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EPA's Category 3 Marine Emissions Standards: Mimicking MARPOL Annex VI or Mocking the Clean Air Act?

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MIMICKING MARPOL ANNEX VI OR MOCKING THE CLEAN AIR ACT?

I. INTRODUCTION

With all the emphasis that the media places on automobile emissions,[1] many citizens would be shocked to know that on a typical day, container ships[2] docking at the Port of Los Angeles release more smog-forming pollutants than one million cars.[3] In fact, ships produce almost as much pollution in the Los Angeles/Long Beach area as the 350 largest industrial polluters in Southern California combined.[4] While great strides have been made by the Environmental Protection Agency (EPA) and state legislators[5] to reduce emissions from automobiles[6] and stationary point sources,[7] little attention has

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[1] *See, e.g.*, Tim Molloy, *L.A. Air Quality Better, But Still Bad*, MONTEREY COUNTY HERALD, Nov. 5, 2004; Tony Manolatos, *Drivers may pay for clean air,* DETROIT NEWS, Apr. 6, 2005, at 1.

[2] "Container ships are cargo ships that carry all of their load in truck-size containers." Wikipedia, Container ship, http://en.wikipedia.org/wiki/container_ship (last visited January 24, 2005). Container ships are some of the largest vessels to sail the ocean, only outsized by crude oil carriers or tankers. *Id.* The majority of container ships have diesel engines. *Id.*

[3] Gary Polakovic, *Finally Tackling L.A.'s Worst Air Polluter*, L.A. TIMES, Feb. 10, 2002, at B1.

[4] Craig Welch, *Bush Cut Some Diesel Pollution but Let Big Ships Keep Spewing*, SEATTLE TIMES, Sept. 28, 2004, at A1.

[5] State legislatures are involved in developing environmental legislation through the creation of state implementation plans or SIPs, which specify emissions limitations, control measures, and the methods to be used in that state to satisfy the Clean Air Act requirements. THE CLEAN AIR ACT HANDBOOK 45 (Robert J. Martineau, Jr. & David P. Novello eds., 2d ed. 2004). States are generally given deference by the EPA in developing their own SIPs, as well as in interpreting and implementing their SIP programs. *Id.* at 46.

[6] *E.g.*, Control of Emissions of Air Polluion from Highway Heavy-Duty Engines, 62 Fed. Reg. 54,693 (Oct. 21, 1997) (to be codified at 40 C.F.R. pts. 9, 86) (reducing NO_x emissions from highway diesel engines by 50% in 2004); Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements, 66 Fed. Reg. 5002 (Jan. 18, 2001) (to be codified at 40 C.F.R. pts. 69, 80, 96) [hereinafter 66 Fed. Reg. 5002] (decreasing NO_x and particulate matter emissions from heavy duty trucks and buses by 90 to 95%

been given to the emissions from large marine vessels, which utilize some of the dirtiest engines in the world.[8] Given the negative impact these huge vessels have on air quality, it is imperative to question why the EPA has not implemented regulations greatly reducing their emissions.

This Note will analyze the rules promulgated by the EPA in 2003 to regulate the environmental emissions from large cargo and cruise ships.[9] Part II begins by examining the EPA's Category 3 emissions[10] regulations. This section discusses the underlying Executive Branch bias that affected the EPA's decision-making process in promulgating its final rule. Due to political pressure, the EPA limited the scope of

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beginning in 2007); Control of Air Pollution from New Motor Vehicles: Tier 2 Motor Vehicle Emission Standards and Gasoline Sulfur Control Requirements, 65 Fed. Reg. 6698, 6724 (Feb. 20, 2000) (reducing total NO_x by 4.5% in 2007 and 14.5% in 2030 by controlling emissions from new passenger cars and light trucks). Many states have also mandated the use of special reformulated gasoline that reduces air pollution by producing fewer emissions. *See, e.g.,* Approval of Promulgation and Implementation Plans, 64 Fed. Reg. 59,706, 59,710 (Nov. 3, 1999) (to be codified at 40 C.F.R. pt. 52) [hereinafter 64 Fed. Reg. 59,706] (proposing the use of reformulated gas in New York); Max Jarman, *Reformulation, Demand Drive Valley Gas Costs Up*, ARIZ. REPUBLIC, Nov. 4, 2004, at D1 (discussing the use of reformulated gasoline in Arizona). Meanwhile, other states directly invite citizens to file complaints about the emissions from other automobiles. *See, e.g.*, Texas Commission on Environmental Quality, Smoking Vehicle Program, http://www.tceq.state.tx.us/implementation/air/mobilesource/vetech/smokingvehicles.html (last visited Mar. 6, 2006). For example, in Texas, citizens may log onto the Texas Commission on Environmental Quality's (TCEQ) website and report a car, truck, or bus that was producing fumes. *Id*. After an online report has been filed with the TCEQ, the owner of the offending vehicle will be notified that the automobile may be excessively contributing to air pollution. *Id.* The purpose of the TCEQ's online reporting system is to inform vehicle owners that car maintenance can improve air quality and vehicle performance. *Id.*

[7] A stationary source is "any building, structure, facility, or installation which emits or may emit any air pollutant." 42 U.S.C. § 7411(a)(3) (2000). Under this definition, both a power plant and an individual boiler are stationary sources. THE CLEAN AIR ACT HANDBOOK, *supra* note 5, at 177. *E.g.*, 64 Fed. Reg. 59,706, *supra* note 6, at 59,712 (proposing NO_x and volatile organic compound (VOC) reductions from stationary sources in New York, which were later approved by the EPA without a detailed discussion in Approval and Promulgation of Implementation Plans, 66 Fed. Reg. 23,849 (May 10, 2001)) (to be codified at 40 C.F.R. pt. 52); Prevention of Significant Deterioration (PSD) and Non-Attainment New Source Review (NSR): Equipment Replacement Provision of the Routine Maintenance, Repair and Replacement, 68 Fed. Reg. 61,248, 61,249 (Oct. 27, 2003) (to be codified at 40 C.F.R. pts. 51 & 52) (detailing the New Source Review process which mandates that new stationary sources or existing sources that undergo modifications obtain permits limiting emissions. Existing sources need only obtain permits under the New Source Review program if the modifications change the method of operation or increase the amount of pollutants emitted).

[8] Gary Polakovic, *supra* note 3.

[9] Control of Emissions from New Marine Compression-Ignition Engines at or Above 30 Liters per Cylinder, 68 Fed. Reg. 9746 (Feb. 28, 2003) (to be codified at 40 C.F.R. pts. 9, 94) [hereinafter 68 Fed. Reg. 9746].

[10] *See infra* note 20 (defining Category 3 vessels).

Category 3 emissions regulations to only U.S.-flagged vessels even though the agency had jurisdiction to reach all vessels entering U.S. ports.[11] As a result, the regulations fail to meet the mandate of Section 213(a)(3) of the Clean Air Act of 2000 (CAA)[12] and will not regulate the emissions from the majority of the vessels polluting U.S. air.[13] Part III describes the international standards that regulate Category 3 emissions.[14] This section explains why the United States is obligated to abide by these international regulations[15] and how the EPA's standards place U.S.-flagged vessels at a disadvantage compared to foreign-flagged vessels. Finally, Part IV examines the latest legal challenge to the EPA's regulations, which were upheld by the D.C. Circuit Court under arbitrary and capricious review.[16] This section asserts that the D.C. Circuit Court had a duty to require the EPA to take a "hard look"[17] at the alternatives and evidence; however, the court failed to do so even though Congress has recently taken steps to try to ensure future EPA decisions are based on science rather than politics.[18] The Note concludes with a plea to the judiciary and the legislature to take action to prevent the Executive Branch from using political pressure to make a mockery of the goals of the CAA.

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[11] *See infra* Part II.D (discussing how the EPA has jurisdiction over Category 3 vessels, including those that are foreign-flagged).

[12] 42 U.S.C. § 213(a)(3) (2000).

[13] Control of Emissions from New Marine Compression-Ignition Engines at or Above 30 Liters per Cylinder, 67 Fed. Reg. 37,548, 37,563 (May 29, 2002) (to be codified at 40 C.F.R. pt. 94) [hereinafter 67 Fed. Reg. 37,548] (noting that approximately 94% of the vessels that call to U.S. ports are foreign-flagged vessels).

[14] *See infra* Part III (discussing MARPOL Annex VI, the international treaty regulating Category 3 vessel emissions).

[15] International Convention for the Prevention of Pollution of Ships 1973, Article 5(4). *See infra* Part III.B.

[16] Bluewater Network v. EPA, 372 F.3d 404, 412-13 (D.C. Cir. 2004).

[17] Marsh v. Oregon Natural Res. Council, 490 U.S. 360, 385 (1989); Kleppe v. Sierra Club, 427 U.S. 390, 410 n.21 (1976); Natural Res. Def. Council, Inc. v. Morton, 458 F.2d 827, 838 (1972).

[18] H.R. 3096, 108th Cong. (2003); S. 2233, 108th Cong. (2004).

II. WHY THE EPA'S CATEGORY 3 EMISSIONS RULEMAKING IS INADEQUATE

A. Political Bias Affected the EPA's Category 3 Emissions Rulemaking

As the result of a settlement,[19] the EPA proposed regulations limiting air pollution produced by large marine vessels with an engine displacement at or above 30 liters per cylinder (hereinafter referred to as either Category 3 vessels or engines).[20]

The EPA's final rule regulating Category 3 vessel emissions directly conflicts with the agency's original position on the subject.[21] Upon reading the EPA's final Category 3 rulemaking notice, one might initially accept the agency's explanation that it is best for the U.S. to refrain from regulating foreign-flagged Category 3 vessels until more stringent international regulations are adopted because uniform standards are needed to improve air quality domestically and internationally.[22] However, one becomes skeptical of the agency's explanation upon learning that a 2002

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[19] Settlement Agreement at 2, Earth Island Inst. v. EPA, No. 00-1065 (D.C. Cir. Oct. 26, 2000), *available at* http://www.epa.gov/otaq/regs/nonroad/largesi/setlemnt.pdf [hereinafter Earth Island Settlement]. This settlement was a product of a suit brought by Earth Island Institute and Bluewater Network against the EPA. *Id.* The petitioners sought review of a final rule promulgated by the EPA in 1999 to regulate emissions from new marine compression-ignition engines at or above 37 kW. *Id.* The environmental groups alleged that the EPA's 1999 rule violated the Clean Air Act because it failed to establish emission standards for certain marine engines. Teri Shore, *Environmental Perspective Marine Emissions and Air Quality Impacts* 6 (2004), http://www.bluewaternetwork.org/reports/rep_cv_shipping.pdf. The case settled with the EPA agreeing to issue a proposed rule to regulate nitrogen oxide (NO_x) emissions from Category 3 marine compression-ignition engines prior to April 30, 2002. Earth Island Settlement, *supra*, at 2.

[20] 68 Fed. Reg. 9746, *supra* note 9. Category 3 marine vessels are typically large seagoing vessels such as "container ships, tankers, bulk carriers, and cruise ships." *Id.* However, some of these vessels do navigate on the Great Lakes. 67 Fed. Reg. 37,548, *supra* note 13, at 37,564. In contrast, Category 1 marine diesel engines are similar to land-based engines utilized in construction and farm equipment. *Id*. Category 1 engines have a specific engine displacement of less than 5.0 liters per cylinder. *Id.* Category 2 engines are similar to locomotive engines. *Id.* The specific engine displacement of Category 2 engines is between 5.0 and 30 liters per cylinder. *Id.*

[21] *Compare* 68 Fed. Reg. 9746, *supra* note 9, *with* JEAN MARIE REVELT, ASSESSMENT AND STANDARDS DIVISION, DRAFT PROPOSAL FOR THE CONTROL OF EMISSIONS FROM NEW MARINE COMPRESSION-IGNITION ENGINES AT OR ABOVE 30 LITERS/CYLINDER – DOCUMENTS FORWARDED TO OFFICE OF MANAGEMENT AND BUDGET (March 20, 2002) *available at* http://docket.epa.gov/edkpub/do/EDKStaffItemDetailView;jsessionid=816E1367812C5058C68C413F8C35C7B1?objectId=090007d48014de71 [hereinafter LETTER TO OMB].

[22] 68 Fed. Reg. 9746, *supra* note 9, at 9750.

draft of the EPA's proposal to regulate Category 3 vessel emissions under the CAA stated that foreign-flagged vessels should be regulated.[23] The EPA expressed this initial opinion in a memorandum written to the Office of Management and Budget (OMB),[24] explaining that "it may be appropriate and within EPA's authority to treat engines on foreign vessels that enter U.S. ports as new engines and subject to regulation under section 213 [of the CAA] based on their significant emissions contribution to air quality problems in the United States."[25] Further, the document noted that not only would the engine upgrades required to meet the proposed standards be relatively inexpensive, but pollution would be significantly reduced as a result of this new rulemaking.[26] The agency's memorandum also explained that emissions from foreign vessels should be regulated in order to be consistent with the intent of the CAA, as well as from a pure policy perspective.[27] However, the agency's emission policy abruptly changed after the EPA and the OMB began discussing the EPA's proposed Category 3 regulations.[28] After the OMB gave its input to the EPA and "aligned" the EPA's plan with the President's policies,[29] the EPA's May 2002 Federal Register notice merely invited comments from interested parties regarding whether the agency had the authority to regulate emissions from foreign vessels[30] and whether a lower limit than the international standard should be placed on the sulfur content of the fuel used

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[23] LETTER TO OMB, *supra* note 21, at 2.

[24] The Office of Management and Budget reviews agency rulemaking through in-depth regulatory reviews. OMB in Perspective, Office of Management and Budget, http://www.whitehouse.gov/omb/organization/omb_overview_slides.pdf (last visited January 3, 2005). The agency is responsible for aligning the "actions, policies, and statements and proposals to reflect the President's policies." *Id.*

[25] LETTER TO OMB, *supra* note 21, at 58.

[26] *Id.* at 12 (noting that if the agency instituted tougher Tier 2 regulations, which would reduce pollution by 11% by 2030, total vessel costs would only increase by 0.1%).

[27] *Id.* at 59. *See infra* Part II.E.1 (discussing the EPA's initial arguments to the OMB).

[28] Welch, *supra* note 4. The OMB and EPA discussed how to revise the proposed regulations in April 2002. *See* JEAN MARIE REVELT, MATERIALS SUBMITTED TO EPA FROM THE OFFICE OF BUDGET AND MANAGEMENT (April 27, 2002) *available at* http://docket.epa.gov/edkpub/do/EDKStaffItemDetailView;jsessionid=816E1367812C5058C68C413F8C35C7B1?objectId=090007d48014de71. A revised April 26, 2002 portion of the rulemaking shows that the EPA removed its discussion of the appropriateness of regulating foreign vessels. *Compare id.* with LETTER TO OMB, *supra* note 21.

