

January 2007

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Recommended Citation

Sarah Olinger, *Filling the Void in an Otherwise Occupied Field: Using Federal Common Law to Regulate Carbon Dioxide in the Absence of a Preemptive Statute*, 24 Pace Env'tl. L. Rev. 237 (2007)

Available at: <http://digitalcommons.pace.edu/pelr/vol24/iss1/10>

Filling the Void in an Otherwise Occupied Field: Using Federal Common Law to Regulate Carbon Dioxide in the Absence of a Preemptive Statute

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I. INTRODUCTION

The great global warming debate has, for many years, centered on whether the phenomenon indeed exists. The idea that human-produced greenhouse gases (“GHGs”)¹ were causing a rise in atmospheric temperature was subject to great scientific uncertainty. Yet after years of study and debate on the issue, scientists and policymakers have reached a consensus that global warming is occurring.² While acceptance of the urgent need to reduce

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1. Greenhouse gases (“GHGs”) affect global temperature. Naturally occurring GHGs include water vapor, carbon dioxide (“CO₂”), methane (“CH₄”), nitrous oxide (“N₂O”), and ozone (“O₃”). Human activities increase the levels of these gases. Sulfur hexafluoride (“SF₆”), hydrofluorocarbons (“HFCs”), hydrochlorofluorocarbons (“HCFCs”), chlorofluorocarbons (“CFCs”), and perfluorocarbons (“PFCs”) are non-CO₂ synthetic gases produced exclusively by industrial activity. CO₂ from fossil fuel combustion accounts for the largest percentage (59% in the year 2000) of global GHG emissions. KEVIN BAUMERT & JONATHAN PERSHING, PEW CTR. ON GLOBAL CLIMATE CHANGE, *CLIMATE DATA: INSIGHTS AND OBSERVATIONS* 5 fig.2, 6 (2004), available at http://www.pewclimate.org/policy_center/reports. For a list of all chemically reactive and synthetic GHGs, see D. Ehhalt et al., *Atmospheric Chemistry and Greenhouse Gases*, in *CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, CONTRIBUTION OF WORKING GROUP I TO THE THIRD ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (“IPCC”)* 239, 244-45 tbls.4.1(a), 4.1(b) (John T. Houghton et al. eds., 2001), available at http://www.grida.no/climate/ipcc_tar/wg1/pdf/TAR-04.PDF [hereinafter Ehhalt, *CLIMATE CHANGE 2001*].

2. The international community has largely accepted the scientific causes and effects of global warming. The IPCC, an international panel comprised of several hundred academic scientists and researchers, synthesizes information from thousands of peer reviewed and published technical literature to assess the current status of climate change. So far, the IPCC has produced three comprehensive scientific assessment reports indicating that most of the warming observed over the last fifty years is attributable to human activities which have increased the atmospheric

GHGs—specifically carbon dioxide (“CO₂”)—is quickly unfolding on the national radar screen, so too is an even hotter global warming debate. Centered on a more political issue, the question of who should regulate carbon dioxide—the states, the judiciary, or the Environmental Protection Agency (“EPA”)—has spurred argument across the country. Recently, this question has resulted in litigation³ and has even found its way to the United States Supreme Court.⁴

The answer is not an easy one, though, because the federal government presently does not regulate CO₂ emissions and insists on voluntary reduction measures instead.⁵ For example, the Kyoto Protocol⁶ went into effect without the United States’ participation,⁷ the Bush administration opposes placing binding limits on greenhouse gas emissions,⁸ and the EPA denies any statutory au-

concentration of GHGs. The IPCC will publish its Fourth Assessment Report in 2007 at <http://www.ipcc.ch>. “The unresolved questions concern the pace and extent of future warming and the impact on wildlife, agriculture, disease, local weather and the height of the world’s oceans.” Andrew C. Revkin, *Yelling “Fire” on a Hot Planet*, N.Y. TIMES, Apr. 23, 2006, § 4, at 1.

3. See *Massachusetts v. EPA*, 415 F.3d 50 (D.C. Cir. 2005), *cert. granted*, 126 S. Ct. 2960 (2006) (court deferred to EPA’s decision to not regulate GHGs emitted by new motor vehicles); *Connecticut v. Am. Elec. Power Co.*, 406 F. Supp. 2d 265 (S.D.N.Y. 2005) (court dismissed claim as non-justiciable political question when eight states sued under the federal common law of public nuisance to enjoin five power companies from emitting unreasonable contributions of CO₂ into the atmosphere).

4. The United States Supreme Court granted certiorari in *Massachusetts v. EPA* on June 26, 2006. See *Massachusetts*, 126 S. Ct. at 2960. Most relevant to this Comment is the second question presented: “Whether the EPA Administrator has authority to regulate carbon dioxide and other air pollutants associated with climate change under [Clean Air Act] section 202(a)(1).” Supreme Court of the United States, <http://www.supremecourt.us/qp/05-01120qp.pdf> (last visited Nov. 6, 2006).

5. See *infra* notes 47-77 and accompanying text.

6. The Kyoto Protocol is a treaty made under the United Nations Framework Convention on Climate Change (“UNFCCC”). Under the Protocol, 164 countries agreed to reduce their emissions of carbon dioxide and other GHGs. See *Kyoto Protocol to the UNFCCC*, Dec. 10, 1997, 37 I.L.M. 22 (1998), available at <http://unfccc.int/resource/docs/convkp/kpeng.pdf> [hereinafter *Kyoto Protocol*]. The United States, however, was not one of these countries. See S. Res. 98, 105th Cong. (1997) (resolution passed 95-0 in the United States Senate requesting that the executive branch not sign the Kyoto Protocol unless developing countries committed to emissions reductions and the Protocol was shown not to cause serious harm to the U.S. economy).

7. See Miguel Bustillo, *Kyoto Pact Takes Effect Without U.S.*, L.A. TIMES, Feb. 16, 2005, at A3.

8. Juliet Eilperin, *U.S. Won’t Join in Binding Climate Talks; Administration Agrees to Separate Dialogue*, WASH. POST, Dec. 11, 2005, at A01; Andrew C. Revkin, *U.S., Under Fire, Eases its Stance in Climate Talks*, N.Y. TIMES, Dec. 10, 2005, at A1.

thority to regulate CO₂ under the Clean Air Act (“CAA”).⁹ Despite these present regulatory positions, a majority of scholars believe that the answer is simple: the EPA has the authority to regulate CO₂ emissions, and consequently federal courts are not the proper forum to issue such policies.¹⁰ In brief, they find support in the CAA’s broad definition of “air pollutant,” which by inference would include CO₂ emissions.¹¹ Because the CAA delegates to the EPA the authority to control emissions which cause or contribute to air pollution, endanger public welfare, and result from numerous or diverse mobile or stationary sources,¹² these scholars claim that the EPA logically has the authority to regulate CO₂ emissions. Thus, they presume that federal courts lack jurisdiction to hear federal common law actions demanding regulation of CO₂ emissions because, like the Federal Water Pollution Control Act (“Clean Water Act” or “CWA”)¹³ in the area of *water* pollution, the CAA “occupies the field” and thus preempts federal common law in the area of *air* pollution.

This Comment challenges the presumption that the CAA preempts federal common law in the area of air pollution and maintains that Congress never intended for the EPA to regulate CO₂ emissions through the CAA.¹⁴ Specifically, through a textual and structural analysis of the CAA, as well as a close examination of the requirements for preemption under *City of Milwaukee v. Il-*

9. Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. 52,922, 52,925 (Sept. 8, 2003); Clean Air Act (“CAA”), 42 U.S.C. §§ 7401-7671(q) (2000).

10. See, e.g., Christopher T. Giovinazzo, *Defending Overstatement: The Symbolic Clean Air Act and Carbon Dioxide*, 30 HARV. ENVTL. L. REV. 99 (2006); Janine Maney, Comment, *Carbon Dioxide Emissions, Climate Change, and the Clean Air Act: An Analysis of Whether Carbon Dioxide Should be Listed as Criteria Pollutant*, 13 N.Y.U. ENVTL. L.J. 298 (2005); Daniel V. Mumford, Note, *Curbing Carbon Dioxide Emissions Through the Rebirth of Public Nuisance Laws—Environmental Legislation by the Courts*, 30 WM. & MARY ENVTL. L. & POL’Y REV. 195 (2005). But see ARNOLD W. REITZE, JR., ENVTL. LAW INST., AIR POLLUTION CONTROL LAW: COMPLIANCE AND ENFORCEMENT 413 (2001); Matthew F. Pawa & Benjamin A. Krass, *Global Warming as a Public Nuisance: Connecticut v. American Electric Power*, 16 FORDHAM ENVTL. L. REV. 407 (2005).

11. 42 U.S.C. § 7602(g) (defining “air pollutant,” in relevant part, as “any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters the ambient air”).

12. 42 U.S.C. § 7408(a)(1)(A)-(B).

13. Federal Water Pollution Control Act (“Clean Water Act” or “CWA”), 33 U.S.C. §§ 1251-1387 (2000).

14. See *infra* notes 131-53 and accompanying text.

linois,¹⁵ this Comment demonstrates that the CAA does not preempt actions of federal common law public nuisance to regulate CO₂. As such, federal courts should be recognized as proper forums for such suits. This Comment does not argue that global warming satisfies the elements of a public nuisance or other constitutional tests such as those for standing and ripeness. Rather, the federal common law of public nuisance should constitute a valid foot in the courtroom door for plaintiffs seeking practical and efficient means to thwart a known and recognized threat. In the absence of an adequate statutory remedy, plaintiffs should have access to injunctive relief.¹⁶ The United States is the only unregulated source of CO₂ in the developed world,¹⁷ and its growing emissions continue to cross state boundaries.¹⁸ To forestall the forecast of significant environmental damage from global warming,¹⁹ federal common law is an available and “necessary expedient” to impose caps on CO₂—at least until comprehensive, *regulatory* carbon dioxide legislation is passed.²⁰

This Comment proceeds in five more sections. Section II highlights the United States’ contribution to greenhouse gas emissions and then provides a scientific overview of the causes and effects of global warming. Section III describes the main obstacle to effective mitigation—the lack of any federal initiative to place mandatory caps on CO₂. Section IV discusses the doctrine of preemption and how it relates to the federal common law of public nuisance. Section V argues that the CAA, as currently amended, does not preempt the federal common law of public nuisance in a sovereign’s suit to impose limits on CO₂ emissions. Section VI concludes.

15. *City of Milwaukee v. Illinois (Milwaukee II)*, 451 U.S. 304 (1981); see also *infra* notes 174-84 and accompanying text.

16. See *infra* notes 185-99 and accompanying text.

17. See Pawa & Krass, *supra* note 10, at 414.

18. See *infra* notes 21-27 and accompanying text.

19. See *infra* notes 28-46 and accompanying text.

20. See *Milwaukee II*, 451 U.S. at 313-14 (“[Federal common law] is resorted to ‘in absence of an applicable Act of Congress,’ and because the Court is compelled to consider federal questions ‘which cannot be answered from federal statutes alone.’ Federal common law is a ‘necessary expedient.’” (quoting *Clearfield Trust Co. v. United States*, 318 U.S. 363, 367 (1943); *D’Oench, Duhme & Co. v. FDIC*, 315 U.S. 447, 469 (1942))).

