

EPA'S CHANGES TO THE ROUTINE MAINTENANCE,  
REPAIR AND REPLACEMENT RULE OF THE NEW SOURCE  
REVIEW PROGRAM: AN UNLAWFUL THREAT TO  
PUBLIC HEALTH AND WELFARE?

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## INTRODUCTION

The U.S. Environmental Protection Agency's (EPA) New Source Review (NSR) program is a product of the 1977 amendments to the Clean Air Act (CAA). The program requires stationary sources of pollution to update pollution control technology at the time of "construction" or "modification." Construction occurs when a source builds or modifies a new or existing facility or emissions unit.

Since Congress did not intend for trivial or routine projects to trigger NSR, EPA created the routine maintenance, repair, and replacement (RMRR) aspect of the NSR program. The RMRR provisions exempt certain activities from NSR, such as the replacement of leaky pipes. Whether a project qualifies as RMRR is not always clear. Such regulatory uncertainty triggers passionate debate among EPA, regulated entities, and concerned citizens and organizations. Most of these interest groups agree that EPA needs to make changes to the NSR program, but reasonable minds differ as to how this might best be accomplished.

On December 31, 2002, EPA attempted to improve upon the NSR program by proposing a new rule that would add two new categories to the RMRR exemption. On August 27, 2003, EPA finalized the proposed rule by qualifying the annual maintenance, repair, and replacement allowance (annual allowance) and the equipment replacement approach as RMRR. EPA claims that the new categories will provide owners and operators of pollution sources with greater regulatory certainty and operational flexibility. According to EPA, the new regulations will allow industry to more confidently and readily decide whether a proposed project triggers NSR requirements. Greater regulatory certainty might also alleviate some of the strain on EPA's administrative resources.

Opponents of the final rule claim that EPA's new categories create a loophole that enables old, dirty power plants to avoid updating pollution controls during construction or expansion. In other words, existing power plants and other industrial facilities could, in contravention of the CAA, significantly increase emissions without triggering NSR requirements. This loophole is in direct conflict with Congressional intent under the CAA to modernize the pollution controls on existing plants so that they match the control levels of new plants. The result gives existing plants an unfair market advantage and has significant repercussions for the public health and welfare.

Although the RMRR protocol needs to be clarified, EPA's proposed and final solution is neither a reasonable nor a lawful approach to implementation of the CAA. The annual allowance and equipment replacement provisions allow sources to make major modifications without triggering NSR requirements. These provisions are inconsistent with the CAA's overall statutory design. As a matter of policy, the rule does not

reasonably balance the competing social, economic, and environmental interests.

#### I. SOURCES AND EFFECTS OF AIR POLLUTION

The United States' reliance on combustible fuels continues to increase as the population grows and fuel-dependent industries expand. Burning fossil fuels emits gas and particulate matter (PM) into the air. Internal combustion engines, generally associated with mobile sources such as motor vehicles, account for almost half of total air pollution each year, as measured by weight.<sup>1</sup> Stationary sources of pollution, such as power plants, are responsible for 21% of total pollution but emit more highly toxic pollutants than mobile sources.<sup>2</sup>

Coal-fired power plants are responsible for many of the highly toxic emissions from stationary sources.<sup>3</sup> Coal combustion emits lead, sulfur oxides, particulate matter, and nitrogen oxides into the air.<sup>4</sup> Power plants produce about 27% and 67% of the total emissions of nitrogen oxides and sulfur oxides in the U.S. respectively.<sup>5</sup> The U.S. Department of Energy (DOE) projects that coal will remain the most commonly used fuel over the next two decades until superseded by natural gas.<sup>6</sup> Meanwhile, demand for electricity will continue to grow, which will require existing power plants to bear increasing loads.<sup>7</sup>

Wind can transport air pollutants hundreds of miles from the source. As a result, regional pollution problems emerge and threaten the quality of both human health and the environment. Air pollution causes mil-

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<sup>1</sup> FRANK P. GRAD, *TREATISE ON ENVIRONMENTAL LAW* § 2.019(3)(a) (2002).

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

<sup>4</sup> See Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone, 63 Fed. Reg. 57356-01 (Oct. 27, 1998) (to be codified at 40 C.F.R. pts. 51, 72, 75, 96).

<sup>5</sup> AM. LUNG ASS'N, *AMERICAN LUNG ASS'N FACT SHEET: OUTDOOR AIR POLLUTION* (2000); see also U.S. Environmental Protection Agency, *NO<sub>x</sub>: What is it? Where does it come from?*, available at <http://www.epa.gov/air/urbanair/nox/what.html>.

<sup>6</sup> U.S. Dep't of Energy, *Analysis of Strategies for Reducing Multiple Emissions from Power Plants: Sulfur Dioxide, Nitrogen Oxides, and Carbon Dioxide*, available at <http://www.eia.doe.gov/oiaf/servicerpt/powerplants/chapter3.html> (June 29, 2003); see also U.S. Dep't of Energy, *Analysis of Strategies for Reducing Multiple Emissions from Electric Power Plants: Sulfur Dioxide, Nitrogen Oxides, Carbon Dioxide, and Mercury and a Renewable Portfolio Standard*, available at <http://www.eia.doe.gov/oiaf/servicerpt/epp/execsum.html> (June 29, 2003).

<sup>7</sup> See U.S. Dep't of Energy, *Analysis of Strategies for Reducing Multiple Emissions from Power Plants: Sulfur Dioxide, Nitrogen Oxides, and Carbon Dioxide*, available at <http://www.eia.doe.gov/oiaf/servicerpt/powerplants/chapter3.html> (April 25, 2003).

lions of people to suffer lung, heart and neurological damage.<sup>8</sup> Air pollution also contributes to acid rain, which harms human health, natural resources, and certain property interests, including livestock, agricultural crops and art and architecture.<sup>9</sup>

#### A. Human Health

Approximately 133 million Americans live in areas suffering from heavily polluted atmospheric conditions.<sup>10</sup> Such conditions exact a substantial toll on the overall quality of public health. For example, each year power plants cause more than 30,000 premature deaths and countless acute illnesses and chronic diseases.<sup>11</sup>

Sulfur oxides, particulate matter and nitrogen oxides cause acute and chronic respiratory ailments such as lung cancer, bronchitis and asthma.<sup>12</sup> Respiratory diseases claim about 335,000 lives in the United States annually.<sup>13</sup> Each year, power plants cause almost 20,000 cases of chronic bronchitis and 603,000 asthma attacks.<sup>14</sup> Children represent only a quarter of the U.S. population, but account for approximately 40% of asthma sufferers.<sup>15</sup> Requiring power plants to update pollution control measures could save Americans a total \$100 billion in health-related expenses.<sup>16</sup>

#### B. Environmental Quality and Acid Rain

Fuel combustion significantly contributes to the production of acid rain.<sup>17</sup> "Acid rain" is actually an umbrella term referring to various acidic components of polluted precipitation, such as sulfuric and nitric acid, in rain, snow, fog or dew that pollutes the atmosphere, water, and soils.

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<sup>8</sup> See generally Nat'l Acad. of Pub. Admin., *A Breath of Fresh Air: Reviving the New Source Review Program*, Summary Report 22 (2003).

<sup>9</sup> GRAD, *supra* note 1, at § 2.01(3)(b).

<sup>10</sup> See NAT'L ACAD. OF PUB. ADMIN., *supra* note 8, at 12.

<sup>11</sup> CLEAN AIR TASK FORCE, *DEATH, DISEASE & DIRTY POWER: MORTALITY AND HEALTH DAMAGE DUE TO AIR POLLUTION FROM POWER PLANTS 3* (Oct. 2000). See also NAT'L ACAD. OF PUB. ADMIN., *supra* note 8, at 2, 13.