[29] *See supra* note 24.

[30] 67 Fed. Reg. 37,548, *supra* note 13, at 37,551.

by Category 3 vessels in U.S. waters.[31] Essentially, the OMB pressured the EPA to propose emissions standards that went no further than the current performance from ships.[32]

B. The EPA's Final Category 3 Rule

The final Category 3 emissions rule, published on February 28, 2003, provided an exemption to all foreign-flagged vessels,[33] placed a limit on nitrogen oxide (NO_x),[34] and failed to set any standards regulating the sulfur content of marine fuel.[35] The regulation mentions two tiers of NO_x emission controls.[36] Tier 1 controls were instituted in 2004 and are intended to be equivalent to internationally negotiated NO_x standards.[37] The standards only apply to new U.S.-flagged vessels with engines built on or after January 1, 2004.[38] The EPA also reserved the option of adopting Tier 2 regulations to further reduce NO_x limits in the future.[39] The agency additionally noted that when it reconsiders the standards in 2007, it will investigate placing a limit on the sulfur content of

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[31] *Id.* at 37,548. Marine fuel currently has an international maximum sulfur content of 50,000 ppm or 5%. *EU Reaches Accord on Ship Emission Sulfur Limits*, LLOYD'S LIST, June 29, 2004, at 12. The sulfur content of fuel is regulated because sulfur oxide or SO_x is formed when fuels containing sulfur are burned. SO_2: What Is It? Where Does It Come From?, Environmental Protection Agency, http://www.epa.gov/air/urbanair/so2/what1.html. SO_x is a regulated pollutant that causes respiratory problems, aggravates heart and lung diseases, contributes to acid rain, and causes visibility impairment through the formation of fine particles in the air. Chief Causes For Concern, Environmental Protection Agency, http://www.epa.gov/air/urbanair/so2/chf1.html.

[32] Welch, *supra* note 4; *see also* 68 Fed. Reg. 9746, *supra* note 9, at 9769.

[33] 68 Fed. Reg. 9746, *supra* note 9, at 9759.

[34] *Id.* at 9761. Nitrogen oxide is an ingredient of ground-level ozone. *Id.* at 9751. Ground-level ozone is the primary component in smog, which causes respiratory problems, decreases lung function, and aggravates asthma. *Id.*

[35] *Id.* at 9751.

[36] *Id.*

[37] *Id.* at 9749-50. Although the EPA's standards are primarily equivalent to those in the international standard set by MARPOL Annex VI, there are a few differences between the regulations. *Id.* at 9769. The major differences between the international standards and those stipulated in the EPA's Tier 1 lie within witness testing, durability requirements, and testing procedures. *Id. See also infra* Part III (discussing the international MARPOL Annex VI standards).

[38] 68 Fed. Reg. 9746, *supra* note 9, at 9746. However, the EPA adopted a separate definition of "new vessel" which will also regulate those older U.S.-flagged vessels that have undergone a "major conversion." *Id.* at 9760. This change to the definition of new vessels is necessary because the average Category 3 vessel is used for 25 years, but a substantial percentage of U.S.-flagged ships are over 30 years old. 40 C.F.R. Part 94, Notice of Proposed Rulemaking (April 30, 2002) at 30-31, RIN 2060-AJ98 [hereinafter Notice of Proposed Rulemaking].

[39] 68 Fed. Reg. 9746, *supra* note 9, at 9762.

marine fuel and will reconsider whether to impose the new Tier 2 standards upon foreign-flagged vessels.[40]

The EPA promulgated these regulations limiting the emissions from Category 3 vessels to fulfill the agency's obligations under Section 213 of the CAA.[41] Under the CAA, the EPA must promulgate National Ambient Air Quality Standards (NAAQS) for criteria pollutants,[42] including lead, sulfur dioxide (SO_2), nitrogen dioxide (NO_2), carbon monoxide (CO), particulate matter (PM),[43] and ozone.[44] These standards are intended to protect human health and to limit maximum air quality concentrations.[45] Areas with poorer air quality than permitted under the NAAQS requirements are designated "nonattainment" areas.[46] Section 213(a)(1) of the CAA orders the EPA Administrator to determine whether nonroad engines "cause, or significantly contribute to, air pollution that may reasonably be anticipated to endanger public health or welfare."[47] If the Administrator determines that nonroad engine emissions of CO, volatile organic compounds (VOCs),[48] and NO_x significantly contribute to ozone or CO emissions in

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[40] *Id.* Final Tier 2 standards for Category 3 engines will be provided by the EPA on or before April 27, 2007. *Id.* at 9763. The EPA also noted that future Tier 2 regulations may contain HC (hydrocarbon) and CO (carbon monoxide) emissions standards to ensure that these emissions do not increase on an engine-specific basis. *Id.*

[41] *Id.* at 9748.

[42] 42 U.S.C. § 7409 (2000); National Ambient Air Quality Standards (NAAQS), Environmental Protection Agency, http://www.epa.gov/air/criteria.html.

[43] Particulate matter (PM) is a term used to describe fine particles in the air, such as dust, dirt, soot, or smoke. Particulate Matter – What Is It? Where Does It Come From?, Environmental Protection Agency, http://www.epa.gov/air/urbanair/pm/what1.html. PM has been linked to causing premature mortality, decreasing lung function, and aggravating respiratory and cardiovascular disease, as well as asthma. 68 Fed. Reg. 9746, *supra* note 9, at 9752.

[44] Bernard F. Hawkings, Jr. & Mary Ellen Ternes, *The New Source Review Program: Prevention of Significant Deterioriation and Nonattainment New Source Review, in* THE CLEAN AIR ACT HANDBOOK, *supra* note 5, at 131. Ground-level ozone is the primary component in smog. 68 Fed. Reg. 9746, *supra* note 9, at 9751. Ozone impacts human health by causing respiratory problems, aggravating asthma, and decreasing lung function. 67 Fed. Reg. 37,548, *supra* note 13, at 37,557. Upon inhalation, it can lead to changes in lung tissue. *Id.* Furthermore, ozone reduces crop yields and forest ecosystem productivity. Notice of Proposed Rulemaking, *supra* note 38, at 23.

[45] 42 U.S.C. § 7409 (2000).

[46] Hawkings & Ternes, *supra* note 44, at 132.

[47] 42 U.S.C. § 7547(a)(1) (2000).

[48] Volatile organic compounds, or VOCs, combine with NO_x to form ozone. Ground-level Ozone: What Is It? Where Does It Come From?, Environmental Protection Agency, http://www.epa.gov/air/urbanair/ozone/what.html. For a discussion of ground-level ozone, see *supra* note 44.

multiple non-attainment areas, the EPA is then required to set emission standards for the different classes of engines that contribute to this problem.[49] In 1994, the EPA determined that nonroad engines do significantly contribute to NO_x nonattainment[50] and marine engines should be regulated. Thus, the EPA initiated the rulemaking procedures to propose new regulations for nonroad engines.[51]

C. The Need For More Stringent Category 3 Regulations

While the EPA has taken progressive steps to severely tighten emission standards for highway vehicles[52] and other types of nonroad diesel engines,[53] the diesel engines on Category 3 vessels continue to emit pollutants virtually free of regulation.[54] The lack of regulation on large marine vessels is surprising since most Category 3 vessels burn "bunker fuel," a low quality petroleum that is capable of producing approximately "fifty times more haze-forming pollutants than the dirtiest diesel trucks on U.S. highways."[55] Marine vessels release hazardous emissions while they are moving in and out of ports, as well as when they are loading and unloading cargo while docked.[56] Since diesel emissions are likely human

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[49] 42 U.S.C. § 7547(a)(3) (2000).

[50] Control of Air Pollution; Determination of Significance for Nonroad Sources and Emission Standards for New Nonroad Compression-Ignition Engines at or Above 37 Kilowatts, 59 Fed. Reg. 31,306, 31,307 (June 17, 1994) (to be codified at 40 C.F.R. pts. 9 & 89).

[51] *Id.* at 31,336.

[52] The EPA promulgated rules limiting PM and NO_x emissions from heavy duty engines by 90% and 95%, respectively. 66 Fed. Reg. 5002, *supra* note 6, at 5002. Furthermore, the regulations on heavy duty engines also reduce diesel sulfur content by 97%, slashing sulfur content to 15 ppm beginning June 1, 2006. *Id.* at 5002, 5006. As a result, the fuel sulfur content standard for heavy duty engines will match that of highway diesel engines. *Compare id. with* Control of Emissions of Air Pollution from Nonroad Diesel Engines and Fuel, 69 Fed. Reg. 38,958, 38,960 (June 29, 2004) (to be codified at 40 C.F.R. pts. 9, 69, et al.) [hereinafter 69 Fed. Reg. 38,958].

[53] New regulations will reduce PM and NO_x emissions from nonroad diesel engines used in the construction, agricultural, industrial, and mining industries by 95% and 90%, respectively. 69 Fed. Reg. 38,958, *supra* note 52, at 38,960. The EPA has also dramatically reduced the sulfur content used in these nonroad engines by 99% so that the standard will match the 15 ppm highway diesel engine standard. *Id.*

[54] Polakovic, *supra* note 3. James J. Corbett, a professor of marine policy at the University of Delaware noted that current controls on ship emissions are approximately equivalent to where the emissions controls were on cars in 1965. *Id.*

[55] *Id.*

[56] 67 Fed. Reg. 37,548, *supra* note 13, at 37,571 (explaining that many ships produce "hotelling" emissions when they run one or several engines to produce electricity while in port loading or unloading the vessel).

carcinogens,[57] there is cause for great concern about the lack of regulation of marine engine emissions. Furthermore, emissions from diesel engines contribute to the production of smog,[58] the green house effect,[59] and the formation of acid rain.[60] Due to the emissions produced by Category 3 vessels, many commercial ports and coastal cities are out of attainment with respect to the NAAQS for ozone, PM, and CO.[61] By 2020, emissions from marine diesel engines will account for approximately three to twenty-eight percent of mobile source NO_x emissions in certain port cities.[62] Moreover, the problem of air pollution caused by marine vessels is not isolated to port cities.[63] Marine emissions also affect the air quality in areas located near heavy shipping channels.[64] Because marine vessels move from port to port, and from country to country, the problem of marine vessel air pollution is global.[65]

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[57] Michael J. Horowitz, *Regulation of Mobile Sources: Motor Vehicles, Nonroad Engines, and Aircraft, in* THE CLEAN AIR ACT HANDBOOK, *supra* note 9, at 323.

[58] 67 Fed. Reg. 37,548, *supra* note 13, at 37,552 & n.3.

[59] BLUEWATER NETWORK, A STACKED DECK: AIR POLLUTION FROM LARGE SHIPS 3 (2000), *available at* http://www.bluewaternetwork.org/reports/rep_ss_ships_stackeddeck.pdf.

[60] *Id.* at 4.

[61] 67 Fed. Reg. 37,548, *supra* note 13, at 37,562. The EPA's own data estimates that Category 3 emissions accounted for 7.4% of the NO_x emissions in the non-attainment area of Baton Rouge/New Orleans in 1996, a contribution that is expected to increase to 15.8% by 2020. Notice of Proposed Rulemaking, *supra* note 38, at 36. This increase is due not only to anticipated increases in shipping traffic, but also the decreasing contribution of highway vehicles, as the EPA tightens motor vehicle pollution regulations. *Id.* at 35.

[62] 67 Fed. Reg. 37,548, *supra* note 13, at 37,548.

[63] Reports conducted by the Department of Defense show that emissions released within 60 nautical miles of the coastline make it back to land. *Id.* at 37,560. A report from the Ozone Transport Assessment Group estimates that emissions within the continental U.S. can affect air quality in locations up to 500 miles from the source. *Id.* at 37,580. Therefore, marine emissions can greatly decrease the air quality even in areas without large ports simply because the area is near the shoreline. *Id.* at 37,563. For example, marine vessels contribute to approximately 37% of the total NO_x in Santa Barbara. *Id*. As the amount of NO_x pollution created by motor vehicles decreases, marine emissions are anticipated to increase to 62% of the NO_x production in Santa Barbara by 2015. *Id.* at 37,562-63.

[64] *Id.*

[65] *See, e.g.*, Press Release, Clean Ships Get Into Gear After Years of Slow Steaming, European Union Press Releases, European Commission (June 28, 2004), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/04/810&format=HTML&aged=0&language=EN&guiLanguage=en (noting ships are the largest source of SO_2 emissions in the EU). Regardless of where emissions are initially released, air pollutants often have an international impact because the pollutants become trapped in upper air winds, moving along with the weather patterns and traveling internationally. *See* International Issues & U.S. Air Quality, Environmental Protection Agency, http://www.epa.gov/airtrends/international.html. *See also*

D. Jurisdiction to Regulate Foreign-Flagged Vessels

Despite the EPA's failure to extend its Category 3 rulemaking to foreign-flagged vessels, the U.S. is not preempted from regulating the emissions from foreign vessels or even from creating stricter standards than the internationally agreed upon marine pollution standards.[66] In fact, the EPA has jurisdiction to control the emissions from foreign-flagged vessels based on international law.[67]

In *EEOC v. Arabian American Oil Co.*[68] (hereinafter *Aramco*), the Supreme Court held that legislation does not apply extraterritorially unless there is a clearly expressed intention that Congress meant for the legislation to apply outside the U.S.[69] This principle is founded upon the policy that limiting the scope of legislation to U.S. territories prevents international clashes of law and international discord.[70] However, the presumption against extraterritoriality does not apply in three specific situations.[71] First, the presumption is not applicable if Congress expressed an affirmative intent for the legislation to apply to activities in other countries.[72] Second, the presumption does not apply when failure to extend the statute to a foreign country would adversely affect the U.S.[73] Finally, the presumption against extraterritoriality is

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Convention on Long-Range Transboundary Air Pollution, United Nations Economic Commission for Europe, http://www.unece.org/env/lrtap/lrtap_h1.htm (last visited January 3, 2005) (explaining that scientists discovered in the 1960s that emissions from continental Europe were polluting Scandinavian lakes).

[66] MARPOL Annex VI, Chapter 2, Regulation 10(4), http://www.imo.org (last visited April 6, 2006) (follow "Information Resources" hyperlink; then follow "Free IMO Texts" and "MARPOL" hyperlinks to access Annex VI) [hereinafter MARPOL Annex VI]. *See infra* Part III (discussing the international Category 3 standards). *See also* Dan Lickel, Comment, *Regulating Foreign Vessels Under the Clean Air Act: The Case for a Permissible Administrative Interpretation*, 3 SAN DIEGO INT'L L.J. 145 (2002).