II. BACKGROUND

A. Status of the Union

From 1990-2000, the United States contributed the largest percentage of CO₂ from fossil fuels internationally, emitting 24.1% of the world's anthropogenic CO₂.²¹ In comparison, the European Union, China, and Russia contributed 16.0%, 14.5%, and 6.4% of CO₂ from fossil fuels, respectively.²² Even when all forms of GHG emissions are combined, the United States was still the largest source of GHG emissions, contributing 15.8% of global emissions.²³ Since 2000, these domestic emissions of GHGs have continued to rise. In 2004, the United States emitted 7122.1 million metric tons of anthropogenic GHGs, which was 2% greater than in 2003 and 16% greater than in 1990.²⁴ The United States Department of Energy found that of the total United States GHG emissions in 2004, 82.4% consisted of CO₂ from fossil fuel combustion.²⁵ Despite these significant and ongoing contributions to global emissions, only local and state authorities have responded with regulatory initiatives to reduce domestic emission of GHGs and CO₂ in particular.²⁶ Comparing this federal inaction to

21. BAUMERT & PERSHING, *supra* note 1, at 23 tbl.3. As distinguished from naturally occurring CO₂, anthropogenic CO₂ is a direct result of human-generated activities such as fossil fuel combustion. See A.P.M. Baede et al., *The Climate System: An Overview*, in CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, CONTRIBUTION OF WORKING GROUP I TO THE THIRD ASSESSMENT REPORT OF THE IPCC 85, 92 (John T. Houghton et al. eds., 2001), available at <http://www.grida.no/climate/ipcc/wg1/pdf/TAR-01.PDF> [hereinafter Baede, CLIMATE CHANGE 2001]. For the purposes of this comment, CO₂ will always refer to anthropogenic CO₂.

22. BAUMERT & PERSHING, *supra* note 1, at 23 tbl.3.

23. *Id.*

24. ENERGY INFO. ADMIN., OFFICE OF INTEGRATED ANALYSIS & FORECASTING, U.S. DEP'T OF ENERGY, DOE/EIA REP. NO. 0573(2004), EMISSIONS OF GREENHOUSE GASES IN THE UNITED STATES 2004 ix (2005), available at <http://www.eia.doe.gov/oiaf/1605/gg05rpt/pdf/057304.pdf> [hereinafter 2004 REPORT].

25. This figure was calculated after adjusting for United States territories and international bunker fuels. See *id.* at ix-x. In 2004, the United States economy grew by 4.2%, the highest rate of growth since 1999, though GHG emissions per unit of real economic output decreased by 2.1%. *Id.* at ix. In the same year, 1.5% of total United States GHG emissions included CO₂ from non-combustion sources such as methane (9%), nitrous oxide (5%), and other gases (2.2%). *Id.* at x.

26. In December 2005, seven states from the Northeast signed a Memorandum of Understanding to implement the Regional Greenhouse Gas Initiative, the first mandatory market-based cap-and-trade program to stabilize and reduce CO₂ emissions from power plants. See Regional Greenhouse Gas Initiative Homepage, <http://www.rggi.org/index.htm> (last visited Nov. 6, 2006). For a review of other significant state and local responses to mitigate the effects of global warming, see David R. Hodas, *State Law Responses to Global Warming: Is it Constitutional to Think Globally and Act Locally?*, 21 PACE ENVTL. L. REV. 53 (2003); Robert B. McKinstry, Jr., *Labora-*

the “steady drumbeat” of state regulation, one scholar remarked that “it is as though we live in two different countries.”²⁷

B. Global Warming Overview

Without GHGs, the Earth would be very cold.²⁸ The inherent presence of GHGs in the environment initiates a natural greenhouse effect by trapping heat and warming the Earth’s surface and lower atmosphere.²⁹ Prior to the Industrial Revolution, the concentration of GHGs in the atmosphere remained relatively constant.³⁰ However, in the late eighteenth century, rapidly developing industry began to replace an economy previously dominated by manual labor. As a result, the concentration of GHGs in the atmosphere increased, which enhanced the greenhouse effect and caused global average surface temperature to rise.³¹ Most of this collective warming occurred during the twentieth century, with the 1990s recognized as the warmest decade of the millennium.³² In particular, the amount of CO₂ in the atmosphere rose by more than 30% and is continuing to increase at an average rate of 0.4% per year, primarily due to fossil fuel combustion³³ and deforesta-

tories for Local Solutions for Global Problems: State, Local and Private Leadership in Developing Strategies to Mitigate the Causes and Effects of Climate Change, 12 PENN ST. ENVTL. L. REV. 15 (2004); Barry G. Rabe, Mikael Roman, & Arthur N. Dobelis, *State Competition as a Source Driving Climate Change Mitigation*, 14 N.Y.U. ENVTL. L.J. 1 (2005).

27. Hodas, *supra* note 26, at 53.

28. TOM M.L. WIGLEY, PEW CTR. ON GLOBAL CLIMATE CHANGE, *THE SCIENCE OF CLIMATE CHANGE: GLOBAL AND U.S. PERSPECTIVES* 4 (1999), available at <http://www.pewclimate.org/docUploads/env%5Fscience%2Epdf>.

29. *Id.*

30. Baede, *CLIMATE CHANGE* 2001, *supra* note 21, at 92.

31. *Id.* at 93. This is called “radiative forcing,” which the IPCC explains as follows:

The increased concentration of greenhouse gases in the atmosphere enhances the absorption and emission of infrared radiation. The atmosphere’s opacity increases so that the altitude from which the Earth’s radiation is effectively emitted into space becomes higher. Because the temperature is lower at higher altitudes, less energy is emitted, causing a positive radiative forcing.

Id.

32. IPCC, *CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, CONTRIBUTION OF WORKING GROUP I TO THE THIRD ASSESSMENT REPORT OF THE IPCC* 2 (John T. Houghton et al. eds., 2001), available at http://www.grida.no/climate/ipcc_tar/wg1/pdf/WG1_TARFRONT.PDF [hereinafter *CLIMATE CHANGE* 2001]; Baede, *CLIMATE CHANGE* 2001, *supra* note 21, at 102.

33. See 2004 REPORT, *supra* note 24, at xii (finding that the consumption of energy from the combustion of fossil fuels is the single largest contributor to anthropogenic GHG emissions in the United States).

tion.³⁴ The global average surface temperature³⁵ likewise increased by $0.6^{\circ}\text{C} \pm 0.2^{\circ}\text{C}$ ³⁶ and air temperature increased 0.1°C per decade in the lowest eight kilometers of the atmosphere.³⁷ The average sea level has risen by 0.1 to 0.2 meters as well.³⁸ This, however, is not an exhaustive list of documented changes; all of the Earth's resources are affected by global warming.

The release of GHGs has primary and secondary effects on the environment and human health and welfare.³⁹ The primary effect is global warming, a phenomenon whereby warmer surface and air temperatures alter ocean currents and air circulation, thus affecting weather patterns.⁴⁰ A non-exhaustive list of secondary effects includes: reduced water for irrigation and hydroelectric power; crop damage from insects, disease, and drought; increases in soil salinity; loss of wetlands; loss of wildlife species and habitat; the spread of infectious disease among humans; and an increased demand for electricity for air conditioning.⁴¹ Other predicted large-scale and high-impact effects include: most famously, the melting of mountain glaciers and ice sheets, which would destroy coastal habitats and increase the salinity of wetlands, estuaries, and aquifers; an increased frequency of extreme weather,⁴² including higher maximum temperatures, more hot days and heat waves, and fewer cold days and frost days, which would cause damage to livestock and agriculture; and more in-

34. Deforestation is particularly problematic because forests are repositories of CO_2 , containing approximately two-thirds of the total amount of CO_2 present in the atmosphere. When entire forests are cut down, all of the CO_2 stored within the plants is released. See REITZE, *supra* note 10, at 413.

35. CLIMATE CHANGE 2001, *supra* note 32, at 2 (defining "global average surface temperature" as "the average of near surface air temperature over land and sea surface temperature").

36. *Id.*

37. *Id.* at 5.

38. *Id.* at 4.

39. REITZE, *supra* note 10, at 414.

40. *Id.*

41. *Id.*

42. In light of Hurricanes Katrina and Rita, which destroyed the Gulf Coast in the late summer of 2005, there is great speculation as to whether global warming is at least partly responsible for an increase in severe weather activity. See Jeffrey Kluger, *Global Warming: The Culprit? Evidence Mounts that Human Activity is Helping Fuel These Monster Hurricanes*, TIME, Oct. 3, 2005, at 40. Such conjecture is not substantiated according to the United States government. See U.S. DEP'T OF STATE, U.S. CLIMATE ACTION REPORT 2002 100-01 (2002), available at <http://www.gcrio.org/CAR2002/> [hereinafter CLIMATE ACTION REPORT] ("Although projections of the number of hurricanes that may develop remain uncertain, model simulations indicate that, in a warmer climate, hurricanes that do develop are likely to have higher wind speeds and produce more rainfall.").

tense precipitation events, which would increase floods, landslides, mudslides, and soil erosion.⁴³

Although uncertainty surrounding the magnitude of the effects of global warming still lingers, studies supporting the above predictions are quite compelling. The latest data from a two-mile long ice core sample taken from Antarctica indicates that carbon dioxide levels are 27% higher today than they were 650,000 years ago.⁴⁴ Because humans will continue to demand energy from oil, coal, and natural gas sources and because the use of fossil fuels increases proportionately with economic growth,⁴⁵ it is unlikely that unregulated CO₂ emissions will significantly decrease in the near future.⁴⁶

III. OBSTACLES TO THE REGULATION OF CARBON DIOXIDE EMISSIONS: THE U.S. GOVERNMENT

A. The Executive Branch

The United States government is not entirely to blame for its failure to regulate CO₂ emissions. Recent presidents have responded to growing international concern about the impact of GHGs by signing international treaties to either stabilize or reduce emissions.⁴⁷ The current administration, however, will not

43. IPCC, CLIMATE CHANGE 2001: IMPACTS, ADAPTATION, AND VULNERABILITY, CONTRIBUTION OF WORKING GROUP II TO THE THIRD ASSESSMENT REPORT OF THE IPCC 7 tbl.SPM-1 (James J. McCarthy et al. eds., 2001), available at http://www.grida.no/climate/ipcc_tar/wg2/pdf/wg2TARspm.pdf [hereinafter IMPACTS, ADAPTATION, AND VULNERABILITY].

44. Usha Lee McFarling, *Core Evidence That Humans Affect Climate Change; Ice Drilled in Antarctica Offers the Fullest Record of Glacial Cycles and Greenhouse Gas Levels*, L.A. TIMES, Nov. 25, 2005, at A24. For the actual study cited by this news article, see Urs Siegenthaler et al., *Stable Carbon Cycle—Climate Relationship During the Late Pleistocene*, 310 SCIENCE 1313 (2005).

45. CLIMATE ACTION REPORT, *supra* note 42, at 8.

46. Juliet Eilperin, *World Leaders to Discuss Strategies for Climate Control; Bush Administration Shuns Conference On Strategies to Build on Kyoto Pact*, WASH. POST, Nov. 27, 2005, at A03 (“We do have a little time, but not much. . . . If we don’t get a serious program in place for the long term in this second post-Kyoto phase, we will simply not make it and we will be crossing limits which will basically produce impacts that are unacceptable.” (quoting Michael Oppenheimer, Princeton University scientist)).

