UNC SCHOOL OF LAW

NORTH CAROLINA JOURNAL OF LAW & TECHNOLOGY

Volume 5
Issue 2 *Spring 2004*

Article 6

3-1-2004

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As many as 600 operating power plants in the United States are between thirty and fifty years old and are up to ten times dirtier than new power plants built today.[2] Many of the technologies that remove pollution and increase operating efficiencies have been available for decades, but power plants have been slow to adapt.[3] The New Source Review ("NSR") provisions of the Clean Air Act ("CAA") lie at the heart of the continued existence of these grandfathered plants.[4] While the main goal of Congress in promulgating the CAA was to improve air quality, it also sought to avoid imposing the heavy burden polluters would face if they were forced to immediately install new equipment. Consequently, the NSR program requires owners and operators of plants to install emission controls only when the source undergoes a "modification," a physical change accompanied by an emissions increase.[5] As all plants eventually updated their facilities or shut down, Congress felt confident that this regime would assure "attainment of pollution control by a fixed date."[6]

In August 2003, the administration adopted changes to these regulations that will affect more than 17,000 coal-fired power

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[2] Sierra Club, *Coal-Fired Power Plants Create Harmful Emissions, in* POLLUTION: CURRENT CONTROVERSIES 31 (James Haley ed., Greenhaven Press, 2003).

[3] Adam Rose, *Clean Coal Technologies and Future Prospects for Coal*, ANN. REV. ENERGY ENV'T, 1991, at 60.

[4] 42 U.S.C. §§ 7475(a)(4), 7503(a)(2) (2000).

[5] *Id.* § 7411(a)(4).

[6] H.R. REP. NO. 95–294, at 211 (1977), *reprinted in* 1977 U.S.C.C.A.N. 1077, 1290.

plants in the United States.[7] The new rule will exempt grandfathered power plants from this core requirement of the CAA. Under the new rule, if the cost of a modification to a plant is below twenty percent of the unit's value, the plant will be exempt from installing the requisite pollution control technology. According to administration officials, the new rule will allow plants to modernize more easily and lead to greater efficiency without increasing pollution.[8] Mr. Jeffrey Holmstead, the administrator of the Office of Air and Radiation in the Environmental Protection Agency ("EPA"), testified to the Senate that the changes are environmentally neutral and would not adversely affect public health.[9] Many environmentalists and state officials, however, are outraged at what they perceive to be a gutting of the CAA.[10] Twelve states, led by New York Attorney Gen. Eliot Spitzer, are challenging the new regulations in court.[11] On December 25, 2003, the U.S. Court of Appeals for the District of Columbia granted an emergency motion for stay that barred the new rules from taking effect pending the outcome of litigation.[12]

This comment argues that the new rule undermines the regulatory scheme envisioned by Congress in promulgating the CAA and should be invalidated by the D.C. Circuit under the Supreme Court's decision in *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*[13] The EPA will likely lose under the *Chevron* "Step One" analysis because congressional intent is clear from the plain language of the CAA; Congress defined

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[7] Katharine Seelye, *Administration Adopts Rule on Antipollution Exemption*, N.Y. TIMES, Aug. 28, 2003, at A18.

[8] *Id.*

[9] *Staying Healthy: Health Issues Surrounding Proposed Changes in Clean Air Standards: Hearing Before Senate Subcommittee on Public Health of the Committee on Health, Education, Labor, and Pensions*, 107th Cong., Washington (2003) [hereinafter *Staying Healthy*].

[10] David Kocieniewski, *States to Fight Easing of Rules on Pollution by Power Plants*, N.Y. TIMES, Aug. 29, 2003, at B1.

[11] The states involved are Connecticut, Maine, Maryland, Massachusetts, New Hampshire, New Mexico, New Jersey, New York, Rhode Island, Vermont, Wisconsin, and Pennsylvania. *Court Cuffs Bush on Clean Air*, TAMPA TRIBUTE, Dec. 30, 2003, at 6.

[12] New York v. Envtl. Prot. Agency, No. 03–1380 (D.C. Cir. Dec. 25, 2003).

[13] 467 U.S. 837 (1984).

"modification" to mean "*any* physical change." Even under *Chevron* "Step Two" analysis, the new rule is unreasonable because it conflicts with both the broader goals of the CAA and the specific objectives of the NSR provisions. Finally, if Chevron does not clearly lead the D.C. Circuit to invalidate the new rules, the case of *MCI Telecommunications Corp. v. AT&T*[14] clearly points to the conclusion that the EPA exceeded its authority in promulgating this radical redirection of the statutory NSR program.

Part I of this paper outlines some of the dangers of unregulated power plant emissions, focusing in particular on health and environmental effects. Part II is a brief summary of the NSR program prior to amendment. Part III summarizes the changes to the NSR and analyzes their purported benefits. Finally, Part IV argues that the court in *New York v. EPA*[15] should find that the EPA exceeded its statutory authority in abandoning its longstanding interpretation of the CAA.

I. The Threat Met by the Clean Air Act

Today, fifty-four percent of the electricity in the United States is provided by coal-fired power stations.[16] These plants are the primary stationary sources of emissions, contributing to respiratory disease and such major environmental problems as smog, acid rain, and global warming.[17] They are responsible for ninety-six percent of sulfur dioxide emissions, ninety-three percent of nitrogen oxide emissions, eighty-eight percent of carbon dioxide emissions, and ninety-nine percent of mercury emissions.[18]

It is important to note that emissions of particulate matter, sulfur dioxide, and carbon monoxide have actually decreased in the last twenty years.[19] At the same time, emissions of nitrogen oxides

[14] 512 U.S. 218 (1994).
[15] New York v. Envtl. Prot. Agency, No. 03–1380 (D.C. Cir. Dec. 25, 2003).
[16] *Id.*
[17] Sierra Club, *supra* note 2, at 32.
[18] *Id.*
[19] *Id.* at 53. This data covers 1981–2000.

have increased.[20] Recent scientific evidence, however, revealed that particulates and nitrogen oxides are more dangerous to public health than previously thought.[21] On July 19, 1997, the EPA issued updated air quality standards for particulate matter and ground ozone.[22] The new standards reflect the mounting evidence that the regulations set in the 1970s were not protective enough and that many Americans faced health risks because of the inadequacy of these out-dated controls.[23]

Although federal air pollution law began with the Clean Air Act of 1963,[24] the major features of the modern CAA originated in the 1970 Amendments.[25] Congress passed these amendments primarily in response to deteriorating air quality in the country's major urban areas.[26] The stated purpose of the 1963 Act is "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population."[27] In 1977, Congress, frustrated with the failure of the CAA to meet its clean air goals, enacted new amendments. The most important contribution of the 1977 Amendments was the establishment of the NSR programs which subjected new or modified stationary sources to more stringent preconstruction permitting requirements than those imposed by the earlier New Source Performance Standards.[28] The CAA controls

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[20] *Id.*

[21] Carol Browner, *Clean Air Regulations Protect Public Health, in* POLLUTION: CURRENT CONTROVERSIES 137 (James Haley ed., Greenhaven Press,
2003).

[22] Envtl. Prot. Agency, *Air Quality Has Improved, in* POLLUTION: CURRENT CONTROVERSIES 53 (James Haley ed., Greenhaven Press, 2003).

[23] *Id.*

[24] ROBERT V. PERCIVAL ET AL., ENVIRONMENTAL REGULATION: LAW, SCIENCE, POLICY 495 (4th ed. 2003).

[25] *Id.*

[26] John Boyd, *The NEW New Source Review: Teaching Old Sources New Tricks?*, 11 SOUTHEASTERN ENVTL. L.J. 401 (2003).

[27] 42 U.S.C. § 7401(b)(1) (2000).