<sup>12</sup> See National Ambient Air Quality Standards for Particulate Matter, 62 Fed. Reg. 38, 652 (July 18, 1997) (to be codified at 40 C.F.R. pt. 52); Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills, 61 Fed. Reg. 9905, 9917 (Mar. 12, 1996) (to be codified at 40 C.F.R. pts. 51, 52, and 60); GRAD, *supra* note 1, at § 2.01(3)(a). See also U.S. ENVTL. PROTECTION AGENCY, *GREEN BOOK: CRITERIA POLLUTANTS*, available at <http://www.epa.gov/oaqps/greenbk/o3co.html> (Apr. 22, 2003).

<sup>13</sup> Am. Lung Ass'n, *supra* note 5.

<sup>14</sup> CLEAN AIR TASK FORCE, *supra* note 11, at 5.

<sup>15</sup> See *id.* at 9.

<sup>16</sup> See *id.* at 5.

<sup>17</sup> GRAD, *supra* note 1, at § 2.01(3)(b).

The result often is costly for humans, the natural environment, and buildings or monuments.<sup>18</sup>

As noted above, the impact of breathing, consuming, or coming into contact with polluted elements may cause humans to suffer from premature death, cardiovascular disease and respiratory disorders ranging from chronic bronchitis and asthma to emphysema.<sup>19</sup> Acid rain also can make waters too acidic to sustain fish, plants, and other aquatic life. At least 500 of the 2,800 ponds and lakes in New York's Adirondack Park are negatively impacted by acid rain.<sup>20</sup> Acid rain compromises forest health by releasing toxins in the soils, depleting the soil's minerals and nutrients, and damaging foliage.<sup>21</sup> These events increase a plant's sensitivity to harsh environmental variables such as cold temperatures.<sup>22</sup> Additionally, acid rain dissolves the calcite in structural materials, such as marble and limestone. This corrosion threatens historic buildings and monuments, most notably those in the nation's capitol, which lose material and intricate artistic details.<sup>23</sup>

Acid rain does not affect all parts of the country equally; some humans and landscapes are more vulnerable. Wind patterns generally push storms and air pollution east and northeast from power plants, many of which are coal-burning and in the Midwest.<sup>24</sup> As a result, acid rain occurs more frequently in New York and other Northeastern states than in any other part of the United States.<sup>25</sup> Experts blame acid rain for the death of up to 80% of the fir and spruce forests in certain parts of New York's Adirondack Park.<sup>26</sup> And New York Attorney General Eliot Spitzer, citing other recent studies, points out that acid rain has caused 20% of the lakes in and near the park to become too acidic for fishes. The figure is projected to increase to 40% should current trends continue.<sup>27</sup>

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<sup>18</sup> *Id.* at § 2.09(1).

<sup>19</sup> *See id.* at § 2.09; U.S. Env'tl. Protection Agency, Effects of Acid Rain: Human Health, available at <http://www.epa.gov/airmarkets/acidrain/effects/health.html> (last modified Oct. 28, 2002).

<sup>20</sup> Gerald B. Silverman, *New Source Review: New York Officials Lead Opposition; Power Firms Say Rule Will 'Create Certainty,'* 34 *Env't Rep. (BNA)* 774, 776 (2003).

<sup>21</sup> *See* BURTON V. BARNES, ET AL., *FOREST ECOLOGY* 158, 272 (4th ed. 1998).

<sup>22</sup> *Id.*

<sup>23</sup> *See, e.g.,* GRAD, *supra* note 1, at § 2.01(3)(b).

<sup>24</sup> *See* BARNES, ET AL., *supra* note 21, at 272.

<sup>25</sup> SILVERMAN, *supra* note 20, at 776.

<sup>26</sup> *Id.*

<sup>27</sup> State of New York Attorney General's Office, Comments of Eliot Spitzer, Attorney General of the State of New York, on the U.S. Env'tl. Protection Agency's 90-Day Review of the Clean Air Act New Source Review Program (July 2001), available at [http://www.oag.state.ny.us/press/statements/epa\\_clean\\_air.html](http://www.oag.state.ny.us/press/statements/epa_clean_air.html) (Jan. 27, 2003).

## II. CLEAN AIR ACT (CAA)

### A. History of Air Pollution Control

During the Industrial Revolution, energy needs in the United States grew exponentially. Coal and other fossil fuels supplied the energy necessary to meet the increased demand.<sup>28</sup> Although air pollution from power plants threatened public health and welfare, very few states enacted laws to address the mounting problems.<sup>29</sup> In 1955, Congress passed the Air Pollution Control Act, which merely provided research and technical assistance to states to study the causes and effects of air pollution.<sup>30</sup> However, the lack of receptivity among the states, combined with a federal government largely unwilling to tackle this massive challenge, created a gridlock in which almost nothing was done for the next decade to prevent further decline in air quality.<sup>31</sup>

By 1963, Congress recognized the need to better involve the federal government and passed the Clean Air Act.<sup>32</sup> The Act required the Secretary of the Department of Health, Education and Welfare (HEW) to publish non-mandatory air criteria based on scientific knowledge of pollution impacts.<sup>33</sup> Moreover, for the first time, Congress provided grant monies for state and local governments to develop air control programs.<sup>34</sup> The Act also allowed the federal government to abate pollution that originated in one state and degraded air quality in another.<sup>35</sup> Initially, however, federal involvement was rare because of burdensome abatement procedures.<sup>36</sup>

In 1967, Congress promulgated the Air Quality Act to require the Secretary of HEW to publish compulsory air criteria.<sup>37</sup> The nationally applicable criteria or "national ambient air quality standards" (NAAQS) established non-enforceable limits on the amount of pollutants allowed in the ambient air.<sup>38</sup> The Act required states to adopt standards and implementation measures consistent with the federal standards.<sup>39</sup> Realizing the need for more stringent measures to abate air pollution, Congress passed the 1970 Clean Air Act Amendments, which called for states to attain the NAAQS by 1977.<sup>40</sup>

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<sup>28</sup> GRAD, *supra* note 1, at § 2.03(1).

<sup>29</sup> *Id.*

<sup>30</sup> *Id.*

<sup>31</sup> *Id.*

<sup>32</sup> WILLIAM H. RODGERS, ENVTL. LAW: AIR AND WATER § 3.1 (1986).

<sup>33</sup> *Id.*

<sup>34</sup> *Id.*

<sup>35</sup> *Id.*

<sup>36</sup> *Id.*

<sup>37</sup> *Id.*

<sup>38</sup> *Id.*

<sup>39</sup> *Id.*

<sup>40</sup> *See id.* *See also* GRAD, *supra* note 1, at § 2.03(2)(a).

Problems with air quality remained despite these efforts, so Congress sought the technical expertise of the Secretary to develop a more effective air quality control program.<sup>41</sup> The Secretary declared that the NAAQS were necessary to protect public health.<sup>42</sup> Moreover, the Secretary claimed that a strategy that combined the NAAQS with a “prevention of significant deterioration” (PSD) policy would provide even greater protection.<sup>43</sup> Consequently, Congress decided to make pollution control requirements more prescriptive. The 1977 amendments mandated a nationwide review of air quality to determine which air quality control regions failed to meet the NAAQS.<sup>44</sup> Congress ordered regions in compliance with the NAAQS to adopt measures consistent with a PSD policy and non-attainment areas to adopt stricter measures.<sup>45</sup> These orders eventually resulted in the development of the NSR program.

By 1987, millions of Americans lived, worked or recreated in non-attainment areas.<sup>46</sup> In 1990, Congress attempted yet again to address the problem, further amending the CAA by requiring each state to comply with ambient air quality standards set forth in a State Implementation Plan (SIP).<sup>47</sup> These amendments placed strict requirements on SIPs, including a mandate to classify an area’s non-attainment status as extreme, severe, serious, moderate or marginal.<sup>48</sup> Increasing levels of non-attainment triggered, and continue to trigger, prescriptive pollution control measures for stationary sources.<sup>49</sup> The NSR program dictates when and what control measures must be installed.

### B. *The Modern Clean Air Act*

The modern Clean Air Act represents the culmination of Congress’ post-Industrial Revolution efforts to combat air pollution. Damage to human health and property from air pollution prompted Congress to require industrial facilities to reduce pollutants at the source.<sup>50</sup> EPA holds individual stationary sources accountable for emission levels and seeks to prevent the significant deterioration of air quality primarily through pre-construction review and permitting.<sup>51</sup>

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<sup>41</sup> See GRAD, *supra* note 1, at § 2.03(1).