47. In 1992, President George H.W. Bush signed the United Nations Framework Convention on Climate Change (“UNFCCC”). The objective of this framework convention was the “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.” United Nations Framework Convention on Climate Change, May 9, 1992, 1771 U.N.T.S. 107, available at <http://unfccc.int/resource/docs/convkp/conveng.pdf>. Presi-

consider binding emissions legislation. President Bush recognizes global warming as a major national and international environmental problem,⁴⁸ but he has unambiguously declared his opposition to any regulation of CO₂ emissions.⁴⁹ In a letter to Senators Hagel, Helms, Craig, and Roberts, he wrote, "I do not believe, however, that the government should impose on power plants mandatory emissions reductions for carbon dioxide, which is not a 'pollutant' under the Clean Air Act."⁵⁰ Likewise, during the Montreal Climate Conference in December 2005, the chief American negotiator actually walked out of informal discussions regarding long-term international cooperation to carry out the United Nations' 1992 treaty on climate change.⁵¹ The United States eventually consented to "open and nonbinding" talks, but it has yet to agree to any formal commitment.⁵² Despite this clear opposition to regulation, the Bush administration's budget does include funding for a variety of climate research and other initiatives designed to reduce GHGs.⁵³ For example, in February 2003, the Department of Energy launched Climate Voluntary Innovative Sector Initiatives: Opportunities Now ("VISION"), a program that helps industry trade groups identify and implement cost-effective solu-

dent Bill Clinton then signed the Kyoto Protocol in 1997, which amended the UNFCCC and committed Annex I Parties to individual, legally-binding targets to limit or reduce their GHG emissions. See Kyoto Protocol, *supra* note 6.

48. Press Release, White House Office of the Press Secretary, Global Climate Change Policy Book (Feb. 2002), <http://www.whitehouse.gov/news/releases/2002/02/climatechange.html> (last visited Nov. 6, 2006).

49. See Ray Moseley, *Bush's Opposition to Clean-Air Accord Risky, Activists Say*, CHI. TRIB., Mar. 22, 2001, at N3 (Bush stated, "I oppose the Kyoto Protocol."); see also Peter Behr & Eric Pianin, *Firms Start Trading Program for Greenhouse-Gas Emissions; Creation of Exchange Expands Voluntary Effort to Cut Pollutants; Democrats Push for Mandatory Controls*, WASH. POST, Jan. 17, 2003, at A14 ("The Bush administration opposes mandatory reduction in carbon dioxide and other greenhouse gases. Instead, the president has called for more research on global warming and new economic incentives to encourage utilities and manufacturers to gradually reduce the growth of emissions.").

50. See Kyle Danish, *Global Climate Change*, in THE CLEAN AIR ACT HANDBOOK 497 (Robert J. Martineau, Jr. & David P. Novello eds., 2d ed. 2004).

51. Revkin, *supra* note 8.

52. Eilperin, *supra* note 8.

53. See generally The Climate Change Research Initiative, <http://www.climatescience.gov/about/ccri.htm> (last visited Nov. 6, 2006); President George W. Bush, President Bush Announces Climate Change Initiatives (Jul. 13, 2001), <http://yosemite.epa.gov/oar/globalwarming.nsf/webprintview/NewsandEventsSpeeches-Bush-7-13-01.html> (last visited Nov. 6, 2006); see also Press Release, White House Office of the Press Secretary, *supra* note 48 (including tax incentives and carbon sequestration).

tions to reduce GHG emissions.⁵⁴ These voluntary CO₂ reduction measures will not appreciably reduce the United States' contribution to global climate change alone; rather, actual regulation of CO₂ is necessary.⁵⁵

B. The Legislative Branch

While Congress clearly recognizes the causal link between CO₂ and global warming,⁵⁶ it has not passed any legislation that *regulates* CO₂.⁵⁷ This may soon change, now that both houses are controlled by Democrats eager to pass national legislation to reduce GHGs and slow global warming. Prior to 2007, bills introduced with language to implement some sort of mandatory program were either unable to garner enough votes in Congress or remain sitting in congressional committees. In 2003, Senators McCain (R-Ariz.) and Lieberman (D-Conn.) co-sponsored a bill entitled the Climate Stewardship Act of 2003 ("the McCain-Lieberman Bill").⁵⁸ This bill would establish a comprehensive program to regulate GHGs by reducing annual GHG emissions from sources in the electricity, industrial, commercial, and transportation sectors to year-1990 levels by 2016.⁵⁹ Furthermore, the bill would allow regulated firms to meet their obligations through a

54. Climate VISION, Program Mission, <http://www.climatevision.gov/mission.html> (last visited Nov. 6, 2006); see also Press Release, U.S. Dep't of Energy, Office of Pub. Affairs, DOE Strengthens Public Registry to Track Greenhouse Gas Emissions (April 17, 2006), available at <http://www.pi.energy.gov/pdf/library/1605BApril172006.pdf>.

55. Although the Bush administration continues to cite a brief drop in emissions after 2000 as evidence that voluntary reduction measures are indeed slowing the release of GHGs, evidence that domestic GHG emissions reached an all-time high in 2004 clearly contradicts these statements. See Andrew C. Revkin, *Gas Emissions Reached High in U.S. in '04*, N.Y. TIMES, Dec. 21, 2005, at A30 (referring to the 2004 REPORT, *supra* note 24) ("[I]t seems unlikely that the present U.S. strategy of only setting emissions targets relative to economic growth, reducing so-called greenhouse gas intensity, will be enough." (quoting Lord Rees, president of the Royal Society, an independent British scientific academy)).

56. Section 821 of the 1990 Amendments to the CAA is entitled "Information gathering on greenhouse gases contributing to global climate changes." Clean Air Act Amendments of 1990, Pub. L. No. 101-549, § 821, 104 Stat. 2399, 2699 (1990) (codified at 42 U.S.C. §§ 7505-7671 (2000)).

57. Congress has expressed its concern by passing legislation urging voluntary reduction. See Global Climate Protection Act of 1987, Pub. L. No. 100-204, §§ 1101-1106, 101 Stat. 1331, 1407-09 (1987) (codified as amended at 15 U.S.C. § 2901 (2000)) (declaring that "[n]ecessary actions must be identified and implemented in time to protect the climate," but does not mandate reductions in CO₂ and GHG emissions).

58. S. 139, 108th Cong. (2003), as reprinted in 149 CONG. REC. 13572

59. *Id.*

tradeable allowance program.⁶⁰ After being rejected by the Senate 55-43 on October 30, 2003,⁶¹ the McCain-Lieberman Bill was referred back to the Senate Committee on Environment and Public Works and no action has occurred since.

Also in 2003 and again in 2005, Senator Jeffords (I-Vt.) introduced bills entitled the Clean Power Acts of 2003 and 2005,⁶² which would amend the CAA to require the Administrator of the EPA to promulgate regulations to achieve specified reductions in CO₂, mercury, and other GHGs.⁶³ Because this bill never emerged from committee, Senator Jeffords recently introduced another bill that would amend the CAA to reduce emissions of CO₂.⁶⁴ Jeffords' Global Warming Pollution Reduction Act,⁶⁵ is the most aggressive regulatory bill to date as it "cover[s] nearly all sectors of the economy, including new and old power plants, automobiles, motor fuels and other major carbon-producing industries."⁶⁶ Now that the balance of power in Congress has swung to the left, this bill, or perhaps other GHG legislation proposed in early 2007,⁶⁷ might actually win a majority of votes.

C. The Environmental Protection Agency

In August 2003, Robert Fabricant, General Counsel to the EPA, issued a memorandum withdrawing prior statements that

60. *Id.*

61. *Id.*; see also Editorial, *Promising Vote on Global Warming*, N.Y. TIMES, Nov. 1, 2003, at A14 (reporting McCain's failure to persuade Republicans to move forward on global warming).

62. The bill was first introduced in 2003 as S. 366. S. 366 was read twice then referred to the Committee on Environment and Public Works. See Clean Power Act of 2003, S. 366, 108th Cong. (2003). The Clean Power Act of 2003 was reintroduced in January 2005 as S. 150. S. 150 met the same fate as S. 366, as it was read twice and then referred to the Committee on Environment and Public Works. See Clean Power Act of 2005, S. 150, 109th Cong. (2005).

63. Clean Power Act of 2005, S. 150, 109th Cong. (2005).

64. See S. 3698, 109th Cong. (2006).

65. *Id.*

66. Darren Samuelsohn, *Sen. Jeffords Takes Cover Off Global Warming Bill*, E&E NEWS PM, July 20, 2006, <http://www.eenews.net/eenewspm/2006/07/20/archive/6/?terms=jeffords> (last visited Nov. 6, 2006).

67. See, e.g., National Energy and Environmental Security Act of 2007, S. 6, 110th Cong. (2007); Climate Stewardship and Innovation Act of 2007, S. 280, 110th Cong. (2007); Global Warming Pollution Reduction Act, S. 309, 110th Cong. (2007); Electric Utility Cap and Trade Act of 2007, S. 317, 110th Cong. (2007); TEAM up for Energy Independence Act, H.R. 182, 110th Cong. (2007); Climate Stewardship Act of 2007, H.R. 620, 110th Cong. (2007).

the EPA had legal authority to regulate CO₂⁶⁸ and declared that the CAA does not give the EPA regulatory power under the statute: "Because the CAA does not authorize regulation to address climate change, it follows that CO₂ and other GHGs, as such, are not air pollutants under the CAA's regulatory provisions, including sections 108, 109, 111, 112, and 202."⁶⁹ Less than one month later the EPA incorporated Fabricant's legal analysis into a formal rulemaking, denying any authority to regulate CO₂ emissions from new motor vehicles because CO₂ is not an air pollutant under the CAA.⁷⁰ As the EPA is the primary agency charged with administering the CAA, by declaring that it had no authority to regulate CO₂, the EPA dealt a severe blow to any federal plaintiff's statutory remedies which could potentially be used to compel the agency to list CO₂ as a criteria pollutant.⁷¹ Numerous states, cities, and environmental organizations sued the EPA on this very issue, but the lower court relied on the Administrator's policy judgments and deferred to the EPA's decision.⁷² This case, *Massachusetts v. EPA*, is now before the United States Supreme Court.

68. See Memorandum from Jonathan Z. Cannon, General Counsel, EPA, to Carol M. Browner, Administrator, EPA (Apr. 10, 1998) (on file with Pace Environmental Law Review).

69. Memorandum from Robert E. Fabricant, General Counsel, EPA, to Marianne L. Horinko, Acting Administrator, EPA Region 10 (Aug. 28, 2003) (on file with Pace Environmental Law Review).

70. Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. 52,922, 52,925 (Sept. 8, 2003) ("After careful consideration of petitioners' arguments and the public comments, EPA concludes that it cannot and should not regulate GHG emissions from U.S. motor vehicles under the CAA. Based on a thorough review of the CAA, its legislative history, other congressional action and Supreme Court precedent, EPA believes that the CAA does not authorize regulation to address global climate change. Moreover, even if CO₂ were an air pollutant generally subject to regulation under the CAA, Congress has not authorized the Agency to regulate CO₂ emissions from motor vehicles to the extent such standards would effectively regulate car and light truck fuel economy, which is governed by a comprehensive statute administered by DOT.").

