when the activity involves harm to the environment to such a degree as that caused by aging coal power plants. Congress and the EPA have refused to close these gaps in the CAA. This lack of concern for one of the largest sources of emissions in the nation has caused even a relatively conservative Supreme Court to seize the opportunity to close the gaps — at least for the present.

[147] Editorial, *The Court and Clean Air*, WASH. POST, May 16, 2006, at A16.

[148] 40 C.F.R. § 52.21(a)(2)(iii) (2008).