[28] A stationary source is defined as "any building, structure, facility, or installation which emits or may emit any air pollutant." 42 U.S.C. § 7411(a)(3) (2000). With regard to permitting requirements, the program differentiates

six "criteria" pollutants: sulfur dioxide,[29] nitrogen dioxide,[30] particulate matter,[31] carbon monoxide, photochemical oxidants and

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between attainment and non-attainment areas of the country, a distinction which is explained in greater detail later in the comment.

[29] The burning of fossil fuels by power stations produces the majority of sulphur oxide emissions. INDERJEET SETHI ET AL., ENVIRONMENTAL POLLUTION: CAUSES, EFFECTS, AND CONTROL 70 (1991). Sulphur dioxide is a colorless gas with a pungent odor which, at low concentrations, produces respiratory irritation. *Id.* Further, sulphur dioxide reacts with oxygen in the atmosphere to form sulphur trioxide which in turn reacts quickly with water to form sulphuric acid. *Id.* Sulphuric acid is a component of acid rain and aerosols (fogs) of sulphuric acid contribute to the haze typically seen in the industrial areas. Sierra Club, *supra* note 2, at 33.

[30] Nitrogen oxides play multiple roles in air pollution. SETHI ET AL., *supra* note 29, at 80. They are among the most toxic substances found in the atmosphere. *Id.* at 81. Nitrogen dioxide is the most dangerous nitrogen oxide to public health because of its abundance and toxicity. *Id.*

Combustion of nitrogen produces nitric oxide, a colorless gas. It is produced when the temperature is high enough to cause a reaction between nitrogen and oxygen in the air. Nitrogen oxide that is emitted from smokestacks into the atmosphere is almost all in the form of nitric oxide. A significant portion of this gas reacts in the atmosphere to form the more toxic nitrogen dioxide. *Id.*

Nitrogen dioxide is a deadly poison and is the only widely prevalent pollutant gas that is colored. *Id.* at 82, 83. Pure nitrogen dioxide is deep reddish brown and is responsible for discoloration of the air on bad smog days. *Id.* at 83. Both oxides of nitrogen are potential health hazards. *Id.* at 127. Furthermore, nitrogen oxides play a major role in formation of ozone, particulate matter, and acid rain. Envtl. Prot. Agency, *Air Quality Has Improved, in* POLLUTION: CURRENT CONTROVERSIES 54 (James Haley ed., Greenhaven Press, 2003).

The reaction between nitrogen oxide and volatile organic compounds in the presence of sunlight produces ground level ozone, commonly known as smog. Sierra Club, *supra* note 2, at 32. When inhaled, smog causes a burning of the cell wall of the lungs and air passages. *Id.* Ozone can cause transient symptoms such as coughing and pain when breathing deeply, a reduction in lung function, and inflammation of the lung. *Staying Healthy*, *supra* note 9, at 14. Repeated exposure to smog may lead to permanent damage to lung tissue. *Id.*

[31] Particulate matter that enters and remains in the lungs can exert a toxic effect in three different ways. *Staying Healthy*, *supra* note 9, at 174. First, particles may interfere with clearance mechanisms in the reparatory tracts therefore preventing removal of other harmful particles. Second, particles may carry absorbed or adsorbed gas molecules and thus enable them to reach and remain in the sensitive areas of the lungs. Lastly, the particles may themselves be

hydrocarbons.[32] In controlling these pollutants, the CAA provides for two types of regulations—state implementation plans and new source review.

II. The Regulatory Scheme

A. State Implementation Plans

The CAA requires the EPA to establish National Ambient Air Quality Standards ("NAAQS") for all criteria pollutants.[33] "Primary" NAAQS are set for each criteria pollutant to protect public health with an adequate margin of safety.[34] These air quality standards must reflect the latest scientific knowledge relating to the effects of criteria pollutants on public health and must be revised every five years.[35] "Secondary" NAAQS protect the public welfare "from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air."[36] These adverse effects include a pollutant's impact on soils, water, vegetation, wildlife, and climate.[37]

The states have the primary responsibility to ensure that their air quality meets the NAAQS.[38] Section 110 of the CAA requires each state to develop and submit for approval a state implementation plan ("SIP").[39] These plans must provide for "implementation, maintenance, and enforcement" of standards by the state.[40] Each state government decides how the sources within

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intrinsically toxic. *Id.* Fine particles are associated with coughing, wheezing and chronic bronchitis as well as tens of thousands of premature deaths in persons with heart and lung disease. *Id.*

[32] 40 C.F.R. § 50 (1977).

[33] 40 C.F.R. § 50.2(b) (2003). In 2001, the Supreme Court reaffirmed the ability of Congress to delegate power to the EPA for the purposes of setting air quality standards. Whitman v. Am. Trucking Ass'n, 531 U.S. 457 (2001).

[34] 42 U.S.C. § 7409(b)(1) (2000).

[35] *Id.* § 7408(a)(2).

[36] *Id.* § 7409(b)(2).

[37] *Id.* § 7602(h).

[38] *Id.* § 7407.

[39] *Id.* § 7411(c)(1).

[40] *Id.* § 7410(a)(1).

its jurisdiction ought to be controlled in order to meet NAAQS.[41] If the SIP fails to comply with statutory and regulatory requirements, the EPA's Administrator may reject the SIP and impose penalties on the state.[42] Furthermore, the Administrator may take the power of regulation away from the state by promulgating a federal implementation plan within two years of a state's failure to comply.[43]

B. New Source Review

1. New Source Performance Standards

Under the 1970 and 1977 Amendments, the construction or modification of a stationary source emitting criteria pollutants must meet New Source Performance Standards set by the EPA.[44] These standards are applicable to stationary sources which are built or modified after the publication of the regulations.[45] Plants built before 1971 are exempt from these requirements unless they are modified or reconstructed.[46]

2. New Source Review-Attainment and Nonattainment Areas

The New Source Review program requires an owner or operator who either (1) builds a major stationary source of criteria

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[41] States are required to design SIPs that will satisfy NAAQS, but they can impose more stringent standards if they so choose. 42 U.S.C. § 7416; *see also* Union Elec. Co. v. Envtl. Prot. Agency, 427 U.S. 246, 264–65 (1976).

[42] Mich. Dep't of Envtl. Quality v. Browner, 230 F.3d 181, 185 (6th Cir. 2000).

[43] 42 U.S.C. § 7410(c)(1).

[44] *Id.* § 7411(a)(1)–(2).

[45] *Id.* § 7411(a)(2).

[46] Susanne Pegano, *Texas: PUC Rule Allows Utilities to Recover Cost of Emission Control at Grandfathered Plants*, 31 ENV'T REP. (BNA) 1840, 1840 (2000). Although NSR does not apply to these sources, states can still subject plants built before 1971 to regulations as part of SIP. Arnold W. Reitze, Jr., *2002 Energy Law Symposium: State and Federal Command-and-Control Regulation of Emissions from Fossil-Fuel Electric Power Generating Plants*, 32 ENVTL. L. 369, 381 (2002).

pollutants or (2) makes major modifications to such a source to apply for a preconstruction air emissions permit and submit to a preconstruction review. NSR draws a major distinction between those areas of the country that meet or exceed the NAAQS (attainment areas) and those areas that do not meet the NAAQS (nonattainment areas).[47] In order to address this distinction, NSR envisions separate programs for non-attainment and attainment areas, each with its own set of requirements for new or modified major sources.[48] These requirements deal mostly with requisite air-pollution control technology.[49]

In attainment areas, the Prevention of Significant Deterioration ("PSD") aims to prevent especially clean areas from becoming any more polluted. In these regions, the best available control technology ("BACT") is required for major sources.[50] BACT determinations must be made on a case-by-case basis, and additional requirements apply if a source is located in a particularly pristine area, such as a park or a wildlife reserve.[51] Furthermore, no individual source is allowed to degrade more than a certain percentage of existing clean air.[52]

In nonattainment areas, more stringent standards apply. In these "dirty air" areas, NSR requires a source to employ technology that guarantees lowest achievable emission rate ("LAER"). LAER is defined as the most stringent SIP emission limitation or "the most stringent emission limitation which is achieved in practice" by such a source, whichever is more stringent.[53] Furthermore, the owners or operators of affected sources must guarantee that any new emissions from new or modified sources will be offset by equivalent or greater reductions in emissions from some other source.[54]

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[47] Each county in the country is classified as either attainment or nonattainment.
[48] Reitze, *supra* note 46, at 385.
[49] Boyd, *supra* note 26, at 405.
[50] 42 U.S.C. § 7475(a)(4).
[51] *Id.* § 7475(a)(3).
[52] *Id.* § 7479(3).
[53] *Id.* § 7475(a)(4).
[54] *Id.* § 7501(3).