71. The CAA is structured around the regulation of criteria air pollutants. Criteria pollutants are a group of common air pollutants that are designated as such based on their effects on public health and welfare. The six named criteria pollutants are particulate matter, sulfur dioxide, nitrogen oxides, carbon monoxide, ozone, and lead. See generally 40 C.F.R. §§ 50.4-.12 (2006). The Administrator of the EPA must first list a pollutant as an air pollutant before the EPA has the authority to regulate it. See Clean Air Act, 42 U.S.C. § 7408(a) (2000).

72. See *Massachusetts v. EPA*, 415 F.3d 50 (D.C. Cir. 2005), cert. granted, 126 S. Ct. 2960 (2006).

D. The Judicial Branch

As the Supreme Court has now accepted *certiorari* on the question of whether the EPA has statutory authority to regulate CO₂ under the CAA,⁷³ the Court will likely uphold the lower court and defer to the agency's discretion under the strong language of *Chevron v. Natural Resources Defense Council, Inc.*⁷⁴ In *Chevron*, Justice Stevens invoked a two-prong test to determine whether an agency's construction of a statute is proper: "First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress."⁷⁵ Where an answer to the first inquiry results in a negative, however, *Chevron* analysis proceeds to the second step: "If, however . . . the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute."⁷⁶ One theoretical justification for *Chevron* deference is based on agency expertise. As Justice Scalia explained in a lecture at Duke Law School, because of an agency's "intense familiarity with the history and purposes of the legislation at issue [and its] practical knowledge of what will best effectuate those purposes . . . [an agency is] more likely than the courts to reach the correct result."⁷⁷

The United States government could choose to regulate CO₂, but as evidenced above, no such initiative currently exists. Consequently, because growing concentrations of unregulated CO₂ emissions affect every state, the problem deserves federal attention in federal courtrooms. Until Congress implements a comprehensive regulatory program for CO₂, federal common law of public nuisance should remain a viable cause of action that produces a remedy to impose limits on CO₂ emissions.

73. *See id.*

74. *See Chevron v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984).

75. *Id.* at 842-43.

76. *Id.*

77. Antonin Scalia, *Judicial Deference to Administrative Interpretations of Law*, 1989 DUKE L.J. 511, 514 (1989).

IV. PREEMPTION AND THE FEDERAL COMMON LAW OF PUBLIC NUISANCE

A. The Doctrine of Preemption

Article VI, Clause Two of the United States Constitution declares, "This Constitution, and the Laws of the United States . . . shall be the supreme Law of the Land . . . any Thing in the Constitution or Laws of any State to the Contrary notwithstanding."⁷⁸ Otherwise known as the Supremacy Clause, this declaration is the origin of the doctrine of preemption.⁷⁹ Preemption generally refers to the displacing effect that federal law will have on a conflicting state law. Preemption may be either expressed or implied: "Congress' [preemptive] command is explicitly stated in the statute's language or implicitly contained in its structure and purpose."⁸⁰ There are two forms of implied preemption: field preemption and conflict preemption.⁸¹ Field preemption denotes a scheme of federal regulation that is "so pervasive as to make reasonable the inference that Congress left no room for the States to supplement it."⁸²

A classic example of field preemption as applied to the CWA⁸³ is found in the related cases *Illinois v. City of Milwaukee (Milwaukee I)*⁸⁴ and *City of Milwaukee v. Illinois (Milwaukee II)*.⁸⁵ Before the CWA was passed, the federal common law of public nuisance existed as a viable cause of action to abate a nuisance caused by water pollution. In *Milwaukee I*, the State of Illinois sued the City of Milwaukee under the federal common law of public nuisance, alleging that Milwaukee's two sewage treatment plants inadequately treated its sewage.⁸⁶ When this sewage overflowed into Lake Michigan, Illinois argued that these discharges posed a threat to the health of its citizens.⁸⁷ The Court in *Milwaukee I* recognized the existence of federal common law as an available remedy:

78. U.S. CONST. art. VI, cl. 2.

79. *Gade v. Nat'l Solid Wastes Mgmt. Ass'n*, 505 U.S. 88, 108 (1992).

80. *Id.* at 98.

81. *Id.*

82. *Id.*

83. Federal Water Pollution Control Act, 33 U.S.C. §§ 1251-1387 (2000).

84. *Illinois v. City of Milwaukee (Milwaukee I)*, 406 U.S. 91 (1972).

85. *City of Milwaukee v. Illinois (Milwaukee II)*, 451 U.S. 304 (1981).

86. *Milwaukee I*, 406 U.S. at 93.

87. *Milwaukee II*, 451 U.S. at 309.

As the field of federal common law has been given necessary expansion into matters of federal concern and relationship (where no applicable federal statute exists, as there does not here), the ecological rights of a State in the improper impairment of them from sources outside the State's own territory, now would and should, we think, be held to be a matter having basis and standard in federal common law and so directly constituting a question arising under the laws of the United States.⁸⁸

Yet, once Congress passed the CWA Amendments of 1972, this new regulatory system, which explicitly prohibited the discharge of pollutants into waters of the United States, effectively nullified the need for a federal common law remedy.⁸⁹ The Court in *Milwaukee II* held that "when Congress addresses a question previously governed by a decision rested on federal common law the need for such an unusual exercise of lawmaking by federal courts disappears. . . . Congress . . . has *occupied the field* through the establishment of a comprehensive regulatory program supervised by an expert administrative agency."⁹⁰ In addition to preempting common law water pollution, field preemption has formed the basis for federal preemption in other important areas, including nuclear safety, collective bargaining, and alien registration.⁹¹

The second form of implied preemption is conflict preemption. Conflict preemption denotes a scheme "[in which] compliance with both federal and state regulations is a physical impossibility."⁹² Even in the absence of a direct conflict between state and federal law, a conflict exists if the state law "stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress."⁹³

While Chief Justice Rehnquist held in *Milwaukee II* that the Clean Water Act occupies the field of the federal common law of

88. *Milwaukee I*, 406 U.S. at 99-100 (quoting *Texas v. Pankey*, 441 F.2d 236, 240 (10th Cir. 1971)).

89. See Federal Water Pollution Control Act, 33 U.S.C. § 1311 (2000) (discharge of a pollutant is illegal except in compliance with law).

90. *Milwaukee II*, 451 U.S. at 314, 317 (emphasis added).

91. See *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 212-13 (1983) (nuclear safety); *Metro. Life Ins. Co. v. Massachusetts*, 471 U.S. 724, 750-51 (1985) (collective bargaining); *Hines v. Davidowitz*, 312 U.S. 52, 67 (1941) (registration of aliens).

92. *Gade v. Nat'l Solid Wastes Mgmt. Ass'n*, 505 U.S. 88, 98 (1992) (quoting *Fla. Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 142-43 (1963)).

93. *Id.*; *Hines*, 312 U.S. at 67.

water pollution, the Supreme Court has yet to determine: (1) whether the CAA occupies the field of the federal common law of interstate air pollution;⁹⁴ and if so, (2) whether the CAA is substantially comprehensive to specifically preempt the federal common law of public nuisance in the regulation of CO₂.⁹⁵ Before explaining why the CAA does not preempt a federal common law nuisance action with respect to CO₂, it is necessary to explore the survival of federal common law and its application to public nuisance causes of action, post *Erie Railroad Co. v. Tompkins*.⁹⁶

B. The Federal Common Law of Public Nuisance

1. The Survival of Federal Common Law Post *Erie Railroad Co. v. Tompkins*

Despite the landmark ruling handed down by the Supreme Court in *Erie Railroad Co. v. Tompkins* that there is no federal general common law,⁹⁷ a body of “specialized” federal common law has survived.⁹⁸ Before *Erie* was decided, courts were free to develop law independently of state judicial decisions.⁹⁹ *Erie*, however, nullified federal courts’ ability to develop this independent body of common law when it overruled *Swift v. Tyson*¹⁰⁰ and held that “[t]here is no federal *general* common law.”¹⁰¹ Conversely, the very same day that Justice Brandeis decided *Erie*, he also recognized the vitality of federal common law in *Hinderlider v. La*

94. Thomas W. Merrill, *Global Warming as a Public Nuisance*, 30 COLUM. J. ENVTL. L. 293, 310 (2005).

95. *Id.* at 316-19.

96. *Erie R.R. Co. v. Tompkins*, 304 U.S. 64 (1938).

97. *Id.* at 78; see also *Guaranty Trust Co. v. York*, 326 U.S. 99, 101 (1945) (“In overruling *Swift v. Tyson*, 16 Pet. 1, *Erie* . . . did not merely overrule a venerable case. It overruled a particular way of looking at law which dominated the judicial process long after its inadequacies had been laid bare.”); Merrill, *supra* note 94, at 307 (“Federal common law’ on any conception, applies when important federal interests would be frustrated by the application of state law. Federal common law is in effect a type of preemption of state law.”).

98. The term “specialized common law” was coined by Judge Henry Friendly in his article *In Praise of Erie and of the New Federal Common Law*, 39 N.Y.U. L. REV. 383, 405 (1964); see also *Illinois v. Outboard Marine Corp.*, 619 F.2d 623, 625 n.7 (1980); Martha A. Field, *Sources of Law: The Scope of Federal Common Law*, 99 HARV. L. REV. 883, 909 (1986) (“The examples [of cases recognizing specialized common law] reveal an extensive federal common law, of many different varieties, with no coherent unifying principle, and whose current boundaries are uncertain.”).

99. See *Swift v. Tyson*, 41 U.S. 1 (1842) (holding that the Rules of Decision Act required that questions of a general nature, those not dependent on local law or local statutory law, be determined by general principles of jurisprudence).

100. *Id.*

101. *Erie*, 304 U.S. at 78 (emphasis added).

*Plata River & Cherry Creek Ditch Co.*¹⁰² Justice Brandeis wrote, “For whether the water of an interstate stream must be apportioned between the two States is a question of ‘federal common law’ upon which neither the statutes nor the decisions of either State can be conclusive.”¹⁰³ *Hinderlider* laid the foundation for the survival of a new, specialized kind of federal common law. The idea of a specialized body of federal common law applies “where there is an overriding federal interest in the need for uniform rule of decision or where the controversy touches basic interests of federalism.”¹⁰⁴ For example, the Supreme Court, in *Byrd v. Blue Ridge Electrical Cooperative, Inc.*, chose to apply federal law over state law based on an overriding federal interest in having the issue tried by a jury.¹⁰⁵ As long as there is federal competence to hear the issue,¹⁰⁶ a strong federal interest in the matter, and no preemption by a statute, courts may apply federal common law. Nonetheless, the instances in which a court may formulate federal common law are extremely limited: “[F]ederal common law exists only in such narrow areas as those concerned with the rights and obligations of the United States, interstate and international disputes implicating the conflicting rights of States or our relations with foreign nations, and admiralty cases.”¹⁰⁷

Hinderlider established the modern framework for the federal common law of public nuisance.¹⁰⁸ Thirty-six years after *Hinderlider* was decided, *Texas v. Pankey*¹⁰⁹ became the first environmental public nuisance case to apply specialized federal common law. In *Pankey*, the State of Texas sought to enjoin various ranch

102. *Hinderlider v. La Plata River & Cherry Creek Ditch Co.*, 304 U.S. 92 (1938).

103. *Id.* at 110.

104. *Illinois v. City of Milwaukee (Milwaukee I)*, 406 U.S. 91, 105 n.6 (1972).