[67] Lickel, *supra* note 66, at 160-65.

[68] 499 U.S. 244 (1991). *Aramco* involved a Title VII claim brought by a U.S. citizen employed abroad by a United States employer regarding the company's employment practices. *Id.* at 246-47.

[69] *Id.* at 248. *See also* Foley Bros. Inc. v. Filardo, 336 U.S. 281, 285 (1949) (stating that unless a contrary intent of Congress is shown, legislation is meant to only apply within the U.S. territory since Congress is primarily concerned with domestic issues).

[70] *Aramco*, 499 U.S. at 248 (citing McCulloch v. Sociedad Nacional de Marineros de Honduras, 372 U.S. 10, 20-22 (1963)).

[71] Envtl. Def. Fund, Inc. v. Massey, 986 F.2d 528, 531 (1993).

[72] *Id. See also Aramco*, 499 U.S. at 248; Benz v. Compania Naviera Hidalgo, S.A., 353 U.S. 138, 147 (1957).

[73] *Massey,* 986 F.2d at 531. This exception to the presumption typically applies to cases of anti-trust, securities, or trademark laws. *Id. See, e.g.*, Steele v.

not valid when the conduct being regulated occurs within the United States.[74] Here, the third exception clearly applies to emissions created by foreign-flagged ships sailing in U.S. waters or those that are docked at U.S. ports.[75] Adverse effects such as poor air quality and the related health problems caused by air pollution[76] will result in the U.S. if emissions from foreign-flagged vessels are not regulated,[77] so the second exception could also arguably apply; however, the second exception is generally limited to cases involving anti-trust, securities, or trademark law.[78] Regardless, since the third exception applies here, the presumption against extraterritoriality did not bar the EPA from imposing regulations upon the emissions from Category 3 foreign-flagged vessels.

Another presumption against extending U.S. law to foreign-flagged vessels exists if doing so would interfere with relations between the crew and the ship's owner.[79] However, regulating emissions from foreign-flagged vessels does not present any "internal affairs" or management issues that would otherwise preclude exercising control over the vessel while in U.S. waters.[80] Therefore, as with the presumption against extraterritoriality, the EPA was also not prevented from promulgating Category 3 emissions based upon this second presumption.

With regard to applying laws to foreign entities, "a nation having some 'basis' for jurisdiction to prescribe law

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Bulova Watch Co., 344 U.S. 280, 286-87 (1952) (Lanham Trade-Mark Act applies extraterritorially); Schoenbaum v. Firstbrook, 405 F.2d 200, 206 (2d Cir. 1968) (securities laws apply extraterritorially); United States v. Aluminum Co. of Am., 148 F.2d 416, 443-45 (2d Cir. 1945) (U.S. antitrust laws apply extraterritorially).

[74] *Massey*, 986 F.2d at 531. The "presumption against the extraterritorial application of statutes described in *Aramco* does not apply where the conduct regulated by the statute occurs primarily, if not exclusively, in the United States. . . ." *Id.* at 529. *See also* Laker Airways Ltd. v. Sabena, Belgian World Airlines, 731 F.2d 909, 921 (D.C. Cir. 1984) (explaining that "[t]erritoriality-based jurisdiction thus allows states to regulate the conduct or status of individuals or property physically situated within the territory").

[75] *See* Hartford Fire Ins. Co. v. California, 509 U.S. 764, 815 (Scalia, J., dissenting) (citing Romero v. Int'l Terminal Operating Co., 358 U.S. 354, 383 (1959)) (noting that the presumption did not apply when the harm occurred while the vessel was in U.S. waters).

[76] *See supra* notes 31, 34, 43, 44 for discussion of adverse effects.

[77] *See* Notice of Proposed Rulemaking, *supra* note 38, at 12, 21-38.

[78] *See supra* note 73.

[79] Dowd v. Int'l Longshoreman's Ass'n, 975 F.2d 779, 788-89 (11th Cir. 1992).

[80] *See* McCulloch v. Sociedad Nacional de Marineros de Honduras, 372 U.S. 10, 21 (1963).

should nonetheless refrain from exercising that jurisdiction 'with respect to a person or activity having connections with another state when the exercise of such jurisdiction is unreasonable.'"[81] Whether it is reasonable to extend jurisdiction over the actions of other nations depends upon many factors, including "the extent to which the activity takes place within the territory [of the regulating state]"[82] and "the character of the activity to be regulated, the importance of regulation to the regulating state, the extent to which other states regulate such activities, and the degree to which the desirability of such regulation is generally accepted."[83] Here, the regulations upon emissions from Category 3 emissions would affect vessels located within U.S. territory.[84] Further, improving ambient air quality is of great importance to the U.S., as evidenced by the expansive scope of the CAA.[85] Moreover, other countries have taken unilateral action to try to reduce marine emissions.[86] Hence, extending the U.S.'s jurisdiction over foreign-flagged vessels is reasonable.[87]

Merely falling outside the presumptions against extraterritoriality does not establish U.S. authority to regulate foreign Category 3 vessels. However, a broad interpretation of Article 33 of the international UNCLOS[88] treaty may be

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[81] *Hartford Fire Ins. Co.,* 509 U.S. at 818 (Scalia, J., dissenting) (quoting Restatement (Third) of Foreign Relations of the Laws of the United States § 403(1) (1987)).

[82] Restatement (Third) of Foreign Relations Law of the United States § 403(2)(a) (1987).

[83] § 403(2)(c).

[84] *See* Cunard S.S. Co. v. Mellon, 262 U.S. 100, 122 (1922).

[85] 42 U.S.C. § 7401(a) (2000). *See also* LETTER TO OMB, *supra* note 21, at 52, 59.

[86] 67 Fed. Reg. 37,548, *supra* note 13, at 37,556. For example, Sweden has unilaterally pushed for stricter emissions reductions from marine vessels. *Id.* By differentiating fairway and port dues based upon NO_x emissions levels and fuel sulfur content, Sweden reduced NO_x and sulfur emissions by 75% within five years. *Id.*

[87] LETTER TO OMB, *supra* note 21, at 58.

[88] United Nations Convention on the Law of the Sea, *opened for signature* Dec. 10, 1982, art. 33, 1833 U.N.T.S. 409 (entered into force Nov. 16, 1994) [hereinafter UNCLOS 1982]. UNCLOS 1982 regulates the uses and resources of the sea, including navigational rights, territorial sea limits, economic jurisdiction, legal status of resources on the seabed beyond the limits of national jurisdiction, passage of ships through narrow straits, conservation and management of living marine resources, protection of the marine environment, and marine research and contains a binding procedure for settlement of disputes between nations. Oceans and Law of the Sea, The United Nations Convention on the Law of the Sea (A Historical Perspective), United Nations, http://www.un.org/Depts/los/convention_agreements/convention_historical_perspective.htm (last visited January 3, 2005). Since UNCLOS 1982 is intended to represent customary international law, the U.S. has acknowledged

sufficient to allow the United States to extend its jurisdiction over foreign-flagged vessels.[89] Article 33 of UNCLOS addresses the contiguous zone, which extends twenty-four miles from the coast baseline of all shoreline countries that choose to assert such authority.[90] In order to prevent infringement upon sanitary laws and regulations, countries may exert control over the actions of foreign vessels that are in the contiguous zone in order to protect their territories and seas.[91] The CAA falls within the ambit of Article 33, which permits states to enforce environmental laws in the contiguous zone if the law exists to protect people from direct health threats.[92] Furthermore, the

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in several ways that it is bound by the treaty, despite the fact that it has not ratified UNCLOS 1982. Lickel, *supra* note 66, at 154 & n.61.

[89] Lickel, *supra* note 66, at 160-62. Lickel's article also analyzes whether the U.S. could have authority under Article 21(2) of UNCLOS 1982 to extend the reach of the CAA to foreign-flagged vessels. *Id.* at 156. While coastal states generally have full legislative jurisdiction over foreign vessels within their waters, laws of coastal states must not "apply to the design, construction, manning or equipment of foreign ships unless they are given effect to generally accepted international rules or standards." G.P. PAMBORIDES, INTERNATIONAL SHIPPING LAW: LEGISLATION AND ENFORCEMENT 43 (1999) (quoting Article 21(2) of UNCLOS 1982). However, under Article 21(2), if a coastal state suspects that a vessel is in violation of its anti-pollution legislation, the state "may inspect the vessel and institute legal proceedings should they conclude that the conduct of the vessel was not in compliance." *Id.* at 44. Furthermore, coastal states have full jurisdiction over foreign vessels that have willfully and seriously violated pollution regulations. *Id.* Although the jurisdictional reach of coastal states is rather broad, the enforcement powers of the states are limited to merely arresting vessels that have violated legislation if there has been "major damage or threat of major damage to the coastline or related interests of the coastal state or to any resources of its territorial sea." *Id.* at 44-45. Even though any future EPA Tier 2 regulations would probably require changes to the construction or design of the vessels, 68 Fed. Reg. 9746, *supra* note 9, at 9749, it is unlikely that a court would uphold the EPA's authority as extending CAA regulations over foreign vessels under Article 21(2) of UNCLOS because the pollution regulations imposed are more akin to discharge standards than actual design or construction standards. Lickel, *supra* note 66, at 158-59. In fact, the European Union (EU) rejected using Article 21(2) as the basis to apply NO_x regulations to foreign-flagged vessels prior to the enactment of MARPOL Annex VI, declaring the regulations to be more like discharge standards than design standards. *Id.* Hence, Article 21(2) of UNCLOS is likely insufficient to support jurisdiction over foreign-flagged vessels. *Id.* at 159.

[90] UNCLOS 1982, *supra* note 88, art. 33(2), 1833 U.N.T.S. at 409. The coastal baseline is the low-water mark along the coast, which is measured at low tide. Environmental Defender's Office of Western Australia, Coastal Law Maps, http://www.edowa.org.au/publications/books/coastlawmaps.html (last visited January 2, 2005). Most countries at least choose to assert control over their own territorial waters, which extend twelve miles outward from a coastal nation. Tara Magner, *A Less Than 'Pacific' Solution for Asylum Seekers in Australia*, 16 INT'L J. OF REFUGEE L. 53, 74 (2004). UNCLOS 1982 was intended to reflect customary international law, so the principles contained within it apply to all countries regardless of whether they have ratified the treaty or not. *See* Lickel, *supra* note 66, at 154.

[91] UNCLOS 1982, *supra* note 88, art. 33(1), 1833 U.N.T.S. at 409.

[92] 42 U.S.C. § 7401(b)(1) (2000) (stating that one of the purposes of the subchapter is "to protect and enhance the quality of the Nation's air resources so as to

United States has already recognized that Article 33 may be utilized to assert prescriptive jurisdiction in the contiguous zone.[93] In fact, the Clean Water Act (CWA) explicitly prohibits discharges of oil or hazardous substances into the contiguous zone.[94] Therefore, some environmentalists have compared regulating emissions from all marine vessels entering U.S. waters to the authority the United States exercised under the CWA following the Exxon Valdez oil spill.[95] After this disaster, Congress instituted tougher safety requirements on ships entering U.S. waters.[96] Environmentalists argue that the EPA should now exercise similar jurisdiction over marine emissions regardless of flagship by instituting tougher air regulations on Category 3 vessels.[97]

Case law further supports the proposition that the EPA has the authority to promulgate regulations that reach foreign-flagged vessels. In *Department of Transportation v. Public Citizen*,[98] the respondents filed suit against the Federal Motor Carrier Safety Administration (FMCSA), an agency within the Department of Transportation,[99] for failure to promulgate regulations in compliance with National Environmental Policy Act (NEPA)[100] and the CAA.[101] The Supreme Court ruled that

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promote the public health and welfare"). For a more detailed discussion of the application of Article 33 to the CAA, see Lickel, *supra* note 66, at 160-62. Lickel also discusses a third basis for possibly providing jurisdiction through Article 56(b) of UNCLOS 1982, but determines that such an argument is weaker since hard scientific evidence would be necessary to prove a link between the marine engine emissions and a negative impact on fisheries or the coastal marine environment. *Id.* at 162-64.

[93] Lickel, *supra* note 66, at 161.

[94] *Id.* (citing 33 U.S.C. § 1321(b)(3)(A) (2004)).

[95] *See* Welch, *supra* note 4.

[96] *See* Oil Pollution Act Overview, http://www.epa.gov/oilspill/opaover.htm; Oil Pollution Act § 4115 (1990) (codified as amended 46 U.S.C. § 3703(a)) (requiring vessels to be equipped with a double hull if they are carrying oil in the United States).

[97] Welch, *supra* note 4.

[98] 541 U.S. 752 (2004). At issue here was whether FMCSA needed to consider the environmental effects caused by an "increase in the number of roadside inspections of Mexican trucks and buses due to the [agency's] proposed regulations." *Id.* at 761.

[99] *Id.* at 758.