<sup>42</sup> See *id.* at § 2.03(2)(a). See also RODGERS, *supra* note 32, at § 3.1.

<sup>43</sup> THOMAS J. SCHOENBAUM, ET AL., ENVTL. POLICY LAW: PROBLEMS, CASES, AND READINGS 816-17 (4th ed. 2002).

<sup>44</sup> *Id.*

<sup>45</sup> See *id.* at 38, 816; GRAD, *supra* note 1, at § 2.03(2)(a).

<sup>46</sup> See SCHOENBAUM, *supra* note 43, at 783.

<sup>47</sup> See RODGERS, *supra* note 32, at § 3.1.

<sup>48</sup> *Id.*

<sup>49</sup> See 42 U.S.C. § 7511(a) (2002).

<sup>50</sup> See *id.* § 7401(a).

<sup>51</sup> See *id.* § 7475.

## 1. Air Quality Criteria and Standards

Section 108 of the CAA requires the Administrator of EPA to publish and periodically revise a list of regulated air pollutants.<sup>52</sup> Pollutants that threaten public health or welfare and come "from numerous or diverse mobile or stationary sources" must be listed.<sup>53</sup> The list currently contains six key criteria pollutants: carbon monoxide, lead, nitrogen oxides, PM, sulfur oxides, and volatile organic compounds/ozone.<sup>54</sup>

The CAA also requires the Administrator to establish and periodically revise the ambient air quality standards, or NAAQS, for the listed criteria pollutants.<sup>55</sup> The NAAQS specify the maximum allowable concentration of each pollutant<sup>56</sup> The NAAQS must reflect an "adequate margin of safety" for public health and "any known or anticipated adverse effects" on public welfare.<sup>57</sup> The Administrator must disregard economic factors, such as industry implementation costs and base the NAAQS on "the latest scientific knowledge" vis-à-vis health concerns.<sup>58</sup>

## 2. State Implementation Plans (SIPs)

Congress commissioned EPA to administer the CAA.<sup>59</sup> However, the CAA explicitly declares that states have the primary responsibility to prevent and control air pollution.<sup>60</sup> Each state can either design its own NSR program or implement the federal program.<sup>61</sup> Regardless, every state must submit a SIP to EPA. The SIP describes any applicable NSR requirements and the measures a state will take to comply with the NAAQS.<sup>62</sup>

The Administrator must approve the SIP if it satisfies the statutory requirements. Once a state has submitted a SIP and EPA has approved it, the state is bound by its terms.<sup>63</sup> The applicable NSR requirements contained in the SIP will vary depending on whether the air quality control region is in compliance with the NAAQS. The CAA requires states to designate each of their specified air quality control regions as being either in attainment or non-attainment with the NAAQS for each of the

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<sup>52</sup> *Id.* § 7408.

<sup>53</sup> *Id.* § 7408(a).

<sup>54</sup> *See* 40 C.F.R. § 51.15 (2002).

<sup>55</sup> 42 U.S.C. § 7409(d).

<sup>56</sup> *Id.* § 7409(b).

<sup>57</sup> *Id.*

<sup>58</sup> *See id.* § 7408(a)(1).

<sup>59</sup> *Id.* § 7410(k).

<sup>60</sup> *See id.* § 7410(a).

<sup>61</sup> *See id.*

<sup>62</sup> *See id.* § 7410(a)(2)(A).

<sup>63</sup> *See id.* §§ 7410(k)(1)(B), 7407(c).

six criteria pollutants.<sup>64</sup> Congress prescribed much stricter NSR permitting requirements for non-attainment areas.<sup>65</sup> A state that fails to attain the NAAQS in a given area by the deadline may face serious consequences, such as a reduction or loss of federal highway funds.<sup>66</sup> The Administrator announces the non-compliance in the Federal Register, and the state then has one year to revise its SIP to meet the NAAQS.<sup>67</sup> Congress empowered the Administrator to prescribe reasonable and stringent control measures for a state's revised SIP that may, however, be quite costly.<sup>68</sup>

### III. NEW SOURCE REVIEW (NSR)

The CAA anticipates three types of pollution control strategies: reductions of emissions from mobile sources, limits on emissions from stationary sources, and NSR. NSR is a pre-construction review and permitting process designed to maintain air quality in certain areas and to improve air quality in non-attainment areas.<sup>69</sup> Congress designed NSR to force newly built and existing sources to update pollution controls at the most economically-efficient time — the period of construction or modification.<sup>70</sup> Congress anticipated that the owners of existing power plants and other stationary sources would gradually retire their old pollution control measures and install the updated technologies required for all new sources.<sup>71</sup>

#### A. Statutory Requirements

Modifications at existing sources may trigger pre-construction review and permitting requirements.<sup>72</sup> Congress defined "modification" 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."<sup>73</sup> Sources must obtain any applicable NSR permits and approvals from the appropriate governmental authority, usually

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<sup>64</sup> If the available data for a particular region is inconclusive, the region is listed as "unclassifiable." *See id.* at §§ 7470-79.

<sup>65</sup> *See id.* § 7503(a)(1)(A).

<sup>66</sup> *See id.* § 7509.

<sup>67</sup> *See id.*

<sup>68</sup> *See id.*

<sup>69</sup> *See* SCHOENBAUM, *supra* note 43, at 747.

<sup>70</sup> *See* U.S. Env'tl. Protection Agency, *NSR 90-Day Review Background Paper* (Washington, D.C.: Docket A-20001-19, 2001), 2-4.

<sup>71</sup> *See, e.g.,* Wis. Elec. Power Co. v. Reilly, 893 F.2d 901, 909 (7th Cir. 1990).

<sup>72</sup> *See* 42 U.S.C. §§ 7475, 7411(a)(4).

<sup>73</sup> *Id.* § 7411(a)(4).

state or local air quality control boards, prior to construction.<sup>74</sup> Congress defined "construction" to include modifications at existing sources.<sup>75</sup>

### 1. New Source Performance Standards (NSPS)

Congress authorized the Administrator to establish and revise regulations for national performance standards applicable to stationary sources of pollution. The "new source performance standards" (NSPS) define the minimum technological threshold a company must meet to build or modify a source of pollution.<sup>76</sup> Congress required the Administrator to establish NSPS standards based on updated pollution controls that reflect the costs of emissions reductions.<sup>77</sup> Costs include, but are not limited to, effects on human health, environmental quality, and energy supply.<sup>78</sup>

### 2. Prevention of Significant Deterioration (PSD) Program

Congress created the PSD program, addressed in Title I, Part C of the Clean Air Act, to "protect public health and welfare" from the adverse impacts of air pollution.<sup>79</sup> The PSD program strives to ensure that economic growth is compatible with clean air in polluting and downwind states.<sup>80</sup> EPA estimates that the PSD program reduces emissions, especially of sulfur and nitrogen oxides, by almost one and a half million tons each year.<sup>81</sup>

The PSD program establishes a pre-construction review process for any new "major emitting facility" and any "major modification" at an existing facility in a PSD area.<sup>82</sup> PSD areas are air quality control regions that are in attainment with the NAAQS.<sup>83</sup> "Major emitting facility" includes stationary sources which may emit at least 100 tons per year of any regulated air pollutant.<sup>84</sup> For regulatory purposes, "major emitting facility" is synonymous with "major stationary source."<sup>85</sup>

The CAA sets forth several requirements a source must satisfy to receive a PSD permit. For instance, the source must show that the major modification would not cause any local or downwind area to violate per-

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<sup>74</sup> See *id.* §§ 7479, 7475, 7502(a)(5).

<sup>75</sup> See *id.*

<sup>76</sup> See *id.* § 7411(b).

<sup>77</sup> See *id.* § 7411(a)(1).

<sup>78</sup> See *id.*

<sup>79</sup> See *id.* § 7470(1).

<sup>80</sup> See *id.* § 7470.

