

# THE CLEAN AIR ACT'S NEW SOURCE REVIEW PROGRAM: BENEFICIAL TO PUBLIC HEALTH OR MERELY A SMOKE-AND- MIRRORS SCHEME?

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## I. INTRODUCTION

In 1970, Congress enacted the Clean Air Act (CAA),<sup>1</sup> which aimed to protect public health by reducing air pollution and by maintaining safe levels of harmful emissions. In 1977, Congress amended certain provisions of the CAA to further strengthen the authority of the Environmental Protection Agency (EPA) to protect the public health from harmful air pollutants. These amendments sought to maintain acceptable levels of air quality by requiring newly constructed sources of pollution, such as electric utilities and other large emitters of pollutants, to obtain permits that would ensure compliance with national air standards. Despite the potential health benefits that could have been realized by the Clean Air Act and its 1977 New Source Review (NSR) amendments, the NSR program has led to mixed results and the public's health has suffered as a consequence. The congressional mandate in 1970 and 1977 seemed very clear: "protect and enhance the quality of the Nation's air resources so as to promote the public health."<sup>2</sup> With thirty years of hindsight, however, Congress's message has been obscured greatly by corporate and political interests. The American public has been the victim of an elaborate smoke-and-mirrors scheme where public health appears to be the primary goal under the NSR program. In reality, electric utilities are emitting more than their share of dirty smoke while the federal executive branch, especially under former President George W. Bush, is providing mirrors to deflect the truth: the NSR program is failing to protect public health because of a lack of enforcement by the Environmental Protection Agency.

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<sup>1</sup> 42 U.S.C. §§ 7401-7671(q) (2006).

<sup>2</sup> 42 U.S.C. § 7401(b)(1).

## II. INTENT AND LEGISLATIVE HISTORY OF THE CAA AND THE NSR PROGRAM

In 1955, Congress enacted the Air Pollution Control Act as the first federal statute dealing with air quality and air pollution.<sup>3</sup> This statute merely allocated funding for federal research on the causes and effects of airborne pollution.<sup>4</sup> The motivation behind the Air Pollution Control Act came directly from health-based concerns over recent air quality emergencies. For example, twenty people were killed and 6,000 people became ill in the industrial town of Donora, Pennsylvania in October of 1948 when a thick cloud of smog and other air pollution lingered over the town for five days.<sup>5</sup> Four years later, more than 3,000 people died in London, England because of an event now termed the “Killer Fog.”<sup>6</sup> Although these incidents were tragic for those involved, the fallout from these occurrences started the chain of events leading to landmark Congressional enactments to protect the public’s health from harmful air pollution.

After eight years of federal research under the Air Pollution Control Act, the evidence gathered by scientists and researchers concluded that air pollution was a severe health concern and measures had to be taken to control that pollution.<sup>7</sup> In 1963, Congress enacted the original Clean Air Act, “which established funding for the study and the cleanup of air pollution.”<sup>8</sup> Despite the importance of authorizing the cleanup of air pollution for the first time in our nation’s history, the Clean Air Act of 1963 was quite weak and failed to provide a comprehensive response to air pollution.<sup>9</sup> To strengthen the statute, Congress enacted the Air Quality Act in 1967 to expand federal activities under the Act by initiating enforcement proceedings, inspecting stationary sources, and conducting extensive monitoring studies on ambient air quality.<sup>10</sup>

Seeking to solidify the federal response to air pollution issues, Congress enacted the current Clean Air Act in 1970.<sup>11</sup> Additionally, Congress simultaneously created the United States Environmental Protection Agency to implement the various requirements of the Clean Air Act and to provide enforcement against violators of the statute.<sup>12</sup> The Clean Air Act represented “a major shift in the federal government’s role in air pollution control” because it authorized extensive federal and state regulations to limit emissions both from mobile sources such as automobiles and from stationary sources such as electric

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<sup>3</sup> UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, HISTORY OF THE CLEAN AIR ACT (2008), [http://www.epa.gov/air/caa/caa\\_history.html](http://www.epa.gov/air/caa/caa_history.html) (last visited Jan. 31, 2009) [hereinafter U.S. EPA].

<sup>4</sup> *Id.*

<sup>5</sup> U.S. EPA, UNDERSTANDING THE CLEAN AIR ACT (2008), <http://www.epa.gov/air/caa/peg/understand.html> (last visited Jan. 31, 2009).

<sup>6</sup> *Id.*

<sup>7</sup> U.S. EPA, HISTORY OF THE CLEAN AIR ACT, *supra* note 3.

<sup>8</sup> U.S. EPA, UNDERSTANDING THE CLEAN AIR ACT, *supra* note 5.

<sup>9</sup> *Id.*

<sup>10</sup> U.S. EPA, HISTORY OF THE CLEAN AIR ACT, *supra* note 3.

<sup>11</sup> *Id.*

<sup>12</sup> *Id.*

utilities and industrial facilities.<sup>13</sup> It is clear from Senate and House subcommittee hearings, committee meetings, and scientific testimony that the Clean Air Act's primary goal was the protection of public health. In fact, Congress explicitly stated in the Clean Air Act's Declaration of Purpose that "air pollution . . . has resulted in mounting danger to the public health" and that the primary purpose of the Act is "to protect and enhance the quality of the Nation's air resources so as to promote the public health."<sup>14</sup>

To further its goal of protecting the public health from harmful air pollutants, the Clean Air Act created new regulatory programs aimed at reducing emissions from stationary sources. Specifically, the CAA gave the EPA discretion to set the National Ambient Air Quality Standards (NAAQS), which required pollutant emissions in a defined geographic area to be maintained below a level determined by the EPA to be safe for human health.<sup>15</sup> In addition, the CAA created the New Source Performance Standards, which gave the EPA discretion to determine what emissions standards new stationary sources were required to meet before a new source could begin to operate.<sup>16</sup> This pre-construction permit requirement for new sources became an instrumental tool for the EPA in requiring compliance with the NAAQS. As seen in the Clean Air Act's regulatory programs, Congress left most of the regulatory determinations, standard setting, and definitional interpretations to the EPA because of the agency's specialized knowledge in the field. Thus, Congress enacted the Clean Air Act as a commitment to the nation's public health and gave the EPA broad discretion to implement and manage the regulatory framework in the manner determined by the EPA to be the most beneficial to the public's health.