[100] The National Environmental Policy Act (NEPA) of 1969, 83 Stat. 852 (codified as amended at 42 U.S.C. §§ 4321-4370(f) (2000)). NEPA was established with the intent of reducing environmental damage by requiring that federal agencies evaluate the environmental impacts of their proposed actions. *Public Citizen*, 541 U.S. at 756-57. Under NEPA, federal agencies must prepare an Environmental Impact Statement (EIS), evaluating the proposed project's possible environmental impacts. *Id.* at 757. Although NEPA contains this procedural requirement, the Act imposes no substantive requirements upon the agency. *Id.* at 756. Hence, once the EIS procedural requirement has been fulfilled, agencies cannot be forced to choose a specific action based upon the findings in the EIS. *Id.*

FMCSA was not statutorily required under NEPA to consider the environmental effects caused by Mexican-domiciled motor carriers crossing into the United States.[102] The Court's decision hinged on the role that FMSCA occupied in regulating these vehicles.[103] Since FMCSA merely grants registration to vehicles, the Court determined that the administration did not need to address the environmental emissions from foreign automobiles since FMCSA itself lacks statutory authority to create or enforce emission controls.[104] Nowhere in its decision did the Court state that an agency with direct authority to promulgate regulations on emission controls, such as the EPA,[105] would be unable to reach these vehicles.[106] In fact, the EPA has noted that the scope of its authority to regulate motor vehicles crossing the U.S. border is broad and covers "virtually any, if not all" motor vehicles.[107]

Just as the EPA has broad authority to regulate motor vehicles within and crossing into the United States,[108] the agency commented in its 2002 memo to the OMB that it should have similarly broad authority under the CAA to regulate new nonroad engines.[109] The EPA's argument is supported by the Supreme Court's decision in *Cunard S.S. Co. v. Mellon*.[110] In *Cunard*, the Court determined that the National Prohibition Act was so broad that it applied to foreign-flagged passenger ships, banning them from storing liquor onboard while the vessels were in U.S. ports.[111] In assessing the reach of the Prohibition Act, the *Cunard* Court noted that the Prohibition legislation made no distinction between domestic and foreign-flagged vessels.[112] Therefore, the Court refused to infer that Congress intended to provide an exemption to foreign-flagged vessels.[113] The *Cunard* Court emphasized that providing such an exception to foreign-flagged vessels would actually

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101 *Public Citizen*, 541 U.S. at 756.
102 *Id.* at 773.
103 *Id.* at 772.
104 *Id.*
105 *See generally* 42 U.S.C. §§ 7401-7671q (2000).
106 *See generally Public Citizen*, 541 U.S. 752.
107 LETTER TO OMB, *supra* note 21, at 59.
108 *Id.*
109 *Id.*
110 262 U.S. 100 (1923).
111 *Id.* at 125-26.
112 *Id.* at 126.
113 *Id.*

"embarrass" enforcement of Prohibition, while defeating the purpose of the Act.[114] More recently, the 11th Circuit affirmed the *Cunard* Court's conclusion by declaring in *Stevens v. Premier Cruises, Inc*.[115] that Title III of the Americans with Disabilities Act (ADA) is not inapplicable, as a matter of law, to foreign-flagged cruise ships sailing in U.S. waters.[116] As in *Cunard*, the *Stevens* court determined that it would be "strange" if Congress only intended Title III of the ADA to apply to domestic cruise ships, despite the breadth of the Act.[117] Here, with regard to regulating Category 3 vessel emissions, even the EPA admits that Section 213 of the CAA has a broad purpose and reach.[118] Given the scope of the CAA, it definitely would be "strange" if Congress only intended Section 213 to apply to domestic ships in U.S. waters[119] because such an exemption would defeat the purpose of the Act,[120] which is to control emissions that "cause, or contribute to significant air pollution problems."[121] Since the EPA has already determined that Category 3 vessels cause or contribute to significant air pollution problems,[122] *all* vessels entering U.S. ports should be regulated by the CAA.[123]

In sum, the U.S. has previously extended its jurisdiction over foreign-flagged vessels located in U.S. waters if the act at issue is sufficiently broad.[124] This precedent provides a sound basis for the EPA to exercise authority over foreign-flagged vessels within the agency's Category 3 regulations in order to further the CAA's goal of providing clean ambient air.[125]

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[114] *Id.*

[115] 215 F.3d 1237 (11th Cir. 2000).

[116] *Id.* at 1243. Furthermore, even when an act takes place outside U.S. territory, the Court has recognized that statutes can still be interpreted as applying abroad if the act has a "broad jurisdictional grant," Steele v. Bulova Watch Co., 344 U.S. 280, 286 (1952), and "sweeping reach." *Id.* at 287.

[117] *Stevens,* 215 F.3d at 1243.

[118] LETTER TO OMB, *supra* note 21, at 58-59.

[119] *Cf. Stevens*, 215 F.3d at 1243.

[120] *Cf.* Cunard S.S. Co. v. Mellon, 262 U.S. 100, 126 (1923).

[121] 42 U.S.C. § 7547(a)(1) (2000).

[122] *See supra* notes 50 and 51, and accompanying text.

[123] *Cf. Cunard*, 262 U.S. 100 at 126; *Stevens*, 215 F.3d at 1243.

[124] *See, e.g.*, *Cunard*, 262 U.S. at 126; *Stevens*, 215 F.3d at 1243.

[125] 42 U.S.C. § 7401(b)(2) (2000).

E. Category 3 Rulemaking is Not Consistent with the CAA or the EPA's Past Rulemaking

The EPA's Category 3 rulemaking is questionable for several reasons. First, the regulation misinterprets the Clean Air Act and significant terms within the Act. Second, this final regulation fails to press for advancement in emissions technology, as required by the CAA and as that section of the Act is interpreted by the courts. Lastly, allowing foreign-flagged vessels to escape regulation is inconsistent with the agency's recent crackdown on emissions from other mobile sources.

1. EPA's Final Category 3 Rule Misinterprets the Clean Air Act

Maritime vessels are not explicitly mentioned anywhere in the CAA.[126] However, Congress introduced the expansive category of nonroad engines and vehicles to the CAA through the 1990 Amendments to the Act.[127] These amendments placed all marine vessels into the broad category of nonroad engines, which are regulated by Section 213 of the CAA.[128]

The Category 3 final rulemaking notice explains that the EPA did not make the engines on foreign-flagged vessels subject to the CAA since they are temporarily within the country, as opposed to items that have been imported into the United States.[129] However, the agency's 2002 memorandum to the OMB argued that foreign-flagged vessels should be regulated because the meaning of "import" in the CAA is "ambiguous."[130] In its memo, the EPA explained that "legislative history does not suggest that Title II's use of 'import' can only be given its meaning under the customs laws of the United States."[131] According to the EPA, using the

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[126] *See generally* 42 U.S.C. §§ 7401-7671q (2000).

[127] Pub. L. No. 101-549, 104 Stat. 2399 (1990).

[128] 42 U.S.C. § 7547 (2000).

[129] 68 Fed. Reg. 9746, *supra* note 9, at 9759.

[130] LETTER TO OMB, *supra* note 21, at 60.

[131] *Id.* Under customs law, a boat is not imported into the U.S. if there is no intent to bring the vessel permanently into the country. Am. Customs Brokerage Co. v. United States, 375 F. Supp. 1360, 1367 (Cust. Ct. 1974). Unless Congress clearly intended otherwise, "the word 'importation' means the bringing of goods within the jurisdictional limits of the United States with the intention to unlade them." Porto Rico Brokerage Co. v. United States, 76 F.2d 605, 616 (Cust. & Pat. App. 1935) (citing United States v. Field & Co., 14 U.S. Cust. App. 406, 407 (Cust. App. 1927)).

customs meaning of "import" may not be appropriate in interpreting Section 213 since the CAA and customs laws have very different purposes.[132] The agency further cautioned that interpreting the term "import" as having the same meaning in the CAA as under customs laws may "frustrate section 213's goals" because this interpretation would leave foreign-flagged vessels unregulated.[133] Supporting the agency's argument is precedent from the Supreme Court noting that the word "import" should be construed in the ordinary sense.[134] As a result, "import" should be interpreted as meaning "bringing an article into a country from the outside,"[135] which includes the country's ports and harbors.[136] The item need not be brought into the country through a customs house or even taken off of the ship itself.[137] Thus, by simply entering the waters or ports of the United States, a foreign-flagged vessel is subject to the jurisdiction and laws of the U.S. because it has imported everything on the vessel.[138]

The EPA's explanation in its 2003 final rulemaking that foreign vessels are outside the scope of the CAA[139] is also undercut by the agency's arguments in 2002 to the OMB regarding interpretation of the terms "nonroad engines"[140] and "nonroad vehicles."[141] In its memorandum to the OMB, the EPA described the CAA's use of the term new nonroad engine

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[132] LETTER TO OMB, *supra* note 21, at 60.

[133] *Id.*

[134] Cunard S.S. Co. v. Mellon, 262 U.S. 100, 121 (1923). The *Cunard* Court faced the issue of whether the alcohol contained on foreign-flagged passenger ships for the use of the crew and passengers violated the Prohibition Act. *Id.* at 119. Although the forbidden spirits stayed onboard the ships, the Court determined that by construing the term "import" in its ordinary sense, the alcohol had been brought within U.S. territory, which extends to include ports and harbors. *Id.* at 122.

[135] *Id.* at 122.

[136] *Id.*

[137] *Id.*

[138] *Id.*

[139] 68 Fed. Reg. 9746, *supra* note 9, at 9759.

[140] 42 U.S.C. § 7550(10) (2000), defining nonroad engine as follows:

> an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 of this title [Standards of performance for new stationary sources] or section 7521 of this title [Emission standards for new motor vehicles or new motor vehicle engines].

[141] 42 U.S.C. § 7550(11) (2000), defining nonroad vehicle as "a vehicle that is powered by a nonroad engine and that is not a motor vehicle or a vehicle used solely for competition."

as "ambiguous."[142] However, the agency noted that the definitions of nonroad engines and nonroad vehicles were modeled after the statutory definition "new motor vehicle engine," which includes those engines that have been imported.[143] In fact, neither the term nonroad engine nor nonroad vehicle discusses the origin of the equipment.[144] Because the Senate expressly instructed the EPA to define nonroad engines on the basis of function or design,[145] the agency's position in the OMB memorandum is reasonable.[146] Critics of the foreign-flag exemption maintain that the EPA should not be permitted to include other exceptions or limitations upon the terms nonroad engines and nonroad vehicles since Congress provided the agency with instructions on how to properly classify the terms.[147] However, even the EPA noted in its 2002 OMB memorandum that regulating foreign-flagged vessels is reasonable because Congress failed to provide an exemption here, while other types of mobile sources were given exemptions elsewhere in the CAA.[148] For example, the Act does not cover new nonroad vehicles and engines used solely for competition[149] or those used for "research, investigations, studies, demonstrations, or training or for reasons of national security."[150] Therefore, because Congress provided explicit limiting language in other sections of the Act to exempt foreign-flagged vessels from the reach of the CAA,[151] there is good reason to believe that Congress did not intend to provide an exemption here for foreign-flagged vessels. Hence, it can be argued that there is no basis for the agency's removal of foreign-flagged vessels from the category of nonroad engines.[152]

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[142] LETTER TO OMB, *supra* note 21, at 58.

[143] *Id.* (citing 42 U.S.C. § 7550 (2000)).

[144] 42 U.S.C. §§ 7550(10)-(11) (2000).

[145] S. REP. NO. 101-228, at 104-05 (1989).

[146] *See* Lickel, *supra* note 66, at 169 (stating that "Congress effectively enjoined the EPA from classifying marine vessels by flag for the purpose of adopting regulations").

[147] *Id.*

[148] LETTER TO OMB, *supra* note 21, at 59.

[149] *Id.* at 60 (citing 42 U.S.C. § 7552(10)-(11) (2000)).

[150] *Id.* (citing 42 U.S.C. § 7522(b)(1) (2000)).

[151] *Id*. *See also* Lickel, *supra* note 66, at 169-70 (explaining that Section 183(f) of the CAA contains an implicit exception for foreign-flagged vessels by referring to "different ports," which can only be interpreted to mean foreign ports since the CAA clearly reaches all domestic ports).

[152] Lickel, *supra* note 66, at 169. Extending the CAA to reach foreign-flagged vessels is also reasonable given the past actions and statements of the Executive

2. The EPA's Final Rule Fails to Press for Advanced Technology

Rather than comply with the actual language of Section 213 of the CAA, the OMB convinced the EPA to promulgate Category 3 emissions regulations[153] that fail to reflect the mandate of Congress.[154] The EPA's regulations do not fulfill the purpose of the CAA because the final rule does not impose emissions standards that reflect the capabilities of the latest technology,[155] as required by Section 213.[156]

Section 213 of the CAA regulates the emissions standards for nonroad engines and vehicles.[157] Under this section, the EPA Administrator is required to promulgate regulations for new nonroad engines that contribute to air pollution.[158] Further, the Administrator must set standards that "achieve the greatest degree of emission reduction achievable through the application of technology which the Administrator determines will be available."[159] Therefore, Section 213 of the CAA is "a technology-forcing standard"[160] with an overriding goal of air quality.[161] Although considerations such as cost, noise, energy, and safety are significant, these factors are intended to be subordinate to the primary goal of improving air quality whenever a standard is technology-forcing.[162] In fact, when Section 213 of the CAA was enacted, the EPA "was expected to press for development and

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Branch. For example, President Clinton stated that the CAA can be used to reduce air pollution within the territorial sea. S. TREATY DOC. NO. 103-39, at 36 (1994) (referring to nonroad engine sections of the CAA).

153 Welch, *supra* note 4. *See* Part II.E.1, *supra.*

154 *See* Part II.E.1, *supra.*

155 Notice of Proposed Rulemaking, *supra* note 38, at 14 (noting that "[i]mprovements in fuel systems and engine cooling can reduce Category 3 engine emissions even more than the Annex VI NO_x limits would require."). *See also* 67 Fed. Reg. 37,548, *supra* note 13, at 37,571.

156 42 U.S.C. § 7547(a)(3) (2000).

157 42 U.S.C. § 7547 (2000).

158 *Id.* at § 7547(a)(3).

159 *Id.*

160 Husqvarna AB v. EPA, 254 F.3d 195, 201 (D.C. Cir. 2001). Technology-forcing statutes force industry to improve existing methods and develop new strategies to reduce pollution, rather than rely upon the excuse that better methods do not exist. Sky Stanfield, *The Mobile Source Air Toxics Rule: How Does the Greatest Reduction Become No Reduction?*, 31 ECOLOGY L.Q. 563, 573 (2004).

161 *Husqvarna*, 254 F.3d at 200.

162 *Id.*

application of improved technology rather than be limited by that which exists today."[163]

Based upon the language Congress used in this technology-forcing section regulating nonroad engines and vehicles,[164] one would expect the EPA to set the emissions standards that would reflect the newest technological advancements within the emissions control industry. However, the EPA's proposed regulations are based upon information and studies conducted between the years of 1992 and 1997.[165] The EPA itself acknowledged that in the interim there have been advancements in NO_x control, which would permit further emission reductions beyond the standards instituted by the final rule.[166] Specifically, the agency noted that by using in-cylinder controls, an additional reduction of thirty percent in NO_x levels beyond Tier 1 can be achieved, while reductions fifty percent beyond Tier 1 NO_x levels can be "achieved by introducing water into the combustion process."[167] Furthermore, the EPA explained that selective catalytic reduction (SCR) could reduce NO_x emissions by more than ninety percent.[168] At the time the EPA promulgated these rules, the agency was fully aware that "these [emission reduction] systems are . . . being used on ferries and cruise ships,"[169] and that "four slow-speed Category 3 marine engines . . . have been successfully equipped with SCR units."[170] Unfortunately, the EPA did not mandate the use of any of these technologies on Category 3 vessels.[171]

While commenting on the capabilities of technology, the EPA also explained that the technology that will reduce emissions from Category 3 engines is similar to that already in

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[163] Natural Res. Def. Council, Inc. v. EPA, 655 F.2d 318, 328 (D.C. Cir. 1981) (quoting S. REP. NO. 91-1196, 2d. Sess. 24 (1970), *reprinted in* 1 LEGISLATIVE HISTORY OF THE CLEAN AIR ACT AMENDMENTS 424 (1974)). *See also* H.R. REP. NO. 95-294, at 273 (1977), *as reprinted in* 1977 U.S.C.C.A.N. 1077, 1352.