105. *Byrd v. Blue Ridge Elec. Coop., Inc.*, 356 U.S. 525, 538 (1958) (holding that the “strong federal policy against allowing state rules to disrupt the judge-jury relationship in the federal courts” justified the application of a federal rule of decision).

106. *Erie* contemplated that in order for a court to choose federal law, the first inquiry is whether the court has power to hear the case. *Erie*, 304 U.S. at 78 (“Congress has no power to declare substantive rules of common law applicable in a state whether they be local in their nature or ‘general’ And no clause in the Constitution purports to confer such a power upon the federal courts.”).

107. *Texas Indus., Inc. v. Radcliff Materials, Inc.*, 451 U.S. 630, 641 (1981) (“In these instances, our federal system does not permit the controversy to be resolved under state law, either because the authority and duties of the United States as sovereign are intimately involved or because the interstate or international nature of the controversy makes it inappropriate for state law to control.”).

108. See *Milwaukee I*, 406 U.S. at 105.

109. *Texas v. Pankey*, 441 F.2d 236 (10th Cir. 1971), cited with approval by *Milwaukee I*, 406 U.S. at 103, 107 n.9.

owners in New Mexico from spraying a pesticide to eradicate range caterpillars, alleging that the chemical polluted the upstream Canadian River, harmed its aquatic life, and impaired the State's right to both enjoy the water and use it as a source of water supply for eleven municipalities.¹¹⁰ Because Texas chose to sue in the District Court for the District of New Mexico rather than in state court, the Tenth Circuit had to determine if the district court had jurisdiction to hear the matter pursuant to 28 U.S.C. § 1331(a). Stating that *Tennessee Copper* would have applied federal common law if it were decided at present, the court ruled in favor of Texas, holding that there is federal question jurisdiction based on federal common law:

As the field of federal common law has been given necessary expansion into matters of federal concern and relationship (where no applicable federal statute exists, as there does not here), the ecological rights of a State in the improper impairment of them from sources outside the State's own territory, now would and should, we think, be held to be a matter having basis and standard in federal common law and so directly constituting a question arising under the laws of the United States.¹¹¹

Many courts, including the United States Supreme Court, have repeatedly recognized the *Hinderlider* and *Pankey* interpretations of federal common law.¹¹² In *Milwaukee I*, the Supreme Court believed that federal common law was essential to the adjudication of the violation of a state's environmental rights by outside sources.¹¹³ When *Milwaukee II* came before the Supreme Court, although it held that the CWA preempted the federal common law of water pollution,¹¹⁴ the Court continued to acknowledge the existence of a federal common law in specialized circumstances:

When Congress has not spoken to a particular issue . . . and when there exists a "significant conflict between some federal policy or interest and the use of state law" . . . the Court has

110. *Pankey*, 441 F.2d at 237-38.

111. *Id.* at 240.

112. See, e.g., *Milwaukee I*, 406 U.S. at 108; *Reserve Mining Co. v. EPA*, 514 F.2d 492 (8th Cir. 1975); *Byram River v. Port Chester*, 394 F. Supp. 618 (S.D.N.Y. 1975); *United States v. Ira S. Bushey & Sons, Inc.*, 346 F. Supp. 145 (D. Vt. 1972); *Virginians for Dulles v. Volpe*, 344 F. Supp. 573 (D. Va. 1972).

113. *Milwaukee I*, 406 U.S. at 108.

114. *City of Milwaukee v. Illinois (Milwaukee II)*, 451 U.S. 304, 333 (1981).

found it necessary, in a “few and restricted” instances . . . to develop federal common law. . . . It is resorted to “[in] absence of an applicable Act of Congress,” and because the Court is compelled to consider federal questions “which cannot be answered from federal statutes alone.”¹¹⁵

Ultimately, in *Milwaukee II* the Court developed a two-part test to determine whether a federal statute displaces a previously available federal common law action.¹¹⁶ First, the court must assess the scope of the legislation: is it a comprehensive regulatory program that leaves no room for any gaps to be filled?¹¹⁷ Second, the court must determine whether the scheme established by Congress sufficiently addresses the problem formerly governed by federal common law.¹¹⁸ Thus, in the absence of a preemptive statute, federal common law applies and preempts state law. As this Comment argues, federal common law applies to the regulation of CO₂. Not only does the CAA fail to satisfy either prong of the *Milwaukee II* test, but Congress also intentionally left a statutory void under the Act that federal common law must fill.

2. Applying the Federal Common Law of Public Nuisance to Environmental Cases

Various academics agree that tort law is, and should be, preserved as an appropriate supplement to statutory regulation in climate change litigation.¹¹⁹ Nuisance law is not only the “com-

115. *Id.* at 313-14 (quoting *Wallis v. Pan Am. Petroleum Corp.*, 384 U.S. 63, 68 n.7 (1966); *Clearfield Trust Co. v. United States*, 318 U.S. 363, 367 (1943); *D’Oench, Duhme & Co. v. FDIC*, 315 U.S. 447, 469 (1942)).

116. *Id.* at 315 n.8.

117. *Id.*

118. *Id.*

119. Arnold W. Reitze, Jr., Professor of Environmental Law, writes that Congress clearly did not intend for the CAA to regulate CO₂. The CAA, therefore, does not preempt the use of the federal common law of public nuisance. See REITZE, *supra* note 10, at 415-19. For other discussions upholding this viewpoint, see David A. Grossman, Article, *Warming Up to a Not-So-Radical Idea: Tort-Based Climate Change Litigation*, 28 COLUM. J. ENVTL. L. 1 (2003); Andrew Jackson Heimert, *Keeping Pigs Out of Parlors: Using Nuisance Law to Affect the Location of Pollution*, 27 ENVTL. L. 403 (1997); Eduardo M. Penalver, Article, *Acts of God or Toxic Torts? Applying Tort Principles to the Problem of Climate Change*, 38 NAT. RESOURCES J. 563 (1998); Gerald Torres, *Seventh Annual Lloyd K. Garrison Lecture on Environmental Law: Who Owns the Sky?*, 19 PACE ENVTL. L. REV. 515 (2002). Adopting a contrary viewpoint, however, other authors argue that the CAA indeed preempts the use of the federal common law of public nuisance because CO₂ is a pollutant for CAA purposes and Congress delegated comprehensive authority to the EPA to regulate CO₂. For discussions upholding this contrary viewpoint, see Giovinazzo, *supra* note 10; Merrill, *supra* note 94; Maney, *supra* note 10; Nicholle Winters, Note, *Carbon Dioxide: A Pollutant in the Air*,

mon law backbone of modern environmental and energy law," but it has also enjoyed a "remarkable stasis" throughout centuries in many areas of decision.¹²⁰ Public nuisance law¹²¹ is particularly well-suited for the resolution of many environmental problems.¹²² For more than a century, states have exercised police power to protect their natural resources and environment. In one of the first cases to apply public nuisance law to abate the discharge of noxious gases, Justice Oliver Wendell Holmes held:

[Georgia] has an interest independent of and behind the titles of its citizens, in all the earth and air within its domain. It has the last word as to whether its mountains shall be stripped of their forests and its inhabitants shall breathe pure air. . . . It is a fair and reasonable demand on the part of a sovereign that the air over its territory should not be polluted on a great scale by sulphurous acid gas, that the forests on its mountains . . . should not be further destroyed or threatened.¹²³

Holmes' proclamation is not limited to environmental injury within Georgia's borders, but applies to all states and their respective interests in protecting their orchards, forests, and coastlines. Because nuisance law is considered a versatile, all-purpose doc-

But is the EPA Correct That it is Not an "Air Pollutant"?, 104 COLUM. L. REV. 1996 (2004).

120. 1 WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW: AIR AND WATER 2, 3 (West Publishing Co. 1986) ("[I]t has hung on from its horse-and-buggy origins to the days of high technology.").

121. Public nuisance is "an unreasonable interference with a right common to the general public." RESTATEMENT (SECOND) OF TORTS § 821B(2) (1979). Public rights include the public health, public safety, public peace, public comfort, and public convenience. *Id.* § 821B(2)(a). When a public right is violated, a state or its representative, or a private individual may seek to protect these rights by asserting an action in public nuisance. *Id.* § 821C cmt. b (a private individual may assert an action in public nuisance only if that individual has suffered harm different in kind, not just in degree, from the harm suffered by the public). By contrast, private nuisance is a "non-trespassory invasion of another's interest in the private use and enjoyment of land." *Id.* § 821D. The RESTATEMENT (SECOND) OF TORTS interprets the phrase "interest in the use and enjoyment of land" to generally mean the pleasure and comfort that a landowner derives from occupying and using land that will not depreciate in value from any physical invasion. *Id.* § 821E.

122. *Cox v. City of Dallas*, 256 F.3d 281, 291 (5th Cir. 2001) ("The theory of nuisance lends itself naturally to combating the harms created by environmental problems."). For examples of recent environmental nuisance cases, see, e.g., *State v. Clayton*, 492 So. 2d 665 (Ala. Crim. App. 1986) (unauthorized dump); *Sterling v. Veliscol Chem. Corp.*, 647 F. Supp. 303 (W.D. Tenn. 1986) (hazardous waste disposal site); *Galaxy Carpet Mills, Inc. v. Massengill*, 338 S.E.2d 428 (Ga. 1986) (air pollution, noise, and vibration from coal-fired burners).

123. *Georgia v. Tenn. Copper Co.*, 206 U.S. 230, 237-38 (1907).

trine,¹²⁴ “the application of nuisance law to the problem of global warming . . . does not appear to be so novel an extension.”¹²⁵ Much like the interstate air pollution dispute in *Tennessee Copper*,¹²⁶ unregulated CO₂ emissions, which travel across state boundaries and are alleged to cause national environmental injury, arguably create a public nuisance claim under the federal common law.

Federal common law must remain a viable option, especially when the President, Congress, the EPA, and the courts have barred any opportunity for a plaintiff to secure a statutory or administrative remedy for the effects of global warming.¹²⁷ Only when Congress passes regulatory global warming legislation should courts rule that the CAA “occupies the field” of regulating CO₂ emissions. While the CAA is a very comprehensive statute,¹²⁸ it lacks the language, structure, and practical application necessary to reasonably regulate CO₂ emissions. Consequently, regulation is possible under federal common law. Federal courts have subject matter jurisdiction to hear interstate disputes¹²⁹ and, because the regulation of CO₂ is of great federal concern, the power to employ federal law.¹³⁰ Federal common law is therefore an appropriate mechanism to fill statutory gaps and impose binding limitations on CO₂ emissions. The next section underscores this proposition through analysis of the CAA and a comparison to the CWA and the *Milwaukee II* standards for preemption.

124. RODGERS, *supra* note 120, at 29-30.

125. David A. Grossman, *Warming Up to a Not-So-Radical Idea: Tort-Based Climate Change Litigation*, 28 COLUM. J. ENVTL. L. 1, 52 (2003).

126. *Tenn. Copper*, 206 U.S. 230.

127. At present, only one district court has concluded that the CAA—in regulating air pollution, not CO₂ specifically—displaces federal common law. See *United States v. Kin-Buc, Inc.*, 532 F. Supp. 699, 702 (D.N.J. 1982) (defendant landfill operator was releasing vaporized nitric acid and polyvinyl chloride into the air).

