Regulating Foreign Vessels Under the Clean Air Act: The Case for a Permissible Administrative Interpretation*

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I. INTRODUCTION

The emissions of large sea-going vessels contribute significantly to carbon monoxide (CO), ozone, and particulate matter (PM) concentrations by generating significant nitrogen oxide (NOx) emissions in many ports and coastal areas of the United States, including San Diego, Los Angeles, San Francisco and Houston. In the United States, such pollution has hampered efforts to attain the National Ambient Air Quality Standards (NAAQS) for these pollutants, especially in California. A similar problem has been noted in Europe where the sulfur dioxide (SOx) emissions from marine vessels are causing a serious acid rain problem.

1. NOx emissions contribute to ozone and PM concentrations as a result of complex chemical reactions. Control of Emissions of Air Pollution From New CI Marine Engines At or Above 37 kW, 63 Fed. Reg. 68,508, 68,510-68511 (proposed Dec. 11, 1998) (to be codified at 40 C.F.R. pt. 94).

2. Nationally, the EPA estimates that NOx emissions from marine diesel engines make up 8.1% of all mobile source NOx emissions and 4.8% of total NOx emissions, including stationary sources. Id. at 68,511. The EPA also estimates that Marine diesel PM emissions make up 4.4% of mobile source PM emissions and 1% of total PM emissions. Id. These emissions are of course concentrated in coastal areas and port cities, making such emissions a much more serious problem. Id.

3. The contributions of marine engines in San Diego and San Francisco are especially high. The EPA estimates that marine engines contribute 17% and 12% respectively of the total NOx concentrations in the area. Id. at 68,548 n.48. Based on the EPA’s statistics, it appears that large ocean going vessels are responsible for at least one-half to two-thirds of these contributions. See id. at 68,524 n.48 (noting that small and medium sized vessels contribute 6% and 5% of the NOx emission inventory in San Diego and San Francisco, respectively).

4. A study by the Port of Houston estimated that marine engines in the area produced a total of 31.46 tons per day (tpd) of NOx: 3.28 tpd contributed by port vessels, 7.97 tpd contributed by tug boats and 26.83 tpd from ocean going vessels. Texas National Resource Conservation Commission: Houston-Galveston State Implementation Plan Appendices, Appendix C, Houston-Galveston Area Vessel Emissions Inventory 9 [hereinafter Port of Houston Study], at http://www.tnrcc.state.tx.us/updated/oprd/rule_lip/sip_appxs.html (last visited March 15, 2002). Based on these numbers large ocean-going vessels which call on the Port of Houston are responsible for 80% of NOx marine emissions. See id.

5. Approval and Promulgation of State Implementation Plans; California—South Coast, 64 Fed. Reg.30,276, 30,278 (proposed June 7, 1999) (to be codified at 40 C.F.R. pt. 52). For example, in California, “marine vessels account for approximately 40% of all SO subX [sulfur dioxide] emissions and 12% of all NO subX emissions from both mobile and stationary sources statewide.” Approval and Promulgation of State and Federal Implementation Plans; California—Sacramento and Ventura Ozone; South Coast Ozone and Carbon Monoxide: Sacramento Ozone Area Reclassification, 59 FR 23,264, 23,377 (proposed May 5, 1994) (to be codified at 40 C.F.R. pts. 52 & 81).

6. See Study on the Economic, Legal, Environmental and Practical Implications of a European Union System to Reduce Ship Emissions of SO2 and NOx (Aug. 2000) [hereinafter European Union Study], at http://europa.eu.int/comm/environment/envrco taxation/ship_emissions/mainfinal.pdf. In 1990, marine emissions in the waterways around Europe were about 10% of total SOx emissions in Europe. Id. at 11. Assuming that reductions continue in other sectors at the current pace, the contribution of marine emissions is projected to rise to 30% by 2010. Id. According to the study, a source this
A significant share of these emissions is generated by large sea-going vessels engaged in international trade, especially foreign vessels. Section 213 of the Clean Air Act (CAA) requires the Environmental Protection Agency (EPA) to regulate these large ships. However, the EPA has deferred regulation of these ships to the International Maritime Organization (IMO), which has drafted a treaty on the subject, namely Annex VI of the International Convention on the Prevention of Pollution from Ships (Annex VI). The emissions of these large vessels are still unregulated because the treaty has yet to enter into force. Environmental groups have sued the EPA claiming that, by deferring to the IMO, the EPA has violated its statutory obligations under Section 213. The EPA settled the suit by agreeing to regulate large vessels significant “needs careful attention” because, as other studies have noted, even the most ambitious emissions reduction program, excluding the control of marine emissions, would fail to reduce acidification from acid rain below harmful levels in at least 4% of Europe’s ecosystem. Id. at 4. 7. In Houston, for example, 89% percent of all ocean-going vessels, which call on the port, sail under foreign flags. Port of Houston Study, supra note 4, at 19. 8. Clean Air Act § 213, 42 U.S.C. § 7547 (1994). 9. Control of Emissions of Air Pollution From New Marine Compression-Ignition Engines At or Above 37 kW, 64 Fed. Reg. 73,300, 73,306 (1999) (to be codified at 40 C.F.R. pts. 89, 92, and 94). 10. PROTOCOL OF 1997 TO AMEND MARPOL 73/78 ANNEX VI OF MARPOL 73/78 REGULATIONS FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS (International Maritime Organization ed., 1998) [hereinafter Annex VI]. 11. See id. at Art. 6. Annex VI will enter into force one year after fifteen member states of the IMO “representing not less than fifty percent of the gross tonnage of the world’s merchant shipping fleet” ratify it. Id. As of March 1, 2002, Annex VI has been ratified by Norway, Sweden, Singapore, and the Bahamas. International Maritime Organization, Legal, Status of Conventions—Complete List, at http://www.imo.org/includes/blastDataOnly.asp/data_id%3D4781/status.xls (last visited March 15, 2002); Hugh O’Mahony, Bahamas is Fourth IMO State to Ratify Pollution Rules, LLOYD’S LIST INTERNATIONAL, November 23, 2001, available at 2001 WL 29609756; Donald Urquhart, Singapore Signs International Accord for Clean Air at Sea, BUSINESS TIMES (SINGAPORE), August 15, 2000, available at 2000 WL 25564678. These four nations comprise 14.05% of the world’s fleet tonnage. International Maritime Organization, Legal, Status of Conventions—Summary, at http://www.imo.org/ HOME.html (last visited March 15, 2002). 12. The Bluewater Network, a San Francisco-based environmentalist advocacy group, brought the suit in the D.C. Federal Circuit Court. Jack Peckham, Environmental Groups Charge EPA fails to Prevent Big Ship Diesel Emissions, DIESEL FUEL NEWS, August 14, 2000, available at 2000 WL 9104837; Russell Long, Opinion: Trading Air Quality for Global Trade, S. D. UNION TRIB., August 23, 2000, at B9:7. 13. The EPA’s deferral to the IMO can be challenged as a violation of the CAA because Annex VI very likely may never be ratified. Assuming that the treaty goes into force, however, the deferral can also be challenged on the grounds that the regulatory requirements of the convention fall short of the CAA requirement that these standards
flying the United States flag, if Annex VI is not ratified by April 30, 2002.\textsuperscript{14} They also agreed to consider regulating large vessels flying foreign flags.\textsuperscript{15}

This comment will argue that the EPA may regulate the emissions of large sea-going vessels flying foreign flags that enter the territorial sea, contiguous zone, or Exclusive Economic Zone (EEZ) of the United States, under Section 213 of the CAA, notwithstanding conventional and customary Law of the Sea and other international treaties governing vessel source pollution. Part II of the comment presents background material that explains the provisions of the CAA, which mandate the EPA to regulate international shipping vessels. This section also presents the regulatory schemes developed by the IMO and the EPA. Part III evaluates whether the EPA can interpret the CAA to mandate the EPA to regulate the emissions of foreign vessels in United States’ waters. Subpart A examines whether such an interpretation would be consistent with the United States obligations under international law. Subpart B considers how the United States courts would review an application of the CAA to foreign ships. Of particular importance will be the Supreme Court’s jurisprudence on the internal affairs rule and the presumption against extraterritoriality. Part IV compares the results of the present analysis with the conclusions of the European report that analyzes whether the European Community can adopt similar regulations to reduce SOX emissions in the waterways around Europe. Part V presents some concluding remarks.