<sup>81</sup> U.S. Env'tl. Protection Agency, *supra* note 70, at 8.

<sup>82</sup> See 42 U.S.C. § 7475(e)(1).

<sup>83</sup> See *id.* § 7475.

<sup>84</sup> 40 C.F.R. §§ 52.24, 52.21, 51.166.

<sup>85</sup> *Id.*

formance standards.<sup>86</sup> Performance standards include: the NAAQS, maximum allowable increase or concentration for a pollutant, and any other statutorily applicable standard.<sup>87</sup> The source must analyze potential effects on air quality and agree to monitor any adverse impacts.<sup>88</sup>

PSD permits also require sources to adopt the “best available control technology” (BACT) to limit emissions. BACT reflects the most emissions reductions possible at the source considering “energy, environmental, and economic impacts and other costs.”<sup>89</sup> BACT serves to minimize the amount of PSD increments, or units of potential permitted pollution, that a source uses. This allows the corresponding air quality control region to encourage future economic growth.

### 3. Non-Attainment Program

Non-attainment areas are air quality regions not in compliance with the NAAQS. The non-attainment NSR program, addressed in Title I, Part D of the Act, applies to major stationary sources that emit or could emit at least 100 tons per year of a criteria pollutant.<sup>90</sup> Permits for major modifications in non-attainment areas require sources to offset future emissions increases.<sup>91</sup> A source may obtain offsets from any of three locations: the source itself, another source in the same non-attainment area, or a source in another comparable non-attainment area that influences the NAAQS of the original source area.<sup>92</sup> The amount of offsets required directly relates to the source area’s degree of non-attainment.<sup>93</sup> The worse the existing air quality in the area potentially impacted by the construction or modification, the more emissions the source must offset.<sup>94</sup> Generally, offsets must contribute to reasonable further progress (RFP), or a measurable annual reduction in emissions of listed pollutants, toward attainment of the NAAQS.<sup>95</sup>

Section 7503 of the CAA requires sources in non-attainment areas to adhere to the “lowest achievable emission rate” (LAER) rather than adopt BACT.<sup>96</sup> Congress defined LAER to reflect the lowest rate of emissions achievable in practice or contained in any SIP.<sup>97</sup> A source may comply with a less stringent standard if it can demonstrate that the pre-

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<sup>86</sup> See 42 U.S.C. § 7475(e)(1).

<sup>87</sup> See *id.* § 7475(a)(3).

<sup>88</sup> See *id.* § 7475(a).

<sup>89</sup> See *id.* § 7479(3).

<sup>90</sup> See 42 U.S.C. § 7470-79.

<sup>91</sup> See *id.* § 7503(a)(1)(A).

<sup>92</sup> See *id.* § 7503(c).

<sup>93</sup> See *id.* § 7511a(1).

<sup>94</sup> See U.S. Envtl. Protection Agency, *supra* note 70, at 5.

<sup>95</sup> See 42 U.S.C. § 7503(a)(1)(A), 7501(1).

<sup>96</sup> See *id.* § 7503(a)(2).

<sup>97</sup> See *id.* § 7501(3).

scribed standard is not achievable.<sup>98</sup> LAER, however, does not allow sources to emit more of a pollutant than allowed under the NSPS.<sup>99</sup>

Additional requirements for a non-attainment area permit include an analysis of alternative strategies, such as a different construction site or production process.<sup>100</sup> The analysis must show that the benefits of the proposed project outweigh the environmental and social costs.<sup>101</sup> Additionally, the source must demonstrate that all of its other major stationary sources within the state comply, or will comply, with all applicable limitations and standards.<sup>102</sup> Furthermore, the permitting authority must not determine that the SIP for the proposed project area "is not being adequately implemented."<sup>103</sup>

### B. Implementing Regulations

Although the CAA refers to modifications in broad terms, EPA adopted a rule that allows only "major" modifications to trigger NSR. EPA defines "major modification" to mean "any physical change or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."<sup>104</sup>

#### 1. Significant Net Emissions Increase and Netting

Much of the debate surrounding the NSR program concerns the meaning of "significant net emissions increase."<sup>105</sup> A net emissions increase does not trigger NSR unless the increase exceeds the specific significance level for that source.<sup>106</sup> Significance levels vary by attainment status and pollutant.<sup>107</sup> To remain below the significance level, a source can "net" or bank emissions reductions to offset future projects expected to increase emissions. Netting may occur, for example, when a source retires equipment.<sup>108</sup> Moreover, sources that updated pollution controls within the past five years can increase emissions elsewhere at the facility

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<sup>98</sup> See *id.*

<sup>99</sup> See *id.*

<sup>100</sup> See *id.* § 7503(a)(5).

<sup>101</sup> See *id.*

<sup>102</sup> See *id.* § 7503(a)(3).

<sup>103</sup> See *id.* § 7503(a)(4).

<sup>104</sup> 40 C.F.R. §§ 52.21(b)(2)(i), 51.166(b)(2)(i), 52.24(f)(5)(i).

<sup>105</sup> See generally U.S. Env'tl. Protection Agency, *supra* note 70, at 8.

<sup>106</sup> See 40 C.F.R. §§ 52.21(b)(3)(i), 52.24(f)(6)(i).

<sup>107</sup> See U.S. Env'tl. Protection Agency, *supra* note 70, at 4.

<sup>108</sup> See NAT'L ACAD. OF PUB. ADMIN., *supra* note 8, at 24.

up to the netted amount.<sup>109</sup> Netting provides the source flexibility to plan projects and operational schedules.<sup>110</sup>

Despite the value of operational flexibility, netting seems to hinder compliance with the NAAQS.<sup>111</sup> The National Academy of Public Administration (the Academy) reported that netting gives existing sources a perverse incentive to continue to emit pollutants at high levels.<sup>112</sup> Facilities prefer to tap into banked emissions increments to offset emissions rather than undergo NSR. As a result, several power plants in existence before the 1977 amendments have yet to update pollution controls.<sup>113</sup> EPA does not require sources to submit records or give notice to the permitting agency when it banks or offsets emissions, which exacerbates the problem.<sup>114</sup> Consequently, EPA and other permitting agencies lack the data necessary to adequately study the effects of netting on human health and the environment.

## 2. Routine Maintenance, Repair and Replacement

Although the CAA itself does not explicitly refer to “*de minimis*” emissions increases as an exception to undergoing NSR, the courts have implied such an exception exists. The *de minimis* doctrine was originally developed to spare courts the time and money involved in reviewing trivial issues.<sup>115</sup> Courts have extended the doctrine to relieve administrative agencies from *de minimis* statutory burdens.<sup>116</sup> Any *de minimis* exemption from statutory language must be consistent with the overall statutory design and intent.<sup>117</sup> If challenged, EPA carries the burden to show that any emissions increases from a project qualified as RMRR are truly *de minimis*.<sup>118</sup>

Since Congress did not intend for trivial or everyday projects to trigger NSR, EPA is reluctant to regulate routine maintenance projects as major modifications. An example of a routine maintenance project is “the repair or replacement of a singly leaky pipe, or a change in the way

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<sup>109</sup> See *Ala. Power Co., v. Costle*, 636 F.2d 323, 400 (D.C. Cir. 1979); NAT'L ACAD. OF PUB. ADMIN., *supra* note 8; see Requirements for Preparation, Adoption and Submittal of Implementation Plans; Approval and Promulgation of Implementation Plans; Standards of Performance for New Stationary, 57 Fed. Reg. 32,314 (July 21, 1992) (to be codified at 40 C.F.R. pt. 51, 52, 60).

<sup>110</sup> See *id.*

<sup>111</sup> See NAT'L ACAD. OF PUB. ADMIN., *supra* note 8, at 2, 18.

<sup>112</sup> See *id.*

<sup>113</sup> See *id.*

<sup>114</sup> See *id.* at 20.

<sup>115</sup> See *Ala. Power*, 636 F.2d at 360; *Ober v. Whitman*, 243 F.3d 1190, 1193 (9th Cir. 2001).

<sup>116</sup> See *Ober*, 243 F.3d at 1193.