3. Routine Maintenance, Repair and Replacement ("RMRR") Exception

NSR programs apply to new major sources or any existing major source that will increase emissions by undertaking modification of particular magnitudes.[55] In attainment areas, "a major source" is one with the potential to emit one hundred tons per year of any air pollutant from stationary sources in twenty-eight listed categories.[56] In nonattainment areas, the threshold for a major source ranges from ten to one hundred tons per year depending on the severity of the area's noncompliance.[57]

NSR provisions use the definition of "modification" provided by section 111 of the CAA, which defined the term for the purposes of the NSPS program.[58] The term "modification" is defined 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."[59] Consequently, to determine whether an activity in question constitutes a "modification," one must make a twofold inquiry: (1) is the proposed project a physical change or change in method of operation and (2) will the activity lead to an increase in emissions. These questions have been the subject of intense litigation and in two significant court decisions decided in August 2003, the courts have split on both issues.[60]

Because Congress defined "modification" to include *any* physical change, the EPA and the courts have construed this provision broadly.[61] Nevertheless, not all physical changes that increase emissions are "modifications" that trigger installation of

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[55] Boyd, *supra* note 26, at 406.
[56] 42 U.S.C. § 7479(1).
[57] 67 Fed. Reg. 80,186, 80,187 (2003).
[58] 42 U.S.C. § 7411(a)(4).
[59] *Id.*
[60] See the discussion of the *Ohio Edison* and *Duke Power* cases in the Enforcement section of this comment.
[61] United States v. Ohio Edison, 276 F. Supp. 2d 829, 854 (S.D. Ohio 2003); *see also* Wisc. Elec. Power Corp. v. Reilly, 893 F.2d 901 (7th Cir. 1990); United States v. S. Ind. Gas & Elec. Co., 245 F. Supp. 2d 994 (S.D. Ind. 2003).

pollution control technology. Recognizing that the interpretation of modification to include literally "any physical change," might lead to absurd results, the EPA created a de minimis exception not contained in the CAA.[62] If the activity in question qualifies as routine maintenance repair and replacement ("RWRR"), it is exempt from the NSR requirements.[63]

Precisely which activities constitute routine maintenance repair and replacement is at the heart of NSR litigation. The multiple challenges brought by power plants are due, at least in part, to the fact that EPA provided little guidance for owners and operators of affected facilities. In fact, the exact criteria were never clarified prior to litigation.[64] However, to aid owners and operators of power plants, the agency established a searchable database of its past applicability determinations. It also encouraged owners and operators who are unsure if a certain activity falls within the RMRR exception to consult the appropriate reviewing authority for assistance.[65]

Nonetheless, the scope of the RMRR exception has been primarily determined through litigation. The court in *Wisconsin Electric Power Co. v. Reilly* ("*WEPCO*") held that the determination of whether an activity is routine must be made by the EPA on a case-by-case basis, to be set aside only if it is

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[62] "[T]he definition of physical or operational change in section 111(a)(4) could standing alone, encompass the most mundane activities at an industrial facility (even the repair or replacement of a single leaky pipe, or a change in the way that pipe is utilized)." Requirements for Preparation, Adoption and Submittal of Implementation Plans; Approval and Promulgation of Implementation Plans; Standards of Performance for New Stationary Sources, 57 Fed. Reg. 32,314, 32,326 (July 21, 1992) (to be codified at 40 C.F.R. pts. 51, 52, 60).

[63] 40 C.F.R. § 52.21b(2)(iii)(a) (2003).

[64] Note that an agency's ability to retrospectively interpret rules is generally accepted. *See* Richard H. Fallon, Jr., *Of Legislative Court, Administrative Agencies, and Article III*, 101 HARV. L. REV. 915, 982–84 (1988) (discussing the deference accorded to agency decisions by reviewing Article III courts); Henry P. Monaghan, *Marbury and the Administrative State,* 83 COLUM. L. REV. 1, 2–7 (1983) (discussing, in a pre-Chevron context, binding deference an to agency's interpretations).

[65] *See* Puerto Rican Cement Co. v. U.S. Envtl. Prot. Agency, 889 F.2d 292, 294 (1st Cir. 1989).

arbitrary, capricious, or an abuse of discretion.[66] In determining whether the activity in question constitutes routine maintenance repair and replacement, the agency must weigh the project's: (1) nature, (2) extent, (3) purpose, (4) frequency, (5) cost, and (6) other relevant factors.[67] In *WEPCO*, the modification at issue was a set of renovations in the power company's Port Washington electric power plant located on Lake Michigan.[68] The plant proposed a "life extension project," which consisted of a number of repairs, including a replacement *in whole* of plate-type air heaters.[69] *WEPCO* argued that the project qualified as routine maintenance and consequently should be exempt from NSR requirements.[70] The court rejected these arguments, noting that, by opening "vistas of indefinite immunity from the provisions of NSPS and PSD,"[71] such an interpretation of NSR would be contrary to congressional intent of "'attainment of pollution control standards by a fixed date.'"[72]

The second requirement that must be satisfied for the application of the NSR is that the activity in question must be accompanied by a significant increase in emissions.[73] Whether a modification leads to an increase in emissions turns on the EPA's method of calculating emissions.[74] In 1992, the EPA promulgated a rule for utility sources which established that the PSD emissions test will compare past actual to future actual emissions.[75] On December 31, 2002, the EPA released a rule that, among other things, relaxed the method of calculation of baseline emissions.[76]

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[66] Wisconsin Elec. Power Co. v. Reilly, 893 F.2d 901, 907 (7th Cir. 1990).
[67] *Id.* at 905.
[68] *Id.*
[69] *Id.* at 911–12.
[70] *Id.* at 911.
[71] *Id.* at 909.
[72] *Id.* (quoting H.R. REP. NO. 95–294, *supra* note 6, at 2).
[73] 40 C.F.R. § 52.21(b)(2)(i) (2003).
[74] Kevin A. Gaynor & Benjamin S. Lippard, *Environmental Enforcement Developments in 2003*, 34 ENVTL. L. REP. 10,073, 10,076 (2004).
[75] *Id.*
[76] The rule contained five components: (1) baseline calculation, (2) actual-to-actual methodology, (3) actual plant wide applicability limits (PAL's), (4) clean units, and (5) pollution control projects (PCP's). Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR): Baseline

The effect of the 2002 amendment was to permit a source to choose the highest actual emissions rate over a ten year period and use that as a baseline.[77] Although the 2002 amendment was challenged by the states and distorted the real-life picture of the plants' past activities, it has been largely eclipsed by the EPA's more recent changes in regulatory policy.

4. EPA's Enforcement Initiative

While the owners and operators of power plants have generally agreed on the relevance of factors enunciated by the *WEPCO* court to the "routine" determination, they have argued that the inquiry should focus on industry practice.[78] In contrast, the EPA has contested that it must look at what is routine for a particular plant in question. The industry has also disputed the EPA's method of calculating emissions for the purposes of the second prong of the routine maintenance repair and replacement test.