\section*{II. BACKGROUND}

\subsection*{A. EPA Mandates to Regulate Emissions Under Section 213}

Under the 1990 Amendments to the CAA, Congress mandated the EPA to regulate the emissions of marine vessels.\textsuperscript{16} Marine vessels are not mentioned explicitly in the Act. Rather, the statute refers to them generally as non-road engines or vehicles.\textsuperscript{17} The statute requires the


\footnotesize{\textsuperscript{15} Id.}

\footnotesize{\textsuperscript{16} See 42 U.S.C. § 7547 (1994).}

\footnotesize{\textsuperscript{17} 42 U.S.C. § 7550(10)-(11) (1995). According to the Senate Report comments on Section 210 of the CAA, “[t]he term “non-road engines” includes a wide range of engine uses and vehicles [sic]. The term includes, for example, diesel locomotives, farm and construction equipment, utility engines such as lawn and garden equipment,}
EPA to conduct three steps of analysis prior to regulating any class of non-road engines. First, the EPA must study the emissions of non-road sources to determine whether they significantly contribute to "air pollution which may reasonably be anticipated to endanger public health or welfare." Second, on the basis of this study, the EPA must determine whether non-road emissions significantly contribute to carbon monoxide and ozone concentrations in more than one non-attainment area for these pollutants. Finally, the EPA must identify specific classes of non-road engines, which in its judgment contribute to ozone or CO pollution. The EPA is required to regulate only new sources in these classes.

B. Regulatory Scheme Behind Section 213

The EPA has completed the three steps of analysis required by section 213 and has adopted a regulatory framework for marine engines. The regulations classify marine engines into three categories. Category one vessels include those "typically used as propulsion engines on relatively small commercial vessels (fishing vessels, tugboats, crew boats, etc.)." Category two vessels include harbor and coastal vessels used in U.S. waters. Category three vessels include propulsion engines on large

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19. § 7547(a)(1).
20. § 7547(a)(2).
21. § 7547(a)(3).
22. § 7547(a)(3).
23. In 1991, the EPA conducted a study of non-road engines and vehicle emissions pursuant to section 213(a)(1), and in 1994 determined, pursuant to section 213(a)(2), that non-road engines significantly contribute to CO and ozone emissions in more than one non-attainment area. 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). In 1998, the EPA determined that marine engines as a class contribute to CO and ozone pollution. Control of Emissions of Air Pollution From New CI Marine Engines At or Above 37 kW, 63 Fed. Reg. 68,508 (Dec. 11, 1998) (to be codified at 40 C.F.R. pt. 94).
24. Control of Emissions of Air Pollution From New Marine Compression-Ignition Engines At or Above 37 kW, 64 Fed. Reg. 73,300 (Dec. 29, 1999) (to be codified at 40 C.F.R pts. 89, 92, and 94).
25. Id. at 73,305.
26. Id.
27. Id. Both category one and two engines are often used as auxiliary engines on larger category three vessels. Id.
vessels engaged in international trade, tankers and container vessels. Regulations were adopted for category one and two vessels, but no regulations were adopted for category three vessels. Rather, the EPA chose to defer to the IMO's draft regulation, Annex VI, because upon ratification, the convention is to be retroactive to January 1, 2000. The EPA argued that the retroactivity would be sufficient to motivate ship builders to voluntarily comply with the IMO standards. As of this writing, the EPA is planning to release proposed regulations covering category three ships in April 2002 in accord with the Bluewater settlement agreement.

Under section 213, the EPA must adopt regulations that cover pollutants that cause or contribute ozone or CO pollution. This includes NOx emissions that, as previously noted, significantly contribute to ozone and CO concentrations by dint of complex chemical reactions. The EPA may also elect to regulate SOx emissions, as the European Union is considering, if the EPA determines that such emissions “may reasonably be anticipated to endanger public health and welfare.” However, the EPA has not elected to do so.

C. Regulatory Scheme of MARPOL (73/78) Annex VI

Annex VI to the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) regulates new or modified category three sea-going vessels. Assuming that the treaty enters into force, it is not anticipated to have an impact for twenty or thirty years. The regulations

28. Id. at 73,306.
30. Id.; Annex VI, supra note 10, at Regulation 13(1)(a)(i). Retroactivity applies only to the NOx regulations. Id. The regulation states that it “shall apply to . . . each diesel engine with a power output of more than 130 kW which is installed on a ship constructed on or after 1 January 2000.” Id.
31. Control of Emissions of Air Pollution From New Marine Compression-Ignition Engines At or Above 37 kW, 64 Fed. Reg. at 73,306.
34. Control of Emissions of Air Pollution from New CI Marine Engines At or Above 37 kW, 63 Fed. Reg. at 68,510.
36. Annex VI, supra note 10, at Regulation 13(1)(a). Specifically, these engines are defined as having a power rating of 130kW or greater that corresponds to the EPA’s definition of category 3 engines. Id.
37. See James C. Corbett and Paul Fischbeck, Emissions from Ships, SCIENCE, Oct. 31, 1997, at 824. “With a 1.5% yearly fleet replacement rate, a measurable reduction in nitrogen emissions will not occur for many years. For [NO.sub.x] controls that reduce individual ship emissions by thirty to fifty percent, IMO regulations would reduce total emission by less than one percent per year based on current fleet size.” Id.
cover both NOx and SOx emissions. Annex VI regulates NOx pollution by imposing an emissions cap and allowing ship builders and owners to comply by adopting any effective means available.\(^\text{38}\) Annex VI regulates SOx emissions by imposing a sulfur content limit on vessel fuel.\(^\text{39}\) Only the NOx regulations are retroactive.\(^\text{40}\)

III. PERMISSIBLE STATUTORY INTERPRETATION

A. The Standard of Review

This comment will present the legal basis upon which the EPA can regulate the pollution emissions of foreign vessels that enter United States water. The key issue is whether Section 213 may be interpreted to authorize the EPA to regulate the air emissions of foreign ships that enter the territorial sea, contiguous zone, and exclusive economic zone of the United States. How a court decides the case will turn in large measure upon the standard of review that the court applies. Generally, \textit{Chevron, Inc. v. Natural Resources Defense Council, Inc.} determines the standard of review that courts apply to an administrative interpretation of a federal statute.\(^\text{41}\) \textit{Chevron} adopted a two-pronged test.\(^\text{42}\) When a statute is clear, the court will decide whether the agency's interpretation is consistent with the statute's clear expression.\(^\text{43}\) If the court finds that the statute is ambiguous, the court will defer to any reasonable administrative interpretation of that statute.\(^\text{44}\) However, when an otherwise reasonable interpretation of an ambiguous statute is in conflict with international law, federal courts tend to extend less deference to an agency than they would under \textit{Chevron}. Justice Marshall articulates the rule best: "an act of Congress ought never to be construed to violate the law of nations if any other possible construction remains, and consequently can never be construed to . . . affect neutral commerce, further than is warranted by the law of nations \textit{as understood in this country}."\(^\text{45}\)

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\(^{38}\) Annex VI, \textit{supra} note 10, at Regulation 13(3)(b).

\(^{39}\) \textit{Id.} at Regulation 14(1).

\(^{40}\) \textit{Id.} at Regulations 13 & 14.


\(^{42}\) \textit{Id.}

\(^{43}\) \textit{Id.}

\(^{44}\) \textit{Id. at} 843.

As a general proposition, Justice Marshall's rule can be restated as a presumption that Congress does not intend to violate international law unless it clearly indicates otherwise. This presumption is based on the Supreme Court's unwillingness to substitute its own policy judgments for those of Congress on matters of international law where "[t]he possibility of international discord" and retaliation is high.\(^4\) In the Court's view, only Congress "has the facilities necessary to make fairly such an important policy decision."\(^4\) Furthermore, the Court has never questioned Congress' authority to adopt legislation that clearly contradicts international law.\(^4\) Therefore, Justice Marshall's presumption can be rebutted by evidence of a clear expression by Congress, either in the statute itself or in the legislative history, that it did in fact intend the statute to apply in a manner contrary to international law.\(^4\)

This rule provides courts with more discretion to reject a statutory interpretation that contravenes international law than is available under \textit{Chevron}; however, the court is still limited by the fact that it must measure the permissibility of an interpretation against international law "as understood in the United States." This gives agencies a reasonable amount of leeway to stretch their statutory authority despite ostensible constraints imposed by international law. The most notable example is \textit{Suramerica de Aleaciones Laminadas, C.A. v. United States}.\(^5\)

In \textit{Suramerica}, several Venezuelan companies challenged an administrative action by the Commerce Department to impose countervailing duties against them because the Commerce Department had concluded that they were receiving subsidies from the Venezuelan government and dumping their product, aluminum redraw rods (EC rods), in the United

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47. Benz v. Compania Naviera Hidalgo, S.A., 353 U.S. 138, 147 (1957). In both \textit{McCulloch} and \textit{Benz}, the Court refused to apply the National Labor Relations Act to foreign ship owners and their foreign crew sailing under a foreign flag because the statute and its legislative history were devoid of any indication that Congress intended that it apply in violation of the flag state's sovereignty over the internal affairs of its vessel. \textit{McCulloch}, 372 U.S. at 21-22. In fact, the court found some evidence in the legislative history indicating that the law was to apply only to American workers and employers. \textit{Id.} at 19-20.


49. \textit{See} Cunard Steamship Co. Ltd. v. Mellon, 262 U.S. 100 (1923) (holding that the Nineteenth Amendment and the National Prohibition Act apply to foreign ships passing through the territorial sea of the United States).