[164] 42 U.S.C. § 7547 (2000).

[165] Notice of Proposed Rulemaking, *supra* note 38, at 14.

[166] 67 Fed. Reg. 37,548, *supra* note 13, at 37,571. The EPA also noted that some countries, such as Sweden, are unilaterally pushing for stricter emissions reductions from marine vessels. *Id.* at 37,556. By differentiating fairway and port dues based upon NO_x emissions levels and fuel sulfur content, Sweden reduced NO_x and sulfur emissions by 75% within five years. *Id.*

[167] *Id.* at 37,588.

[168] *Id.* at 37,589.

[169] *Id.* at 37,590.

[170] *Id.* at 37,591.

[171] *See generally* 68 Fed. Reg. 9746, *supra* note 9, at 9749-50.

use on other engines.[172] Although the agency asserted that Category 3 engines are similar to the engines used at municipal power plants to generate electricity,[173] the EPA made no further mention in the Category 3 rulemaking of the regulations imposed upon or the technologies used at power plants to control emissions.[174] The agency merely went on to point out that Category 3 engines are not similar to any land-based mobile engines.[175] However, despite the differences between Category 3 engines and land-based mobile engines, the EPA commented that the engineering principles utilized to control emissions from Category 3 engines and land-based engines are primarily the same.[176] Therefore, many of the techniques used to control emissions created by smaller nonroad and highway diesel engines can be used on Category 3 engines.[177] Considering that there are comparable engines to the Category 3 engines and these comparable engines are subject to environmental regulations,[178] the EPA should have discussed in its rulemaking notice why those available technologies used to control the emissions from power plants and smaller nonroad and highway diesel engines are not mandatory for Category 3 engines. Instead, the EPA refrained from pressing for development in marine emission controls due to "outstanding technical issues" and the lack of current application of existing technology to marine diesel engines.[179] By failing to promulgate regulations that require the use of technology that is already capable of achieving the stringent emissions limits placed upon land-based engines, the EPA's action appears arbitrary and unsupported by the agency's own internal findings.

In sum, the agency's explanation that it needed additional time to evaluate the capabilities of technology,[180] is at odds with the basic premise of technology-forcing

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172 67 Fed. Reg. 37,548, *supra* note 13, at 37,564.

173 *Id.*

174 *See generally id.*

175 *Id.*

176 *Id.* at 37,567.

177 *Id.*

178 *See generally* 42 U.S.C. §§ 7401-7671 (2000).

179 68 Fed. Reg. 9746, *supra* note 9, at 9750.

180 *Id.* at 9748.

standards.[181] When Congress established technology-forcing standards, the EPA was not expected to be able to make predictions about future advances in technology.[182] Rather, the EPA merely needs to identify the primary steps necessary to develop emission controls and to explain why the agency believes that industry can find a solution before the phase-in period[183] concludes.[184] Since the EPA is required to "press for development,"[185] and is not supposed to be limited by existing technology in setting technology-forcing standards,[186] the agency should not be allowed to promulgate Category 3 emission regulations that reflect standards that are over a decade old.[187]

3. The EPA's Rulemaking Is Inconsistent With the Agency's Past Acts

The EPA's rulemaking is also inconsistent with the more stringent standards it promulgated for smaller marine engines.[188] For example, regulations imposing a nine year phase-in period from 1998 to 2006 upon spark-ignition marine engines, including outboard engines, personal watercraft engines, and jet boat engines, will reduce hydrocarbon emissions by seventy-five percent in 2025.[189] While the agency

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[181] *See* Stanfield, *supra* note 160, at 573 (2004) (noting that technology-forcing statutes force industry to improve existing methods and develop new strategies to reduce pollution, rather than rely upon the excuse that better methods do not exist).

[182] *See* Natural Res. Def. Council, Inc. v. EPA, 655 F.2d 318, 328 (D.C. Cir. 1981).

[183] Phase-in periods are often established to delay when a new regulation will be enforced in order to allow the affected parties to become familiar with the regulation and to develop compliance procedures. Sweet v. Sheahan, 235 F.3d 80, 85-86 (2d Cir. 2000).

[184] *Natural Res. Def. Council,* 655 F.2d at 332.

[185] S. REP. NO. 91-1196, 2d. Sess. 24 (1970), *reprinted in* 1 LEGISLATIVE HISTORY OF THE CLEAN AIR ACT AMENDMENTS 424 (1974). *See also* H.R. REP. 95-294, at 273 (1977), *as reprinted in* 1977 U.S.C.C.A.N. 1077, 1352.

[186] H.R. REP. 95-294, at 273 (1977), *as reprinted in* 1977 U.S.C.C.A.N. 1077, 1352.

[187] Notice of Proposed Rulemaking, *supra* note 38, at 14.

[188] *See, e.g.,* Control of Air Pollution; Final Rule for New Gasoline Spark-Ignition Marine Engines; Exemptions for New Nonroad Compression-Ignition Engines at or Above 37 Kilowatts and New Nonroad Spark-Ignition Engines at or Below 19 Kilowatts, 61 Fed. Reg. 52,088, 52,089 (1996) (to be codified at 40 C.F.R. pts. 89, 90, and 91).

[189] *Id*. at 52,089-90. *See also* Control of Emissions From Nonroad Large Spark-Ignition Engines, and Recreational Engines (Marine and Land-Based), 67 Fed. Reg. 68,242, 68,244-45 (Nov. 8, 2002) (to be codified at 40 C.F.R. parts 89, 90, 91, 94, 1048, 1051, 1065, and 1068) (implementing a final rule for control of emissions from

has been pressing for uniformity in land-based emission regulations,[190] it is odd that larger marine vessels would not be subject to environmental regulations similar to those imposed upon their smaller counterparts.

Ironically, although the EPA recently defended the Category 3 emissions regulations in court as complying with the CAA,[191] the U.S. has been lobbying internationally for years to impose stricter NO_x limits upon Category 3 vessels.[192] Several years prior to issuing the EPA's final rule, the U.S. submitted a proposal to the United Nations' Marine Environment Protection Committee (MEPC)[193] suggesting reductions in the proposed international NO_x limits by twenty-five to thirty percent beginning in 2007.[194] While the U.S. felt comfortable requesting a lower NO_x standard internationally in 2001, the EPA claimed in 2003 that more time was necessary to evaluate the capabilities of technology before tougher standards should be imposed in the U.S. upon Category 3 vessel emissions.[195] The inconsistency between these actions is startling.

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nonroad large spark-ignition engines and recreational engines such as snowmobiles, off-highway motorcycles, forklifts, all-terrain vehicles, and recreational marine diesel engines which will reduce NO_x emissions by 82% and PM by 60% by the time of full implementation in 2030).

[190] For example, the EPA set the fuel sulfur content standard for nonroad diesel engines in the construction, agricultural, industrial, and mining industries to match the 15 ppm highway diesel engine standard. 69 Fed. Reg. 38,958, *supra* note 52, at 38,960.

[191] Bluewater Network v. EPA, 372 F.3d 404, 408 (D.C. Cir. 2004). *See infra* Part IV (discussing the *Bluewater* case).

[192] Notice of Proposed Rulemaking, *supra* note 38, at 16-18.

[193] MEPC 44/11/7, Prevention of Pollution from Ships, Revision of the NO_x Technical Code, Tier 2 Emission Limits for Marine Diesel Engines at or Above 130 kW, submitted by the United States (May 2002), *available at* Docket A-2001-11, Document No. II-A-16. The Marine Environment Protection Committee (MEPC) is a committee within the International Maritime Organization (IMO). PAMBORIDES, *supra* note 89, at 81. The IMO is a United Nations agency, which was established in 1958 following an international convention in Geneva. KENNETH R. SIMMONDS, THE INTERNATIONAL MARITIME ORGANIZATION 4 (1994). *See infra* Part III.A (discussing the IMO).

[194] MEPC 44/11/7, Prevention of Pollution from Ships, Revision of the NO_x Technical Code, Tier 2 Emission Limits for Marine Diesel Engines at or Above 130 kW, submitted by the United States (May 2002), *available at* Docket A-2001-11, Document No. II-A-16. *See infra* Part III.A (discussing MARPOL Annex VI and its standards).

[195] 68 Fed. Reg. 9746, *supra* note 9, at 9748.

F. Most Vessels Entering U.S. Ports Will Be Unregulated Under EPA's Rule

One of the purposes of the Clean Air Act is to "protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare."[196] However, the EPA's Category 3 regulations will not achieve the CAA's goal of improving air quality for the benefit of the public welfare because the rules do not apply to international vessels.[197]

Studies have shown that there are approximately 88,660 marine vessels registered internationally that are over 100 gross tonnes.[198] In the 1950s, international shippers began registering under "flags of convenience" to avoid the high costs of trading under the U.S. flag.[199] In order to obtain such a designation, a shipper merely needs to establish a shipping company or representative legal entity in a particular country.[200] Despite attempts to establish a "genuine link" between a ship and its flag, this criteria does not reflect actual shipping practices throughout the international community.[201] Therefore, many "flags of convenience" are held by American owned interests.[202] Approximately 94 percent of the vessels

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[196] 42 U.S.C. § 7401(b)(1) (2000).

[197] 68 Fed. Reg. 9746, *supra* note 9, at 9747.

[198] James J. Corbett, Updated Emissions From Ocean Shipping, 108 J. GEOPHYSICAL RES., No. D20 at 3, *available at* http://www.ocean.udel.edu/cms/jcorbett/CorbettKoehlerJGR2003.pdf (last visited Oct. 29, 2004). The international treaty, MARPOL Annex VI, only applies to marine vessels that are 400 gross tonnes or larger. MARPOL Annex VI, *supra* note 66, Chapter II, Regulation 5(1). *See infra* Part III (discussing MARPOL Annex VI).

[199] BRUCE FARTHING & MARK BROWNRIGG, FARTHING ON INTERNATIONAL SHIPPING 186-87 (3d ed. 1997). *See also* PAMBORIDES, *supra* note 89, at 9 (explaining that shippers often use flags of convenience to pay lower taxes or crew salaries and social security). There are approximately twenty countries that now offer flags of convenience, including Panama, Liberia, Cyprus, Bahamas, and Malta, which are among the largest fleets in the world. FARTHING & BROWNRIGG, *supra*, at 188.

[200] FARTHING & BROWNRIGG, *supra* note 199, at 187. Given the latest technology, flagship status can actually be changed instantaneously without much effort. ADEMUNI-ODEKE, SHIPPING IN INTERNATIONAL TRADE RELATIONS 68 (1988).

[201] PAMBORIDES, *supra* note 89, at 4. Many countries began operating Open Registries or "flags of convenience," which ignored the ship owner's nationality. *Id.* at 9. Access to the Open Registries is often very easy and can even be obtained abroad. *Id.* at 10. Open Registries are usually run by countries with little power and even less desire to consult shipping companies about the registry, *id.,* or interest in requiring more than mere incorporation in the country where the company desires flagship. *Id.* at 11 n.27.

[202] *Id.* at 12. Often the registries themselves are run out of locations other than those signified by the flag. WILLIAM LANGEWIESCHE, THE OUTLAW SEA 5 (2004) (explaining that 'Liberia' is run out of Virginia, 'Cambodia' is operated out of South Korea, and a group in London operates 'Bahamas').

that call to U.S. ports are foreign-flagged vessels.[203] As a result of the expanding use of flags of convenience, the overwhelming majority of Category 3 vessels entering U.S. ports will be unregulated by the EPA.[204]

To briefly summarize Part II, the EPA bowed to political pressure by changing its original position regarding Category 3 regulation and agreeing to issue a weak rule at the urging of the Executive Branch. The EPA's final regulations fail to uphold the purpose and spirit of the CAA by improperly interpreting and applying Congress' mandate, thereby allowing the majority of vessels entering U.S. ports to pollute the air without regulation. Extending this sovereignty to foreign-flagged ships frustrates the purpose of the CAA and negatively impacts the health and well-being of Americans.

III. INTERNATIONAL EMISSION STANDARDS

A. The MARPOL Convention

The United Nations (U.N.) developed the International Maritime Organization (IMO) to deal with global maritime problems and to provide guidance to the international community.[205] The intent of the IMO was to promulgate

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[203] 67 Fed. Reg. 37,548, *supra* note 13, at 37,563.

[204] *See* LANGEWIESCHE, *supra* note 202, at 7. *See also* 68 Fed. Reg. 9746, *supra* note 9, at 9758 (limiting Category 3 emissions standards to new U.S.-flagged marine vessels). Due to the increase in the use of flags of convenience to save money, some critics claim that there are no new U.S.-flagged Category 3 vessels that will fall under the EPA's emissions regulation. Press Release, Bluewater Network, EPA Lawsuit Decision Allows Shipping Pollution to Grow, (June 28, 2004), http://www.bluewaternetwork.org/press_releases/pr2004june28_cv_ship.pdf. *But see* 67 Fed. Reg. 37,548, *supra* note 13, at 37,563 (indicating that increases in U.S. maritime trade will require the manufacture of seven to nine new U.S.-flagged vessels per year).

[205] The IMO is a United Nations agency, which was established in 1958 following an international convention in Geneva. KENNETH R. SIMMONDS, THE INTERNATIONAL MARITIME ORGANIZATION 4 (1994). The purpose of the agency is to promulgate standards and regulations to govern the shipping industry. *Id*. at 6-7. Members of the IMO "include not only the traditional maritime countries but also those which rely largely on the shipping services of other countries." SAMIR MANKABADY, THE INTERNATIONAL MARITIME ORGANIZATION, VOLUME 1: INTERNATIONAL SHIPPING RULES 2 (1984). Currently, there are 166 member states in the IMO. International Maritime Organization, Introduction to IMO, http://www.imo.org/home.asp?topic_id=3 (last visited Nov. 12, 2005). The organization is primarily comprised of an Assembly, a Council, the Maritime Safety Committee (MSC), the Marine Environment Protection Committee (MEPC), the Legal Committee, the Technical Co-operation Committee, and the Facilitation Committee. PAMBORIDES, *supra* note 89, at 81.

international standards through the passage of Conventions.[206] Therefore, before any Convention goes into effect and becomes binding, a sufficient number of countries must ratify it, thereby ensuring that the standard is, in fact, international.[207]

In the 1970s, the IMO developed the MARPOL Convention,[208] of which the United States is a signatory.[209] The MARPOL Convention is a combination of two treaties adopted in 1973 and 1978, covering prevention of pollution of the marine environment by ships.[210] This treaty regulates oil, chemicals, garbage, sewage, and air emissions through six different Annexes.[211]

In 1997, the IMO proposed MARPOL Annex VI to set limits on NO_x emissions from ship exhausts[212] and fuel sulfur content.[213] Annex VI regulates the NO_x emissions from diesel engines installed on ships constructed on or after January 1, 2000 and diesel engines that have undergone a major

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[206] PAMBORIDES, *supra* note 89, at 83. "Convention" is merely another word for a treaty. LAKSHMAN D. GURUSWAMY ET AL., INTERNATIONAL ENVIRONMENTAL LAW AND WORLD ORDER 73 (2d ed. 1999).