In 1999, the EPA initiated active enforcement of the NSR program by suing seven coal-fired power plants in various federal courts.[79] The EPA's efforts resulted in a number of important decisions and several settlements.[80] Unfortunately, the litigation and the resulting decisions have not provided the much-needed clarity to this area of law. *United States v. Ohio Edison Co.*, decided on August 7, 2003, represents a veritable victory for the agency.[81] The court upheld the EPA's determination of "routine" maintenance and its method of calculating emissions increases.[82] However, only days later in *United States v. Duke Energy Corp.*,

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Emissions Determination, Actual-to-Future-Actual Methodology, Plantwide Applicability Limitations, Clean Units, Pollution Control Projects, 67 Fed. Reg. 80186 (Dec. 31, 2002) [hereinafter Baseline Emissions Determination] (to be codified at 40 C.F.R. pts. 51–52).

[77] *Id.*

[78] Gaynor & Lippard, *supra* note 75, at 10,076.

[79] *Id.*

[80] *Id.*

[81] United States v. Ohio Edison Co., 276 F. Supp. 2d 829 (S.D. Ohio 2003).

[82] *Id.* at 889.

the U.S. Court of Appeals for the Middle District of North Carolina sided with the utility company on both issues.[83]

In *Ohio Edison*, the court held the company liable for all eleven activities alleged by the EPA to be violations of the CAA.[84] Based on the plain language of the CAA and on the agency's regulations, the court determined that the routine maintenance exemption is narrow in scope.[85] Finding that Ohio Edison's modifications were not routine, the court cited a number of factors that weighed against the company: (1) the projects required several months of downtime, (2) the projects extended the lives of generative units, (3) the projects were preformed only once or twice during the life of a particular unit, and (4) the projects involved capital expenditures.[86] In light of these factors, the court in *Ohio Edison* held that "types of activities undertaken within the industry as a whole have little bearing on the ['routine' analysis] if an activity is performed at a unit only once or twice in the lifetime of that particular unit."[87]

Ohio Edison also affirmed the Agency's method of calculating emissions.[88] The EPA argued that the new rule should account for increased hours of operation that would result from reduced breakdown time after the modifications.[89] Ohio Edison disputed this interpretation of the NSR provisions on the basis that the regulations expressly excluded "increased hours of operation" from triggering NSR.[90] However, the *Ohio Edison* court, relying on the fact that NSR regulations specify a "tons per year" measurement of emissions and the increased hours of operation in this case were accompanied by a physical change, upheld the inclusion of "increased hours of operations" in the post-modification emissions calculations.[91]

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[83] United States v. Duke Energy Corp., 278 F. Supp. 2d 619 (M.D.N.C. 2003).
[84] *Ohio Edison Co.*, 276 F. Supp. 2d at 889.
[85] *Id.* at 887.
[86] *Id.* at 855.
[87] *Id.* at 856.
[88] *Id.* at 878–80.
[89] *Id.*
[90] *Id.* at 876.
[91] *Id.* at 875–76.

However, on August 26, 2003, in the *Duke Energy* case, the district court for Middle District of North Carolina held that "[w]hat has occurred within the industry . . . is relevant and must inform the routine inquiry."[92] In that case, the EPA filed a suit against Duke Energy, alleging that the company made modifications to eight coal-fired power plants in North and South Carolina in violation of the NSR provisions of the CAA.[93] The twenty-nine projects at issue consisted of replacement and/or redesign of boiler tube assemblies that would extend the plants' lives for an additional twenty years.[94] The district court squarely rejected the EPA's argument that the relevant inquiry is whether a replacement in question is routine for the particular unit.[95] Ultimately, however, the court did not decide the "routine" issue, holding only that there were genuine questions of fact as to what is routine for the utility industry.[96]

The court in *Duke Energy* also rejected the EPA's arguments concerning methods of emissions calculations. It held that there is an emissions increase caused by a project only if the project increases the short-term/hourly emissions rate from the facility.[97] The court justified its decision on the "hours of operations" exclusion; the exclusion that was explicitly rejected by the *Ohio Edison* court.[98] Finally, the court held that the "actual to actual" emissions test, adopted by the court in *Ohio Edison*, is not the law because of the difference in baseline possibilities.[99] In effect, after *Duke Energy*, only projects that caused an increase in fuel input capacity on an hourly basis will trigger NSR.[100]

Before the agency could assimilate the conflicting messages of *Duke Energy* and *Ohio Edison*, the EPA issued a

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[92] United States v. Duke Energy Corp., 278 F. Supp. 2d 619, 636 (M.D.N.C. 2003).
[93] *Id.* at 623.
[94] *Id.* at 623–25.
[95] *Id.* at 626–36.
[96] *Id.* at 639.
[97] *Id.* at 649.
[98] *Id.* at 641.
[99] *Id.* at 647–49.
[100] Gaynor & Lippard, *supra* note 75, at 10,079.

major revision to what the agency itself considered to be "routine maintenance and repairs."

III. Changes to the New Source Review Rules

A. The Changes

On August 27, 2003, the EPA issued a final rule that revised the routine maintenance repair and replacement exclusion.[101] In this rulemaking, the EPA discarded the agency's traditional case-by-case approach in favor of a bright line rule.[102] Industry has long argued that the case-by-case approach provided a disincentive for maintaining and improving safety, reliability, and efficiency of the power stations.[103] Responding to this critique, EPA's new

> rule specifies that the replacement of components of a process unit with identical components or their functional equivalents will come within the scope of the [RMRR] exclusion, provided (1) the cost of replacing the component falls below 20 percent of the replacement value of the process unit of which the component is a part, (2) the replacement does not change the unit's basic design parameters, and (3) the unit continues to meet enforceable emission and operational limitation.[104]

Consequently, the new rule creates two categories of activities that would automatically fall within the routine maintenance exception and thus be exempt from the agency's case-by-case evaluation.[105]

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[101] Environmental Protection Agency, New Source Review, http://www.epa.gov/nsr (last visited Apr. 7, 2004) [hereinafter New Source Review] (on file with North Carolina Journal of Law & Technology).

[102] Prevention of Significant Deterioration (PSD) and Non-Attainment New Source Review (NSR): Equipment Replacement Provision of the Routine Maintenance, Repair and Replacement Exclusion, 68 Fed. Reg. 61,248, 61,250–51 (Oct. 27, 2003) [hereinafter Equipment Replacement Provision] (to be codified at 40 C.F.R. pts. 51–52).

[103] *Id.* at 61,251.

[104] *Id.* at 61,252.

[105] *Id.*

The first category consists of modifications that fall within the twenty percent annual allowance and the second encompasses activities that are considered pure "equipment replacement" that make no functional changes in source operation.[106] Furthermore, modifications that fall outside either per se category could still be exempt from NSR though the agency's traditional case-by-case approach.[107]

In the preamble of the new rule, the EPA identifies three problems with the old approach. First, the old standard creates uncertainty for owners and operators of stationary sources.[108] Second, it is imprecise, complicated, and imposes burdens on state and local reviewing authorities that are responsible for making the complex determinations.[109] Finally, the main problem with the old rule was that the risks and potential costs associated with NSR or PSD review may have deterred owners or operators of plants from undertaking activities that were legitimately routine maintenance.[110] The EPA anticipated, therefore, that the effect of the new rule would be "to remove disincentives to undertaking RMRR activities falling within the rule, thereby enhancing key operational elements such as efficiency, safety, reliability, and environmental performance."[111]

B. The Benefits Intended by the Rule

As stated in the preamble of the new rule, the primary criticisms of the old RMRR regulations pertain to its form rather than its scope. In law and economics terminology, the

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[106] *Id.*

[107] *Id.* at 61,250.

[108] *Id.*

[109] *Id.*

[110] These uncertainties can discourage replacements that would promote safety, reliability and efficiency even in instances where, if the matter were brought to EPA, we would determine that the replacement in question was RMRR. Such discouragement results in lost capacity and lost opportunities to improve energy efficiency and reduce air pollution.