States market to the detriment of domestic producers.\textsuperscript{51} At issue in the case was whether Southwire Company (Southwire), a domestic manufacturer of EC rods, had standing to petition the Commerce Department to investigate and penalize the Venezuelan companies under federal law.\textsuperscript{52} A company has standing as long as it petitions “on behalf of” its industry.\textsuperscript{53} Under the Commerce Department’s interpretation of the phrase “on behalf of,” a petitioning company had no burden to prove that it had the support of the industry.\textsuperscript{54} The Venezuelans challenged this interpretation by claiming that it violated the General Agreement on Trade and Tariffs (GATT).\textsuperscript{55} The court rejected this argument essentially on the ground that Congress had declared elsewhere in the Federal Code that the adoption of the GATT into United States law was subject to contrary provisions in the United States Code.\textsuperscript{56} In other words, the court relied upon this statute to support the conclusion that, “as understood in this country,” the laws of the GATT are inferior to the laws of the United States.\textsuperscript{57} On this basis, the court allowed the Commerce Department to interpret the countervailing duty and antidumping duty investigation statutes in contravention of GATT, even though the countervailing and antidumping duty investigation statutes were not made expressly contrary to the GATT by Congress. In Suramerica, the court relied upon an express provision of a federal statute as evidence of how international law was understood in this country. Arguably, the court could also rely upon an expression in legislative history or by the president as evidence of how a provision of international law is “understood in this country.”


The primary source of both prescriptive and enforcement jurisdiction for port and coastal state action on environmental matters is the United
Nations Convention for the Law of the Sea (UNCLOS 1982). The treaty entered into force November 16, 1994. Although the United States Senate has not ratified the treaty, the history of United States involvement with UNCLOS 1982 supports the view that the majority of its provisions bind the United States as customary international law.

When UNCLOS 1982 was first adopted, the United States voted against it because the United States disapproved of provisions governing deep seabed mining. However, President Reagan insisted that the United States would observe most of the other provisions of the treaty. Since then, the United States has reserved jurisdiction over its coastal waters to the fullest extent allowed by the treaty.

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60. Id. The treaty has been tabled in the Senate Foreign Relations Committee by its Chairman, Senator Jesse Helms, who refuses to allow public hearings. See Opinion: Ratify the Senate Treaty; Senate Should Overcome Helms’ Opposition, S. D. UNION TRIB., August 20, 1998, at B14.


62. Remy, supra note 61, at 1216.

63. Id. at 1218.

signed and submitted UNCLOS 1982 to the United States Senate for approval. Certainly, the reservation of expanded jurisdiction under UNCLOS 1982, despite the failure of Congress to ratify it, carries with it an obligation to respect the limitations attached to the grant of this jurisdiction.

UNCLOS 1982 divides the waters of a coastal state into four zones including the internal waters, the territorial sea, the contiguous zone, and the EEZ. The treaty grants coastal states varying levels of both prescriptive and enforcement jurisdiction in each zone. Internal waters consist of ports and all waters on the landward side of a baseline prescribed by the treaty. Port-state jurisdiction to prescribe and enforce environmental regulation in these waters is nearly plenary, subject only to comity. UNCLOS 1982 does nothing to disturb this core concept.

The question at this stage of the analysis is whether applying the CAA to foreign vessels in these three zones would in fact violate international law. Reasonable arguments can be made that applying the CAA in the territorial sea and contiguous zone does not violate the UNCLOS 1982. On the other hand, the authority for applying the CAA unilaterally in the EEZ is much weaker, and no commentator has argued that there are reasonable grounds for doing so.

1. Territorial Sea

The territorial sea extends twelve nautical miles out from a nation’s

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applicability of the statute for the purpose of assigning airline crash liability from outside the three mile limit to outside the twelve mile limit; 18 U.S.C. § 2280(e) (2000) (defining “territorial sea under the section relating to maritime crimes as within twelve nautical miles of the coast); 16 U.S.C. § 2402(8) (2000) (defining “import” as bringing something into the twelve mile territorial sea of the United States); 16 U.S.C. § 1437(k) (2000) (defining the chapter’s applicable area to include the territorial sea “as described in the Presidential Proclamation 5928.”). Notably, neither the definition of territorial sea or contiguous zone within the Clean Water Act has been changed. See 33 U.S.C. §§ 1362(8)-(9), 1402(b) (2000). The statute still defines them in terms of the earlier Conventions on the Law of the Sea. Id. The term territorial sea does not appear in the CAA. See 42 U.S.C. 7401 et. seq. (1994).

66. UNCLOS 1982, arts. 8-11, supra note 58, 1833 U.N.T.S. at 401-02.
68. Id. at 746-47. A port state may prescribe and enforce national CDEM regulations that cover foreign vessels which enter its internal waters. Id. at 746-47, 750 n.151.
coastal baseline. Article 21(1) of UNCLOS 1982 authorizes states to prescribe laws that preserve the environment and prevent pollution in the territorial sea. In addition, Article 211(4) of UNCLOS 1982 explicitly authorizes states to apply such laws to “foreign vessels, including foreign vessels exercising the right of innocent passage.”

Finally, Article 212 of UNCLOS 1982 imposes a duty upon states to adopt laws and regulations that reduce marine pollution from or through the atmosphere in the territorial sea.

Article 21(2) limits a coastal state’s regulatory authority under UNCLOS 1982 by requiring that any regulations that apply to the construction, design equipment or manning (CDEM) of foreign vessels must “give effect to generally accepted international rules and standards (GAIRS).”

Assuming that emissions standards qualify as CDEM standards, applying the CAA in the territorial sea would violate this limitation because there are currently no GAIRS pertaining to the pollution emissions of large sea going vessels to which the CAA can “give effect.”

There is some question as to whether an emissions standard qualifies as a CDEM regulation subject to this limitation. The language of UNCLOS 1982 suggests that discharge standards are not CDEM standards subject


70. Id. at 405.

71. Id. at 484.

72. Id. at 485. The mandate requires states to apply the regulations in its own airspace, which necessarily implies that the standards are to apply in the waters below that airspace. This area of course includes at least the territorial sea. See ERIK JAAP MOLENAAR, COASTAL STATE JURISDICTION OVER VESSEL SOURCE POLLUTION 504 (1998).

73. UNCLOS 1982, supra note 58, art. 21, ¶ 2(f). See also MOLENAAR, supra note 72, at 200-01. The Article states in pertinent part:

1. The coastal State may adopt laws and regulations, in conformity with the provisions of this Convention and other rules of international law, relating to innocent passage through the territorial sea, in respect of... (f) the preservation of the environment of the coastal State and the prevention, reduction and control of pollution thereof;

2. Such laws and regulations shall not apply to the design, construction, manning or equipment of foreign ships unless they are giving effect generally accepted international rules and standards.

74. Commentators generally consider this term to refer to regulatory standards adopted under MARPOL 73/78 by the IMO. UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY 202 (Satya N. Nandan & Shabtai Posenne, eds. 1993). The IMO has adopted Annex VI to cover marine air pollution, but it is not clear whether it qualifies as GAIRS because it has yet to be ratified. Molenar argues that international conventions become generally accepted when there is widespread and representative participation in the convention, including states whose interests were specially affected. MOLENAAR, supra note 72, at 156-57. Under this test, Annex VI does not seem to rise to the level of “generally accepted” because only four states have ratified it. See supra note 11.
to Article 21(2)\textsuperscript{75} because Article 194(3)(b) of UNCLOS 1982 distinguishes regulations controlling “intentional and unintentional discharges” from regulations covering “the design, construction, equipment, operation and manning of vessels.”\textsuperscript{76} Such a distinction has a strong rational basis. Environmental CDEM standards essentially specify how a ship is to be designed, what kind of equipment it must use, and how it is to be manned in order to prevent and reduce vessel source pollution.\textsuperscript{77} Discharge standards, on the other hand, regulate the “operational discharges” of ships by specifying “allowable concentrations, . . . discharge rates or total quantities per voyage.”\textsuperscript{78} Discharge standards are not CDEM standards because discharge standards do not directly regulate the CDEM of a vessel. Of course, discharge standards will often impact the CDEM of a vessel incidentally because in order to comply, shipbuilders and owners will have to make changes in the way they build, design, equip, or man their vessels. However, they do not tell shipbuilders and owners how to build, design, equip, man or operate their vessels.