128. RODGERS, *supra* note 120, at 124-25 (“On a spectrum of skimpy to comprehensive . . . the post-1970 environmental statutes are comprehensive, and can be described also as contemporary, complex, and complete. The statutes, especially under an occupation of the field approach, leave few caps to be filled.”).

129. See U.S. CONST. art. III, § 2 (“The judicial Power shall extend to all Cases . . . between a State and Citizens of another State; between Citizens of different States”); 28 U.S.C. § 1332 (2000) (diversity of citizenship).

130. Field, *supra* note 98, at 983 (noting that federal law can apply whenever federal interests require a federal solution); see also Note, *The Federal Common Law*, 82 HARV. L. REV. 1512, 1524-25 (1969) (“The formulation of remedies by federal courts does not depend upon affirmative congressional authorization for its validity, but upon the presence of a federal interest”).

V. THE CLEAN AIR ACT, PREEMPTION, AND THE REGULATION OF CARBON DIOXIDE

A. Regulatory Void Based on a Textual Analysis of the Clean Air Act

Congress did not intend for the EPA to regulate CO₂ through the CAA. In developing the latest amendments to the CAA in 1990, Congress considered various provisions that would authorize the EPA to regulate CO₂ and other GHGs but expressly chose not to include them in the final version of the Act. Legislative history indicates that the current Subchapter VI of the CAA, entitled "Stratospheric Ozone Protection,"¹³¹ is the end product of a failed attempt to incorporate language addressing global warming. Senate Bill S. 1630 sought to limit GHGs through the CAA, recognizing that uncontrolled emissions of CO₂, CFCs, and methane were contributing to global climate change.¹³² In its proposed provision entitled the "Stratospheric Ozone and Climate Protection Act,"¹³³ S. 1630's goal was to "[eliminate] emissions of manufactured substances with ozone depleting potential as well as global warming potential, to reduce to the maximum extent possible emissions of other greenhouse gases, and to provide for an orderly and equitable shift to safe alternatives."¹³⁴

In the House of Representatives, provisions concerning ozone and climate change were notably absent in the original bill of the CAA Amendments of 1990, H.R. 3030.¹³⁵ Representative John D. Dingell (D-Mich.) introduced language which would protect the stratospheric ozone as an amendment to H.R. 3030 that made the House version of the bill similar in scope to the Senate's S. 1630.¹³⁶ Dingell's amendment, however, did not include any provision to regulate CO₂.¹³⁷ When both the House and Senate bills were combined, final Amendments emerged from the conference committee with language addressing stratospheric ozone, but all references to CO₂ and other GHGs, including the "Climate Protec-

131. Clean Air Act, 42 U.S.C. § 7671 (2001).

132. S. 1630, 101st Cong. (1990); S. REP. NO. 101-228, at 377 (1989), *as reprinted in* 1990 U.S.C.C.A.N. 3385, 3760.

133. S. REP. NO. 101-228, at 385 (1989), *as reprinted in* 1990 U.S.C.C.A.N. 3385, 3769.

134. *Id.* at 387, *as reprinted in* 1990 U.S.C.C.A.N. 3770.

135. H.R. 3030, 101st Cong. (1989). This bill was considered destined to be the primary source of the 1990 Amendments. REITZE, *supra* note 10, at 415.

136. 136 CONG. REC. 11964 (1990).

137. *Id.* at 11965.

tion” portion of Title VII, were removed.¹³⁸ Only one reference to climate change, found in section 602(e) of Subchapter VI, remains: “One year after [enactment of the CAA Amendments of 1990] . . . and after notice and opportunity for comment, the Administrator shall publish the global warming potential of each listed substance.”¹³⁹ Lest the Administrator forget the nonregulatory nature of this provision, the subsequent sentence emphasizes, “The preceding sentence shall not be construed to be the basis of any additional regulation under this chapter.”¹⁴⁰ Clearly, despite the Senate’s thorough consideration of GHG emissions regulation, Congress decided that the EPA would not regulate CO₂. As Professor Reitze states, “[t]his is strong evidence the Congress did not intend to regulate GHGs when it considered ozone-depleting substances and GHGs in the same sections of the pending legislation.”¹⁴¹

Congress’ deliberate rejection of CO₂ regulation in Subchapter VI is not the only occasion when it considered but decided against using such language. In the original S. 1630, the Senate included a provision, Section 216, which would require the Administrator to set emissions standards for carbon dioxide from light duty vehicles.¹⁴² The bill authorized the Administrator to determine test procedures for compliance as well as to assess penalties against manufacturers who did not meet the average CO₂ emissions requirements.¹⁴³ As necessary and practical as this provision sounds, it was later suppressed in conference committee.¹⁴⁴ The current Subchapter II, which governs emission standards for moving sources, does not include any emissions standards for CO₂ whatsoever.¹⁴⁵

138. H.R. REP. NO. 101-952, at 335 (1990) (Conf. Rep.).

139. Clean Air Act, 42 U.S.C. § 7671(e) (2000).

140. *Id.*

141. REITZE, *supra* note 10, at 416.

142. S. REP. NO. 101-228, at 98-99 (1989), as reprinted in 1990 U.S.C.C.A.N. 3385, 3483-85. In 1990, motor vehicles produced 25% of CO₂ emissions in the United States. *Id.* at 99, as reprinted in 1990 U.S.C.C.A.N. at 3484. In 2004, the transportation sector was the largest source of CO₂ emissions, accounting for 33%. The consumption of petroleum products accounted for 98%. In addition, CO₂ emissions from the transportation sector increased by 3.1% relative to 2003. 2004 REPORT, *supra* note 24, at xii.

143. S. REP. NO. 101-228, at 100 (1989), as reprinted in 1990 U.S.C.C.A.N. 3385, 3485.

144. H.R. REP. NO. 101-952, at 336-38 (1990) (Conf. Rep.).

145. Clean Air Act, 42 U.S.C. §§ 7521-7554.

Thus, as written, the CAA only addresses CO₂ in the context of *nonregulatory* strategies. Section 103(g) directs the Administrator to “conduct a basic engineering research and technology program to develop, evaluate, and demonstrate *nonregulatory* strategies and technologies for air pollution prevention. . . . Such program shall include . . . [i]mprovements in *nonregulatory* strategies and technologies for preventing or reducing multiple air pollutants, including . . . carbon dioxide.”¹⁴⁶ Because section 103(g) lists CO₂ in addition to criteria air pollutants already regulated, one could argue that Congress intended for the EPA to regulate CO₂.¹⁴⁷ However, the fact that Congress actually revised section 103(g) to include the phrase “nonregulatory strategies”—a total of five times in fact—strongly militates against adopting this viewpoint.¹⁴⁸ Moreover, section 103(g) concludes that “[n]othing in this subsection shall be construed to authorize the imposition on any person of air pollution control requirements.”¹⁴⁹ In 1990, a year in which the United States released 5002.3 million metric tons of CO₂ into the air,¹⁵⁰ it is highly unreasonable that Congress would have forgotten to include CO₂ in a comprehensive piece of legislation.¹⁵¹ The deliberate rejection of regulatory language in concert with the deliberate addition of nonregulatory language underscores the argument that Congress did not specifically give EPA authority to regulate CO₂: “Few principles of statutory construction are more compelling than the proposition that Congress does not intend *sub silentio* to enact statutory language that it has earlier discarded in favor of other language.”¹⁵²

Federal common law must provide a remedial scheme until the CAA is amended or new regulatory CO₂ legislation is passed because, as evidenced by the legislative history from 1990, Congress only intended for the EPA to develop nonregulatory strate-

146. 42 U.S.C. § 7403(g)(1) (emphasis added).

147. Furthermore, many argue that because section 103(g) names CO₂ as a pollutant, then the very broad definition of “air pollutant” in section 302(g) surely covers CO₂. *E.g.*, Maney, *supra* note 10, at 329-33, 343; Winters, *supra* note 119, at 2005-06. For the definition of “air pollutant,” see *supra* note 11.

148. H.R. REP. NO. 101-952, at 349 (1990) (Conf. Rep.).

149. 42 U.S.C. § 7403(g)(4).

150. 2004 REPORT, *supra* note 24, at xi tbl.3.

151. REITZE, *supra* note 10, at 418.

152. *INS v. Cardozo-Fonseca*, 480 U.S. 421, 442-43 (1987); REITZE, *supra* note 10, at 416 (“In the normal case Congress is assumed to be conscious of what it has done, especially when it chooses between two available terms that might have been included in the provision in question.” (quoting *Am. Petroleum Inst. v. EPA*, 52 F.3d 113, 1120 (D.C. Cir. 1995)).

gies to research the effects of CO₂ emissions. Research does not displace regulation. As one scholar states, “[s]tatutes perceived as tentative, changing, recommendatory, and suggestive are in considerable need of judicial elaboration. Cutting down on judicial remedies and cutting back on common law rights interdicts the flow of empirical information needed for improved legislation.”¹⁵³

B. Regulatory Impossibility Based on a Structural Analysis of the Clean Air Act

In its present form, the CAA is inadequately designed to regulate CO₂. The CAA’s principal goal is to “protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.”¹⁵⁴ While regulation of CO₂ fits nicely within the ambits of the CAA’s objective, its mechanisms are ill-suited to reduce CO₂ emissions. To achieve the CAA’s goal, Congress vested the Administrator of the EPA with expansive discretion to designate criteria air pollutants, pollutants that may endanger public health or welfare and come from numerous mobile or stationary sources.¹⁵⁵ CO₂ may reasonably be considered a criteria pollutant.¹⁵⁶ Nevertheless, even if CO₂ were listed as a criteria pollutant under the current CAA, the Administrator and states would encounter many problems in regulating it effectively.

First, CO₂ falls outside the scope of the CAA’s mechanism to regulate emissions because the primary effect of CO₂ emissions—global warming—is not an ambient air problem.¹⁵⁷ Once the Administrator lists a criteria pollutant, he or she has a nondiscretionary duty to publish National Ambient Air Quality Standards (“NAAQS”), which specify a target level of pollution to reduce emissions.¹⁵⁸ NAAQS are divided into primary and secondary

153. RODGERS, *supra* note 120, at 121.

154. 42 U.S.C. § 7401(b)(1).

155. *Id.* § 7408(a)(1)(A)-(B).

156. As explained in Section II.B, CO₂’s effect on global warming is predicted to affect public welfare negatively and such emissions are released from numerous mobile (e.g., automobile tailpipes) and stationary (e.g., power plants) sources. *See supra* text accompanying notes 28-46.

157. *See* 40 C.F.R. § 50.1(e) (2005) (defining “ambient air” as “that portion of the atmosphere, external to buildings, to which the general public has access”); *see also* Symposium, *The Role of State Attorneys General in National Environmental Policy: Welcome & Global Warming Panel, Part 1*, 30 COLUM. J. ENVTL. L. 335, 341 (2005) (“Carbon dioxide is not an ambient air problem.” (quoting Richard Blumenthal, Attorney General of Connecticut)).