Id.

[111] *Id.* at 61,251.

administration seeks to replace a standard, the old case-by-case approach, with a rule, a bright line test akin in form to a speed limit. The new rule allows industrial plants to avoid installing pollution control devices when they upgrade equipment as long as the cost of the upgrade is less than twenty percent of the cost of the power plant.

One of the benefits of this rule is that it provides more certainty as to what constitutes a "modification" under NSR. As discussed above, the EPA previously used a standard in determining what constituted routine maintenance. Although the EPA tried to clarify the regulations by setting up a database of previous rulings,[112] the uncertainty functioned as a disincentive to installing technology that constituted legitimate RMRR and would render the power plant more efficient.[113]

The distinction between rules and standards turns on whether the law is given content *ex ante* or *ex post*.[114] Rules involve *ex ante* prescriptions while the exact content of a standard does not become clear until after litigation.[115] Because promulgation of rules requires investigation and empirical analysis, they are typically more costly to create.[116] Standards, on the other hand, are more costly after they become law.[117] The costs are threefold. First, standards are more difficult for law enforcement and the judiciary to apply because they require determination of the law's content.[118] These costs, however, are reduced after precedent is set, at which point a standard functions more like a

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[112] Prevention of Significant Deterioration (PSD) and Non-attainment New Source Review (NSR): Routine Maintenance, Repair and Replacement, 67 Fed. Reg. 80,290, 80,292 (Dec. 31, 2002). Applicability determinations are available electronically from the Region 7 NSR Policy and Guidance Database, http://www.epa.gov/Region7/programs/artd/air/nsr/nsrpg.htm (last visited Apr. 7, 2004) (on file with the North Carolina Journal of Law & Technology).

[113] New Source Review, *supra* note 101.

[114] Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 DUKE L.J. 557, 559 (1992).

[115] *Id.*

[116] *Id.* at 559.

[117] *Id.* at 563.

[118] *Id.*

rule.[119] Second, the cost of legal advice with respect to standards is higher because counsel must predict how courts will apply a standard to a particular situation.[120] Consequently, it is more costly for individuals to interpret a standard.[121] Third, vagueness of a standard deters legitimate conduct by creating a risk that such conduct will be found to violate the prohibition.[122] This effect is especially problematic when the legitimate activity in question would be more valuable socially than it would privately.[123] Demonstrating this effect, a risk-averse power plant management may forgo updating the facilities even when the expected value of the update may be greater than the expected costs.[124]

Although some commentators expressed doubt on whether it would be feasible to avoid case-by-case determinations in an industry where sources are relatively few and so differently situated, using a rule, as opposed to a standard, would be a legitimate policy decision.[125] The new regulations, however, forego some of the above-mentioned benefits of a rule because the old case-by-case approach remains available.[126] There is plenty of opportunity for litigation to continue. For projects that exceed the twenty percent allowance, the industry receives a "second bite at the apple" so to speak, and the courts will still have to engage in the case-by-case analysis criticized in the preamble of the new rule. Consequently, the new regulations will not necessarily be less costly and easier to apply in court.

The main benefit of the new rule is that it will not deter management from engaging in legitimate RMRR activities. If management is risk-averse, then the uncertainty generated by a standard deters investment while known costs imposed by a rule

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[119] *Id.*
[120] *Id.* at 565.
[121] *Id.* at 559.
[122] RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 556 (6th ed. 2003).
[123] *Id.* at 557.
[124] *Id.* at 559.
[125] Victor B. Flatt et al., *Let the People Speak: Notice-and-Comment Rulemaking (Lessons From the Controversial New Source Review Proposal of the Clean Air Act)*, 34 ENVTL. L. REP. 10,115, 10,115 (2004).
[126] Equipment Replacement Provision, 68 Fed. Reg. 61,247, 61,252 (Oct. 27, 2003) (to be codified at 40 C.F.R. pts. 51–52).

might not, even when the expected costs of the regulation imposed by the rule or standard are equal. This is especially important if positive externalities from power plant investment, such as an increase in reliability of the power supply, are substantial.

The new rule is also easier to understand in the sense that power plants clearly have the green light to update technology regardless of pollution increases, as long as the cost of the project does not exceed twenty percent. However, these benefits of clarity come at the expense of Congressional objectives in promulgating the Clean Air Act. The problem is that the new regulations go beyond changing the routine maintenance rule's *form* from a standard to a rule. The new rule drastically affects the *scope* of the routine maintenance exception.[127]

IV. EPA's Legal Justifications for the New Rule

The central issue to be considered by the D.C. Circuit will be whether the EPA's proposed new rule is justified under the CAA. As is evident from the discussion of the EPA's enforcement initiative, the Agency's new rule is a significant departure from its earlier regulations and from judicial interpretations of the CAA. Although the EPA did not clearly state the justification for the new rule, analysis of the proposed rule reveals that the EPA relied primarily on *Chevron* deference.[128]

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[127] Mathew C. Stephenson, *A Tale of Two Theories: The Legal Basis for EPA's Proposed Revision to the Routine Maintenance, Repair, and Replacement Exception, and the Implications for Administrative Law*, 33 ENVTL. L. REP. 10,789, 10,794 (2003).

[128] *Id.* The new regulations might also be justified on a "de minimis" theory. Equipment Replacement Provision, 68 Fed. Reg. at 61,270. Even though section 111 of the Clean Air Act covers "any" physical or operational change, EPA may permissibly refuse to enforce the statute's literal provisions against activities that are so trivial, and where regulation would be of such minimal value that they ought to be considered beyond the scope of the Act. *Id.* If the EPA chose to defend the rule on these grounds, the agency would have to show that the current rule is precisely such a trivial change. Yet this theory, as applied to the changes in the New Source Review, yields problematic outcomes. In *Alabama Power Co. v. Costle*, the D.C. Circuit held that the EPA can exempt de minimis activity. 636 F.2d 323 (D.C. Cir. 1979). However, the EPA could only exempt the most minor activities so that the program would be workable

"[A] regulation promulgated by an administrative agency is invalid to the extent the regulation conflicts with the language of a statute."[129] Since 1984, when it was decided, *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*,[130] the Supreme Court has provided a framework for reviewing an agency's construction of the statute it administers. In *Chevron*, the issue was whether states could be allowed "to treat all of the pollution-emitting devices within the same industrial grouping as though they were encased within a single bubble," for the purposes of NSR obligations for modifications.[131] The Supreme Court reversed a judgment by the D.C. Circuit because that court did not defer to the EPA in its interpretation of the statute, where Congress had no clear intent on the issue.[132] It held that the lower court committed a basic legal error in substituting its own construction of the term "stationary source" for the administrative interpretation.[133] The legacy of the decision is the extreme deference, termed "*Chevron* deference," which is accorded to administrative agencies in cases where congressional intent is not clear.

According to the test set out in *Chevron*, when reviewing an agency's statutory construction, a court must make a twofold inquiry. First, the court must look at whether Congress has "directly spoken to the precise issue at question."[134] If congressional intent is clear, then the agency's regulations must comply with the plain meaning of the statute.[135] Second, if Congress has not directly addressed the precise issue in question,

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administratively. "[T]here exists no general administrative power to create exemptions to statutory requirements based upon the agency's perceptions of costs and benefits." *Id.* at 357. The power to create exceptions "is not an ability to depart from the statute, but rather a tool to be used in implementing the legislative design." *Id.* at 360. However, the proposed changes are too significant and inconsistent with Congressional intent to qualify as de minimis. *Id.*

[129] United States v. Ohio Edison Co., 276 F. Supp. 2d 829, 888 (S.D. Ohio 2003).

[130] 467 U.S. 837 (1984).

[131] *Id.* at 840 (referring to 42 U.S.C. § 7502(b)(6)).

[132] *Id.* at 842.