<sup>117</sup> See *id.*

<sup>118</sup> See *id.* at 1195; *Ala. Power*, 636 F.2d at 360, 400.

that pipe is utilized."<sup>119</sup> EPA allows sources to exercise common sense, absent agency oversight, to treat certain modifications as RMRR.<sup>120</sup>

The ambiguity of the RMRR provisions causes major debate with respect to what constitutes routine maintenance. In 1994, EPA attempted to clarify what projects qualify as RMRR when it considered proposing a rule that likened "routine" with "minor."<sup>121</sup> Industry strongly opposed the proposed rule and persuaded EPA to forgo further action.<sup>122</sup> Soon thereafter, EPA adopted a five-factor test to determine whether a change triggers NSR. EPA balanced the nature, purpose, extent, frequency, and cost of the activity of projects on a case-by-case basis.<sup>123</sup>

In 1988, Wisconsin Electric Power Company (WEPCo) challenged EPA's final determination that WEPCo's proposed projects would trigger the NSPS and PSD requirements.<sup>124</sup> WEPCo claimed that the RMRR provisions exempted the proposed changes.<sup>125</sup> WEPCo had proposed to replace or repair drums, air heaters, boilers, turbine generators, and plant support facilities for a total cost of at least \$70.5 million.<sup>126</sup> Emissions units would sit idle for nine-month periods during construction.<sup>127</sup> WEPCo's proposal stated that the changes were "necessary to allow the . . . units to operate beyond their currently planned retirement dates of 1992 and 1999."<sup>128</sup>

In 1990, the Seventh Circuit Court of Appeals held that EPA did not unreasonably find WEPCo's proposed changes were a major modification and thus subject to NSR standards.<sup>129</sup> EPA continues to use the five-factor test to determine whether a particular project is subject to NSR, backing up this methodology with the understanding that "[t]he case-specific approach works well in many respects . . . [as] a flexible tool that

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<sup>119</sup> 57 Fed. Reg. at 32,314, 32, 316; See 40 C.F.R. §§ 52.21(b)(2)(iii), 52.24(f)(5)(iii)(a), 51.166(b)(2)(iii)(a).

<sup>120</sup> See *id.* at 32,316.

<sup>121</sup> See U.S. DEP'T OF JUSTICE, *NEW SOURCE REVIEW: AN ANALYSIS OF THE CONSISTENCY OF ENFORCEMENT ACTIONS WITH THE CLEAN AIR ACT AND IMPLEMENTING REGULATIONS*, 10 (2002).

<sup>122</sup> See *id.*

<sup>123</sup> See *Wisc. Elec.*, 893 F.2d at 911-12.

<sup>124</sup> The power plant at issue is WEPCo's Port Washington facility, north of Milwaukee, Wisconsin. WEPCo operated the same steam generating units since at least 1950. *Wisc. Elec.*, 893 F.2d at 905.

<sup>125</sup> See *id.* at 906.

<sup>126</sup> See *id.*

<sup>127</sup> See *id.*

<sup>128</sup> See *id.*

<sup>129</sup> See *id.* at 913.

accommodates the broad range of industries and the diversity of activities that are potentially subject to the NSR program."<sup>130</sup>

### C. *The Controversy*

#### 1. Enforcement History

From 1977 through the early 1990s, EPA rarely filed enforcement actions against sources for alleged failures to obtain applicable NSR permits and approvals. In the early 1990s, economic data suggested that production had greatly increased in various regulated industrial sectors.<sup>131</sup> EPA's records showed that many sources in these sectors had invested substantial capital to expand production capacity, but had not updated pollution controls.<sup>132</sup> Consequently, in 1992, EPA began to target specific industries suspected of NSR violations. EPA started with the wood products, pulp and paper, and petroleum refining industries. Soon thereafter, EPA launched an aggressive and controversial enforcement campaign against the electric utility industry.<sup>133</sup>

In 1996, EPA requested and analyzed business records, primarily of power plants in the Midwest and Southeast, pursuant to § 114 of the CAA.<sup>134</sup> Data regarding past modifications prompted the United States Department of Justice (DOJ) to file eight enforcement actions against electric utilities between 1999 and 2000.<sup>135</sup> Each lawsuit alleged that the defendant source made a major modification without the necessary NSR permits and approvals. In many instances, the source expanded capacity, extended the life of the plant, or redesigned existing emissions units without first obtaining a permit.<sup>136</sup> Many defendants disputed EPA's claims, refused to cure alleged violations, and insisted that the projects cited qualified as RMRR.<sup>137</sup>

EPA's enforcement actions brought the NSR controversy to the forefront of public debate. New York Attorney General Eliot Spitzer instigated citizen suits against 17 U.S. power plants for failure to comply with the NSR program.<sup>138</sup> The court consolidated the lawsuits with the

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<sup>130</sup> Prevention of Significant Deterioration (PSD) and Non-attainment New Source Review (NSR): Routine Maintenance, Repair and Replacement, 67 Fed. Reg. 80,290, 80,293 (Dec. 31, 2002) (to be codified at 40 C.F.R. pts. 51, 52).

<sup>131</sup> See U.S. DEP'T OF JUSTICE, *supra* note 123, at ii-iii.

<sup>132</sup> See NAT'L ACAD. OF PUB. ADMIN., *supra* note 8, at 26.

<sup>133</sup> See U.S. DEP'T OF JUSTICE, *supra* note 123, at 11, 13.

<sup>134</sup> *Id.* at iii, 13. 42 U.S.C. 7414 requires sources to establish and maintain records regarding pollution controls. It also authorizes sources to provide the Administrator access to such records. See 42 U.S.C. § 7414.

<sup>135</sup> See *id.* at 14-15.

<sup>136</sup> See U.S. Env'tl. Protection Agency, *supra* note 70, at 10.

<sup>137</sup> See U.S. DEP'T OF JUSTICE, *supra* note 123, at 14-17.

<sup>138</sup> The suits were filed in the U.S. Court of Appeals for the District of Columbia Circuit.

federal enforcement actions.<sup>139</sup> Other states, mostly those downwind of major power plants, intervened in the action. Additionally, citizen groups and coalitions, such as Sierra Club, Natural Resources Defense Council, and Clean Air Task Force, either moved to intervene or initiated their own actions. Before the proceedings progressed to trial, one defendant source, Tampa Electric Company, entered into a consent decree with the DOJ.<sup>140</sup>

## 2. New Source Review Drawbacks

### a. Time and Cost

The electric utility industry contends that it is difficult to know for certain whether a project qualifies as RMRR. Operators can seek an applicability determination, but claim that the process takes so much time and is so expensive that it thwarts important new projects. EPA echoes the operators' sentiment in the proposed rule, claiming that "[a]pplicability determinations can be costly and time consuming for reviewing authorities and industry alike."<sup>141</sup>

The electric utility industry also criticizes NSR for the time and cost involved to obtain required permits and approvals. The average wait for a PSD permit, including the public review process, is eight months.<sup>142</sup> EPA and the Utility Air Regulatory Group, which represents utilities, claim that power plants usually wait about ten months — two months longer than other sources subject to PSD requirements.<sup>143</sup> The industry alleges that delays hinder efficiency-improving projects and make it difficult to coordinate engineering changes with production cycles. Consequently, the permitting process makes sources, particularly those with large-scale batch productions or short production cycles, less competitive in the marketplace.<sup>144</sup>

EPA also has administrative concerns about the time and cost of the permitting process.<sup>145</sup> The case-by-case approach to determine whether a modification triggers NSR requires reviewing authorities at the federal and state levels to "devote scarce resources to making complex determi-

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<sup>139</sup> *Testimony of Eliot Spitzer, New York Attorney General before the U.S. Senate Committee on Environment and Public Works and Committee on the Judiciary*, 107th Cong. 3 (2002) (statement of Eliot Spitzer, Attorney General of State of New York).

<sup>140</sup> *See* U.S. DEP'T OF JUSTICE, *supra* note 123, at 19; No. 99-2524 CIV-T-23F (M.D. Fla. Filed Nov. 3, 1999) (consent decree in *U.S. v. Tampa Elec. Co.*).