[207] PAMBORIDES, *supra* note 89, at 83.

[208] MARPOL 73/78 is officially referred to as the International Convention for the Prevention of Marine Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78), Nov. 2, 1973, 12 ILM 1319 (1973), *as amended* Feb. 17, 1978, 1340 U.N.T.S. 184 [hereinafter MARPOL 73/78]. International Maritime Organization, Marine Environment Introduction, *available at* http://www.imo.org/home.asp (last visited January 8, 2005).

[209] The United States became a member of the MARPOL 73/78 Convention on August 17, 1950. MANKABADY, *supra* note 205, at 416.

[210] MARPOL 73/78, *supra* note 208.

[211] *Id*. After rules on decision-making, information sharing, and substantive obligations have been established by a framework convention, annexes or protocols are often introduced to create more stringent obligations. Suh-Yong Chung, *Is the Convention-Protocol Approach Appropriate for Addressing Regional Marine Pollution?: The Barcelona Convention System Revisited*, 13 PA. ST. ENVTL. L. REV. 85, 85 (2004). Annex I of the MARPOL Convention prevents pollution by oil, while Annex II controls pollution caused by noxious liquid substances. IMO, International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78), http://www.imo.org/Conventions/contents.asp?doc_id=678&topic_id=258#7. Annex III prevents pollution by harmful substances in packaged form. *Id*. Pollution by sewage from ships is regulated by Annex IV, and Annex V prevents pollution by garbage from ships. *Id*. Annex VI sets limits on air pollution from ships and prohibits the intentional discharge of emissions of ozone depleting substances. *See generally* MARPOL Annex VI, *supra* note 66. All parties must accept Annexes I and II, but Annexes III-VI are voluntary. London Convention, The International Convention for the Prevention of Pollution from Ships, 1973, MARPOL 73/78, *available at* http://www.londonconvention.org/marpol_73.htm.

[212] MARPOL Annex VI, *supra* note 66, Regulation 13.

[213] MARPOL Annex VI, *supra* note 66, Regulation 14(1). The Annex additionally prohibits deliberate emissions of ozone depleting substances, which is outside the scope of this Note. MARPOL Annex VI, *supra* note 66, Regulation 12.

conversion on or after that date.[214] The Annex also limits the sulfur content of the fuel used by Category 3 engines to a maximum amount of 45,000 ppm.[215]

Recognizing that the treaty would have to be adopted by a majority of the international community before it would have any effect upon international vessels, the IMO required Annex VI to be ratified by a minimum of fifteen countries with at least fifty percent of world merchant shipping tonnage before it would become active.[216] After seven years, the Annex was

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[214] MARPOL Annex VI, *supra* note 66, Regulation 13(1)(a). Once the Annex has gone into effect, it can be applied retroactively to any ship constructed or converted on or after January 1, 2000. Letter from the International Association of Independent Tanker Owners to the U.S. Environmental Protection Agency (July 16, 2002), http://www.intertanko.com/pdf/weeklynews/IntertankoSubmission.pdf. A mandatory NO_x Technical Code defines which types of engine conversions fall under the regulation of the Annex, as well as other details such as testing procedures, measurement methods, approved exhaust gas cleaning systems, and the effect of using fuel composed of blends. MARPOL Annex VI, *supra* note 66, Regulation 13. The Convention set NO_x emission limits according to engine speed. MARPOL Annex VI, *supra* note 66, Regulation 13(3)(a).

[215] MARPOL Annex VI, *supra* note 66, Regulation 14(1). Marine fuel currently has an international maximum sulfur content of 50,000 ppm or 5%. *EU Reaches Accord on Ship Emission Sulfur Limits*, LLOYD'S LIST, June 29, 2004, *available at* http://lloydslist.com. However, a country may request that the sulfur limit be lowered even further by submitting a petition to the Organization to designate a location as a SO_x Emission Control Area (SECA). MARPOL Annex VI, *supra* note 66, Appendix III. In a SECA, the sulfur content of fuel used by Category 3 marine engines is limited to a maximum of 15,000 ppm. MARPOL Annex VI, *supra* note 66, Regulation 14(4)(a). Currently, two SECAs have been designated: the Baltic Sea area and the North East Atlantic, which is comprised of the English Channel, the North Sea, and the Irish Sea. EPA, Final Regulatory Support Document: Control of Emissions from New Marine Compression-Ignition Engines At or Above 30 Liters per Cylinder (January 2003), at 1-9, *available at* http://www.epa.gov/otaq/regs/nonroad/marine/ci/r03004.pdf. While in a SECA, a ship may either utilize fuel that complies with this lower sulfur limitation, or the vessel may alternatively limit SO_x emissions through exhaust gas cleaning systems or other technological methods. MARPOL Annex VI, *supra* note 66, Regulation 14(4)(b) & (c).

[216] MARPOL Annex VI, *supra* note 66, Article 6(1).

finally ratified in May 2004.[217] It went into effect in May 2005.[218]

Although the U.S. has joined other sections of the MARPOL Convention,[219] Congress has yet to ratify MARPOL Annex VI.[220] Even if the U.S. elects not to ratify Annex VI, which is optional, as a member to the MARPOL Convention, the U.S. must still give effect to the treaty provisions and abide by its mandate.[221]

B. The MARPOL "No More Favorable Treatment Clause"

To prevent states from avoiding compliance by failing to ratify the treaty, the IMO created a "no more favorable

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[217] On May 18, 2004, Samoa was the fifteenth State to ratify the instrument, raising the percentage of participating parties to 54.57% of the world merchant shipping tonnage. Press Briefing, International Maritime Organization, Air Pollution Rules to Enter into Force in 2005, http://www.imo.org/Newsroom/mainframe.asp?topic_id=848&doc_id=3620 (last visited Nov. 5, 2005). Prior to that date, the other ratifying States were: the Bahamas, Bangladesh, Barbados, Denmark, Germany, Greece, Liberia, Marshall Islands, Norway, Panama, Singapore, Spain, Sweden, and Vanuatu. International: IMO Marine Engine Regulations, http://www.dieselnet.com/standards/inter/imo.html. Currently, 30 countries have ratified the Annex, covering 63.72% of the world tonnage. IMO, Summary of Status of Conventions as of August 31, 2005, http://www.imo.org (follow "Conventions" hyperlink; then follow "Status of Conventions – Summary" hyperlink) (last visited Mar. 6, 2006).

[218] Press Briefing, International Maritime Organization, Air Pollution Rules to Enter into Force in 2005, http://www.imo.org/Newsroom/mainframe.asp?topic_id=848&doc_id=3620 (last visited Nov. 5, 2005).

[219] Summary of Status of Conventions as of August 31, 2005, International Maritime Organization, http://www.imo.org/includes/blastDataOnly.asp/data_id%3D12899/status.xls. The U.S. has ratified MARPOL Annexes I, I, III, and V. *Id*.

[220] The President submitted the treaty to the Senate in 2003. Press Release, The White House, Message to the Senate of the United States (May 15, 2003), http://www.whitehouse.gov/news/releases/2003/05/20030515-12.html. Congress was expected to ratify the treaty sometime in 2004. Press Release, Bluewater Network, Shipping Air Pollution Treaty Sets Global Standards (June 7, 2004), http://www.bluewaternetwork.org/press_releases/pr2004jun7_cv_annex.pdf. No clear reason has been given for the U.S.'s lack of ratification of Annex VI. Letter from the International Association of Independent Tanker Owners to the U.S. Environmental Protection Agency (July 16, 2002), http://www.intertanko.com/pdf/weeklynews/IntertankoSubmission.pdf. However, the Senate usually will not defeat a treaty through a direct vote. BURNS H. WESTON, *Treaty Power*, 4 ENCYCLOPEDIA OF THE AMERICAN CONSTITUTION 1910 (L. Levy, et al. eds., 1986), *reprinted in* GURUSWAMY, *supra* note 206, at 214 [hereinafter *Treaty Power*]. Instead, consent is typically withheld from a controversial treaty through committee inaction. *Id*. In fact, sometimes the Senate even receives a request from the Executive Branch to withhold or suspend committee action. *Id*.

[221] International Convention for the Prevention of Pollution of Ships 1973, Article 5(4) [hereinafter MARPOL 73].

treatment" clause in the MARPOL Convention.[222] This clause was intended to ensure that non-signatory states would not be better off than parties who ratified the agreement.[223] Thus, the clause removes the motivation for countries to avoid complying with MARPOL provisions and the international standards of the convention by simply refusing to ratify the treaty.[224] As a result, the MARPOL Convention creates a true international standard because all member States and even non-members to the convention must comply with ratified conventions.[225]

The EPA's Category 3 emissions rule ignores the import of the "no more favorable treatment" clause. Unlike MARPOL Annex VI, which regulates all diesel engines installed after January 1, 2000 or those undergoing a major conversion on or after that date,[226] the EPA's rule is limited to new U.S.-flagged engines.[227] The EPA's regulations simply will not reach the vessel if it is foreign-flagged.[228] Therefore, the United States will be obligated to change the EPA's regulations to ensure that all foreign vessels are complying with MARPOL Annex VI if the U.S. ever opts to join the treaty.[229]

The shipping industry itself has argued that even the minor discrepancies between the EPA's rulemaking and MARPOL Annex VI will put U.S.-flagged vessels at a disadvantage.[230] According to Intertanko, an international trade association that represents most of the tanker owners and operators throughout the world,[231] because the certification procedures, verification requirements, and record keeping requirements vary between the EPA's final rulemaking and MARPOL Annex VI, U.S.-flagged vessels will be forced to

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[222] Article 5(4) of MARPOL 73 states: "With respect to the ship of non-Parties to the Convention, Parties shall apply the requirements of the present Convention as may be necessary to ensure that no more favourable treatment is given to such ships." *Id*.

[223] PAMBORIDES, *supra* note 89, at 106-07.

[224] *Id*.

[225] *Id*. at 110.

[226] MARPOL Annex VI, *supra* note 66, Regulation 13(1).

[227] 68 Fed. Reg. 9746, *supra* note 9, at 9747. However, the EPA adopted a separate definition of "new vessel" which will also regulate those older U.S.-flagged vessels that have undergone a "major conversion." *Id*. at 9760.

[228] *See id*. at 9746.

[229] *See* MARPOL 73, *supra* note 221, Article 5(4).

[230] Letter from the International Association of Independent Tanker Owners to the U.S. Environmental Protection Agency (July 16, 2002), http://www.intertanko.com/pdf/weeklynews/IntertankoSubmission.pdf.

[231] *Id*. at 1.

obtain dual certification while on foreign routes.[232] Therefore, U.S.-flagged vessels will be hampered with additional paperwork and procedural requirements due to the EPA's rulemaking,[233] while foreign-flagged vessels will not be subject to these inconveniences.[234] Hence, American vessels will be disadvantaged, while other countries will receive more favorable treatment.

The EPA has acknowledged that in order to reduce marine air emissions effectively, a collaborative effort is needed within the international community.[235] While claiming that it instituted regulations that mimic the international standard, the EPA has in fact acted unilaterally by promulgating regulations that disregard the enforcement of the MARPOL Annex VI regulations upon foreign-flagged vessels.[236] Because the CAA and international law provide the EPA with the authority to regulate all maritime vessels within U.S. waters,[237] the U.S. could avoid giving favorable treatment to foreign-flagged vessels if it chose to regulate all vessels entering U.S. waters. Therefore, although the EPA's final regulation doesn't technically set a different emissions standard, by exempting nearly 94 percent of the marine traffic into U.S. ports,[238] the EPA's rule is not only ineffective, but it also violates the spirit of MARPOL by placing additional restrictions on US-flagged vessels.[239]

IV. EPA CATEGORY 3 EMISSIONS REGULATIONS UPHELD

A. The D.C. Circuit Gave Deference to EPA's Category 3 Regulations

The EPA's rules covering the emissions from Category 3 vessels were recently challenged in *Bluewater Network v. Environmental Protection Agency*.[240] Bluewater Network (hereinafter Bluewater) is an organization dedicated to

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232 *Id*. at 8.
233 *Id.*
234 68 Fed. Reg. 9746, *supra* note 9, at 9747-48.
235 67 Fed. Reg. 37,548, *supra* note 13, at 37,550.
236 68 Fed. Reg. 9746, *supra* note 9, at 9747-48.
237 Lickel, *supra* note 66, at 160-65. *See also* Part II.E.1, *supra*.
238 67 Fed. Reg. 37,548, *supra* note 13, at 37,563.
239 *See* MARPOL 73, *supra* note 221, Article 5(4).
240 372 F.3d 404 (D.C. Cir. 2004).

reducing air and water pollution and global warming.[241] The environmental organization filed a petition for review with the D.C. Circuit Court, challenging the EPA's two-tiered Category 3 marine diesel engine emission standards.[242] In this petition, Bluewater alleged that the Category 3 regulations violated Section 213(a)(3) of the CAA because the rulemaking failed to reduce emissions from these vessels and disregarded the emissions from foreign-flagged ships.[243] However, the D.C. Circuit determined that the EPA "reasonably interpreted and implemented the CAA," thereby denying Bluewater's petition for review.[244]

While evaluating Bluewater's petition, the D.C. Circuit court applied the two-pronged test of *Chevron, Inc. v. Natural Resources Defense Council*.[245] The *Chevron* test dictates that when a court decides whether an agency's interpretation of a statute is permissible, the court must first determine whether Congress has spoken on the issue.[246] If Congress has clearly expressed its intent on the issue, then both the agency and the court must give effect to the congressional intent.[247] However, if Congress has not spoken directly on the issue, then the court must determine whether the agency's decision is permissible

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[241] About Bluewater Network, Bluewater Network, http://www.bluewaternetwork.org/aboutus.shtml (last visited Nov. 12, 2005). Bluewater is particularly dedicated to reducing pollution from boats and watercraft since that was the organization's primary purpose upon its foundation. *Id*.