[133] *Id.*

[134] *Id.*

[135] *Id.*

the court must inquire whether the agency's analysis is based on a "permissible" construction of the statute.[136] Because administration of a congressionally created program necessarily requires the formulation of policy and the making of rules to fill any implicit or explicit statutory gap, the court must accord considerable deference to the agency.[137]

The EPA contends that the new rule is a permissible construction of the Clean Air Act.[138] However, under *Chevron* "Step One," the EPA must first show that Congress left either an explicit or implicit gap in the CAA's definition of "modification." The EPA argues that the term "any physical or operational change" is ambiguous because Congress did not specify the types of activities that constitute "physical or operational change[s]."[139] If the court agrees with the EPA on this point, under "Step Two" of *Chevron* analysis, the court would have to defer to a "permissible" interpretation of an ambiguous statutory term.[140] The EPA alleges that the new rule is a "permissible" construction of the statute because it is consistent with the dual purpose of section 101 of the CAA: "to protect and enhance the quality of the Nation's air resources *so as to promote public health and welfare and productive capacity of its population.*"[141] Given the two competing interests, the agency claims that the new routine maintenance rule represents "a reasonable accommodation of manifestly competing interests and is entitled to deference."[142]

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[136] *Id.* at 843.
[137] *Id.* (citing Morton v. Ruiz, 415 U.S. 199, 231 (1974)).
[138] Equipment Replacement Provision, 68 Fed. Reg. 61,247, 61,270 (Oct. 27, 2003) (to be codified at 40 C.F.R. pts. 51–52).
[139] *Id.*
[140] *Id.*
[141] *Id.* at 61,271.
[142] *Id.*

A. *Chevron* Analysis

1. *Chevron* Step One

Step one of the *Chevron* analysis is to inquire whether Congress has directly spoken to the precise issue in question.[143] The new RMRR exemption fails the first prong of the *Chevron* test because it is contrary to congressional intent. The new rule is in sharp contrast with the plain language of the statute, legislative history, and the courts' interpretation of the statutory terms.

Congress defined "modification" in section 111(a)(4) of the CAA to encompass "*any* physical change . . . which increases the amount of any air pollutant emitted."[144] The plain language of the statute is clear. It is significant that the term "modification" appears in the definition section of the CAA.[145] One would presume that "any physical change" is not meant to be as ambiguous as "modification," the term that it is supposed to define.[146] Refusing to read any additional precision into the definitional phrase that is inherent in the original term would render the congressional effort at definition an exercise in futility.[147]

Furthermore, the new rule is inconsistent with judicial interpretation of terms "modification" and "any." Under the new RMRR rule a change that is less than twenty percent of a plant's value is not a "modification." Excluding from the term "modification" changes that cost millions of dollars and may require suspension of operations is clearly contrary to judicial interpretation of the term to mean "moderate change." In *Alabama Power Co.*, the court held that the term "modification" is not limited to physical changes exceeding a certain magnitude.[148] After examining the legislative history of relevant provisions, the

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[143] Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc., 467 U.S. 837, 842 (1984).
[144] 42 U.S.C. § 7411(a)(4) (2000).
[145] Stephenson, *supra* note 127, at 10,801.
[146] *Id.*
[147] *Id.*
[148] Alabama Power Co. v. Costle, 636 F.2d 323, 400 (D.C. Cir. 1979).

court concluded that "the language of the statute clearly did not enact such limit into law." In *WEPCO*, the court stated that Congress defined the term "modification" to encompass the most trivial activities—"the replacement of leaky pipes, for example . . . if the change results in an increase in the emissions of the facility."[149] In *Ohio Edison*, the U.S. District Court for the Southern District of Ohio held that the term

> "modification" is broadly defined and that the words "any physical change" must be given their plain meaning—that is, that any physical change to the units at issue trigger CAA compliance assuming, (1) the change also causes an increase in emissions and (2) the change is not excluded by a regulatory exemption.[150]

The court also affirmed that the term "routine" must be given a narrow interpretation.[151] In *MCI Telecommunications Corp. v. AT&T*, the Supreme Court held that the term "modify" as used in the Federal Communications Act had a sufficiently plain meaning that the Federal Communications Commissions Act interpretation was invalid under Chevron step one.[152] The majority rejected the argument that "modify" could mean "to change fundamentally."[153] Instead, the court held that "modify" "connotes moderate change."[154]

Similarly, by expanding the routine maintenance exception to changes that do not exceed twenty percent of the plant's value, the new rule impermissibly narrows the construction of the term "any." The word "any" has not been treated as an insignificant modifier but has been interpreted by the courts to be a clear indication of Congressional intent. In *United States v. Gonzalez*, the Supreme Court wrote that "[r]ead naturally, the word 'any' [in a statute] has an expansive meaning, that is, 'one or some

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[149] Wis. Elec. Power Co. v. Reilly, 893 F.2d 905 (7th Cir. 1990).
[150] United States v. Ohio Edison Co., 276 F. Supp. 2d 829, 888 (S.D. Ohio 2003).
[151] *Id.* at 888.
[152] MCI Telecomm. Corp. v. Am. Tel. & Tel. Co., 512 U.S. 218 (1994).
[153] *Id.* at 227.
[154] *Id.* at 227.

indiscriminately of whatever kind.'"[155] In *Missouri Municipal League*, the court wrote "time and time again, the Court has held that the modifier 'any' prohibits a narrowing construction of a statute."[156]

Legislative history reveals that the new rule is inconsistent with Congress's ultimate goal of assuring "attainment of pollution control standards by a fixed date."[157] The Clean Air Act Amendments were enacted to "speed up, expand, and intensify the war against pollution in the United States with a view to assuring that the air we breathe throughout the nation is wholesome once again."[158] To lessen the burden on owners and operators of utilities, Congress chose to require installation of pollution control technology when sources underwent "modifications." Indeed, members of the House recognized that "building control technology into new plants at time of construction will be less costly than requiring retrofit when pollution control ceilings are reached."[159] The logic underlying this approach is clear. As Professor O'Hear points out, "while retrofit might be unduly burdensome for a facility busily engaged in productive activities, the same retrofit might be far less costly and intrusive if performed in conjunction with other activities that significantly interrupted production and involved restructuring of equipment."[160] When drafting the CAA, Congress was well aware that some power plants would be unable to meet the NSR requirements and would be forced to shut down.[161] By permitting power plants to extend

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[155] United States v. Gonzales, 520 U.S. 1, 5 (1997).

[156] Mo. Mun. League v. Fed. Communication Comm'n, 299 F.3d 949, 954 (8th Cir. 2002).

[157] H.R. REP. NO. 95–294, *supra* note 6.

[158] H.R. REP. NO. 91–1146, at 1 (1970), *reprinted in* 1970 U.S.C.A.N. 5356.

[159] H.R. REP. NO. 95–294, at 185 (1977), *reprinted in* 1977 U.S.C.A.N. 1264.

[160] Flatt et al., *supra* note 125, at 10,121. The EPA acknowledged this much in the Legal Basis section of the new rules. "It is important to understand why Congress chose [the time of modification as the point] at which to impose NSR on existing plants: to avoid the need to impose costly retrofits, but require placement of new control technology at a time when it makes the most sense for it to be installed." Equipment Replacement Provision, 68 Fed. Reg. 61,247, 61,270 (Oct. 27, 2003) (to be codified at 40 C.F.R. pts. 51–52).

[161] S. REP. NO. 91–1196, at 2–3 (1970).

their lifetimes by replacing parts in whole and repeatedly use the twenty percent exception, the new rule is contrary to congressional intent to assure that all plants in this country are equipped with pollution controls.