Arguably, other types of regulations, such as emissions standards, which impact CDEM in the same minor, incidental way, should not be subject to the GAIRS limitation of Article 21(2).\textsuperscript{79} Molenaar articulates the argument well:

Emissions standards are not specifically referred to in the LOSC [Law of the
Sea Convention] but should for jurisdictional purposes be regarded as similar to
discharge standards due to the nature of their environmental impact . . . Like
discharge standards, emissions standards are directly aimed at regulating the
amount of substance that enters the marine environment.\textsuperscript{80}

\textsuperscript{75.} UNCLOS 1982, supra note 58, 1833 U.N.T.S. at 405.
\textsuperscript{76.} UNCLOS 1982, art. 194(3)(b), supra note 58, 1833 U.N.T.S. at 478. Accord Bodansky, supra note 67, at 750 (arguing that UNCLOS 1982 allows states to “prescribe national discharge but not national CDEM standards”). Article 194(3)(b) imposes upon states a duty to minimize pollution from vessels to the fullest extent possible by adopting “measures for preventing . . . intentional and unintentional discharges, and regulating the
design, construction, equipment, operation and manning of vessels.” UNCLOS 1982, art. 194, supra note 58, 1833 U.N.T.S. at 478 (emphasis added).
\textsuperscript{77.} MOLENAAR, supra note 72, at 23.
\textsuperscript{78.} Id. at 21-22.
\textsuperscript{79.} Id. at 502.
\textsuperscript{80.} Id. at 21-22 (emphasis added). Relying upon Molenaar’s characterization of emissions standards, the EU report argues that the EU could adopt fuel sulfur content regulations meant to reduce SOx emissions because SOx engine emissions are directly correlated with sulfur fuel content. Appendix 4, Legal Analysis: Prescription, Enforcement and Observance, of the European Union Study, ¶¶ 69-72, at A4.21-A4.22 [hereinafter Appendix 4 of the European Union Study], at http://Europa.eu.int/comm/
Article 212 of UNCLOS 1982 provides another basis for exempting emissions standards from the GAIRS limitation of Article 21(2). As previously mentioned, Article 212 imposes a duty upon states to adopt laws and regulations that reduce marine pollution from or through the atmosphere in the territorial sea.\textsuperscript{81} These laws and regulations are to take "into account internationally agreed rules, standards and recommended practices and procedures."\textsuperscript{82} Unlike Article 194 of UNCLOS 1982, which requires states to minimize pollution from ships by adopting regulations such as discharge standards or CDEM standards, Article 212 does not enumerate specific types of regulation. Presumably, a state could adopt an emissions standard or a CDEM standard to fulfill its duties under Article 212. Any CDEM standard adopted to control air pollution would obviously be subject to Article 21(2).\textsuperscript{83} However, to date no GAIRS have addressed air pollution. Therefore, Article 21(2) effectively precludes all air pollution CDEM standards.\textsuperscript{84} For this reason, if emissions standards could not be distinguished from CDEM standards, then Article 21(2) would effectively preclude any regulation that could reduce air pollution. This would be an absurd result because it would mean that the drafters simultaneously imposed upon states a duty to regulate while denying them any means of doing so unilaterally. Thus, a more plausible conclusion is that emissions standards must be different than CDEM standards.

While the EPA has yet to promulgate air emission regulations applicable to large sea-going vessels, these regulations will most likely be very similar to the NOx regulations adopted in Annex VI.\textsuperscript{85} As is the case with discharge standards in general, these standards merely specify permissible emissions levels and on their face do not require vessels to adopt any

\textsuperscript{81} UNCLOS 1982, \textit{supra} note 58, 1833 U.N.T.S. at 485. Article 212 states that:
1. States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from or through the atmosphere, applicable to the air space under their sovereignty and to vessels flying their flag or vessels or aircraft of their registry, taking into account internationally agreed rules, standards and recommended practices and procedures ....
2. States shall take other measures as may be necessary to prevent, reduce and control such pollution.
3. States acting especially through competent international organizations or diplomatic conference, shall endeavor to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control such pollution.

\textit{Id.}

\textsuperscript{82} \textit{Id.}

\textsuperscript{83} UNCLOS 1982, \textit{supra} note 58, 1833 U.N.T.S. at 405.

\textsuperscript{84} \textit{See id.} \textit{See also supra} note 74.

\textsuperscript{85} \textit{See supra} notes 23-40 and accompanying text.
particular method of attaining them.\textsuperscript{86} In this respect, Annex VI's NOx air pollution emission standards are similar to discharge standards.

The impact of NOx emissions regulations mandated by the CAA on CDEM may also be considered minor because they apply only to new vessels.\textsuperscript{87} When old vessels must be refurbished to comply with regulations, the ship owner suffers not only the cost of installing new equipment but also the forfeiture of capital investment represented by the remaining useful life of any equipment he must discard. Congress acknowledged this cost in drafting the double hull regulation under the Oil Pollution Act of 1990.\textsuperscript{88} When new sources are regulated there is a one-time design cost, which the manufacturer can spread out over total sales. Finally, provided the EPA adopts regulations similar to those of Annex VI, this could hardly be a significant burden because manufacturers have already begun to build to those specifications.\textsuperscript{89}

However, these arguments do have some weaknesses. As a practical matter, the NOx emissions standards of Annex VI are more like CDEM standards than discharge standards because the only way to comply with them is by installing either a specially certified engine or an exhaust cleaning system.\textsuperscript{90} The European Union Study rejected the idea of applying NOx standards to foreign vessels in advance of Annex VI entering into force for this reason.\textsuperscript{91}

\textsuperscript{86} Regulation 13 specifies permissible emissions levels but allows ship owners to adopt any method that would meet these emissions levels. Annex VI, \textit{supra} note 10, at Regulation 13(3)(b)(ii).

\textsuperscript{87} See 42 U.S.C. § 7547(a)(3) (1994). Molenaar argues that CDEM standards “are inter alia concerned with replacement or modification of diesel engines, exhaust gas cleaning systems, and shipboard incinerators.” \textit{Molenaar, supra} note 72, at 67. Notably absent from this list are regulations that apply to the manufacture of new vessels. Evidently commentators do not consider regulations that require ship builders to install less offensive engines before they sell a vessel to be CDEM regulations.


\textsuperscript{89} See \textit{Pollution: Whatever happened to Marpol Annex VI on its way to the statute books?}, \textit{Lloyd's List International}, Nov. 15, 2001 (noting that “[r]esponsible engine manufacturers have more than lived up to the higher of the limits set by Annex VI”).

\textsuperscript{90} See Annex VI, \textit{supra} note 10, at Regulation 13(3). The regulation does allow “other methods,” but the engine and exhaust cleaning solutions are specifically mentioned. \textit{id.}

\textsuperscript{91} European Union Study, \textit{supra} note 6, at 32.
2. Contiguous Zone

The contiguous zone, addressed by Article 33 of UNCLOS 1982, extends twenty-four miles from the coastal baseline. Within this zone, a country "may exercise control necessary to prevent infringement of its . . . sanitary laws and regulations within its territory or territorial sea." Some commentators argue that Article 33 does not establish any authority to enforce environmental regulation in the contiguous zones because the convention distinguishes environmental regulation from sanitary regulation in Articles 19 and 21. This argument does not foreclose the enforcement of all environmental regulation in the contiguous zone because some environmental laws also qualify as sanitary laws. States may enforce environmental laws in the contiguous zone that are intended to protect humans from a direct health threat.

The preamble of the CAA clearly identifies the CAA as designed to protect humans from direct health threats. Commentators also argue that even if some environmental laws qualify as sanitary laws, they may be enforced only with respect to violations that may occur within the territorial sea, not the contiguous zone. Essentially, the provision is interpreted to allow coastal states to stop ships in the contiguous zone before they enter the territorial sea or to chase them as they leave the territorial sea, on the suspicion that the ship may or did violate the laws of the coastal state. A broader interpretation allowing jurisdiction in the contiguous zone is justified.

92. UNCLOS 1982, art. 33, supra note 58, 1833 U.N.T.S. at 409.
93. Id.
94. MOLENAAR, supra note 72, at 277. See also Andrew Anderson, National and International Efforts to Prevent Traumatic Vessel Source Oil Pollution, 30 U. MIAMI L. REV. 985, 1002 (1976).
95. Sanitary laws are designed primarily to protect public health. Some environmental laws are passed to neutralize a direct threat to public health, while others are passed merely to protect the ecosystem from pollution which at most possesses an attenuated indirect threat to human welfare. Those environmental laws designed to protect the public from a direct threat are therefore also sanitary laws.
96. See Bodansky, supra note 67, at 755 n.175 (noting that sanitary may at least encompass "measures to protect human life, . . . [including] pollution that threatens human life.").
97. The CAA states that the purpose of the act is "to protect the quality of the Nation's resources so as to promote the public health." 42 U.S.C. § 7401(b)(1) (1995). The CAA also states that the EPA is to establish national ambient air quality standards (NAAQS) "requisite to protect the public health." 42 U.S.C. § 7409(b)(1) (1995).
98. MOLENAAR, supra note 72, at 276; Bodansky, supra note 67, at 755 n.177 (citing Gerald Fitzmaurice, Some Results of the Geneva Conference on the Law of the Sea, 8 INT'L & COMP. L.Q. 73, 111-12 (1959) (arguing that "the coastal state does not have prescriptive jurisdiction in the contiguous zone.").
99. See MOLENAAR, supra note 72, at 275-76.
First, Article 33 refers to "the prevention of infringement." Some acts committed within the contiguous zone, though harmless in that area, may nevertheless simultaneously infringe sanitary laws within the territory of the contiguous nation without ever requiring that the ship enter that nation's territorial sea. The emission of air pollution is just this kind of act because such pollution may drift inland and prevent coastal authorities from maintaining air quality standards mandated by law. In other words, ships need not enter the territorial sea to infringe upon the air quality laws of the contiguous nation. That a country may proscribe such acts in the contiguous zone by appropriate regulation, naturally follows. Of course, even if a ship may not be stopped for emitting air pollution in the contiguous zone, legal action may at least be taken because that ship may very likely enter the country's territorial sea.