In 1977, Congress amended the Clean Air Act to create another pre-construction permitting program for new major sources.<sup>17</sup> Called New Source Review (NSR), this program predominantly sought to require Prevention of Significant Deterioration (PSD) permits for major sources in areas that had met the NAAQS since the enactment of those standards in the Clean Air Act seven years earlier.<sup>18</sup> These NSR amendments required every "major emitting facility" constructed after August 7, 1977 to obtain a pre-construction permit from the EPA.<sup>19</sup> The EPA was only to issue a PSD permit where a major source committed itself to the "best available control technology" (BACT) for each pollutant that the facility expected to emit.<sup>20</sup> Congress defined BACT as technology with "the maximum degree of reduction of each pollutant . . . achievable for such facility through application of production processes and available methods, systems, and

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<sup>13</sup> *Id.*

<sup>14</sup> 42 U.S.C. § 7401 (2006).

<sup>15</sup> U.S. EPA, HISTORY OF THE CLEAN AIR ACT, *supra* note 3.

<sup>16</sup> U.S. EPA, NEW SOURCE REVIEW: BASIC INFORMATION (2007), <http://www.epa.gov/nsr/info>.

html (last visited Jan. 31, 2009); *see also* 42 U.S.C. §§7401-7661 (2006).

<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

<sup>19</sup> 42 U.S.C. § 7475(a)(1) (2006).

<sup>20</sup> 42 U.S.C. § 7475(a)(4).

techniques.”<sup>21</sup> Therefore, the NSR program mandated that all new facilities would have the newest and best technology for reducing air pollutants for the purpose of “protect[ing] the public health.”<sup>22</sup>

Recognizing that much of the public health crisis from air pollution was caused by older coal-fired facilities, Congress considered subjecting all existing facilities to the PSD permitting program when it enacted NSR, which would have required each facility to install the best pollution-control technology. Based on cries from the utility industry, however, Congress ultimately decided to “grandfather” existing coal-fired power plants and instead required these pre-1977 facilities to undergo PSD review and install the newest pollution-control technology only when major modifications were made to the facilities. Specifically, Congress mandated that existing coal-fired electric utilities must obtain a PSD permit before a “major emitting facility” could be “constructed.”<sup>23</sup> The term “construction” for PSD purposes includes any “major modification” of a source or facility not considered “routine maintenance, repair, or replacement.”<sup>24</sup> Thus, when a “major modification” occurs, which is “any physical change in or change in the method of operation . . . that would result in a significant emissions increase,” a utility must obtain a PSD permit.<sup>25</sup> However, when merely routine maintenance measures are undertaken, such as the “replacement of any component . . . with an identical or functionally equivalent component(s),” a utility is exempt from PSD review.<sup>26</sup> This exception to the requirement for PSD review is called the Routine Maintenance, Repair, and Replacement Exception (RMRR Exception). Based on the typical forty-year lifespan of a coal-fired facility, Congress anticipated that many existing plants would be upgraded within a reasonable time after 1977 to reduce their harmful air pollutants.<sup>27</sup> Congress further expected that at the time of these upgrades, NSR would be triggered and the facilities would either be retired from service or would be fitted with the best available control technology existing at that time.<sup>28</sup> In 1977, Congress handed the EPA the NSR program as a tool to combat increasing health concerns associated with air pollution. Despite the clear mandate from Congress, the EPA and electric utilities have constantly circumvented Congress’s intent by defying the requirements set forth in the 1977 Clean Air Act Amendments.

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<sup>21</sup> 42 U.S.C. § 7479(3).

<sup>22</sup> 42 U.S.C. § 7470(1).

<sup>23</sup> 42 U.S.C. § 7475(a).

<sup>24</sup> 42 U.S.C. § 7411(a)(4); *see also* 40 C.F.R. § 52.21(b)(2)(iii)(a) (2008).

<sup>25</sup> 40 C.F.R. § 52.21(b)(2)(i) (2008).

<sup>26</sup> 40 C.F.R. § 52.21(c).

<sup>27</sup> Rachel H. Cease, *Adverse Health Impacts of Grandfathered Power Plants and the Clean Air Act: Time to Teach Old Power Plants New Technology*, 17 J. NAT. RESOURCES & ENVTL. L. 157, 162-63 (2002-2003).