In recent years, the Supreme Court has been backing away from the extremely deferential approach in *Chevron.* Consequently, if it is not entirely clear whether the D.C. court should invalidate the rules based on *Chevron* step one, *MCI* clearly points to the conclusion that the EPA exceeded its authority in promulgating the new regulations.[162] The court in *MCI* plainly reversed an administrative agency's regulations, holding that in authorizing permissive detariffing the Federal Communications Commission ("FCC") had exceeded its authority under Communications Act.[163] *MCI* stands for the proposition that an agency exceeds its authority when its regulations are inconsistent with direct statutory language on point and represent a drastic departure from a longstanding regulatory scheme. *MCI* involved the FCC's interpretation of the "modify" requirement in Communications Act.[164] The FCC "modified" its regulatory scheme to exclude nondominant carriers from rate-filing requirements.[165] Whereas the statute required all carriers to file tariffs, the Agency argued that the section in question permitted the FCC to "modify" the regulations to allow permissive detariffing policy.[166] The court ruled that "since the agency's interpretation of a statute is not entitled to deference when it goes beyond the meaning that statute can bear, [the agency's change in policy] can be justified only if it makes less than radical change in the Act's . . . requirement[s]."[167] Whether a change is minor or major depends to some extent upon the importance of the item changed to the whole.[168] The court found that detariffing when the plain language of the statute required tariffs was just such an

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[162] MCI Telecomm. Corp. v. Am. Tel. & Tel. Co., 512 U.S. 218 (1994).
[163] *Id.* at 234.
[164] *Id.* at 225.
[165] *Id.* at 223.
[166] *Id.*
[167] *Id.* at 229.
[168] *Id.*

impermissible major change.[169] Like detariffing in *MCI*, the new routine maintenance rule is contrary to the overall statutory scheme and is a major departure from longstanding agency practice.

MCI and *New York v. EPA* are clearly analogous. The plain language of the administrative statute in both cases speaks to the issue in question.[170] In both cases, an administrative agency changed a longstanding interpretation of its enabling statute. Finally, in both, the changes in interpretation have a major impact on the regulatory regimes as a whole. The court should hold in *New York v. EPA* that the EPA's new construction of the CAA "goes beyond the meaning that the statute can bear"[171] and is therefore invalid.

"An agency's interpretation of a statute or regulation that conflicts with a prior interpretation is entitled to considerably less deference than a consistently held agency view."[172] Without a doubt the new rule represents a major break with the EPA's traditional interpretation of the CAA. This is evident not only from the fact that many of the modifications challenged by the agency in its enforcement initiative would be permissible under the new rule, but also by the fact that the new rule is inconsistent with other parts of agency's regulations. For purposes of the NSPS program, "an existing facility, upon reconstruction is treated as [a new source] irrespective of any change in emission rate."[173] "Reconstruction" occurs when the cost of new components of the plant exceed fifty percent of its fixed capital costs.[174] However, by exempting those changes that (1) are replacements of units, (2) fall below the twenty percent allowance, and (3) are routine maintenance under the old rule, the EPA permits the plants to undergo what essentially amounts to reconstruction without triggering NSR. There is no reason why those activities that

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[169] *Id.* at 234.

[170] Section 203 of the Communications Act plainly required communications common carriers to file tariffs with the FCC. 47 U.S.C. § 203(a) (2000). Similarly, the CAA plainly requires that a source apply for a permit if it undergoes "*any* physical change." 42 U.S.C. § 7411(a)(4).

[171] *MCI*, 512 U.S. at 229.

[172] Thomas Jefferson Univ. v. Shalala, 512 U.S. 504, 515 (1994).

[173] 40 C.F.R. § 60.15(a) (2003).

[174] *Id.* § 60.15(b).

trigger NSR, if done in one year, should be exempt from NSR if they are spaced out over a period of time.[175]

The new rule will also be inconsistent with the federalism provisions of the CAA by depriving the states of a valuable enforcement tool for complying with their SIP obligations. It is the states, not the federal government or the EPA, that have the primary responsibility for complying with NAAQS.[176] States are penalized if they fail to comply. If in a state where emissions have reached SIP ceiling increased efficiency improvements lead to the allocation of more pollution to power plants, a state must offset this allocation by reduction in pollution from other industries. Consequently, the overall pollution levels may not increase but the regulation will shift the burden of pollution control from power plants to other industries. It is far from clear that such reallocations would be socially efficient.

The regulation will be viewed as exempting the grandfathered power plants because federal law preempts state law. To the extent that this is true, the new rule undermines the rights of the states under the CAA. Furthermore, the Agency's claim that the overall levels of pollution will not increase rests on the assumption that states will still be required to comply with SIPs. However, the assertion that pollution will not increase assumes that the overall emissions level within the state is at the SIP-mandated pollution ceiling. If this is not the case, the continued viability of SIPs does not guarantee that there will not be an increase of pollution.

Given that Congress has directly spoken to the precise issue in question, the agency is required to "give effect to the unambiguously expressed intent of Congress."[177] Further, the new rule represents a drastic departure from a longstanding regulatory scheme. It is inconsistent not only with the agency's prior interpretations of the NSR provisions but also with other parts of agency's regulations. Since the new routine maintenance exception effectively swallows the rule, it should be struck down by the D.C. district court.

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[175] Flatt et al., *supra* note 125, 10,123.
[176] 42 U.S.C. § 7407 (2000).
[177] Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc., 467 U.S. 837 (1984).

2. *Chevron* Step Two

If the court does not invalidate the rule under "Step One" of *Chevron*, the states will face a much more difficult task under *Chevron* "Step Two." However, even under this deferential prong of *Chevron*, the regulations may still fail. If Congress has explicitly left a gap in the CAA, then the legislative regulations are given controlling weight unless they are an impermissible construction of the statute. Under *Chevron* "Step Two," the court must look at whether the agency's construction of the term "modification" may reasonably include a twenty percent routine maintenance exemption.[178] The court must accord the agency's interpretation great deference. It "need not conclude that the agency's construction was the only one it permissibly could have adopted."[179]

First, the courts have held that "the CAA should not be interpreted in a way that would open vistas of indefinite immunity from the provisions of New Source Performance Standards and Prevention of Significant Deterioration."[180] The new rule amounts to just that because nothing in the regulations would prohibit the repeated use of the twenty percent exemption. Given that Congress intended for the grandfathered power plants to be eventually equipped with pollution controls, the broad RRMR exemptions of the new rule are an unreasonable interpretation of the statute.

Second, EPA's construction of the statute is unreasonable because it jeopardizes the kind of health and environmental gains that the CAA was meant to achieve. The enforcement initiative had led to several sizeable settlements,[181] accompanied by

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[178] "[I]f the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute." *Id.*

[179] *Id.*

[180] Wis. Elec. Power Co. v. Reilly, 893 F.2d 901, 909 (7th Cir. 1990).

[181] Richard A. Oppel & Christopher Drew, *States Planning Own Lawsuits Over Pollution,* N.Y. TIMES, Nov. 9, 2003, at 1. Southern Indiana Gas & Electric and three utilities that were not sued in the initial round (Wisconsin Electric Company, Virginia Electric Power Company, and PSEG Fossil Ltd. Liability

reduction in pollution. For example, Florida-based Teco Energy agreed in 2000 to spend $1 billion to improve its pollution control technology.[182] However, when the EPA first issued the rule change, it also made a decision to hold off pursuing a number of cases against power companies because the legal foundation of those cases would no longer be valid.[183] In November 2003, the Agency made it known that it would close pending investigations of seventy power plants and would consider dropping thirteen other cases against utilities that had been referred to the Justice Department for action.[184] As a result, a number of utilities walked away from settlements.[185] For example, in 2000, Ohio-based Cinergy, tentatively agreed to spend $1.4 billion to improve emission controls in its coal-burning plants.[186] However, after the EPA declared its new approach to NSR, the talks stalled. In a 2000 report, the Energy Information Administration found that the NSR enforcement effort, especially if broadened to address all coal-fired power plants, would decrease NOx and SO_2 emissions by sixty to eighty percent.[187] A ruling that the EPA's change in regulations is inconsistent with the statute is essential to the continued viability of the enforcement effort.[188]

Corporation) have also settled with the EPA. Gaynor & Lippard, *supra* note 74, at 10,075.