158. 42 U.S.C. § 7409(a).

standards. Primary NAAQS are “ambient air quality standards the attainment and maintenance of which . . . are requisite to protect the public health.”¹⁵⁹ Secondary NAAQS “protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air.”¹⁶⁰ NAAQS are designed to regulate criteria pollutants that accumulate near the surface of the earth and therefore affect ambient air. By contrast, even though CO₂ initially enters ambient air when emitted, its effect on global warming occurs much higher in the atmosphere—in the troposphere and the lower stratosphere.¹⁶¹

Second, it would be extremely difficult to designate a nonattainment area for CO₂. After NAAQS are established for a pollutant, the Administrator is required to designate nonattainment, attainment, and unclassifiable areas based on the idea that ambient concentrations of pollutants differ from region to region.¹⁶² Because tropospheric concentrations of CO₂ are essentially homogenous around the world, the goal of delineating a nonattainment area for CO₂ is impractical.¹⁶³ CO₂ has a long atmospheric residence time of up to 200 years, which results in the well-mixed concentration of CO₂ throughout the atmosphere.¹⁶⁴ If NAAQS for CO₂ were set below present atmospheric concentration, the entire United States would fall into the nonattainment category,¹⁶⁵ and it would be unlikely to ever reach attainment unless the entire world adopted similar emissions standards.¹⁶⁶ Moreover, to achieve attainment, states are required to adopt a state implementation plan (“SIP”) to enforce primary and secondary NAAQS

159. *Id.* § 7409(b)(1).

160. *Id.* § 7409(b)(2). Effects on public welfare include “effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being” *Id.* § 7602(h).

161. WIGLEY, *supra* note 28, at 10.

162. 42 U.S.C. § 7407(d)(1)(b).

163. Memorandum from Robert E. Fabricant, General Counsel, EPA, to Marianne L. Horinko, Acting Administrator, EPA Region 7 (Aug. 28, 2003) (on file with *Pace Environmental Law Review*); *see also* REITZE, *supra* note 10, at 417 n.113 (noting that concentrations are about two parts per million (PPM) higher in the northern hemisphere due to the greater amount of emissions from industrialized nations).

164. CLIMATE CHANGE 2001, *supra* note 32, at 38 tbl.1.

165. REITZE, *supra* note 10, at 417.

166. Memorandum from Robert E. Fabricant, General Counsel, EPA, to Marianne L. Horinko, Acting Administrator, EPA Region 7 (Aug. 28, 2003) (on file with *Pace Environmental Law Review*). The principal irony is that the international community is working towards adopting such standards, but the United States refuses to cooperate.

at the regional level.¹⁶⁷ Any process predicated on achieving regional reductions of a pollutant that is well-mixed throughout the atmosphere will arguably be ineffective.¹⁶⁸

Third, NAAQS are not aptly designed to regulate CO₂ emissions because the Administrator would be unable to publish *primary* NAAQS. This is because, at present concentrations CO₂ is not directly harmful to human health.¹⁶⁹ Based on the information about health effects contained in documents compiled under CAA section 108(a)(2), the EPA is required to “identify the maximum airborne concentration of a pollutant that the public health can tolerate, decrease the concentration to provide an ‘adequate’ margin of safety, and set the standard at that level.”¹⁷⁰ Because the atmospheric concentration of CO₂ was 368 ppm in 2000 and is projected to reach 540-970 ppm in 2100, well below the “safe” amount of 20,000 ppm,¹⁷¹ the NAAQS’ focus on reducing the concentration to a level the public can tolerate does not apply to CO₂.

Therefore, the plain language of the CAA not only reveals a clear nonregulatory purpose, but the statute’s overall design is also inadequate to regulate CO₂ effectively. Indeed, if the text of the CAA “is read with a focus on the goal it is intended to achieve, Congress cannot have intended to regulate global warming using a program completely unsuited to this purpose.”¹⁷² Because the effects of global warming present interstate nuisance disputes that are national in scope, courts should apply federal common law to resolve these federal issues and help reduce the United States’ impact on the global environment. As stated by the Tenth Circuit, “[u]ntil the field has been made the subject of comprehensive legislation or authorized administrative standards, only a

167. 42 U.S.C. § 7410.

168. REITZE, *supra* note 10, at 417 (citing *Union Elec. Co. v. EPA*, 427 U.S. 246 (1975); *Natural Res. Def. Council v. Train*, 545 F.2d 320 (2d Cir. 1976)).

169. See Canadian Centre for Occupational Health & Safety, Health Effects of Carbon Dioxide Gas, http://www.ccohs.ca/oshanswers/chemicals/chem_profiles/carbon_dioxide/health_cd.html (last visited Nov. 20, 2006) (finding that exposure to CO₂ at levels below 2% (20,000 ppm) is not harmful; persons exposed to concentrations of 3.3% to 5.4% for fifteen minutes evidenced an increased depth of breathing; and at 7.5%, an inability to breathe, increased pulse rate, headache, dizziness, sweating, and other effects).

170. *Whitman v. Am. Trucking Ass'ns, Inc.*, 531 U.S. 457, 465 (2001).

171. IPCC, CLIMATE CHANGE 2001: SYNTHESIS REPORT CONTRIBUTION OF WORKING GROUPS I, II, AND III TO THE THIRD ASSESSMENT REPORT OF THE IPCC 8 (Robert T. Watson et al. eds., Cambridge Univ. Press 2001), available at http://www.grida.no/climate/ipcc_tar/vol4/english/pdf/spm.pdf.

172. REITZE, *supra* note 10, at 417.

federal common law basis can provide an adequate means for dealing with such claims as alleged federal rights.¹⁷³

C. No Preemption Under *City of Milwaukee v. Illinois*

To determine whether a federal statute preempts a previously available common law action, a court may apply the *Milwaukee II* test.¹⁷⁴ In the regulation of CO₂, it is evident that the CAA does not satisfy either prong of the *Milwaukee II* test; the CAA is neither sufficiently comprehensive nor adequately capable of enforcing the regulation of CO₂ emissions.

To satisfy the first prong of the *Milwaukee II* test, the CAA must be comprehensive in scope, without any interstitial void. In comparison to the CWA, the CAA is much less comprehensive for the purposes of *Milwaukee II*. Courts have recognized that although both the CWA and CAA are very comprehensive statutes, a fundamental difference exists between them¹⁷⁵—the extent of pollution sources regulated under the CAA is much more limited than in the CWA. Generally speaking, the CAA selectively regulates pollutants and their sources whereas the CWA prohibits the discharge of *any* pollutant into navigable waters without, or in violation of, a permit.¹⁷⁶ In *United States v. Kin-Buc, Inc.*, the district court acknowledged,

While the [CWA] regulates every point source of water pollution, the CAA regulates only those stationary sources of air pollution that are found to threaten national ambient air quality standards. Thus, it does not necessarily follow that the CAA preempts the federal common law of nuisance simply because the [CWA] does so.¹⁷⁷

173. *Texas v. Pankey*, 441 F.2d 236, 241 (10th Cir. 1971), *cited with approval in Illinois v. City of Milwaukee (Milwaukee I)*, 406 U.S. 91, 103, 107 n.9 (1972).

174. *City of Milwaukee v. Illinois (Milwaukee II)*, 451 U.S. 304, 315 n.8 (1981) (The *Milwaukee II* test is: (1) whether the statute is comprehensive and leaves no gaps to be filled; and (2) whether the statute sufficiently addresses the issue formerly governed by federal common law).

175. *See United States v. Tenn. Air Pollution Control Bd.*, 185 F.3d 529, 534 (6th Cir. 1999) (addressing “significant differences between the Clean Water Act and the Clean Air Act”); *New England Legal Found. v. Costle*, 666 F.2d 30, 32 n.2 (2d Cir. 1981) (recognizing other distinctions between the CWA and CAA); *United States v. Kin-Buc, Inc.*, 532 F. Supp. 699, 701 (D.N.J. 1982) (discussing distinctions between the CWA and CAA).

176. *Compare Clean Air Act*, 42 U.S.C. § 7408 (2000), *with Federal Water Pollution Control Act*, 33 U.S.C. § 1311(a) (2000).

177. *Kin-Buc, Inc.*, 532 F. Supp. at 701.

In addition to the scope of regulated sources, the CWA is more comprehensive than the CAA because the Supreme Court expressly closed all statutory gaps in *Milwaukee II*.¹⁷⁸ While the CWA preempts all federal common law actions, courts still have an opportunity to fill the interstices of the CAA. Even if the Supreme Court were to hold that the CAA occupies the field of air pollution and preempts federal common law, this ruling would be inapplicable to the regulation of CO₂, since the CAA does not regulate CO₂ nor is it adequately designed to achieve significant reductions in atmospheric concentration of CO₂. Until Congress speaks to the issue of enforceable limits on CO₂ emissions, the CAA cannot be considered sufficiently comprehensive because there will always be a regulatory and remedial void in the statute.

To satisfy the second prong of the *Milwaukee II* test, the regulatory scheme of the CAA must sufficiently address any issues of CO₂ regulation previously governed by federal common law.¹⁷⁹ Actions in federal common law nuisance have existed in air pollution cases concurrently with the CAA.¹⁸⁰ Even prior to the passage of the CAA, common law nuisance actions have traditionally governed transboundary air pollution cases.¹⁸¹ Therefore, it is reasonable to assume that interstate disputes concerning the harmful effects of CO₂ emissions create a strong enough federal interest to employ federal common law. Professor Thomas Merrill of Columbia University Law School agrees:

178. *Milwaukee II*, 451 U.S. at 317 (“The establishment of such a self-consciously comprehensive program by Congress, which certainly did not exist when *Illinois v. Milwaukee* was decided, strongly suggests that there is no room for courts to attempt to improve on that program with federal common law.”).

179. *Id.* at 315 n.8. No court has decided this issue yet. Though the appeal of *Connecticut v. Am. Elec. Power Co.*, 406 F. Supp. 2d 265 (S.D.N.Y. 2005) will hopefully produce an opinion on the issue.

180. *E.g.*, *Tahoe Reg'l Planning Agency v. Jennings*, 594 F.2d 181 (9th Cir.), *cert. denied*, 444 U.S. 864 (1979) (federal common law of nuisance not precluded by CAA); *United States v. Atlantic-Richfield Co.*, 478 F. Supp. 1215 (D. Mont. 1979) (CAA does not preclude the federal common law of nuisance).

181. *E.g.*, *Georgia v. Tenn. Copper Co.*, 206 U.S. 230 (1907) (sulfur dioxide emissions enjoined because injurious to environment); *Am. Smelting & Ref. Co. v. Godfrey*, 158 F. 225 (8th Cir.), *cert. denied*, 207 U.S. 597 (1907) (sulfur dioxide emitted from ore smelter smokestacks enjoined because injurious to health, animals, and vegetation); *McCleery v. Highland Boy Gold Mining Co.*, 140 F. 951 (D. Utah 1904) (sulfur dioxide emissions enjoined, even though damage incurred was relatively small). *But see Reserve Mining Co. v. EPA*, 514 F.2d 492 (8th Cir. 1975), *modified on other grounds*, 529 F.2d 181 (8th Cir. 1976) (federal common law of nuisance not available as a basis for relief where there is no allegation or evidence of any interstate health hazards).