<sup>28</sup> *Id.*

## III. THE NEW SOURCE REVIEW PROGRAM'S FIRST THIRTY YEARS

Congress expected a dramatic reduction of air pollution from both the Clean Air Act generally and from the New Source Review program specifically. The current EPA cites “significant improvements since 1970” due to the Clean Air Act such as: the six most common air pollutants have decreased by more than 50%, air toxics from large industrial sources have been reduced by nearly 70%, and new cars are more than 90% cleaner.<sup>29</sup> Despite these gains, our nation has not realized the full benefits anticipated by Congress in 1977 when it created the NSR program. For example, the EPA’s principle consultant group on air quality claims that fine particulate pollution from electric utilities in the United States kills more than 24,000 people annually and causes asthma attacks, cardiac problems, and respiratory complications for many individuals.<sup>30</sup> Sulfates, the main component of fine particulate matter, derive predominantly from coal-fired power plants.<sup>31</sup> Nearly 90% of all deaths from particulate matter, or 22,000 of the 24,000 annual deaths, could be avoided if sulfur dioxide and nitrogen dioxide were reduced to 75% below 1997 emissions levels,<sup>32</sup> which is well within the bounds of the reductions that would be realized by implementing the best available pollution-control technology under New Source Review if EPA properly enforced the NSR program. In addition to fine particulate matter, numerous chemicals released into the air from power plants “are highly toxic and can cause cancer, birth defects, long term injury to the lungs, as well as brain and nerve damage.”<sup>33</sup> Further, power plants in the United States produce 70% of the nation’s sulfur dioxide emissions, 30% of its carbon dioxide emissions, 25% of its nitrogen oxide emissions, and sixty-seven distinct hazardous air pollutants including mercury.<sup>34</sup> Therefore, the common but serious health effects from particulate matter and other compounds in our air indicate that Congress’s goal of protecting the public health by bettering our nation’s air quality has missed the mark. With such a clear mandate to protect the public health in the CAA and in the NSR provisions, how has our nation fallen so short of the goal?

The NSR program failed to live up to its expectations not because of poor foresight by Congress, but instead because of actions by electric utilities to unlawfully circumvent the PSD permitting process. It is important to note that the EPA under President Reagan was lax on enforcement of New Source Review, but Reagan’s EPA did interpret Congress’s NSR provisions and lay the groundwork

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<sup>29</sup> U.S. EPA, UNDERSTANDING THE CLEAN AIR ACT, *supra* note 5.

<sup>30</sup> CLEAN AIR TASK FORCE, DIRTY AIR, DIRTY POWER: MORTALITY AND HEALTH DAMAGE DUE TO AIR POLLUTION FROM POWER PLANTS 4 (2004), [http://www.catf.us/publications/reports/Dirty\\_Air\\_Dirty\\_Power.pdf](http://www.catf.us/publications/reports/Dirty_Air_Dirty_Power.pdf) (last visited Jan. 31, 2009); Patrick Parenteau, *Anything Industry Wants: Environmental Policy Under Bush II*, 14 DUKE ENV’T L. & POL’Y F. 363, 377-78 (2004).

<sup>31</sup> CLEAN AIR TASK FORCE, *supra* note 30; Parenteau, *supra* note 30, at 378.

<sup>32</sup> CLEAN AIR TASK FORCE, *supra* note 30, at 4; Parenteau, *supra* note 30, at 378.

<sup>33</sup> U.S. EPA, WHY SHOULD YOU BE CONCERNED ABOUT AIR POLLUTION? (2008), <http://www.epa.gov/air/caa/peg/concern.html> (last visited Jan. 31, 2009).

<sup>34</sup> ARNOLD W. REITZE, JR., AIR POLLUTION CONTROL LAW: COMPLIANCE & ENFORCEMENT 227 (2001).

for the NSR program as many of the older power plants neared the time for major repairs. Reagan's EPA issued multiple rules interpreting the NSR program that became the law under which power plants were required to operate. First, in 1980, an EPA rule required a PSD permit when a pre-1977 plant undergoes "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase" of a pollutant.<sup>35</sup> Reagan's EPA later clarified that rule, stating that a "[n]et emissions increase [is] [a]ny increase in actual emissions from a particular physical change or change in the method of operation."<sup>36</sup> The EPA then defined "actual emissions" as "equal to the average rate, in tons per year, at which the unit actually emitted the pollutant during a consecutive twenty-four month period which precedes the particular date and which is representative of normal source operation."<sup>37</sup> Thus, Reagan's EPA measured a power plant's actual emissions in tons per year and required New Source Review, including implementation of the best available control technology, when a plant made a modification that resulted in a significant net increase in the plant's annual emissions.

Very little occurred between the years 1988 and 1992 when President George H.W. Bush's EPA oversaw the NSR program. Although many of the pre-1977 plants were at the age where NSR should have been triggered during this period, these plants made major modifications and in some cases completely rebuilt units without undergoing PSD permit review. The utilities collectively claimed that these major modifications, including the complete rebuilding of a unit, constituted routine maintenance and fell under the RMRR exception to New Source Review. Not only did these major modifications defy the legal mandate of the NSR program, but these modifications renewed many of the near-dead plants and extended their lives another thirty to fifty years. The effects of these modifications were astounding because the plants were able to continue operating for many years under the pre-1977 pollution-control technology. Had the plants been properly subjected to PSD permit review by the EPA, each of these major modifications would have triggered NSR, and each individual facility would have been required to either retire the plant permanently or install the best available control technology before bringing the plant back online. When it learned of these modifications, the George H.W. Bush EPA chose not to enforce against the pre-1977 power plants<sup>38</sup> that violated the NSR program likely because of the administration's ties to corporate officials in the utility industry. A federal judge would later call the lack of enforcement by the EPA during the 1980s and early 1990s "an abysmal

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<sup>35</sup> 40 C.F.R. § 521.166(b)(2)(i) (2008).

<sup>36</sup> 40 C.F.R. § 51.166(b)(3) (i)-(3)(i)(a).

<sup>37</sup> 40 C.F.R. § 51.166(b)(21)(ii).