<sup>141</sup> 67 Fed. Reg. at 80,293.

<sup>142</sup> *See* U.S. Env'tl. Protection Agency, *supra* note 70, at 9.

<sup>143</sup> *See id.*; TENNESSEE VALLEY AUTHORITY, *IMPACTS OF EPA'S REINTERPRETATION OF NEW SOURCE REVIEW REQUIREMENTS – POTENTIAL LOSS OF GENERATING CAPABILITY ON THE TVA SYSTEM 6* (July 19, 2001).

<sup>144</sup> *See* NAT'L ACAD. OF PUB. ADMIN., *supra* note 8, at 14, 16-17.

<sup>145</sup> *See* 67 Fed. Reg. at 80,293.

nations.”<sup>146</sup> State permitting authorities must frequently consult with their counterparts in other jurisdictions to ensure consistent national administration of NSR.<sup>147</sup>

*b. Self-Enforcement*

Environmental groups and grass roots organizations also claim that NSR has drawbacks, alleging that the lack of agency oversight effectively creates a self-enforcement policy that encourages sources to treat major modifications as RMRR to avoid NSR.<sup>148</sup> A report published by the National Academy of Public Administration in 2003 and EPA’s 1998 Notice of Applicability (NOA) regarding NSR also raise this concern.<sup>149</sup> In the NOA, EPA reported that sources tend to abuse unrestricted discretion, which results in NSR compliance and enforcement problems.<sup>150</sup> In particular, EPA found that “changes to utility units as well as post-change emissions estimates are not being reported to permitting agencies.”<sup>151</sup>

#### IV. EVALUATING THE PROPOSED AND FINAL RULE

##### *A. Proposed and Final Rule*

On December 31, 2002, EPA proposed changes to the RMRR provisions of the NSR regulatory program.<sup>152</sup> On August 27, 2003, EPA finalized the proposed changes.<sup>153</sup> The new rule adopts two new categories to qualify as RMRR: the annual maintenance, repair, and replacement allowance and the equipment replacement approach. All other projects remain subject to the case-by-case approach.<sup>154</sup>

##### 1. Annual Allowance

The annual allowance allows sources to avoid NSR for “relatively small capital expenditures compared with the replacement cost of the facility.”<sup>155</sup> If the expenditures, or costs of the project, exceed the annual allowance, the project would be subject to the five-factor test.<sup>156</sup> The annual allowance is a dollar amount that reflects the replacement cost of a

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<sup>146</sup> *See id.*

<sup>147</sup> *See id.*

<sup>148</sup> *See* 63 Fed. Reg. at 39,860-39,861.

<sup>149</sup> *See id.*

<sup>150</sup> *See id.*

<sup>151</sup> *Id.*

<sup>152</sup> 67 Fed. Reg. at 80,293.

<sup>153</sup> U.S. ENVTL. PROTECTION AGENCY, NEW SOURCE REVIEW, available at <http://www.epa.gov/air/nsr-review/> (last modified Feb. 12, 2004).

<sup>154</sup> *See* 67 Fed. Reg. at 80,293.

<sup>155</sup> *See id.* at 80,294.

<sup>156</sup> *See id.*

source multiplied by a specified regulatory industry sector percentage.<sup>157</sup> EPA did not propose or finalize any particular sector percentages. Nonetheless, EPA notes that Internal Revenue Service data supports a 20% allowance cost for power plants.<sup>158</sup>

To determine whether a project exceeds the annual allowance, a source sums from least to greatest the costs of all construction projects undertaken during the past year.<sup>159</sup> Any project on the cost-ordered list situated at a point where the sum exceeds the annual allowance automatically triggers NSR.<sup>160</sup> To maintain accountability, EPA requires sources to submit annual reports summarizing the projects and decisions made that year.<sup>161</sup>

EPA considers one year as generally representative of source maintenance cycles and financial budgets.<sup>162</sup> However, some sources, such as power plants, have multi-year maintenance cycles. For these sources, EPA may allow for multi-year allowance periods of five years or less.<sup>163</sup> A multi-year allowance adheres to the same cost-ordered methodology EPA selected for the annual allowance.<sup>164</sup>

EPA selected the replacement cost of an emissions unit rather than its original invested cost to determine whether projects qualify as RMRR. Some older sources may no longer retain the data required to determine original invested cost. Consequently, replacement cost may be a more consistent and feasible approach.<sup>165</sup> EPA has commented that replacement cost better reflects site-specific factors at a source, such as labor, materials, and land.<sup>166</sup> EPA claims that this helps lessen the competitive advantage existing sources have over new sources.<sup>167</sup> Furthermore, sources are more likely to consider replacement cost than invested cost to plan routine projects.<sup>168</sup>

EPA applies the annual allowance to the entire source rather than each individual emissions unit.<sup>169</sup> A source-wide approach provides sources operational flexibility and minimizes EPA's data-collecting burden.<sup>170</sup> EPA concedes that a source-wide approach may allow a source to forego maintenance at some process units to conduct non-RMRR at

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<sup>157</sup> *See id.*

<sup>158</sup> *See id.*

<sup>159</sup> *See id.* at 80,294, 80,308-09.

<sup>160</sup> *See id.*

<sup>161</sup> *See id.* at 80,295.

<sup>162</sup> *See id.* at 80,296-97.

<sup>163</sup> *See id.*

<sup>164</sup> *See id.*

<sup>165</sup> *See id.* at 80,297.

<sup>166</sup> *See id.*

<sup>167</sup> *See id.*

<sup>168</sup> *See id.*

<sup>169</sup> *See id.* at 80,297-80,298.

<sup>170</sup> *See id.*

other process units.<sup>171</sup> However, EPA suggests that sources will not jeopardize productivity merely to avoid NSR.<sup>172</sup>

EPA excludes certain modifications from the annual allowance methodology. These changes include: construction of new process units, replacement of an entire process unit, and any activity that would increase the source's maximum hourly emissions rate or emit a regulated pollutant not previously emitted.<sup>173</sup> EPA defines "process unit" as "a collection of structures and/or equipment that uses material inputs to produce or store a complete project."<sup>174</sup> For power plants, the process unit is any unit, or system of units, that works directly to generate electricity.<sup>175</sup> Each separate generating unit or system in a facility is a process unit for regulatory purposes.<sup>176</sup>

## 2. Equipment Replacement Approach

EPA recognizes that the annual allowance methodology does not capture all possible modifications that may qualify as RMRR. Consequently, EPA has developed the equipment replacement provision. Under this provision, sources may replace parts of a process unit with "identical or functionally equivalent" components.<sup>177</sup> The cost of a replacement component must not exceed a specified cost threshold or change the basic design parameters of the process unit.<sup>178</sup>

In addition to efficiency projects, EPA treats most equipment failures and continuous maintenance programs as routine. When a source replaces existing equipment with identical components, "the replacement is inherent to both the original design and purposes of the facility, and ordinarily will not increase emissions."<sup>179</sup> There are other circumstances under which a source can replace equipment with functionally equivalent components without triggering NSR. For example, if a corroded pipe needs to be replaced, a replacement pipe made of different materials might better prevent future corrosion and would not fall outside of RMRR.<sup>180</sup>

Whether a project to replace components qualifies as RMRR partly depends upon the replacement cost threshold. Although, the rule does not designate any particular method to derive a replacement cost thresh-

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<sup>171</sup> *See id.*

<sup>172</sup> *See id.*

<sup>173</sup> *See id.* at 80,294.

<sup>174</sup> *Id.*

<sup>175</sup> *See id.* at 80,302.

<sup>176</sup> *See id.*

<sup>177</sup> *See id.* at 80,295, 80,309.

<sup>178</sup> *See id.* at 80,296.

<sup>179</sup> *Id.* at 80,300.