Second, the United States and other countries have asserted prescriptive jurisdiction in the contiguous zone. Specifically, the United States Clean Water Act (CWA) forbids the "discharge of oil or hazardous substances ... into or upon the waters of the contiguous zone." Thus, some custom supports the assertion of limited jurisdiction to prescribe regulations applicable in the contiguous zone. More importantly, the CWA provision represents an assertion of this jurisdiction by the United States. As such it provides a strong basis for concluding that, "as understood in this country," Article 33 authorizes the grant of prescriptive jurisdiction for discharge standards. Since air pollution emissions are very similar to these standards, the application of these emissions standards in the contiguous zone must also be authorized under the United States interpretation of Article 33.

Any regulation adopted for the contiguous zone must also comply with Article 21(2) which limits CDEM standards to GAIRS. Article 21 controls not only regulations applied in the territorial sea, but all

100. UNCLOS 1982, supra note 58, art. 33.
101. It is not much of a stretch to imagine air pollution drifting from twelve to twenty miles off shore. For example, there have been reports of air pollution drifting from mainland China to the western region of the United States. Haze from Asia Spreads Over U.S., S.D. UNION TRIB., April 18, 2001, at A6, available at 2001 WL 6454794.
“laws and regulations” which a country may adopt “in conformity with the provisions of [UNCLOS 1982] and other rules of international law.” As previously discussed, discharge standards are not subject to Article 21(2) because UNCLOS 1982 distinguishes them from CDEM standards.\textsuperscript{106} The discharge standards applied to the contiguous zone by the United States under the CWA fall within this exception. As previously noted, whether emissions standards applied under the CAA would also fall within this exception is unclear.\textsuperscript{107}

3. The EEZ

A country may also assert jurisdiction over an EEZ extending as far as 200 nautical miles out from the coastal baseline.\textsuperscript{108} Coastal state prescriptive jurisdiction in this zone is more limited. Article 56(b) of UNCLOS 1982 grants a coastal state jurisdiction “to protect and preserve the marine environment” in the EEZ,\textsuperscript{109} but Article 211(5) of UNCLOS 1982 precludes a state from unilaterally prescribing and enforcing environmental regulations unless they are consistent with GAI	extup{R}S.\textsuperscript{110} On this basis, most commentators conclude that coastal states have little jurisdiction to unilaterally prescribe national standards in the EEZ to preserve the environment.\textsuperscript{111} However, Article 56(a) grants coastal states “sovereign rights for the purpose of ... managing and conserving the natural resources, whether living or non-living, of the waters superjacent to the seabed.”\textsuperscript{112} The use of the phrase “sovereign rights” implies that any regulation adopted to conserve the living resources of the EEZ would not be subject to the GAI	extup{R}S limitation imposed by Article 211. This argument follows from the structure of Article 56.\textsuperscript{113} Article 56(b) grants jurisdiction “as provided for in the relevant provisions of this convention,” which is to say that this jurisdiction is subject to any limitations imposed elsewhere in the

\textsuperscript{105} Id.
\textsuperscript{106} See supra notes 75-79 and accompanying text.
\textsuperscript{107} See supra notes 90-91 and accompanying text.
\textsuperscript{108} UNCLOS 1982, arts. 56 & 57, supra note 58, 1833 U.N.T.S. at 418-19.
\textsuperscript{109} Id. at 418.
\textsuperscript{110} Id. at 484 (art. 211(5)). A state may also designate part or all of the EEZ as an area deserving of special environmental protection and on this basis subject all vessels entering those waters to regulations which do not conform to GAI	extup{R}S (again subject to Article 21(2)). Id. at 484-85 (art. 211(6)). Such regulations must be approved by a “competent international organization,” such as the IMO. Id.
\textsuperscript{111} Bodansky, supra note 67, at 756. See also The European Union Study, supra note 6, at 15-16; David Dzidzornu, Coastal State Obligations and Powers Respecting EEZ Environmental Protection Under Part XII of the UNCLOS: A Descriptive Analysis, 8 COLO. INT’L ENVTL. L. & POL’Y 283, 301 (1997).
\textsuperscript{112} UNCLOS 1982, art. 56, supra note 58, 1833 U.N.T.S. at 418.
\textsuperscript{113} See id.
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convention including the GAIRS limitation of Article 211(5).\textsuperscript{114} On the other hand, Article 56(a) grants “sovereign rights” without any qualification.\textsuperscript{115} The omission of qualifying language like that used in Article 56(b) supports the view that the sovereign rights granted by 56(a) were in fact meant to be unrestricted.\textsuperscript{116} Furthermore, this view is bolstered by the policies behind the creation of the EEZ. UNCLOS 1982 created the concept of the EEZ to satisfy developing countries that wanted to obtain greater control over their coastal resources for the purpose of promoting economic growth.\textsuperscript{117} Refusing to allow a coastal country to prevent vessel source pollution detrimental to these coastal resources would be inconsistent with the policies of preventing foreign exploitation and promoting economic growth among developing nations which lie behind Article 56.

A broad interpretation of Article 212 may also provide a basis for applying emissions regulations in the EEZ. Article 212(1) requires states to control pollution of the marine environment from or through “the air space under their sovereignty.”\textsuperscript{118} Some authorities interpret the duties of Article 212(1) to extend no further than the territorial sea.\textsuperscript{119} However, other authorities interpret this provision more broadly as authorizing coastal states to enforce air pollution regulations against foreign ships in all zones where they have a measure of jurisdiction, including the EEZ.\textsuperscript{120}

\textsuperscript{114} See id.

\textsuperscript{115} See id.

\textsuperscript{116} There appears to be a conflict between the language of Article 56 and Article 211(6). Article 211(6) states that any regulation “for the prevention, reduction and control of pollution from vessels” must conform to GAIRS. Id. at 484-85 (emphasis added). In other words, the provision does not distinguish environmental regulation intended to preserve the environment from regulation meant to conserve fisheries. Rather, Article 211(6) appears to apply the GAIRS requirement to all regulations meant to control pollution from vessels regardless of whether the regulations were adopted to conserve the natural resources of the EEZ. The policies behind Article 56(a) cut against this interpretation.

\textsuperscript{117} CHURCHILL & LOVE, supra note 102, at 133-34.
\textsuperscript{118} UNCLOS 1982, art. 212(1), supra note 58, 1833 U.N.T.S. at 485.
\textsuperscript{119} MOLENAAR, supra note 72, at 504. Molenaar notes that some authorities have suggested that coastal state jurisdiction extends to the EEZ where it can be shown that air pollution emitted there impacts the airspace over the territorial sea. Id. at 504 n.14.

\textsuperscript{120} See UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY 319 (Myron H. Nordquist et al. eds., 1991) (arguing that “[t]he enforcement powers of a State extend to . . . its exclusive economic zone if the pollution from or through the atmosphere affects the marine environment of that zone.”).
Article 212(2) may also be read to authorize regulation in the EEZ. This provision requires states to take “other measures as may be necessary to prevent, reduce and control such pollution.”\textsuperscript{121} Regulating marine air pollution in the EEZ to prevent air pollution from drifting into the territorial sea could be among the “other measures” which Article 212(2) authorizes.\textsuperscript{122}

Of course any regulation justified on the basis of Articles 56 or 212 would still be subject to the limitation imposed by Article 21(2), which requires that any CDEM standards conform to GAIRS.\textsuperscript{123} As previously noted whether emissions standards are CDEM standards subject to this requirement is uncertain.\textsuperscript{124}

Thus, a coastal state could prescribe and enforce emissions regulations in the EEZ under Article 56 on the rational that they are necessary to conserve the fisheries of the EEZ that would otherwise be negatively impacted. The strength of this argument turns on the extent to which science is able to establish a link between emissions pollution in the EEZ and negatively impacted fisheries. Assuming a link can be established, applying regulations for this purpose would not be any more onerous than the stringent fishing regulations already enforced by the Coast Guard in the EEZ.\textsuperscript{125} Under Section 212, a coastal state could also prescribe and enforce emissions regulations on the rational that such emissions impact the coastal marine environment by drifting into the territorial sea from the EEZ. Again, a scientific linkage would have to be established to justify emissions regulation in the EEZ on this basis; however, sufficient research exists to establish such a link in other parts of the world.\textsuperscript{126} Section 328 of the CAA, which regulates the pollution emissions of outer continental shelf sources, provides precedent for regulating sources of pollution in the EEZ on this rational.\textsuperscript{127}