<sup>38</sup> See *Wisconsin Electric Power Co. v. Reilly*, 893 F.2d 901 (7th Cir. 1990) (holding that the U.S. EPA's method for determining a utility's annual increase in emissions was not appropriate, but more importantly that the Wisconsin Electric Power Company's massive overhaul of five existing units was not routine and was thus subject to PSD review). The author notes that George H.W. Bush's EPA failed to implement this decision, which would have required all power plants to undergo PSD review where similar overhauls had occurred.

breakdown in the administrative process following the passage of the landmark Clean Air Act in 1970.”<sup>39</sup>

After exploiting the RMRR exception to PSD review and receiving deferential treatment from George H.W. Bush’s EPA, the utility industry was finally brought to justice in 1999 for major modifications made to power plants in the 1980s and 1990s. Starting in November of 1999, President Clinton’s EPA filed lawsuits against nine utilities, which affected 120 generating units.<sup>40</sup> Along with the United States Department of Justice (DOJ), Clinton’s EPA brought enforcement actions against nine of the biggest offenders of the New Source Review program over the past two decades: American Electric Power, Cinergy, Duke Energy, Dynegy, FirstEnergy, SIGECO, Southern Company, Tampa Electric Company, and the Tennessee Valley Authority.<sup>41</sup> At the time of the lawsuits, these nine utilities constituted some of the nation’s largest electric producers in terms of net generation, emissions, and revenue.<sup>42</sup> In fact, eight of these large utilities were solely responsible for approximately 5,900 of the 24,000 premature deaths, or one-quarter of such deaths, attributed to particulate matter each year in the United States.<sup>43</sup> Additionally, coal-fired power plants with pre-1977 pollution-control technology like the facilities scrutinized by Clinton’s EPA are known to produce more than 80 percent of all sulfur oxides (SO<sub>x</sub>) and nitrogen oxides (NO<sub>x</sub>) emitted in the United States.<sup>44</sup> The EPA estimated that bringing only these nine utilities into compliance “would have reduced air pollution by nearly 7 million tons annually – 50 percent of all the air pollution produced by power plants in the United States.”<sup>45</sup>

In addition to the lawsuits filed against these nine utilities, Clinton’s EPA threatened to sue three other companies: Dominion, PSEG, and Wisconsin Electric.<sup>46</sup> Each of these utilities settled to avoid litigation and agreed to pay a

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<sup>39</sup> United States v. Ohio Edison Co., 276 F.Supp.2d 829, 832 (S.D. Ohio 2003).

<sup>40</sup> EDISON ELECTRIC INSTITUTE, NEW SOURCE REVIEW: A HISTORY (2001), [http://www.eei.org/industry\\_issues/environment/air/New\\_Source\\_Review/NSR\\_history.pdf](http://www.eei.org/industry_issues/environment/air/New_Source_Review/NSR_history.pdf) (on file with the author).

<sup>41</sup> PUBLIC CITIZEN CONGRESS WATCH, EPA’S SMOKE SCREEN: HOW CONGRESS WAS GIVEN FALSE INFORMATION WHILE CAMPAIGN CONTRIBUTIONS AND POLITICAL CONNECTIONS GUTTED A KEY CLEAN AIR RULE 7 (2003), <http://www.cleanupwashington.org/documents/epasmokescreen.pdf> (last visited Feb. 13, 2009).

<sup>42</sup> ENERGY INFORMATION ADMINISTRATION, 100 LARGEST ELECTRIC COMPANY NET GENERATION (2003), <http://www.eia.doe.gov/neic/rankings/rankbygeneration.htm> (on file with the author) [hereinafter EIA]; EIA, TOP 100 ELECTRIC COMPANIES BY REVENUE (2006), <http://www.eia.doe.gov/neic/rankings/revenue.htm> (last visited Feb. 13, 2009).

<sup>43</sup> ABT ASSOCIATES, PARTICULATE-RELATED HEALTH IMPACTS OF EIGHT ELECTRIC UTILITY SYSTEMS A4-19 (2002), <http://www.environmentalintegrity.org/pubs/PMimpacts8utilities.pdf> (on file with the author).

<sup>44</sup> *Harmonizing the Clean Air Act with Our Nation’s Energy Policy: Hearing Before the S. Subcomm. on Clean Air, Wetlands, Private Property, and Nuclear Safety Comm. on Environment and Public Works*, 107th Cong., Section IV (Mar. 21, 2001) (statement of David G. Hawkins, Director of the Air and Energy Program, Natural Resources Defense Council), available at [http://epw.senate.gov/107th/haw\\_0321.htm](http://epw.senate.gov/107th/haw_0321.htm).

<sup>45</sup> PUBLIC CITIZEN CONGRESS WATCH, *supra* note 411, at 6.

<sup>46</sup> *Id.* at 7.

combined \$2.1 billion to install the best available pollution-control technology to protect public health.<sup>47</sup> For example, Dominion's Virginia Power agreed to spend \$1.2 billion over twelve years to reduce nitrogen oxide emissions (NO<sub>x</sub>) and sulfur oxide emissions (SO<sub>x</sub>) by 70 percent, which in turn prompted Cinergy to settle its lawsuit with the EPA by agreeing to pay \$1.4 billion for pollution-control technology.<sup>48</sup> The results from these settlements spoke for themselves: for the first time in years, the nation's combined power plant emissions of sulfur dioxide, nitrogen oxides, *and* carbon dioxide all decreased from 2000 to 2001 even as energy output increased.<sup>49</sup> Based on these settlements and the hopeful emissions reductions that followed, the EPA's NSR enforcement initiative under Clinton seemed to indicate two things: (1) utilities that made major modifications without PSD review were finally willing to accept their penalty for violating the law for two decades and (2) Congress's goal of protecting public health under the Clean Air Act and the NSR program was once again coming into clear focus.