<sup>180</sup> *See id.* at 80,301.

old, EPA has contemplated an approach based on fixed capital cost.<sup>181</sup> Under such an approach, an activity triggers NSR if the replacement cost exceeds a specific percentage of the fixed capital cost required to rebuild a new comparable unit.<sup>182</sup> EPA based the equipment replacement cost threshold on the cost threshold of the NSPS reconstruction test.<sup>183</sup> Under the reconstruction test, NSR applies if the cost of the replacement components exceeds one-half of the cost of building a comparable new source.<sup>184</sup>

### B. *Objections to the Proposed Rule*

Opponents of the new rule claim that the allowance provision creates an overly broad categorical exemption from NSR requirements. EPA may lawfully exempt *de minimis* projects from NSR, but the open-ended annual allowance provision allows sources to make more than *de minimis* emissions increases without updating pollution controls. Additionally, the equipment replacement provision allows sources to replace entire emissions units piece-by-piece, the equivalent of a major modification, without triggering NSR. Therefore, EPA effectively amended the CAA's definition of "modification," which only Congress has the authority to do. Opponents of the rule contend that any such proposal by EPA is either beyond the scope of the agency's authority or arbitrary and capricious.

After EPA finalized the proposed rule, fourteen states, government entities, and public interest organization sued EPA in the Court of Appeals for the District of Columbia challenging the rule as unlawful.<sup>185</sup> On December 24, 2003, the Court granted the plaintiffs' request to stay the effective date of December 26, 2003.<sup>186</sup>

#### 1. Annual Allowance

Opponents of the new rule believe that the allowance provision creates an overly broad categorical exclusion to NSR. As a result, sources are likely to undergo major modifications without the applicable permits and approvals.<sup>187</sup> For example, a spokesperson for the State and Territo-

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<sup>181</sup> See *id.* at 80,301.

<sup>182</sup> See *id.*

<sup>183</sup> See *id.*

<sup>184</sup> See 40 C.F.R. § 60.15(b).

<sup>185</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 155.

<sup>186</sup> See *id.*

<sup>187</sup> "STAPPA and ALAPCO are the two national associations of air pollution control agencies in 54 states and territories and more than 165 major metropolitan areas across the country." *Testimony of Ursula Kramer Director, Pima County Dep't of Env'tl. Quality on behalf of the State and Territorial Air Pollution Program Administrators and the Association of Local Air Pollution Control Officials on the Proposed Rule to Revise the Routine Maintenance, Repair and Replacement Exclusion Provisions of*

rial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO) expressed this concern. The spokesperson testified to EPA that the rule “would allow a 1,000-megawatt utility with a replacement cost of \$1 billion make changes costing up to \$50 million a year.”<sup>188</sup> The problem is that many major modifications cost below \$50 million, thus the allowance would exempt projects from NSR that would significantly increase emissions.<sup>189</sup>

In other words, the claim is that EPA, which may only lawfully exempt *de minimis* projects from NSR, violated the *de minimis* rule with an open-ended annual allowance provision. The provision allows for non-*de minimis* projects to escape NSR in contravention of the CAA’s meaning of “modification.” Opponents contend that EPA amended the CAA, which only Congress has the authority to do, and that the adoption of the proposed rule was beyond the scope of EPA’s authority or, in the alternative, arbitrary and capricious.<sup>190</sup>

## 2. Equipment Replacement Provision

Opponents of the equipment replacement provision contend that the cost threshold and self-enforcement policy allows sources to undertake expansion projects that significantly increase emissions. The cost threshold fails to take into account air quality when allowing a project to escape NSR.<sup>191</sup> Furthermore, lack of agency oversight allows sources to rebuild an entire source piece-by-piece without triggering NSR requirements.<sup>192</sup>

### C. Evaluation of Claims

The court must review EPA’s issuance of the final rule using either the excessive authority or arbitrary or capricious standard supplied by the Administrative Procedure Act (APA).<sup>193</sup> The APA applies because the CAA itself does not preclude judicial review nor does it entirely commit NSR decisions solely to EPA discretion. This paper analyzes the issuance of the final rule using the arbitrary or capricious standard. EPA must not deviate from the plain meaning of statutory language. If the meaning is unclear, EPA must necessarily supply details to implement

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*the New Source Review Program before the U.S. Env’t. Protection Agency*, (March 31, 2003) (statement of spokesperson for STAPPA and ALAPCO).

<sup>188</sup> *See id.*

<sup>189</sup> *See id.*

<sup>190</sup> *See Testimony of Eliot Spitzer, supra* note 141; Tripp Baltz, *New Source Review: Industry Says Rule Will Bring Predictability; Others Fear Rollback of Air Quality Progress*, 34 *Env’t Rep. (BNA)* 774, 781 (2003).

<sup>191</sup> *See Testimony of Eliot Spitzer, supra* note 141.

<sup>192</sup> *See Silverman, supra* note 20, at 775.

<sup>193</sup> *See* 5 U.S.C. § 760(2)(A),(C) (2002).

the statute.<sup>194</sup> Nonetheless, EPA's discretion is not limitless — any rules or regulations promulgated by EPA must be reasonable.<sup>195</sup> This is the standard of review set forth in *Chevron v. Natural Resources Defense Council, Inc.*<sup>196</sup>

Plaintiffs and other opponents of the new rule contend that it represents an unreasonable interpretation of the CAA. To determine the reasonableness of EPA's interpretation of the CAA, the court must address whether the new RMRR provisions unreasonably exempt non-*de minimis* projects from NSR. If the proposed provisions would allow major modifications to escape NSR, the rule unlawfully contravenes the CAA. *Chevron* deference does not allow a court to interject its own preference or judgment to find an agency's reasonable interpretation unlawful.<sup>197</sup> Congress, pursuant to its Constitutional powers, vested power in EPA, not the courts, to decide among competing values. Courts presume that EPA officials have more training than judges to make technical decisions regarding air quality.<sup>198</sup> Therefore, courts tend to grant agency actions substantial deference.<sup>199</sup> The court must consider the RMRR provisions against the theoretically "symmetrical" and "coherent" regulatory design of the CAA.<sup>200</sup> As a matter of policy, the court should balance the concerns of the involved parties to prevent an absurd result contrary to Congressional intent. Such a balancing test would be consistent with § 7503 of the CAA, which requires pre-construction permitting and review in non-attainment areas to conduct a cost-benefit analysis.

## 1. The *de minimis* requirement

### a. Annual Allowance Period

EPA finalized a maintenance, repair, and replacement allowance period of one year. However, EPA is considering whether the allowance period for some sources, like power plants, should be longer. A one-year allowance period conceivably may, in contravention with the CAA, allow sources to make major modifications without triggering NSR. A multi-year allowance, such as five years, would provide even greater opportunity for a source to escape NSR. For example, a power plant with a replacement cost of \$500 million could make modifications that cost up to

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<sup>194</sup> See *Chevron v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843 (1984).

<sup>195</sup> See *id.* at 864; *Env'tl. Def. Fund, Inc., v. Env'tl. Prot. Agency*, 82 F.3d 451, 463 (D.C. Cir. 1996).

<sup>196</sup> See *Chevron* at 865-66.

<sup>197</sup> See *id.* at 842-43, 864; *Ragsdale v. Wolverine World Wide, Inc.*, 535 U.S. 81, 86 (2002).

<sup>198</sup> See *id.* at 864.

<sup>199</sup> See *id.* at 843-44.

<sup>200</sup> See *Ragsdale*, 535 U.S. at 81, 86.

\$25 million for the annual approach. Under a five-year approach, that same power plant could make up to \$125 million in modifications.<sup>201</sup> This would be equivalent to one-fourth of the total cost to replace an entire source. Furthermore, the rule does not require sources to consider emissions increases. Therefore, a source could invest substantial capital within a short time period to completely rebuild a process unit, or make a major modification, and avoid NSR.

Moreover, the annual allowance approach is inconsistent with Congress' intent and the statutory scheme of the CAA. The final rule allows sources to review the total costs of projects in the allowance schedule at the end of the annual cycle. This means that the source and EPA must retrospectively consider whether any project exceeded the annual allowance. Consequently, sources that exceed their annual allowance would have to retrofit updated pollution controls on new or already modified equipment. Any after-the-fact installation of pollution controls thwarts Congress's intent to require sources to install pollution controls during construction.