Public nuisance suits brought by [Attorneys General] challenging transboundary air pollution were understood to be subject to federal common law before the [CAA] was adopted. Hence, the failure to regulate a particular type of transboundary pollution . . . should be construed to mean Congress would have wanted federal common law to continue to apply.¹⁸²

Moreover, because there is a strong federal interest in the transboundary emission and regulation of CO₂, courts should apply a federal rule of decision in a global warming case. The national scope of the issue underscores the importance of employing federal common law; federal courts are competent to act on interstate public nuisance claims, and there is an important federal issue at stake. When Congress developed the CAA, it wrote a very comprehensive piece of legislation but expressly left out provisions for the regulation of CO₂ although the Act mentions CO₂ and acknowledges global warming.¹⁸³ Accordingly, the CAA's clear nonregulatory focus coupled with the absence of legal remedies should not displace actions in federal common law when federal rights are violated. Congress' conscious choice to reject specific regulatory language that would limit a widely pervasive pollutant warrants the inference that Congress intended for federal common law nuisance claims to remain viable.¹⁸⁴

D. Fashioning an Equitable Remedy

The principle of equity is rooted in the ancient maxim *ubi jus ibi remedium*, which reminds us that where the law gives a right, it also gives a remedy.¹⁸⁵ As a general matter, the assertion that there can be no right without a remedy is not always true.¹⁸⁶ Nonetheless, the doctrine of equity continues to play a significant role in the American legal system. Various treatises on equity note, "[e]quity 'does not create rights which the common law de-

182. Merrill, *supra* note 94, at 313.

183. Clean Air Act, 42 U.S.C. §§ 7403(g) (research and evaluate CO₂), 7671a(e) (report global warming potential for listed substances) (2000).

184. *Watson v. Sutherland*, 72 U.S. 74, 78 (1867) (stating that where a statute does not provide an adequate remedy at law, a plaintiff is entitled to equitable relief).

185. *Webb v. Portland Mfg. Co.*, 29 F. Cas. 506, 508 (C.C.D. Me. 1838) (No. 17,322) ("If the plaintiff has a right, he must of necessity have a means to vindicate and maintain it, and a remedy, if he is injured in the exercise or enjoyment of it; and, indeed, it is a vain thing to imagine a right without a remedy; for want of right and want of remedy are reciprocal." (quoting Lord Holt)).

186. One example is that citizens cannot sue any state in federal court. See U.S. CONST. art. III, § 2, cl. 1; U.S. CONST. amend. XI. Additionally, any applicable statute of limitations that has run will extinguish a person's right to seek relief.

nies; but it gives effectual redress for the infringement of *existing* rights, where, by reason of the special circumstances of the case, the redress at law would be inadequate.”¹⁸⁷

The United States inherited its equity jurisprudence from the English courts of Chancery,¹⁸⁸ but it derives its equitable jurisdiction wholly from the United States Constitution and statutes.¹⁸⁹ As Article III, Section 2 of the Constitution states, “[t]he judicial Power shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States, and Treaties made, or which shall be made, under their Authority”¹⁹⁰ To administer the principles of equity and justice, Chancery courts were established because the tenacity of common-law procedure precluded common-law tribunals from vindicating such rights.¹⁹¹ Common-law tribunals could not grant conditional relief nor could they prohibit or forbid a defendant from doing something; only damages were awarded as relief.¹⁹² Moreover, common-law tribunals were unlikely to stray from precedent, even when entirely new circumstances warranted a different remedy.¹⁹³ Equity courts were therefore able to fashion the appropriate remedy when legal rights were violated. As stated by the Fourth Circuit, “[o]ne of the glories of equity jurisprudence is that it is not bound by the strict rules of the common law, but can mold its decrees to do justice amid all the vicissitudes and intricacies of life.”¹⁹⁴

187. 1 JOHN N. POMEROY, A TREATISE ON EQUITY JURISPRUDENCE 181 n.11 (5th ed. 1941) (quoting ADAMS’ EQUITY, INTRODUCTION 9 (6th ed.)).

188. See *Atlas Life Ins. Co. v. W.I. Southern, Inc.*, 306 U.S. 563, 568 (1939) (“The ‘jurisdiction’ thus conferred on the federal courts to entertain suits in equity is an authority to administer in equity suits the principles of the system of judicial remedies which had been devised and was being administered by the English Court of Chancery at the time of the separation of the two countries.”).

189. See POMEROY, *supra* note 187, at 676.

190. U.S. CONST. art. III, § 2.

191. See POMEROY, *supra* note 187, at 36 (“[T]he attitude of the [common-law] courts [] rendered necessary a separate tribunal with an equitable jurisdiction, and a procedure capable of being adapted to a variety of circumstances, and of awarding a variety of special remedies.”).

192. Donald H. Zeigler, *Rights Require Remedies: A New Approach to the Enforcement of Rights in Federal Courts*, 38 HASTINGS L.J. 665, 668 (1987).

193. *Id.*; see also POMEROY, *supra* note 187, at 22 (“English common-law judges . . . set themselves with an iron determination against any modification of the doctrines and rules once established by precedent, any relaxation of the settled methods which made the rights of suitors to depend upon the strictest observance of the most arbitrary and technical forms, [and] any introduction of new principles which should bring the law as a whole into a complete harmony with justice and equity.”).

194. *Bowen v. Hockley*, 71 F.2d 781, 786 (4th Cir. 1934); see also POMEROY, *supra* note 187, at 78 (“[T]here is no limit to the various forms and kinds of specific remedy

The controlling question remains: When is equity jurisdiction appropriate? In order to provide equitable relief, district courts must first determine that no legal remedy is adequate and that the plaintiff will experience irreparable injury.¹⁹⁵ The CAA is incapable of providing a legal remedy to regulate CO₂; thus, the statute fails to adequately redress a sovereign's right to be free from public nuisances. Nowhere in the CAA's regulatory scheme lies a plain, adequate, practical, and efficient remedy at law to achieve binding controls on CO₂ emissions. Therefore, redressing the public nuisance created by the effects of CO₂ emissions makes an excellent case for equitable relief, especially because the regulation of CO₂ is a matter of public interest.¹⁹⁶ Much like in the field of water pollution where, in the absence of a comprehensive statute, the Supreme Court originally sanctioned a court's equitable resolution of public nuisance suits,¹⁹⁷ so too should a federal court exercise its equitable jurisdiction in the field of carbon dioxide regulation. As stated by the Seventh Circuit, "statutory remedies which do not afford aggrieved parties at least a reasonable facsimile of the relief sought under federal common law *do not* preclude federal common law remedies."¹⁹⁸ In many public nui-

which [a court] may grant, adapted to novel conditions of right and obligation, which are constantly arising from the movements of society.").

195. See *High Sierra Hikers Ass'n v. Blackwell*, 390 F.3d 630, 641-42 (9th Cir. 2004). Various courts have held that irreparable injury may consist of the absence of an adequate remedy at law. See *Superior Oil Co. v. Transco Energy Co.*, 616 F. Supp. 94, 96 (D. La. 1984) (citing *Placid Oil Co. v. U.S. Dep't of Interior*, 491 F. Supp. 895 (D. Tex. 1980)); *Brown v. Chote*, 411 U.S. 452 (1973).

196. *Porter v. Warner Holding Co.*, 328 U.S. 395, 398 (1946) ("Unless otherwise provided by statute, all the inherent equitable powers of the District Court are available for the proper and complete exercise of that jurisdiction. And *since the public interest is involved in a proceeding of this nature*, those equitable powers assume an even broader and more flexible character than when only a private controversy is at stake. Power is thereby resident in the District Court, in exercising this jurisdiction, 'to do equity and to mould each decree to the necessities of the particular case.'") (emphasis added).

197. The court in *Milwaukee I* acknowledged that "federal courts will be empowered to appraise the equities of the suits alleging creation of a public nuisance by water pollution." *Illinois v. City of Milwaukee (Milwaukee I)*, 406 U.S. 91, 107 (1972). "Until the field has been made the subject of comprehensive legislation or authorized administrative standards, only a federal common law basis can provide an adequate means for dealing with such claims as alleged federal rights." *Id.* at 107 n.9.

198. *Barany v. Buller*, 670 F.2d 726, 736 (7th Cir. 1982) (emphasis added). Scholarly opinion agrees. See *Pawa & Krass*, *supra* note 10, at 460 ("Federal common law should continue to provide the rule of decision in cases falling within these gaps." (quoting Kenneth M. Murchison, *Interstate Pollution: The Need for Federal Common Law*, 6 VA. J. NAT. RESOURCES L. 1, 36 (1986)); see also Robert L. Glicksman, *Federal Preemption and Private Legal Remedies for Pollution*, 134 U. PA. L. REV. 121, 171 (1985).

sance suits in the field of air pollution, courts commonly order a facility to reduce its emissions of the particular air pollutant.¹⁹⁹ Thus, it is not unreasonable for a court to order the same with respect to anthropogenic sources of CO₂.

VI. CONCLUSION

Global warming is a documented environmental problem at the forefront of our nation's environmental policy, yet the federal government has not committed to reducing CO₂ emissions through binding legislation. Our physical and biological environments are likely to suffer grave consequences if CO₂ emissions are not substantially capped. Federal inaction coupled with the inadequacy of the CAA as a regulatory and remedial mechanism will not mitigate this threat. Therefore, federal common law, unrestricted from preemptive control, should fill the statutory void. In *United States v. Little Lake Misere Land Co.*, Chief Justice Burger declared,

[T]he inevitable incompleteness presented by all legislation means that interstitial federal lawmaking is a basic responsibility of the federal courts. "At the very least, effective Constitutionalism requires recognition of power in the federal courts to declare, as a matter of common law or 'judicial legislation,' rules which may be necessary to fill in interstitially or otherwise effectuate the statutory patterns enacted in the large by Congress."²⁰⁰

Public nuisance law is an excellent supplement to the CAA's nonregulatory scope concerning CO₂. A strong advocate for nuisance law, Professor William Rodgers, contends that "[n]uisance law is uniquely able to assimilate and put to use contemporary administrative law requirements without being diverted from the

199. See, e.g., *Georgia v. Tenn. Copper Co.*, 206 U.S. 230 (1907) (enjoining emissions of sulfur dioxide); *United States v. Bishop Processing Co.*, 423 F.2d 469 (4th Cir. 1970) (enjoining malodorous air pollutants); *Am. Smelting & Ref. Co. v. Godfrey*, 158 F. 225 (8th Cir. 1907) (same); *Ouellette v. Int'l Paper Co.*, 666 F. Supp. 58 (D. Vt. 1987) (equitable remedy to enjoin emissions from paper mill is available); *Galaxy Carpet Mills, Inc. v. Massengill*, 338 S.E.2d 428 (Ga. 1986) (enjoining air pollution, noise, and vibration from coal-fired burners); *Borland v. Sanders Lead Co.*, 369 So. 2d 523 (Ala. 1979) (enjoining emissions of lead particulates).

200. See *United States v. Little Lake Misere Land Co.*, 412 U.S. 580, 593 (1973) (quoting Paul J. Mishkin, *The Varioussness of "Federal Law": Competence and Discretion in the Choice of National and State Rules for Decision*, 105 U. PA. L. REV. 797, 800 (1957)).

basic job of doing justice between the parties.”²⁰¹ Actions in public nuisance to abate interstate air pollution problems have existed for a century; actions in public nuisance for the interstate harms caused by the effects of CO₂ emissions should be treated no differently. Especially where the typical form of injunctive relief in an environmental case imposes caps on pollutant emissions,²⁰² the regulation of CO₂ in order to prevent or slow global warming is particularly well-matched for the federal common law of public nuisance. Public nuisance is an injury, which carries a right deserving of a remedy. Because federal common law provides an available remedy, it cannot be displaced with a regulatory vacuum.

201. RODGERS, *supra* note 120, at 29.

202. *Id.* at 115 (“Routinely, the courts combine technological and operational limitations.”).