Everything changed on January 20, 2001. On that date, President George W. Bush was inaugurated, and within days the corporate officers at many of the utilities being sued by the EPA for violating the NSR program were asked to join the Bush Administration as part of Vice President Dick Cheney's Department of Energy Transition Team.<sup>50</sup> Not coincidentally, these utilities made nearly \$4.84 million in campaign contributions to Bush and the Republican National Committee for election campaigns in 2000.<sup>51</sup> Within months, Cheney's task force "recommended that the EPA reassess the air quality rules which were the basis of lawsuits against nine electric utilities."<sup>52</sup> Further seeking to undermine the New Source Review program to benefit campaign contributors, Bush appointee and EPA Administrator Christine Todd Whitman publicly advised defendant utilities to stall any NSR settlement discussions with the government until new rules were unveiled by Bush's EPA.<sup>53</sup> Many of the utilities left the negotiating table in response to Whitman's advice,<sup>54</sup> which led to the bitter resignation of the EPA's

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<sup>47</sup> *Id.*

<sup>48</sup> LARRY B. PARKER AND JOHN E. BLODGETT, CONGRESSIONAL RESEARCH SERVICE, RS20553: AIR QUALITY AND ELECTRICITY: INITIATIVES TO INCREASE POLLUTION CONTROLS (2001), <http://www.ncseonline.org/nle/crsreports/air/air-34.cfm> (on file with the author).

<sup>49</sup> EIA, EMISSIONS FROM ENERGY CONSUMPTION FOR ELECTRICITY PRODUCTION AND USEFUL THERMAL OUTPUT AT COMBINED-HEAT-AND-POWER PLANTS, <http://www.eia.doe.gov/cneaf/electricity/epa/epat5p1.html> (last visited Jan. 31, 2009) [hereinafter EMISSIONS FROM ENERGY CONSUMPTION].

<sup>50</sup> PUBLIC CITIZEN CONGRESS WATCH, *supra* note 41, at 22 (FirstEnergy's President Anthony Alexander, Dominion's Vice President Thomas Farrell, Southern's Vice President Stephen Wakefield, and Cinergy's Chairman Jim Rogers were all asked to participate on the Energy Department Transition Team).

<sup>51</sup> *Id.*

<sup>52</sup> *Id.* at 1.

<sup>53</sup> Memorandum from Governor Whitman to Vice President Cheney (May 4, 2001), available at [http://www.environmentalintegrity.org/pubs/Press\\_Release\\_-\\_Whitman\\_Memo.pdf](http://www.environmentalintegrity.org/pubs/Press_Release_-_Whitman_Memo.pdf); Darren Samuelson, *Bush Environmental Record Scrutinized: NSR Debate Heats Up*, ENV'T & ENERGY DAILY, Mar. 8, 2002; Parenteau, *supra* note 30, at 374.

<sup>54</sup> Parenteau, *supra* note 30, at 374; see also Whitman Warned Administration in 2001 Against Attack on Plant Modification Rules, ENVTL. RPTR., Oct. 17, 2003; see also Memorandum from Governor Whitman to Vice President Cheney, *supra* note 53.



New Source Review enforcement strategist, Eric Shaeffer.<sup>55</sup> Further, Bush Administration appointee Jeffrey Holmstead gave false and misleading testimony to Congress regarding NSR enforcement and Bush DOJ appointee Thomas Sansonetti overstated the DOJ's consistency in pursuing NSR violators.<sup>56</sup> Inexplicably, the Bush administration had negated all of the gains made towards New Source Review enforcement within a matter of months. With enforcement litigation and settlements at a standstill, Bush's EPA pressed even harder to appease the corporate interests of the defendant utilities.

The first official rollback of NSR and its PSD permitting program occurred in February of 2002 when President Bush announced the Clear Skies Initiative. President Bush claimed that the ambitious-sounding Clear Skies Initiative "will cut power plant pollution and improve the health of our citizens."<sup>57</sup> In reality, the initiative is a mandatory market-based cap and trade system for power plants to reduce levels of emissions for SO<sub>x</sub>, NO<sub>x</sub>, and mercury.<sup>58</sup> The emissions standards applied to electric utilities under the Clear Skies Initiative are so weak that the initiative will allow 8 million tons more of NO<sub>x</sub>, 34 million tons more of SO<sub>x</sub>, and 163 tons more of mercury than would have been released under regular enforcement of the Clean Air Act in the absence of the Clear Skies Initiative.<sup>59</sup> In fact, 2002 became a banner year for utilities as they continued to circumvent New Source Review under the guise of the Clear Skies Initiative: in that one year, the EPA allowed more than 17,000 old coal-fired power plants and other factories to expand or renovate without installing the best available pollution-control technology required under NSR.<sup>60</sup> Therefore, the "Clear Skies Initiative" was nothing more than a euphemistic name used to deceive the public as corporate utility officers got wealthier and the public health continued to decline.

Just when all of the work under Clinton's EPA seemed to be unraveling, one PSD enforcement case finally made it to trial and it resulted in an overwhelming victory for the public. In *United States v. Ohio Edison*, Judge Sargus held that the physical replacement of aging or defective components at a power plant to increase the life or reliability of a unit could not reasonably be considered routine maintenance under the RMRR exception, especially when such replacement intended to achieve a significant increase in the operation of the unit resulting in an increase in emissions.<sup>61</sup> Less than one month later, however, Bush's EPA

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<sup>55</sup> Eric Shaeffer, *Clearing the Air: Why I Quit Bush's EPA*, WASHINGTON MONTHLY, July/Aug. 2002, available at <http://www.washingtonmonthly.com/features/2001/0207.schaeffer.html>.

<sup>56</sup> PUBLIC CITIZEN CONGRESS WATCH, *supra* note 41, at 2.

<sup>57</sup> President's State of the Union Address, 2005 U.S.C.C.A.N. D3 (2006).

<sup>58</sup> *Clean Air Act: Hearing on S. 385, Before the S. Comm. on Environment & Public Works, Subcomm. on Clean Air, Climate Change, and Nuclear Safety* 108th Cong. (2003) (statement of David G. Hawkins, Director of the Air and Energy Program, Natural Resources Defense Council), available at [http://epw.senate.gov/108th/Hawkins\\_040803.htm](http://epw.senate.gov/108th/Hawkins_040803.htm).