\textsuperscript{121} UNCLOS 1982, art. 212(2), supra note 58, 1833 U.N.T.S. at 485.
\textsuperscript{122} See id.
\textsuperscript{123} Id. at 405. See also supra note 105 and accompanying text. Article 56(a) does grant “sovereign rights;” however, it appears that the language of Article 21(2) applies even to regulations adopted for the EEZ under 56(a). Id. The language in Article 211(5) is not as broad. See UNCLOS 1982, supra note 58, 1833 U.N.T.S. at 484.
\textsuperscript{124} See discussion supra Part III.B.3.
\textsuperscript{126} See European Union Study, supra note 6, at 4-6 (documenting how the coastal emissions have impacted the ecosystems of mainland Europe, including the coastal regions).
\textsuperscript{127} 42 U.S.C. § 7627 (1994). Outer continental sources “include any equipment activity, or facility which, (i) emits or has the potential to emit any air pollutant, (ii) is regulated or authorized under the Outer Continental Shelf Lands Act [43 U.S.C.A. § 1331 et seq.], and (iii) is located on the Outer Continental Shelf. § 7627(4)(C)(i)-(iii).
4. Summary of Potential Violations

Under UNCLOS 1982, the application of the CAA within the territorial sea, contiguous zone and the EEZ is on reasonably solid ground. The primary legal impediment is Article 21(2) of UNCLOS 1982, which states that any CDEM standards adopted under the provisions of UNCLOS must conform to GAIRS. Emissions regulations do not per se violate Article 21(2); however, the question of whether emissions standards are CDEM standards subject to Article 21(2) depends upon how a court would draw the line distinguishing regulations akin to CDEM standards from those akin to discharge standards. This uncertainty would be sufficient to raise the issue of whether Justice Marshall’s presumption should be applied to a court’s review of any EPA application of the CAA to the territorial sea, contiguous zone or EEZ.

There is some evidence in the President’s commentary to UNCLOS 1982 that, “as understood in this country,” the CAA preempts Article 21(2). President Clinton states that the CAA satisfies the obligation imposed by Article 212 to reduce air pollution in the territorial sea. This statement is an implicit declaration by the President that the CAA can be applied in the territorial sea without violating any other provision of UNCLOS, including Article 21(2). In fact, President Clinton dismisses Article 21 elsewhere in his commentary by stating “this rule does not affect the right of the coastal state to establish and enforce its own requirements for port entry.” In Suramerica, the court relied upon the expression of a federal statute to conclude that United States law preempted the GATT. On this basis, more than presidential commentary on the treaty may be needed to persuade a court that the CAA preempts Article 21 in a way that does not raise Justice Marshall’s presumption.

The prospect that application of the CAA to foreign vessels in the territorial sea, contiguous zone and EEZ may violate international law means that no court would approve of such regulatory action by the EPA without subjecting it to judicial scrutiny under Justice Marshall’s presumption. First, a court would have to consider whether Congress

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128. UNCLOS 1982, supra note 58, at 405.
129. See supra notes 45-49 and accompanying text.
130. S. Treaty Doc. No. 103-39, at 36 (1994). The President refers to the sections of the Clean Air Act covering non-road engines. Id.
132. Suramerica, 966 F.2d at 667-68.
133. See Murray, 6 U.S. (1 Cranch) at 118. See also supra notes 45-49 and
intended that the laws be applied in a way that would violate Article 21(2). The jurisprudence of the Supreme Court on the internal affairs rule will provide useful guidance on resolving this. Second, with respect to applying the CAA to the contiguous zone and the EEZ, a court would have to consider whether Congress intended the CAA to apply extraterritorially. The presumption against extraterritoriality is a corollary to the general principle that statutes should not be construed to violate international law.

C. The Internal Affairs Rule

When interpreting a federal statute that concerns the “internal management and affairs” of a vessel, the Supreme Court has presumed that the statute does not apply to vessels sailing in the territorial sea of the United States under a foreign flag because it is “well-established . . . [in] international law that the law of the flag state ordinarily governs the internal affairs of a ship.” The Court holdings regarding the internal affairs rule can provide valuable guidance because Article 21(2) of UNCLOS 1982 is a specific, though modern, expression of the internal affairs rule. Traditionally, the internal affairs rule held that no coastal state could regulate the internal economy of foreign vessels, which entered its territorial sea. This precluded regulation concerning construction, design, equipment or manning, the very kinds of CDEM regulations that are limited by Article 21(2). Article 21(2) loosens this restriction by allowing coastal states to prescribe and enforce CDEM regulations that are generally accepted international rules and standards, i.e. GAIRS. Assuming that CAA regulations would be found more akin to CDEM standards than discharge standards, the CAA would violate Article 21(2) because there are currently no GAIRS pertaining to air pollution from foreign vessels to which the CAA can “give effect.” Thus, for the present discussion, Article 21(2) is the same as the internal affairs rule. The reasoning behind the cases in which the courts have allowed agencies to apply federal law to foreign vessels in violation of the internal affairs rule, applies to the present analysis with equal force.

accompanying text.

134. See Murray, 6 U.S. (1 Cranch) at 118.
136. McCulloch, 372 U.S. at 20-21; Benz, 353 U.S. at 143 n.5.
138. See supra note 74 and accompanying text.
1. The Case Law

In *Cunard Steamship Co. Ltd. v. Mellon*, the Supreme Court upheld the administrative determination of the United States Department of Justice that the National Prohibition Act [NPA]\(^{139}\) applied to all merchant ships, both foreign and domestic, sailing in the territorial sea of the United States.\(^{140}\) The Court began its analysis by establishing that the Eighteenth Amendment\(^ {141}\) and the NPA\(^ {142}\) clearly prohibited the transport of intoxicating liquors in all territory of the United States, including its ports and territorial sea.\(^ {143}\) An exception was made only for liquor in transit through the Panama Canal or on the Panama Railroad.\(^ {144}\) Although neither the Eighteenth Amendment nor the statute made an express reference to foreign vessels,\(^ {145}\) the court reasoned that Congress must have intended that the NPA apply to foreign vessels because exempting them from the statute’s broad application would significantly frustrate its enforcement.\(^ {146}\) The Court relied upon the Panama exception as evidence that Congress wrote the statute aware that it would impact foreign vessels.\(^ {147}\) Therefore, in light of the broad territorial language of the statute and Congress’ stipulation that it should be construed liberally,\(^ {148}\) the Court allowed the Justice Department to apply the NPA

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140. *Cunard*, 262 U.S. at 128-29.
141. Section 1 of the Eighteenth Amendment states: “After one year from the ratification of this article the manufacture, sale, or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from the United States and all territory subject to the jurisdiction thereof for the beverage is hereby prohibited.” U.S. Const. amend. XVIII, repealed by U.S. Const. amend. XXI.
142. The Court cites sections 3, 21, 23, and 26 of the NPA. Section 3 prohibits anyone from “transport[ing] ... any intoxicating liquor except as authorized in this act” and provides that “the provisions of this act shall be liberally construed to the end that the use of intoxicating liquor as a beverage may be prevented.” § 3, 41 Stat. at 308-09. Sections 21, 23, and 26 make specific reference to boats, water craft, or any conveyance whatever as a prohibited places of storage, manufacture or bartering or means of transporting intoxicating liquors. §§ 21, 23, 26, 417 Stat. at 314-15.
143. *Cunard*, 262 U.S. at 122, 127. In the Court’s view, it was commonly understood that this territory entailed all United States ports and its territorial sea. Id. at 122.
144. Section 20 of Title III states that the act “shall not apply to liquor in transit through the Panama Canal or on the Panama Railroad.” § 20, 41 Stat. at 322.
146. Id.
147. *Cunard*, 262 U.S. at 128.
148. NPA, § 3, 41 Stat. at 308-09.
to ships sailing under foreign flags.\textsuperscript{149}

The holding of \textit{Cunard} does not rest upon the broad language of the statute alone. Since \textit{Cunard}, the Court has held that other statutes with similarly broad statutory language should not be applied in violation of the internal affairs rule to foreign vessels. These include cases arising out of the Jones Act and the Seaman’s Wage Act.\textsuperscript{150} The only real difference between \textit{Cunard} and these other cases is that, in \textit{Cunard}, not applying the NPA to foreign ships would have undermined the enforcement of the NPA while no such concern was raised with respect to the Jones Act or Seaman’s Wage Act.\textsuperscript{151} Therefore, \textit{Cunard} stands for the proposition that the Court will apply a statute to a foreign ship that enters United States waters when such an application falls within the broad language of the statute and is critical to the effectiveness of the legislation.