[242] *Bluewater*, 372 F.3d at 406. *See also* note 19, *supra* (explaining that Bluewater was a party to the original lawsuit challenging the EPA's 1999 marine vessel regulations).

[243] *Id.*

[244] *Id.*

[245] 467 U.S. 837, 842-43 (1984). Chevron involved an action brought by the Natural Resources Defense Council (NRDC) challenging the EPA's decision to allow industrial sites to view their emissions as if they are contained in a "bubble." *Id*. at 840. Under this bubble concept, as long as the net amount of emissions at the facility do not increase, the EPA allows the company to increase emissions from a single source as long as an equivalent decrease in emissions is made somewhere else within the plant. *Id*. The NRDC alleged that this bubble concept was not a reasonable interpretation of the term "stationary source." *Id*. Chevron U.S.A., Inc. was allowed to intervene and argue in favor of the EPA's regulation. *Id*. at 841 n.4. The Court upheld the EPA's regulation, *id*. at 866, after applying the two-fold test described above.

[246] *Id*. at 842.

[247] *Id*. at 842-43. With regard to Congressional intent, the judiciary ordinarily presumes that Congress does not intend to override treaties, so courts will try to interpret federal statutes and treaties dealing with the same subject (such as the CAA and MARPOL Annex VI here) as being compatible. *Treaty Power*, *supra* note 220, at 216. Therefore, if MARPOL Annex VI had been ratified prior to the regulation of nonroad vehicles in the 1990s, the *Bluewater* court might have struck down the exemption to foreign-flagged Category 3 vessels. *Cf. id*.

given the construction of the statute.[248] Under this precedent, the *Bluewater* court had to give *Chevron* deference to the EPA's regulations unless the court determined that the decision was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."[249]

Reviewing the EPA's interpretation under the arbitrary and capricious standard of review, the *Bluewater* court was satisfied that the EPA had interpreted and implemented the CAA in a reasonable fashion.[250] The court stated that the agency was not required to "adopt the most stringent standards," but rather had to develop regulations that "reduce emissions to the greatest degree possible after considering the spectrum of available technologies and the costs and benefits associated with those technologies."[251] The court also noted that the agency had committed itself to implementing new technologies into tighter emissions standards when the EPA revisits the issue in 2007.[252] Although the regulations did not reflect the current capabilities of technology, the court was satisfied that the agency took action "akin to the anti-backsliding provision" that the D.C. Circuit had previously upheld in *Sierra Club v. EPA*.[253] Finally, the *Bluewater* court explained that *Sierra Club* states that the EPA must consider

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[248] *Chevron*, 467 U.S. at 843.

[249] *Bluewater*, 372 F.3d at 410 (quoting 42 U.S.C. § 7607(d)(9)(A) (2000)).

[250] *Id*. at 411.

[251] *Id*. at 408.

[252] *Id*. at 412. In promulgating its final rule, the EPA opted to wait until 2007 to revisit the issue of instituting Tier 2 emissions standards, which would be lower than the international MARPOL Annex VI levels. 68 Fed. Reg. 9746, *supra* note 9, at 9749. The agency explained that there were "several outstanding technical issues concerning the widespread commercial use of these technologies" that mandated waiting before declaring Tier 2 emissions standards. *Id*. at 9748. By deferring the declaration of Tier 2 standards, the EPA would have time to "obtain important additional information on the use of the these [sic] advanced technologies." *Id*. According to the EPA, this

> new information may include (1) new developments as manufacturers continue to make various improvements to the technology and address any remaining concerns, (2) data or experience from recently initiated in-use installations using the advanced technologies, and (3) information from longer-term in-use experience with the advanced technologies that will be especially helpful for evaluating the long-term durability of emission controls.

Id. *See also* Part II.E.2, *supra*.

[253] 325 F.3d 374, 379-80 (D.C. Cir. 2003). *Sierra Club* involved a challenge to an EPA regulation that instituted an anti-backsliding provision for motor fuel regarding anti-toxic regulations. *Id*. at 378. The anti-backsliding rule in *Sierra Club* would prevent refiners or importers from increasing the toxicity of the emissions from their fuels beyond the baseline levels determined by emissions performance in 1998-2000. *Id*.

other factors aside from technology in its decision making process, including safety, cost, lead time, noise, and energy.[254] The D.C. Circuit noted that when it previously interpreted statutes similar to Section 213 of the CAA, these other statutes did not dictate how the agency must weigh all the possible factors during its rulemaking.[255] Therefore, the court determined that a hierarchy among the factors should not be implied when interpreting Section 213.[256]

Regarding Bluewater's concerns about the rule's foreign vessel exemption, the court declared this claim premature since Bluewater failed to respond to the EPA's defense that waiting to resolve the issue until the 2007 Tier 2 rulemaking would not "lead to any significant loss in emissions reductions."[257] The EPA and the court both determined that this delay would not cause losses in emissions reductions because foreign-flagged ships would still be required to comply with the MARPOL Annex VI standards.[258]

B. EPA Failed to Take a "Hard Look" at the Environmental Consequences

Although arbitrary and capricious review of the EPA's decision is typically mandated by *Chevron v. NRDC*,[259] in *Bluewater*, the EPA was still required to take a "hard look"[260] at the environmental consequences of the Category 3 regulations. In cases involving review of agency decisions, appellate courts are typically very deferential towards the actions of agencies if

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[254] *Bluewater*, 372 F.3d at 411-12.

[255] *Id*.

[256] *Id. But see* Husqvarna AB v. EPA, 254 F.3d 195, 200 (D.C. Cir. 2001) ("The overriding goal of [Section 213(a)(3) of the CAA] is air quality and the other listed considerations, while significant, are subordinate to that goal.").

[257] *Bluewater*, 372 F.3d at 413.

[258] *Id*. Bluewater addressed this argument in its brief by arguing that the EPA is misconstruing its mandate, which is actually to "set standards for emissions from new nonroad engines 'which in the Administrator's judgment cause, or contribute to, [ozone] pollution." Brief of Petitioner at 22, Bluewater Network v. EPA, 372 F.3d 404 (D.C. Cir. 2004) (No. 03-1120) (citing 42 U.S.C. §7547(a)(3)). South Coast Air Quality Management District submitted a separate brief noting that the argument that there would be no loss in emission reductions was contradicted by the agency's own calculations showing that Category 3 emissions were expected to rise between 2000 and 2030. Brief for South Coast Air Quality Management District as Amici Curiae Supporting Petitioner, Bluewater Network v. EPA, 372 F.3d 404 (D.C. Cir. 2004) (No. 03-1120).

[259] 467 U.S. 837, 842-43 (1984). *See* notes 246-50 *supra* and accompanying text, discussing the *Chevron* two-step analysis. *See also* 42 U.S.C. § 7607(b) (2000).

[260] *See* note 16, *supra*.

the issue requires technical expertise.[261] But, since the court's role is to ensure that the agency is publicly accountable,[262] the public will suffer[263] if, as here, the court merely gives deference to an agency action that fails to push technology to reduce emissions to the lowest level achievable.[264] While it is clear that courts must not substitute their own judgments for those of the agency, a "court must make a careful and searching inquiry into the facts."[265] If the court determines that there is an air of bias in the agency's decision, less deference may be appropriate even though the agency is a source of expertise on the matter.[266] In situations where bias exists, the court must apply substantial evidence review, which requires the court to examine policy considerations, as well as factual evidence.[267] Furthermore, the Supreme Court has even endorsed a careful review of the record in cases where closer scrutiny will prevent judicial review from being "meaningless."[268] Therefore, agencies should substantiate their decisions with factual evidence and sound policy decisions to ensure proper judicial review, as well as to inspire public confidence.[269]

Closer scrutiny may also be justified in CAA cases since Congress is wary of the EPA's actions with regard to implementing the Act.[270] Specifically, Congress has taken a

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[261] Kleppe v. Sierra Club, 427 U.S. 390, 412 (1976). *See also* Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 103 (1983) ("When examining this kind of scientific determination . . . a reviewing court must generally be at its most deferential.").

[262] United Steelworkers of Am. v. Marshall, 647 F.2d 1189, 1207 (D.C. Cir. 1980).

[263] Angus MacBeth, et al., *Cartoon Science: The Struggle Between Politics and Science at the Environmental Protection Agency*, 6 NATIONAL LEGAL CENTER FOR THE PUBLIC INTEREST 5, 24-25 (May 2002).

[264] *See* Part II.E.2, *supra* (discussing technology-forcing regulations and the EPA's admission that technology is capable of further emissions reductions below the standards set by the final Category 3 emissions rule).

[265] Apex Oil Co. v. United States, 208 F. Supp. 2d 642, 649 (E.D. La. 2002).

[266] Chem. Mfrs. Ass'n v. EPA, 28 F.3d 1259, 1265 (D.C. Cir. 1994) (explaining that if the EPA applies a model rigidly, then the court will be forced to use a more searching inquiry).

[267] Am. Fed'n of Labor v. Marshall, 617 F.2d 636, 651 (D.C. Cir. 1980).

[268] Marsh v. Oregon Natural Res. Council, 490 U.S. 360, 378 (1989).

[269] *Am. Fed'n of Labor*, 617 F.2d at 651-52. *See also* United Steelworkers of Am. v. Marshall, 647 F.2d 1189, 1207 (D.C. Cir. 1980) (stating that the court's task is ensure public accountability "by requiring the agency to identify relevant factual evidence, to explain the logic and the policies underlying any legislative choice, to state candidly any assumptions on which it relies, and to present its reasons for rejecting significant contrary evidence and argument").

[270] THE CLEAN AIR ACT HANDBOOK, *supra* note 5, at 8.

critical look at the EPA's failure to clean up the ambient air,[271] declaring that "the EPA needs to change its current structure to allow science to play a more significant role in decisions."[272] As a result, both the House and the Senate have proposed legislation to create a Deputy Administrator for Science and Technology to oversee EPA decisions.[273] This Deputy Administrator would be entrusted with the duty of ensuring that the EPA is using appropriate and relevant research to support its rulemaking.[274] Furthermore, the Senate noted that in order to remove political bias from decision making within the EPA, the Assistant Administrator for Research and Development, who occupies the highest science job in the agency, should be appointed to a term of six rather than four years.[275] By politically insulating the EPA's highest ranking science position, the Senate hopes that the agency will focus more on science and will be able to achieve continuity across administrations.[276]

Even the EPA has noted that over the last decade, concerns have been growing about its ability to assess risks to human health and the ecosystems.[277] Confidence in the agency's expertise is lagging for two primary reasons: research and development only comprise about seven percent of the agency's total budget,[278] and policymakers are typically attorneys lacking formal scientific training.[279]

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[271] *Id.*

[272] S. REP. NO. 108-2233, at S3184 (2004).

[273] H.R. 3096, 108th Cong. (2003); S. 2233, 108th Cong. (2004). *See also* MacBeth et al., *supra* note 263, at 28-29.

[274] H.R. 3096, 108th Cong. (2003); S. 2233, 108th Cong. (2004). *See also* MacBeth et al., *supra* note 263, at 28-29.

[275] S. REP. NO. 108-2233, at S3184 (2004).

[276] *Id.*

[277] MacBeth et al., *supra* note 263, at 16.

[278] *Id.* at 6.

[279] *Id.* at 5. Even when the EPA is aware of environmental risks, the agency can be placed under pressure from the Executive Branch to refrain from taking action to enforce existing regulations. Welch, *supra* note 4. Former EPA Administrator Christie Todd Whitman wrote to Vice President Dick Cheney in 2001 expressing concern about the EPA's lack of action to force power companies to upgrade their emissions controls. *Id.* Whitman warned Cheney, "We will pay a terrible political price if we undercut or walk away from enforcement cases. It will be hard [for the EPA] to refute the charge that we are deciding not to enforce the Clean Air Act." *Id.* Later, Whitman remarked that "improv[ing] the role of science in decision-making" was one of the agency's top priorities. Alan Charles Raul & Julie Zampa Dwyer, *"Regulatory Daubert": A Proposal To Enhance Judicial Review Of Agency Science By Incorporating Daubert Principles Into Administrative Law*, 66 LAW & CONTEMP. PROBS. 7, 9 (2003), *available at* http://www.law.duke.edu/journals/lcp/articles/lcp66dAutumn2003p7.htm.

Due to the lack of resources and technology within the EPA, as well as Congressional concerns of political bias, the *Bluewater* court should have been less deferential to the EPA with regard to Category 3 emissions -- a situation that also involves international ramifications[280] and interpretation of Congressional intent.[281] Here, the *Bluewater* court had a duty to use less deference in its review of the evidence, regardless of the EPA's supposed expertise, due to the indications of bias on the record.[282] For example, while the EPA claims that the MARPOL Annex VI provisions are sufficient domestic standards, the United States has been actively pushing the IMO for stricter international NO_x regulations for several years.[283] Moreover, the EPA has directly acknowledged that technological advancements are capable of further reducing emissions.[284] In fact, the EPA notes that much of the same technology that will be used to control Category 3 marine emissions is similar to the technology that is used to control emissions from highway diesel engines.[285] If the EPA has imposed steep reductions in emissions from land-based engines that use the same technology,[286] it is unclear why the EPA would treat marine emissions regulations differently. Furthermore, the EPA was originally considering implementing emissions controls on *all* vessels in U.S. waters, including foreign-flagged vessels, and explicitly setting Tier 2 NO_x reductions at thirty percent beyond the MARPOL Annex VI standards prior to discussions with the OMB.[287] Given this background, it is hard to believe the agency's explanation that it has chosen to mimic the MARPOL Annex VI standards for now, while planning to assess the capabilities of technology to

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[280] *See* Part III, *supra*.

[281] *See* Part II.E.1, *supra*.

[282] *See* Chem. Mfrs. Ass'n v. EPA, 28 F.3d 1259, 1265 (1994) (explaining that if the agency applies a model rigidly, then the court will be forced to use a more searching inquiry).

[283] 67 Fed. Reg. 37,548, *supra* note 13, at 37,554 ("At the same time, the United States government supports a revision of the Annex VI standards for NO_x emissions, taking into account the emission reduction potential of new control technologies."). *See supra* Part II.E.2.

[284] 67 Fed. Reg. 37,548, *supra* note 13, at 37,555. *See supra* Part II.E.2.

[285] 67 Fed. Reg. 37,548, *supra* note 13, at 37,567.