<sup>59</sup> *Id.*

<sup>60</sup> ENVIRONMENTAL INTEGRITY PROJECT, MYTHS AND FACTS ABOUT NEW SOURCE REVIEW (2003), <http://www.environmentalintegrity.org/pub90.cfm> (last visited Jan. 31, 2009); see also Parenteau, *supra* note 30, at 376-77.

<sup>61</sup> *United States v. Ohio Edison Co.*, 276 F.Supp.2d 829, 834 (S.D. Ohio 2003).

responded with the new rule that it had advised the utilities to wait for before moving forward with settlement negotiations. Although that original advice had come from EPA Administrator Christine Todd Whitman, Whitman resigned in July of 2003 because of “Cheney’s insistence on easing air pollution controls.”<sup>62</sup> In August of 2003, without Whitman at the helm, the EPA unveiled its new rule that allowed any replacement to fall under the RMRR exception to New Source Review so long as the replacement did not exceed 20 percent of the total replacement cost of the unit.<sup>63</sup> This rule effectively gave utilities permission to spend millions of dollars to make significant, piece-by-piece replacements of unit parts as long as each individual replacement did not amount to 20 percent of the replacement value of the entire unit. More importantly, this rule allowed extensions to the lives of pre-1977 coal-fired power plants, which were still operating with pre-1977 pollution-control technology, for much longer than the short lifespan of such plants envisioned by Congress when they enacted NSR in 1977 and grandfathered existing plants.<sup>64</sup>

This egregious about-face by Bush’s EPA completely eradicated the attempts by Clinton’s EPA to clean up air pollution for our nation’s citizens. The Office of Inspector General, a division within Bush’s EPA, even went so far as to claim that the new rule was counterproductive to the EPA’s missions and goals as an agency.<sup>65</sup> Fortunately, some progressive state governments, environmental groups, and public health organizations challenged the EPA’s new rule because of the importance of these air quality issues for the nation’s future. In December of 2003, the United States Court of Appeals for the District of Columbia Circuit issued a stay on the rule, which caused the EPA to withdraw the rule for further consideration.<sup>66</sup> In June of 2005, however, Bush’s EPA once again issued a rule clarifying that the RMRR exception applies so long as a replacement does not equal 20 percent or more of the total replacement cost of the unit.<sup>67</sup> The D.C. Circuit Court of Appeals once again sided with environmental groups as it held that the EPA’s 20 percent rule was “contrary to the plain language” of the Clean Air Act.<sup>68</sup> Since the CAA clearly states that “*any physical change . . . which*

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<sup>62</sup> Jo Becker and Barton Gellman, *Leaving No Tracks*, THE WASHINGTON POST, Jun. 27, 2007, available at [http://blog.washingtonpost.com/cheney/chapters/leaving\\_no\\_tracks/index.html](http://blog.washingtonpost.com/cheney/chapters/leaving_no_tracks/index.html).

<sup>63</sup> 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. 61247 (Oct. 27, 2003).

<sup>64</sup> See *Clean Air Act Violators Off the Hook*, ENVIRONMENT NEWS SERVICE, Nov. 6, 2003, <http://www.ens-newswire.com/ens/nov2003/2003-11-06-02.asp>.

<sup>65</sup> See generally U.S. EPA, OFFICE OF INSPECTOR GENERAL, EVALUATION REPORT: NEW SOURCE REVIEW RULE CHANGE HARMS EPA’S ABILITY TO ENFORCE AGAINST COAL-FIRED ELECTRIC UTILITIES 1-67, Report No. 2004-P-00034 (2004), <http://www.epa.gov/oigearth/reports/2004/20040930-2004-P-00034.pdf> (last visited Jan. 31, 2009).

<sup>66</sup> See generally *New York v. U.S. Env’tl. Prot. Agency*, 443 F.3d 880 (D.C. Cir. 2003).

<sup>67</sup> 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. 33838 (Jun. 12, 2005) [hereinafter RMRR Exclusion: Reconsideration].

<sup>68</sup> *New York v. U.S. Env’tl. Prot. Agency*, 443 F.3d at 883.

increases the amount of any air pollutant” subjects a facility to NSR, the court held that a rule allowing facilities to replace up to 20 percent of a unit’s components without NSR would contravene the purpose of the Clean Air Act.<sup>69</sup>

Not to be outdone by the judiciary and its constant refusal of new utility-favorable rules, Bush’s EPA moved forward in October of 2005 and proposed a rule that would set the test for measuring an increase in emissions by using historical hourly emissions rates at a facility.<sup>70</sup> In effect, this rule would enable an old, coal-fired power plant running ten hours each day to have major modifications that would allow it to run twenty hours each day with the same hourly rate of emissions that it had emitted previously. Although a major modification would have occurred, this plant would not be subject to New Source Review because the modification would not have resulted in a significant net emissions increase under the hourly test proposed by Bush’s EPA. Not only did this proposed rule seek to allow old, dirty power plants to significantly increase or potentially double their emissions capacity through major modifications, but it also sought to do so without triggering NSR and the mandatory pollution-control technology that would have been required under NSR.