\textit{Wildenhus’ Case} is another example of the Supreme Court allowing the United States to exercise jurisdiction over a ship sailing under a foreign flag in United States waters despite the “internal affairs” rule.\textsuperscript{152} In \textit{Wildenhus}, the Court permitted the United States to exercise jurisdiction in order to investigate and prosecute a murder that had occurred on a Belgian ship while it was docked in the port of New Jersey because the matter was a disturbance to the tranquility and public order of the port.\textsuperscript{153} Essentially, \textit{Wildenhus} stands for the proposition that laws meant to preserve the tranquility of a nation’s coastal areas should be enforced despite the internal affairs rule.

\section*{2. CAA and the Internal Affairs Rule}

The statutory language and legislative history of the CAA are sufficiently clear to justify applying its regulations to foreign flagged ships, notwithstanding the “internal affairs” rule or Article 21(2) of UNCLOS 1982. This application is justified by the same principles that justified application of the NPA\textsuperscript{154} to foreign ships in \textit{Cunard}. As was the case

\begin{itemize}
\item[149.] \textit{Cunard}, 262 U.S. at 127-28.
\item[150.] See Jason M. Schupp, \textit{The Clay Bill: Testing the Limits of Port State Sovereignty}, 18 Md. J. Int’l L. & Trade 199, 216-22 (1994) (analyzes how the Court has interpreted various statutes in light of international maritime law, including the Jones Act, the Seamen’s Wage Act, the National Prohibition Act, and the National Labor Relations Act).
\item[151.] \textit{Id.} at 222. Schupp argues that \textit{Cunard} could stand for the proposition that “a port state may interfere with the internal economy of a foreign vessel if the shipboard conduct would embarrass [the domestic law’s] enforcement and . . . defeat the attainment of its obvious purpose. \textit{Id.}, quoting \textit{Cunard}, 262 U.S. at 127.
\item[152.] \textit{Wildenhus’ Case}, 120 U.S. 1 (1886).
\item[153.] \textit{Id.}
\item[154.] NPA, Ch. 84, 41 Stat. 305 (1919) (repealed 1935).
\end{itemize}
with the NPA, the CAA is a statute of broad application. The CAA shoulders the broad purpose of "protect[ing] and enhanc[ing] the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." In pursuit of this purpose, Congress has progressively expanded the breadth of pollution sources covered by the CAA over the last thirty-five years. Expanding the scope of regulated sources has enabled Congress to continue pollution reduction in a cost effective manner. In 1990, Congress expanded this coverage to non-road engines by passing into law section 213 of the CAA. The legislative history specifically defined non-road engines and vehicles to include marine vessels. Obviously, the category "marine vessels" includes vessels sailing under foreign flags. Congress made no attempt to limit this term to domestic vessels, nor does the statute give the EPA the discretion to make this exception. The statute requires that the EPA regulate all classes of non-road engines that it reasonably anticipates will affect the public health. The Senate instructed the Administrator of the EPA to classify engines only on the basis of its function or design. Therefore, Congress effectively enjoined the EPA from classifying marine vessels by flag for the purpose of adopting regulations.

Though no exception is made for foreign ships under section 213, exceptions do appear in other parts of the statute that are applicable to marine vessels. Section 183(f) of the CAA, also adopted in 1990, requires that the EPA "promulgate standards applicable to the emission..."
of VOCs and any other air pollutant from loading and unloading of tank vessels.\textsuperscript{162} The statute provides that “to the extent practicable such standards shall apply to loading and unloading facilities and not to tank vessels.”\textsuperscript{163} The House Report states that Congress intended this clause “to minimize problems that might be created by subjecting vessels to inconsistent requirements at different ports.”\textsuperscript{164}

That these statements represent an exception for foreign vessels is not obvious. First of all, “different ports” must refer to ports other than domestic ports because section 183(f), as a federal statute, applies in all domestic ports. If the vessels impacted by section 183(f) only traveled among domestic ports there would be no need to mitigate the impact of “inconsistent requirements at different ports.” However, such mitigation is needed because the vessels impacted, i.e. tanker vessels, do visit foreign ports, which may have inconsistent requirements. Congress ordered that the EPA draft regulations that place the majority of the burden of controlling emissions from the loading and unloading of tank vessels upon the ports in order to protect these tanker vessels, many of which sail under foreign flags, from suffering under the burden of having to satisfy the requirements of both domestic and foreign ports. Thus, Section 183(f) makes an implicit exception for foreign flagged vessels.

This exception is similar to the Panama Canal exception that the Court relied upon in \textit{Cunard}.\textsuperscript{165} Because Congress did not express this same concern about “inconsistent requirements” in connection with Section 213, where the language authorizes the EPA to regulate any class of engines that contributes to air pollution (including foreign vessels), it must be that Congress intended section 213 to apply to both foreign and domestic vessels.\textsuperscript{166}

\begin{itemize}
\item \textsuperscript{163} \textit{Id.}
\item \textsuperscript{165} Though not every vessel sailing through the Panama Canal was under a foreign flag, the Court still found the Panama Canal exception a specific exception for foreign vessels. Section 183(f) is no less an exception for foreign vessels.
\item \textsuperscript{166} Furthermore, even section 183(f), though couched in language meant to minimize its regulatory impact on tank vessels (both foreign and domestic), nevertheless explicitly permits foreign vessels to be subject to some amount of regulation, e.g., when it would not be practicable to do otherwise. § 183(f), 42 U.S.C. § 7511b(f) (1995). The EPA subsequently interpreted this to mean that tank vessels could be required to retrofit their terminal interface technology. The EPA implemented these provisions in 1995. Rules and Regulations: Federal Standards for Marine Tank Vessel Loading Operations and National Emission Standards for Hazardous Air Pollutants for Marine Tank Vessel Loading Operations, 60 Fed. Reg. 48,388, 48,390 (Sept. 19, 1995) (to be codified at 40 C.F.R. pts. 9 & 63). The EPA placed the burden of adopting emissions controls upon the loading and unloading terminals. \textit{Id.} at 48,390. The EPA emphasized, however, that tank vessel owners must bear the cost of retrofitting their vessels to interface effectively.
\end{itemize}
The CAA is like *Cunard* in another sense. Exempting foreign vessels from section 213 would undermine the effectiveness of the CAA in much the same way that exempting foreign vessels from the NPA would have undermined that Act. A foreign vessel exemption to section 213 would enable domestic vessels to avoid compliance by opting to register under a foreign flag of convenience. This would allow a whole class of mobile sources to go unregulated even though they contribute to non-attainment. Additionally, this would preclude coastal states like California or Texas from attaining compliance with NAAQS for ozone or CO and achieving the goal of “protect[ing] and enhanc[ing] the quality of the Nation’s air resources.”

Intertwined with this reasoning is the argument that applying section 213 to foreign vessels is also justified under the principles of *Wildenhus.* As the reasoning above illustrates, exempting foreign vessels would place a disproportionately excessive and destabilizing regulatory burden upon land-based sources. Congress acknowledged this problem in its comments to section 328 of the CAA, which regulates the emissions of Outer Continental Shelf (OCS) activities. The Senate found that air pollution generated by OCS sources “is causing or contributing to the violation of federal and state ambient air quality standards.” Thus, the Senate reasoned that allowing the pollution emissions of OCS activities to continue unregulated would make the attainment of NAAQS impossible without “great cost” to onshore industry and “substantial disruption” of coastal lifestyles. Congress authorized the EPA to regulate marine

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167. *See supra* text accompanying notes 140-45.
170. *See supra* text accompanying notes 151-52.
171. 42 U.S.C. § 7627 (1995). Outer continental sources “include any equipment activity, or facility which, (i) emits or has the potential to emit any air pollutant, (ii) is regulated or authorized under the Outer Continental Shelf Lands Act [43 U.S.C.A. § 1331 et seq.], and (iii) is located on the Outer Continental Shelf. § 7627(4)(C)(i)-(iii).
173. *Id.*
vessels and other non-road sources for the same reason. This kind of disruption, which the Court relied upon in Wildenhus, justifies applying domestic statutes regardless of international law.

D. The Presumption Against Extraterritoriality

As a general principle, the courts will presume that Congress did not intend a federal statute to apply outside the territory of the United States. However, courts have not applied this presumption when an agency has applied a statute extraterritorially to prevent a negative domestic impact caused by conduct occurring outside the country. Courts have found that negative domestic effects are enough to bring regulated conduct within the territorial jurisdiction of the United States. Dodge outlines the extensive case law which supports this proposition.