[182] Oppel, *supra* note 181.

[183] Jennifer Lee, *Most States Expect Pollution to Rise if Regulations Change*, N.Y. TIMES, Feb. 6, 2004, at A16.

[184] Eric Peanin, *In Reversal, EPA to Push Cleanup of Power Plants*, WASH. POST, Jan. 22, 2004, at A23.

[185] Oppel, *supra* note 181.

[186] *Id.*

[187] Energy Information Administration, *Analysis of Strategies for Reducing Multiple Emissions from Power Plants: Sulfur Dioxide, Nitrogen Oxides, and Carbon Dioxide* (2000), *at* http://www.eia.doe.gov/oiaf/servicerpt/powerplants/pdf/sroiaf(2000)05.pdf (on file with the North Carolina Journal of Law & Technology).

[188] Following the suspension of the new rules pending litigation, the EPA sued an eastern Kentucky power cooperative for expanding three of its coal-generating units at its Spurlock and Dale Plants in violation of NSR. Erik Peanin, *Bush Moves to Defuse Environmental Criticism*, WASH. POST, Feb. 2, 2004, at A05; Eric Peanin, *Justice Dept Sues Ky. Utility for Breach of Clean Air Act*, WASH. POST, Jan. 29, 2004, at A02.

Third, the EPA argues that the new rule will do little more than allow industry to make modifications that would improve efficiency and consequently, decrease pollution.[189] This argument is misleading if not disingenuous. Under the old rules, efficiency improvements that are environmentally beneficial and reduce emissions do not trigger NSR because a physical change that decreases or even slightly increases emissions does not constitute a "modification."[190] Just such a situation occurred when Detroit Edison Co. applied for review of planned modifications of its Monroe Power Plant. The EPA determined that the projects were significant enough to qualify as "modification." However, because the changes would not lead to emissions' increase, they were exempt from NSR program.[191]

Fourth, the new rule is inconsistent with the technology-pushing objectives of the Clean Air Act. Congress intended for the CAA to provide an incentive for improvement and adoption of pollution control technology.[192] Clean coal technologies have the potential to remove almost all of the harmful emissions.[193] In

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[189] Equipment Replacement Provision, 68 Fed. Reg. 61247, 61270 (Oct. 27, 2003) (to be codified at 40 C.F.R. pts. 51–52).

[190] A "modification" is defined 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." 42 U.S.C. § 7411(a)(4) (2000) (emphasis added). Furthermore, the agency recognizes a de minimis exception.

[191] Detroit Edison Monroe Power Plant Applicability Determination, May 23 Applicability Determination (May 23, 2000), *at* http://yosemite.epa.gov/r5/ardcorre.nsf/0/a9cee4cceeeb1a00862568ef0067a795?OpenDocument (on file with the North Carolina Journal of Law & Technology).

[192] S. REP. NO. 91–1196, at 17 (1970).

[193] Clean coal technologies can be separated into three distinct categories: pre-combustion processing of coal, combustion processes that burn coal more cleanly, and post-combustion processes that scrub the exhausts. *Clean Coal's Uphill Haul*, ECONOMIST, Sept. 19, 2002, at 5. The most widely used method of cleaning coal is the post combustion processes that scrub the exhausts. Typically, the flue gas is contacted with an aqueous slurry of limestone in a countercurrent absorber, or scrubber. Sulphur dioxide reacts with the limestone to form gypsum. This byproduct may be sold directly or used in cement production. 2001 U.S. DEP'T OF ENERGY, TOPICAL REPORT NUMBER 18: CLEAN COAL TECHNOLOGY 5, http://www.lanl.gov/projects/cctc/topicalreports/documents/topical18.pdf (on file with the North Carolina Journal of Law &

general, clean coal technologies decrease pollution through improved operating efficiencies and lowered costs of air emission controls. For example, integrated gasification cycle[194] removes ninety-nine percent of sulphur and reduces the other emissions below standard, while improving operational efficiency from thirty-three to forty percent. There are already two plants in America that have adopted this technology.[195] The costs, however, remain high.

One of the main benefits of a regulation such as NSR is that it forces power plants to adopt clean coal technologies. Thus, as the market for these technologies expands, the firms that develop and manufacture devises such as scrubbers will become more efficient and the cost of adopting these technologies will fall. Furthermore, an expanded market allows for entry of additional clean coal technology manufacturers that would also reduce cost through competition. However, the effect of the new regulations is to decrease the market for these technologies, keeping costs high and removing incentives for innovation and adoption of technologies that can remove the vast majority of pollutants that threaten public health and the environment. Such a result is manifestly contrary to objectives of CAA and the Congressional intent.

The new rule is inconsistent with the purpose of the statute because it distorts the market incentives. Under the new regulatory

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Technology). This technology cleanses exhausts of sulphur dioxide and nitrogen oxides. *Id.* A good modern system can remove up to ninety-five percent of sulphur from exhausts for a third of the costs of earlier technologies. *Id.*

[194] The process turns coal into a gas which is then cleansed and burned in a combustion turbine to produce electricity. Residual heat in the exhaust gas from the gas turbine is recovered in a heat recovery boiler as steam, which can be used to produce additional electricity in a steam turbine generator. This technology allows companies to capture carbon dioxide from the exhaust more easily, while producing electricity more efficiently than is possible with other clean-coal methods. Most importantly, IGCC can be retrofitted on to existing plants. *Id.*

[195] Rose, *supra* note 3 (describing Tampa Electric's plant in Florida and Psi Energy's 260 megawatt Wabash River Generating Station at Terre Haute in Indiana, a 1950s power plant which was retrofitted with a gasification process at a cost of $430M).

scheme, grandfathered power plants will never internalize environmental and health costs associated with air pollution. Consequently, the output of these plants will perpetually exceed the socially efficient level. Unlike the newer power plants, grandfathered plants pay only the private costs of producing energy. One result is that plants that should be shut down will continue to operate. Further, the presence of these old plants makes it more difficult for new firms to enter the market. Since complying with the CAA increases costs of production, new firms are at a disadvantage when competing with grandfathered plants. With many old plants in the market, the sum of private and public costs of energy production is likely to exceed the value to society of the power produced. Such a warped system of incentives undermines the main objective of the CAA, which is to ensure that new clean power plants will replace the old polluters by a fixed date.

Fifth, the new rule will complicate the section 126 provisions which down-wind states use to challenge the emissions in plants in up-wind states.[196] Section 126 is an important provision that has been successfully used by the states to fight up-wind polluters. It allows any state that is unable to meet its emissions cap to petition the Administrator for a finding that a plant in an up-wind state exceeds its emissions of criteria pollutants.[197] This provision is usually used to challenge plants for NSR violations. Consequently, a change in NSR rules will also undermine one of the only tools available to states in controlling interstate pollution.

Even though *Chevron* stands for the proposition that the courts should refrain from meddling in administrative policy, the court should consider invalidating the new routine maintenance rule. Given that the new rule is in conflict with the central objective of the CAA, to ensure installation of pollution controls by a fixed date, the Agency's actions are contrary to Congressional intent. As is, *Chevron* represents a significant power shift from Congress to administrative agencies. To rule that only "big

[196] 42 U.S.C. § 7426 (2000).
[197] *Id.* § 7426(b).

physical change" is a reasonable interpretation of "any physical change" would be to take out of *Chevron* whatever weak bite it might have had.

IV. Conclusion

Whether under *Chevron*, *MCI*, or the de minimis theory, the EPA's legal justification for the regulation rests on shaky ground. The EPA's new regulatory policy should be invalidated because it is inconsistent with Congressional intent and with objectives of the Clean Air Act.