[286] *E.g.*, the EPA set the fuel sulfur content standard for nonroad diesel engines in the construction, agricultural, industrial, and mining industries to match the 15 ppm highway diesel engine standard. 69 Fed. Reg. 38,958, *supra* note 52, at 38,960.

[287] LETTER TO OMB, *supra* note 21, at 58, 72.

meet lower emission standards in the future.[288] By ignoring the bias on the record and merely pushing the EPA's decision through under the loose arbitrary and capricious standard, the *Bluewater* court, rather than actual scientific experts, ultimately ended up deciding that the agency's regulations were adequate.[289]

The *Bluewater* court also failed to address whether the EPA considered the most relevant data when establishing its rulemaking.[290] Since 1970, nonroad engine and vehicle NO_x and SO_x emissions have continued to climb.[291] The picture becomes even more bleak when one considers that researchers determined in 2003 that Category 3 vessels might actually be responsible for producing more than twice as much NO_x as previously calculated.[292] However, the EPA based its proposal and new regulations upon NO_x and PM data collected in 1996 and then relied upon models to estimate the emissions for the years after 1996.[293] In one of its rulemaking notices, the EPA claimed that by applying the Tier 2 standards to just U.S.-flagged vessels, NO_x emissions would be reduced by approximately eleven percent by 2030.[294] Since the EPA utilized outmoded data as the baseline from which to formulate its decision, the actual improvements to the environment as a result of the new regulations could be less than the EPA determined. If this new NO_x data collected in 2003 was not utilized by the agency, the rulemaking may have been arbitrary and capricious for failure to use accurate scientific methods.

Finally, the agency's decision mandated less deference by the court because the regulation touched on an international issue. Courts should extend less deference whenever a situation involves an ambiguous statute that may conflict with international law.[295] The Supreme Court determined in

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[288] *See* 68 Fed. Reg. 9746, *supra* note 9, at 9748.

[289] *See* MacBeth et al., *supra* note 263, at 25.

[290] *See generally* Bluewater Network v. EPA, 372 F.3d 404 (2004).

[291] ENVIRONMENTAL PROTECTION AGENCY, NATIONAL AIR POLLUTANT EMISSION TRENDS: 1900-1998 (Mar. 2000), Ch. 3: National Emission Trends, 1900-1998, at 3-7.

[292] James J. Corbett, *Updated Emissions From Ocean Shipping*, 108 J. GEOPHYSICAL RES., No. D20, at 14, *available at* http://www.ocean.udel.edu/cms/jcorbett/CorbettKoehlerJGR2003.pdf.

[293] Notice of Proposed Rulemaking, *supra* note 38, at 29-30.

[294] *Id.* at 86.

[295] Murray v. Schooner Charming Betsy, 6 U.S. (1 Cranch) 64, 118 (1804).

Murray v. Schooner Charming Betsy that "an act of Congress ought never to be construed to violate the law of nations if any other possible construction remains."[296] Therefore, it was inappropriate for the *Bluewater* court to apply deference to the EPA's decision because Category 3 emissions regulation involves international vessels and will affect the U.S.'s obligation to uphold the spirit of the no more favorable treatment clause of the MARPOL Convention.[297]

From a policy perspective, the *Bluewater* court should have been skeptical of the agency's decision to automatically exempt 94 percent of the vessels entering U.S. ports[298] from its pollution regulations. As discussed *supra*, the EPA founded its interpretation of CAA upon improper definitions of the terms nonroad engine and nonroad vessel.[299] Further, the EPA declared in its final rule that the U.S. lacked jurisdiction because these vessels are only temporarily within the country.[300] However, these rationales directly conflict with legal precedent[301] and the EPA's own arguments in 2002 to the OMB regarding interpretation of the CAA and proper environmental policy.[302] Hence, the *Bluewater* court should have considered the policy implications of allowing the EPA to create a loophole for foreign-flagged vessels, while regulating emissions from U.S.-flagged Category 3 vessels.

C. The D.C. Circuit Places Burden on Bluewater

Despite the numerous reasons for which the court should have been skeptical of at the agency's decision, the *Bluewater* court still chose to be deferential to the EPA.[303] In supporting its deference, the court declared that Bluewater needed to show that instituting the EPA's regulations would cause a loss in emissions reductions.[304] The court also assumed that regardless of whether the EPA instituted a blanket

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[296] *Id.* *See also* Lauritzen v. Larsen, 345 U.S. 571, 578 (1953) (quoting *Murray*, 6 U.S. at 118).

[297] *See supra* Part III.B.

[298] 67 Fed. Reg. 37,548, *supra* note 13, at 37,563.

[299] *See supra* Part II.E.1.

[300] 68 Fed. Reg. 9746, *supra* note 9, at 9759.

[301] *See supra* notes 108-15 and accompanying text.

[302] *See supra* Part II.E.1 (discussing the EPA's original interpretation of the terms nonroad vehicle, nonroad engine, and import).

[303] Bluewater Network v. EPA, 372 F.3d 404, 410 (2004).

[304] *Id.* at 413.

exemption to foreign-flagged vessels, these ships would comply with MARPOL Annex VI regulations while in U.S. ports.[305] Both of these assumptions were in error.

The *Bluewater* court stated that deference to the agency's decision was appropriate because Bluewater Network failed to show that by instituting the Category 3 regulations, there would be a loss in emissions reductions.[306] Here, the court seems to say that by maintaining the status quo or making minor improvements to air quality, the EPA fulfilled the mandate of Section 213 of the CAA.[307] However, by putting this burden on the petitioner to show that there will not be a reduction in emissions by instituting weak regulations, the court misinterpreted the purpose of Section 213.[308] When Congress drafted this section of the CAA, the section was written to be technology-forcing.[309] As discussed in Part II.F *infra*, technology-forcing regulations are intended to provide the greatest protection to the public health and welfare, while the costs of implementation are secondary. Ironically, the D.C. Circuit itself stated in 2001 that "[t]he overriding goal of [Section 213(a)(3) of the CAA] is air quality and the other listed considerations, while significant, are subordinate to that goal."[310] Therefore, one must question how the *Bluewater* court can be satisfied that the agency has promulgated regulations that adequately protect the public health and welfare if the agency is not pressing for the development of new technology. As a result, the effects of these lax regulations will not be measurable within the next twenty to thirty years.[311] In fact, it may take longer than twenty or thirty years before a positive impact on the environment is noticeable since the MARPOL Annex VI standards are not going to be adopted and applied to *all* vessels under the EPA's new regulations.[312] Here, the *Bluewater* court had a duty to question why the agency failed to institute regulations that would provide greater protection to

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[305] *Id.*

[306] *Id.*

[307] *See id.* at 411.

[308] Husqvarna AB v. EPA, 254 F.3d 195, 201 (2001) ("CAA section 213 is a technology-forcing standard.").

[309] *Id. See also* 42 U.S.C. § 7547(a)(3) (2000).

[310] *Husqvarna*, 254 F.3d at 200.

[311] Lickel, *supra* note 66, at 150.

[312] *Id.*

the public health and welfare.[313] Hence, the court should have interpreted Section 213 literally and should have mandated that the emissions regulations press for improved technology, as Congress intended,[314] so that the improvements in air quality could be felt sooner.

The *Bluewater* court also upheld the agency's action based upon the assumption that regardless of the EPA's foreign-flagged vessel exemption, foreign-flagged ships would still comply with the MARPOL Annex VI standards.[315] However, Annex VI leaves the issue of compliance to port states.[316] Therefore, the compliance of foreign-flagged vessels with the international standards can only be verified through parameter checks, which in the United States are typically conducted by the U.S. Coast Guard.[317] The EPA's Category 3 regulations do not order the Coast Guard to conduct parameter checks to ensure compliance with the international standards.[318] If the Coast Guard is not going to conduct inspections or parameter checks upon foreign-flagged vessels, there is no reason to assume that all foreign-flagged vessels will automatically comply with the MARPOL Annex VI standards while in U.S. ports.[319] Since the U.S. has yet to

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[313] Am. Fed'n of Labor v. Marshall, 617 F.2d 636, 651-52 (1979). *See also* United Steelworkers of Am. v. Marshall, 647 F.2d 1189, 1207 (D.C. Cir. 1980) (stating that the court's task is ensure public accountability "by requiring the agency to identify relevant factual evidence, to explain the logic and the policies underlying any legislative choice, to state candidly any assumptions on which it relies, and to present its reasons for rejecting significant contrary evidence and argument").

[314] Natural Res. Def. Council, Inc. v. Envtl. Prot. Agency, 655 F.2d 318, 328 (D.C. Cir. 1981) (quoting S. Rep. No. 91-1196, at 24 (1970), *reprinted in* 1 LEGISLATIVE HISTORY OF THE CLEAN AIR ACT AMENDMENTS 424 (1974)); H.R. REP. 95-294, at 273 (1977), *as reprinted in* 1977 U.S.C.C.A.N. 1077, 1352.

[315] Bluewater Network v. EPA, 372 F.3d 404, 413 (2004).

[316] MARPOL Annex VI, *supra* note 66, Regulation 11.

[317] 67 Fed. Reg. 37,548, *supra* note 13, at 37,552. The U.S. Coast Guard has diverse responsibilities, including maritime security, mobility, and safety, national defense, and protection of natural resources. U.S. Coast Guard (USCG) Publication 1, U.S. Coast Guard: America's Maritime Guardian, at 5 (Jan. 1, 2002), *available at* http://www.uscg.mil/overview/Pub%201/contents.html. Within its responsibilities of protecting natural resources, the USCG protects marine habitats, marine mammals, and endangered marine species, as well as enforces laws regarding the discharge of oil and other hazardous substances into the nations waters. *Id.* at 10. Furthermore, the USCG inspects foreign vessels and is the first to respond to environmental disasters. *Id.*

[318] *See generally* 68 Fed. Reg. 9746, *supra* note 9.

[319] Flag states are primarily responsible for implementing MARPOL Annex VI and issuing the requisite certificates. PAMBORIDES, *supra* note 89, at 58. However, the number of vessels operating under "flags of convenience" has rapidly been growing. *Id.* at 12. Because "flags of convenience" are obtained from countries that have no means to enforce international standards, *id.* at 10, it is reasonable to anticipate that

ratify this treaty,[320] and there is no legislation in place to implement the Annex,[321] the *Bluewater* court erred in stating that compliance with the Annex standards would be assured[322] because there simply will be no one enforcing the MARPOL Annex VI standards on foreign-flagged vessels.[323]

V. CONCLUSION

Although the United States conducts more sea-trading than any other nation,[324] the EPA caved under political pressure from the OMB[325] to provide a foreign-flag exemption to Category 3 marine vessels in its emissions regulations.[326] By failing to monitor emissions from foreign-flagged vessels, the United States continues its pattern of exhibiting "disregard for what is considered acceptable by the rest of the world,"[327] while mocking the goals of the CAA.[328]

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sometimes Annex VI standards will not be complied with in U.S. ports without U.S. Coast Guard enforcement. *See* Geoffrey Palmer, *New Ways to Make International Environmental Law*, 86 AM. J. INT'L L. 259, 263 (1992) (noting that even ratification by a country does not mean that the agreed upon standards are being observed or monitored).

[320] International Maritime Organization, Summary of Status of Conventions by Country, http://www.imo.org/includes/blastDataOnly.asp/data_id%3D12899/status.xls (last visited Oct. 30, 2005). *See also* Intertanko, 2005 Federal and State Legislative & Regulatory Update, Oct. 4, 2005, available at http://www.intertanko.com/pubupload/INTERTANKO.ppt (noting that the Senate Foreign Relations Committee met on September 25, 2005 to discuss the treaty).

[321] *See* 68 Fed. Reg. 9746, *supra* note 9, at 9757.

[322] 372 F.3d 404 at 412-13.

[323] A representative with the US Coast Guard who is responsible for conveying such guidance to the field offices confirmed that "since the US has not yet ratified Annex VI, [the Coast Guard has taken the position that it] can't enforce it." E-mail from Wayne Lundy, US Coast Guard, to Sandra Snyder (Dec. 8, 2005, 8:47 am EST) (on file with author). *See also* ALEXANDRE KISS & DINAH SHELTON, INTERNATIONAL ENVIRONMENTAL LAW 587-600 (2d ed. 2000) (arguing that mechanisms must be in place to supervise application of standards and rules because merely creating the standard itself does not ensure that the problem will be resolved).

[324] LANGEWIESCHE, *supra* note 202, at 63.

[325] *See* Welch, *supra* note 4 (explaining that the EPA's Category 3 emission policy abruptly changed after the agency met with the OMB). The OMB and the EPA were both lobbied by shipping organizations to provide the foreign-flag exemption. *See, e.g.*, Press Release, International Council of Cruise Lines, Cruise Industry Counters Bluewater Network Petition; Notifies Congress, U.S. Federal Agencies (April 10, 2000) http://www.iccl.org/pressroom/press27.cfm; Letter from the International Association of Independent Tanker Owners to the U.S. Environmental Protection Agency (July 16, 2002), http://www.intertanko.com/pdf/weeklynews/IntertankoSubmission.pdf.

[326] 68 Fed. Reg. 9746, *supra* note 9, at 9746.

[327] PAMBORIDES, *supra* note 89, at 127 (1999).

[328] 42 U.S.C. § 7401(b) (2000) (declaring a purpose of the CAA to be "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").

Regardless, the EPA might find itself subject to further litigation due to the insufficiencies of the Category 3 emissions standards since Bluewater Network cautioned the EPA that it might face another lawsuit if MARPOL Annex VI were ever ratified in the U.S.[329] However, due to the amount of deference that courts typically give to expert agencies on technical matters, it is unlikely that further litigation will overturn the D.C. Circuit's decision.[330] Hence, if courts are unwilling to stop providing deference to EPA rulemaking despite evident political bias, it is essential for Congress to pass proposed legislation creating the position of Deputy Administrator for Science and Technology within the EPA and changing the duration of term of the Assistant Administrator for Research and Development, so that the agency is capable of focusing more on science and less on politics.[331] If one of these steps is not taken, the Executive Branch will continue to have the power to make a mockery out of the CAA by requesting that the EPA does not take all the available actions to improve air quality.

Sandra Y. Snyder[†]

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[329] RUSSELL LONG, ENVIRONMENTAL COMMUNITY VIEW OF ENVIRONMENTAL REGULATIONS, *available at* http://www.epa.gov/region9/air/marinevessel/pdfs/long.pdf (last visited Jan. 8, 2005).

[330] *See* Kleppe v. Sierra Club, 427 U.S. 390, 412 (1976). *See also* Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 103 (1983).

[331] S. 2233, 108th Cong. (2004).

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