1. The Case Law

In Aramco, the plaintiff claimed that his employment in Saudi Arabia was terminated in violation of Title VII of the Civil Rights Act of 1964. The court applied the presumption against extraterritoriality and held that the statute did not apply in Saudi Arabia because it made no clear expression that it should apply in foreign countries. Before applying the presumption, however, the Court highlighted the "domestic effects" exception to the extraterritorial presumption by distinguishing the Court's holding in Steele v. Bulova Watch Co., which applied a statute extraterritorially. The court reasoned that the alleged

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174. Congress found that OCS pollution was hindering efforts to comply with NAAQS and on this basis directed EPA to regulate it. S. Rep. 101-228, at 76-78 (1989). In the case of non-road engines, Congress merely found that "emissions from off-road and non-road engines and vehicles now make up a significant portion of pollution, especially in urban areas," Id. at 104, but left to the EPA the task of determining whether emissions pollution from non-road engines was hindering the attainment of NAAQS for ozone and CO. 42 U.S.C. § 7547(2) (1995). Only upon making this determination could the EPA regulate a class of non-road engines. See supra notes 17-22 and accompanying text.

175. It is also the kind of disruption that the European Union Study argues justifies regulating foreign vessels in EU waters. See European Union Study, supra note 6, at 45.


177. See Dodge, supra note 176, at 94, 98 & 104-10.

178. Id.

179. Id. at 247

180. Aramco, 499 U.S. at 259.

181. Id. at 252 (citing Steele v. Bulova Watch Co., 344 U.S. 280 (1952)). In Bulova, the Court allowed Bulova Watch Co. to sue Steele for trademark infringement under the Langham Act even though the alleged misconduct occurred in Mexico because 1) the statute applied broadly, and 2) the statute was being applied to conduct which
misconduct in Aramco did not hurt the United States domestically as did the conduct in Steele.182 This exception was implicitly invoked in Hartford Fire Insurance Co. v. California.183 In Hartford, the Court applied the Sherman Antitrust Act to an insurance conspiracy in London even though the conduct occurred entirely outside of the United States.184 While the Court did not even mention the presumption against extraterritoriality, it nevertheless concluded that the “Sherman Act applies to foreign Conduct that was meant to produce and did in fact produce some substantial effect in the United States.”185 As Dodge argues, the Court’s decision not to apply the presumption against extraterritoriality very clearly turns on the Court’s conclusion that the alleged conspiracy had a negative impact on the United States.186 A split exists among the districts over whether Hartford establishes an “effects” exception to the presumption against territoriality.187 However, only the Ninth Circuit rejects the proposition that “effects” alone are a basis for skipping the presumption against territoriality.188 Of course, there must be some basis in the language of the statute that gives it a character of broad application,189 but as the Court stated in Aramco, such “boiler plate language” is insufficient to support the conclusion that the presumption does not apply.190

When the presumption applies, the general consensus is that affirmative evidence of Congressional intent that the statute be applied extraterritorially, derived from the statute and legislative history, is sufficient to overcome the presumption.191 Since Aramco, the court has stepped back from the clear expression standard that Justice Rhenquist applied there.192 The lower courts are in agreement on this point.193

caused adverse impacts within the United States. Id.

182. Id.
184. Dodge, supra note 176, at 98.
185. Id. (quoting Hartford, 509 U.S. at 795-96).
186. Id. at 98-100.
187. Id. at 101-10.
188. See id. at 105-07.
189. The court expressly relied upon the broad language of the Langham Act in Steele. 344 U.S. at 256.
190. Aramco, 499 U.S. at 251; Dodge, supra note 176, at 99 (citing Hartford, 509 U.S. at 814 (Scalia, J., dissenting)).
192. Id. at 96 (citing Smith v. United States, 507 U.S. 197, 201-03 & n.4 (1993)).
193. Id. at 111.
2. CAA and the Presumption Against Extraterritoriality

Applying the CAA in the contiguous zone and the EEZ implicates the case law on the presumption against extraterritoriality because neither the contiguous zone nor the EEZ are part of the territory of the United States. While UNCLOS 1982 does grant states a limited measure of jurisdiction in the contiguous zone and the EEZ, states may not assert the full sovereignty over these zones that they are given over the territorial sea. Thus, whenever an agency interprets a statute so that it applies to these zones, the court will examine the statute to determine whether it manifests congressional intent that it apply extraterritorially, unless of course the statute’s application falls within the “domestic effects” exception.

The “domestic effects” exception can be invoked to insulate the application of the CAA to both the contiguous zone and the EEZ. As previously mentioned, application of the CAA in the contiguous zone can only be justified on the rational that vessel emissions in the contiguous zone pose a health risk to the coastal state’s population. This health risk constitutes a “domestic effect” which under Hartford should exempt the application of the CAA in the contiguous zone from the purview of the presumption against extraterritoriality.

Application of the CAA to foreign vessels in the EEZ can be justified on one of two rationales. If it is justified on the theory that vessel emissions in the EEZ affect the marine environment of the territorial sea by drifting inland, this negative impact would probably qualify as a negative “domestic effect” sufficient to exempt application of the CAA in the EEZ from the presumption against extraterritoriality. If it is justified on the alternate theory that vessel emissions threaten to destroy the fisheries of the EEZ, application of the CAA in the EEZ would probably not fall within the “domestic effects” exception because this impact is felt only in the EEZ and not on the mainland United States.

Whether application of the CAA to the EEZ would survive application of the presumption against territoriality is unclear. On the one hand, the CAA does not refer to the EEZ. As previously noted, the CAA does shoulder the broad purpose of “protect[ing] and enhanc[ing] the quality of the Nation’s air resources so as to promote the public health and

195. Id.
196. See discussion, supra Part III.D.1.
197. See supra notes 96-97 and accompanying text.
198. See supra notes 183-88 and accompanying text.
199. See discussion, supra Part III.B.3.
welfare and the productive capacity of its population. Protecting the fisheries of the EEZ obviously does not fall within this broad scope. However, protecting coastal air resources from air pollution that drifts in shore from the EEZ does fall within the scope of this purpose. The courts have consistently held that such “boiler plate language” is not sufficient to justify the extraterritorial application of a statute. Something more is needed, and it is not clear that the evidence of Congressional intent marshaled in the previous sections manifests sufficient Congressional intent to support a court in upholding any application of the CAA to vessels traveling in the EEZ.

IV. COMPARISON WITH THE EUROPEAN UNION STUDY

It is useful to compare the results of this study with one performed by the European Union. Motivated by an interest in reducing acid rain caused by SOx emissions, the European Union Study argues for adopting low sulfur fuel standards and incentive schemes to induce compliance in the territorial waters of the nations of the European Union. The present study considers only the applicability of NOx emissions regulations that pertain more to engine design than fuel content because engine design standards are the only standards which the CAA requires the EPA to adopt. Unlike this study, the EU study did not consider whether such regulation could be applied in the contiguous zone and decidedly rejected the

201. See supra note 190 and accompanying text.
202. European Union Study, supra note 6, at 49-52.
203. Id. at 50.
204. The CAA does authorize the EPA to regulate the marine fuels. The CAA grants the EPA discretionary authority to regulate the fuel used by non-road vehicles and engines if the fuel produces emissions which may be “reasonably anticipated to endanger public health and welfare” or if it significantly impairs the operation of emissions control devices in general use. 42 U.S.C. § 7545(c)(1) (1994). Such decisions must be based upon the “consideration of all relevant medical and scientific evidence available to [the Administrator]. See id. § 7545(c)(2). In addition, the first case must be supported by a feasibility study of alternative approaches, and the second case must be supported by cost benefit analysis. Id. Furthermore, states may adopt fee schemes applicable to their ports as part of their State Implementation Plans. In 1994, the EPA proposed for final approval Federal Implementation plans covering Sacramento and Ventura counties. Approval and Promulgation of State and Federal Implementation Plans; California, 59 Fed. Reg. 23,264 (to be codified at 40 C.F.R. pts. 52 & 81) (proposed May 5, 1994). In these plans the EPA declined to regulate the emissions of large sea-going vessels, but proposed instead a fee structure that would give an incentive to shippers to adopt certain emission reducing practices. Approval and Promulgation of State and Federal Implementation Plans; California, 59 Fed. Reg. at 23,378.
The option of applying such regulation within the EEZ as authorized by UNCLOS 1982.\textsuperscript{205} The basic conclusion of the study is that “[p]rescription of rules and regulations should be restricted to territorial waters, and enforcement should generally take place in port.”\textsuperscript{206} Generally, the European Union Study takes a much more cautious approach to the issue.

V. CONCLUSIONS

There is a strong basis for applying the regulatory mandates of the CAA to foreign vessels in the internal waters, territorial sea, and contiguous zone. Even if regulations of the CAA would be found to violate Article 21(2) of UNCLOS 1982, such regulation can nevertheless pass muster with the Supreme Court consistent with the Court’s holdings on the internal affairs rule. The argument for applying it in the EEZ is much weaker not only because such application is not directly authorized by UNCLOS 1982, but also because there seems to be insufficient evidence that Congress intended that the CAA apply in the EEZ to overcome the presumption against extraterritoriality. It is advisable that the United States adopt standards at least as stringent as those drafted in Annex VI by the IMO to regulate all foreign and domestic vessels entering the contiguous zone, territorial sea and internal waters of the United States.

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\textsuperscript{205} European Union Study, \textit{supra} note 5, at 15.
\textsuperscript{206} \textit{Id.} at 50.