In the midst of the Bush EPA’s ongoing attempts to completely undermine the CAA and its NSR program, one Clinton-era NSR enforcement case gradually made its way through the judicial process. In 2000, Clinton’s EPA brought an enforcement lawsuit against Duke Energy as part of its NSR initiative to target the largest violators of the NSR program during the 1980s and 1990s. Eight unique complaints were brought against Duke Energy alleging that Duke made twenty-nine plant improvements that should have been subjected to NSR, including one project that costs more than seven times the original cost of the entire unit.<sup>71</sup> Although Clinton’s EPA initially filed the lawsuit, Bush’s EPA stepped back from the case as it simultaneously promulgated the utility-friendly NSR rules discussed above. After the EPA and environmental groups failed to prevail before the Fourth Circuit Court of Appeals, likely due in part to the EPA’s lack of commitment to pursuing the real issues at hand, the Bush Administration declined to petition the United States Supreme Court for certiorari. Environmental groups thus decided to seek certiorari against the government’s wishes. To show the unreasonableness of the Bush EPA with regard to NSR, the United States Supreme Court granted certiorari over the government’s opposition.<sup>72</sup> This constituted the first time since 1971—thirty-five years—that the Court granted certiorari in an environmental case where the government was a co-plaintiff but opposed certiorari.<sup>73</sup> Although the grant of certiorari was a major victory for environmental and public health

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<sup>69</sup> *Id.*

<sup>70</sup> RMRR Exclusion: Reconsideration, 70 Fed. Reg. at 61081.

<sup>71</sup> *United States v. Duke Energy Corp.*, 278 F. Supp. 2d. 619, 622 (M.D.N.C. 2003).

<sup>72</sup> See Thomas Gremillion, *Case Comment: Environmental Defense v. Duke Energy Corporation*, 31 HARV. ENVTL. L. REV. 333, 338 (2007).

<sup>73</sup> See *id.*; see also Clair Windsor, *The Bush Administration’s Shift on Clean Air and Duke Energy*, MEDILL NEWS SERVICE, June 2006, available at <http://docket.medill.northwestern.edu/arcs/hives/003706.php>.

organizations, the Bush Administration complicated matters by joining Duke Energy for the Supreme Court case arguing in opposition of the positions that the EPA itself had raised both in the initial trial before a federal district court judge and in the appellate trial before the Fourth Circuit.<sup>74</sup> Despite the Bush Administration's best efforts to thwart the environmental groups' attempts to protect public health through NSR enforcement, the case against Duke Energy finally brought these important issues squarely before a national audience.

#### IV. A TURNING POINT? *ENVIRONMENTAL DEFENSE V. DUKE ENERGY*

Duke Energy Corporation, one of the largest electric utilities in the United States, "runs 30 coal-fired electric generating units at eight plants in North and South Carolina . . . [which] were placed in service between 1940 and 1975."<sup>75</sup> Between 1988 and 2000, "Duke replaced or redesigned 29 [of the 30 units] in order to extend the life of the units and allow them to run longer each day."<sup>76</sup> In 2000, Clinton's EPA and environmental groups brought suit against Duke Energy for failing to comply with the New Source Review program when the utility made these major modifications on twenty-nine coal-fired units built before 1977.<sup>77</sup> As discussed earlier, Reagan's EPA promulgated regulations in 1980 that determined what types of modifications require PSD review and that determined that annual emissions, not hourly emissions, would be used to determine a significant net increase of a modification for NSR purposes.<sup>78</sup> It is important to note that neither Duke Energy nor any other utility timely challenged the EPA's 1980 PSD "modification" rule within the appropriate sixty-day time limit in the D.C. Circuit Court of Appeals, but now challenges the EPA's 1980 rule twenty-seven years later at trial.<sup>79</sup> Before the Supreme Court, Duke Energy alleged three main arguments: (1) the EPA did not have authority to interpret "modification" differently in the PSD program than it did in the prior New Source Performance Standards (NSPS) program under the CAA, (2) none of Duke Energy's projects were "major modifications" requiring a PSD permit because none increased the hourly rates of emissions, and (3) even if the EPA did have authority to define "modification" as it did in 1980, the EPA has "taken inconsistent positions and is now retroactively targeting twenty years of accepted practice."<sup>80</sup>

In regard to Duke Energy's first argument, the Supreme Court held that, absent express Congressional intent, the "EPA's construction . . . of 'modification' differently [for PSD and NSPS purposes] . . . need do no more than fall within the limits of what is reasonable," which the 1980 PSD interpretation does.<sup>81</sup> Although

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<sup>74</sup> Brief for the United States in Opposition at 7-8, *Envtl. Def. v. Duke Energy Corp.*, 547 U.S. 1127 (2006).

<sup>75</sup> *Envtl. Def. v. Duke Energy Corp.*, 549 U.S. 561, 570 (2007).

<sup>76</sup> *Id.*

<sup>77</sup> PUBLIC CITIZEN CONGRESS WATCH, *supra* note 41.

<sup>78</sup> See 40 C.F.R. § 51.166(b)(3) (2008); see also 40 C.F.R. § 51.166(b)(21)(ii) (2008).

<sup>79</sup> *Envtl. Def.*, 549 U.S. at 573-74.

<sup>80</sup> *Id.* at 575-76, 580-82.

<sup>81</sup> *Id.* at 576.

both the NSPS and PSD programs aim to protect public health by limiting emissions from stationary sources of air pollution, their goals and structures are quite different. The Court recognized the different functions of these two programs and also recognized that Congress never explicitly intended for “modification” to be defined identically for both programs, which allowed the Court to hold that the EPA’s 1980 modification rule for PSD could reasonably differ from the EPA’s 1975 modification rule for the NSPS program.

As to Duke Energy’s second argument, the Court emphasized that Duke was incorrect in asserting that it did not increase its rates of emissions when it modified its units because of Duke’s flawed reading of the 1980 EPA regulations. Duke Energy alleged that its modifications did not require a PSD permit because “none of the projects . . . increased hourly rates of emissions,” but “on its face, the [EPA’s] definition . . . specifies [modification as any] change that would result in a significant net emissions increase of any regulated pollutant.”<sup>82</sup> Since the regulations further state that emissions under the PSD program are regulated by annual emissions rates, the Court stated that an increase or lack thereof in hourly emissions is irrelevant.<sup>83</sup> Therefore, since Duke Energy’s actions allowed its twenty-nine units to run longer each day and thereby significantly increased its net annual emissions of air pollutants, Duke’s actions were “major modifications” pursuant to the EPA’s regulations, which should have triggered New Source Review and should have required the implementation of the best available control technology.