*b. Source-Wide Approach*

EPA chose to apply the annual allowance source-wide, such as for an entire power plant, rather than to each individual process unit. However, as a matter of sound policy, EPA should not implement a source-wide or netting approach. The approach allows plants to make major modifications at individual process units as long as process units elsewhere offset the emissions increases. The Academy's report called netting an incentive to pollute at high levels and casts doubt on the wisdom of the proposed source-wide approach.<sup>202</sup> Nevertheless, the approach is probably lawful. In *Chevron*, the court upheld EPA's use of the bubble concept to regulate an entire facility, instead of each individual emissions unit, as a single source.<sup>203</sup>

2. Equipment Replacement Provision

*a. Replacement Cost Threshold*

Under the new rules, EPA exempts identical and like-kind replacements from RMRR as long as the replacement cost does not exceed the predetermined replacement cost threshold. Under this framework, a source could replace non-functional components with identical or func-

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<sup>201</sup> STAPPA and ALAPCO provide another example: "A 1000-megawatt utility with a replacement cost of \$1 billion would be allowed to make changes costing up to . . . \$250 million" under the five-year approach. *Testimony of Ursula Kramer, supra* note 189.

<sup>202</sup> See NAT'L ACAD. OF PUB. ADMIN., *supra* note 8, at 2, 18.

<sup>203</sup> See *Chevron*, 467 U.S. at 866.

tionally equivalent components piece-by-piece, effectively significantly increasing emissions without triggering NSR requirements.

For example, STAPPA and ALAPCO reported that in 1996, a source proposed to replace several failed tubes on a steam-generating unit at a power plant. The replacement cost was \$750,000 or about two percent of the total cost to replace the entire source. EPA determined that the project was a major modification subject to NSR. However, under the equipment replacement approach, the project would be exempt from NSR because the total replacement cost would not exceed the replacement cost threshold.<sup>204</sup>

*b. Self-Regulating Policy*

The self-regulating policy that the equipment replacement approach bestows upon sources raises additional *de minimis* concerns. EPA does not require sources to track any modifications made pursuant to the equipment replacement approach. Without the potential for agency oversight, a source could rebuild entire process units piece-by-piece, qualifying each individual replacement project as RMRR. Without reports or permits to scrutinize, EPA and permitting authorities cannot readily monitor regulatory compliance. This may embolden some sources to avoid NSR by segmenting a major modification into a series of RMRR projects.

EPA claims that sources would not jeopardize productivity to avoid undergoing NSR but offers no evidence to support the claim. Conversely, EPA under the Clinton administration and the Academy found that sources tend to abuse the power to self-regulate. EPA concluded that sources should not be vested with the discretion to make major regulatory decisions without agency oversight. However, the lack of agency oversight alone does not appear to contravene the CAA. Conversely, allowing a source to make a major modification without updating pollution controls does contravene the CAA.

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<sup>204</sup> STAPPA and ALAPCO provide other examples. (1) Recovery Furnace Maintenance Project: "Thickness of tube walls is becoming a safety concern. The facility states that the replacement of the generating back and superheater tubes will not increase production of downstream units, restore lost capacity or improve uptime in the unit. It generally has 98 percent uptime. The project would replace all tubes in the generating back and superheater portion of the furnace. Cost: \$4 million (5 percent of the cost of a new recovery furnace of this size). The total replacement cost is estimated at \$80 million for a furnace of this size." (2) Replacement of Primary and Secondary Superheater Sections: "This project to replace the primary and secondary superheater sections of a recovery boiler was processed as a PSD permit. Cost: \$2 million (2 percent of the replacement cost). The total cost for the replacement of a boiler of this size is estimated to be \$100 million. This project did not involve a capital cost for the facility; it was funded out of the maintenance budget." *Testimony of Ursula Kramer, supra* note 189.

### 3. Balance Concerns

As previously noted, the Department of Energy expects the United States to rely on coal more than any other energy source over the next 20 years. Coal-fired power plants emit pollutants known to cause disease, death, property damage, acid rain, global warming, and other health and environmental concerns. Because so many old plants continue to burn coal, EPA and reviewing courts should carefully weigh the impacts of any attempt to categorically exempt projects from NSR.

The new rule provides power plants operational flexibility and greater regulatory certainty by allowing sources to proceed with projects without undergoing NSR. As a consequence, power plants may save administrative resources and capital. The rule may also reduce the time, money, and other administrative resources that EPA and permitting authorities must use to make NSR determinations. Greater regulatory certainty may also allow EPA to avoid costly appeals and litigation. However, attempts to assess actual savings are purely speculative.

The rule also jeopardizes ongoing enforcement actions against power plants. The power plants argue that the enforcement cases should not go forward until the court resolves whether the new rule legalizes some of the conduct at issue. Attorney General Spitzer claims that EPA's proposed changes to NSR stalled settlements on some of New York's pending enforcement actions.<sup>205</sup>

Finally, the rule exempts some non-*de minimis* activities from NSR as RMRR. Consequently, implementation of the final rule may spur increased pollution, causing social and environmental externalities. People nearby and downwind of a power plant would subsidize the plant's cost of business with their health and property. For example, downwind states may have to spend more money on health care and costs associated with non-attainment status. Industry is typically reluctant to oper-

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<sup>205</sup> *Testimony of Eliot Spitzer, supra* note 141. Attorney General Spitzer provided examples. (1) Virginia Electric Power Company (VEPCO), a subsidiary of Dominion Resources: "[M]y office and the EPA reached a \$1.2 billion dollar settlement in principle covering eight coal-fired power plants run by . . . VEPCO. . . . The settlement would have reduced air pollution by more than 270,000 tons annually. VEPCO was to spend over \$1.2 billion over 2 years to reduce its sulfur dioxide emissions by 70 percent and its nitrous oxides emissions by 71 percent from pre-existing levels. Further, VEPCO was to pay \$5.3 million in penalties to the federal government and an additional \$13.9 million to fund environmental benefit projects, with a portion going to New York State. The intent at the time was to finalize the agreement within 60-90 days. Eighteen months later, this agreement remains unexecuted." (2) Cinergy: "In December 2000, I joined the federal government and the States of Connecticut and New Jersey in reaching a settlement in principle covering ten of Cinergy's coal-fired plants. . . . We were to see over 300,000 tons in emissions reductions, and \$30 million in penalties and environmental projects. . . . After tolerating two years of settlement discussions, the Cinergy court has placed the case back on the litigation track."

ate in a state that requires compliance with strict and costly non-attainment measures.

The overall weight of the competing interests involved supports a finding that the final rule is arbitrary and capricious. The rule creates a windfall for older, dirtier power plants and disadvantages newer, cleaner power plants and downwind states. The CAA requires EPA to set NAAQS without economic consideration. The law also allows citizens to instigate enforcement actions against CAA violators and attempts to force sources to adopt updated pollution control technology. Such a progressive statute does not support EPA's final proposed rule.

#### CONCLUSION

EPA should clarify the controversial and ambiguous RMRR provisions but not use the two new categories of RMRR exemptions proposed on December 31, 2002. The proposed and now finalized annual allowance and equipment replacement approach violate the *de minimis* doctrine. EPA has created a methodology that will allow sources to make major modifications in violation of NSR requirements set forth in the CAA. Furthermore, the new rule is inconsistent with the overall statutory design of the CAA and fails to achieve a balanced response to competing social, economic and environmental interests.

EPA bears the burden of showing that any projects categorically exempt from NSR are truly *de minimis*. EPA offers no evidence to demonstrate that the new rule will not allow sources to make major modifications without triggering NSR. EPA also fails to show how the current case-by-case approach to RMRR, the five-factor test, hinders projects that would effectively reduce emissions. In fact, the regulatory definition of "major modification" requires a significant net emissions increase. Industry, the courts, EPA and the environment would all benefit from clearer regulatory guidance as to what types of activities constitute RMRR. However, EPA's new rule in its current form is an arbitrary and capricious solution.