In response to Duke Energy’s third argument alleging EPA inconsistency, the Court stated, “Duke may press it on remand . . . to the extent it is not procedurally foreclosed.”<sup>84</sup> However, Duke Energy’s argument on remand, assuming they choose to pursue it further, will likely be rejected for two reasons: (1) much of Duke’s argument hinged on its assertion that the definition of a “modification” for PSD purposes must be the same as for NSPS purposes, which the Court explicitly foreclosed and (2) the inconsistencies by the EPA of which Duke complains can be attributed primarily to Bush’s EPA, which has used politics to impose obstacles to NSR enforcement cases brought by the previous administration and to shield NSR violators from the law.<sup>85</sup> Thus, Duke Energy will not likely prevail on remand because it would be difficult for a court to accept an argument of inconsistency of a twenty-seven year EPA policy whereby the inconsistent positions can be fully attributed to a single, eight-year administration that sided with Duke at trial. If Duke Energy fails on remand, it will finally be required to undertake PSD review and to install the best available pollution-control technology. As such, this case is a significant victory for environmental and public health groups. Further, it is an important step in setting precedent for the future of the NSR process and in

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<sup>82</sup> *Id.*; 40 C.F.R. § 51.166(b)(2)(i) (2008).

<sup>83</sup> *Envtl. Def.*, 549 U.S. at 578, *see also* 40 C.F.R. § 51.166(b)(3) (2008).

<sup>84</sup> *Envtl. Def.*, 549 U.S. at 582.

<sup>85</sup> Initial Brief for Appellee-Respondent Duke Energy at 41 (Sept. 15, 2006), *Envtl. Def.v. Duke Energy Corp.*, 549 U.S. 561 (2007); *see also* Nathaniel Lord Martin, *The Reform of New Source Review: Toward a More Balanced Approach*, 23 STAN. ENVTL. L.J. 351, 351-53 (June 2004).

breathing life back into Congress's goal of protecting the public's health through enforcement of the Clean Air Act.

#### V. AFTER DUKE ENERGY: RE-CENTERING THE FOCUS ON PUBLIC HEALTH

Although the Supreme Court did not address the fundamental question of "how [the] EPA should determine whether work on a generating plant is more than simply routine maintenance . . . therefore triggering [NSR] requirements," the Court's 9-0 decision firmly established the EPA's authority to implement and enforce the New Source Review process.<sup>86</sup> Whether President Obama's EPA and future administrations will heed the Court's order to enforce against NSR violators stands to be seen. An indication of the potential willingness of utilities to finally concede the battle against NSR enforcement might be gleaned from the fact that the nation's combined utility emissions of carbon dioxide, sulfur dioxide, and nitrogen oxides all decreased from 2005 to 2006 for the first time since the 2000 to 2001 decrease when NSR enforcement began under Clinton's EPA.<sup>87</sup>

Further signaling the end of the assault on public health by the utilities and self-interested politicians, and likely based on the Supreme Court's unanimous decision in *Duke Energy*, American Electric Power (AEP) reached a settlement agreement with the EPA and environmental groups in October of 2007 in response to a lawsuit alleging "major modifications" at nine of AEP's facilities.<sup>88</sup> This settlement, the largest in New Source Review history in both terms of money and pollution reduction, requires AEP to spend more than \$4.6 billion on pollution-control technology, civil penalties, and environmental mitigation measures.<sup>89</sup> The United States estimates that the AEP settlement will single-handedly avoid "\$32 billion per year [in] health-related costs."<sup>90</sup> Thus, the future looks brighter for the public and its health. Although the NSR grace period has lasted much longer than originally anticipated by Congress, recent events demonstrate a renewed momentum towards realizing substantial improvements for both our nation's public health and its environmental quality.

As history has shown, the smoke-and-mirrors approach employed by corporate utility interests and our nation's executive branch does nothing more than darken our cities, poison our lungs, and cut short our lives while corporate officers and government officials reap the monetary benefits of failing to install pollution-control technology. Although the *Duke Energy* case has provided the New Source Review program with teeth for enforcement, it will be important for President Obama's EPA to take a firm and proactive stand on this issue to distance

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<sup>86</sup> *Overturing Lower Court's Decision, Supreme Court Upholds EPA's View of How Utility Emissions Should Be Measured*, FOSTER ELEC. REP., Apr. 4, 2007.

<sup>87</sup> EIA, EMISSIONS FROM ENERGY CONSUMPTION, *supra* note 49.

<sup>88</sup> Press Release, United States Department of Justice Environment and Natural Resources Division, Fact Sheet: United States vs. American Electric Power (Oct. 9, 2007) (on file with the author).

<sup>89</sup> *Id.*

<sup>90</sup> *Id.*

itself from the problems that plagued the preceding administration. For years, critics claimed that changes to the NSR program were necessary to close loopholes and bring violators to justice. After the breakthrough victory against Duke Energy, however, it is clear that changes are not needed. Congress strongly and expressly asserted its mandate when it created the Clean Air Act in 1970 and the New Source Review program in 1977: “protect and enhance the quality of the Nation’s air resources so as to promote the public health.”<sup>91</sup> Unfortunately, it has taken thirty years to reach the current understanding in favor of NSR enforcement, which is too late for the hundreds of thousands of American citizens whose lives were cut short by dirty air. Fortunately, however, our nation has recently rounded a substantial corner in bettering our nation’s air quality and it is now time to lift the dirty smoke and deceptive mirrors in order to finally achieve the health benefits envisioned by Congress under the New Source Review program.

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<sup>91</sup> 42 U.S.C. § 7401 (2006).