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Unleashing the Power of the States: Broadening the Preemption Waiver so States are Empowered to Combat Vehicle Emissions

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INTRODUCTION

The Clean Air Act (CAA), adopted in its contemporary form in 1970, “comprise(s) one of the most intricate regulatory schemes in existence.”¹ Congress explicitly recognized that “the growth in the amount and complexity of air pollution brought about by urbanization, industrial development, and the increasing use of motor vehicles” resulted in “mounting dangers” to public health and welfare.² This Note focuses on the CAA’s provisions concerning motor vehicle emissions and the legislation’s impact on global warming.

The CAA categorizes motor vehicle emissions under the term “mobile sources.”³ Engine combustion and fuel evaporation from cars generates more than half of the United States’ air pollution.⁴ Frighteningly, mobile sources are also responsible for nearly half of an individual’s cancer risk as a consequence of their emissions of Hazardous Air Pollutants (HAPs), which include any pollutant known or suspected to cause cancer or other serious health effects.⁵ Congress recognized that to protect the country’s air, promote public health, and the productivity of society as a whole,⁶ mobile sources of air pollution needed to be regulated.⁷ Therefore, Congress passed § 202(b) of the CAA Amendments of

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¹ RICHARD L. REVESZ, ENVIRONMENTAL LAW AND POLICY, 315 (3d ed. 2015).

² 42 U.S.C.A. § 7401(a)(2) (West 2017).

³ REVESZ, *supra* note 1, at 463.

⁴ *Id.*

⁵ *Id.*

⁶ 42 U.S.C.A. § 7401(b)(1).

⁷ Int’l Harvester Co. v. Ruckelshaus, 478 F.2d 615, 623 (D.C. Cir. 1973).

1970, providing that, beginning in 1975, vehicle exhaust emissions must be reduced.⁸

Under the CAA, the Environmental Protection Agency (EPA) administrator is required to prescribe—and from time to time revise—emissions standards for new motor vehicles “which in his judgment, cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare.”⁹ The standards take effect only after the requisite technology has been developed and applied—a time period the administrator sets because of the high costs of compliance.¹⁰ While the CAA provisions described here focus predominantly on regulating new motor vehicles, regulation of existing mobile source emissions is primarily accomplished under State Implementation Plans (SIPs).¹¹ Common measures of control found in SIPs include enhanced vehicle inspection and maintenance programs,¹² transportation planning,¹³ and clean fuel programs.¹⁴

Congress has approached the issue by requiring nationally uniform standards for regulating new vehicle emissions.¹⁵ States are expressly preempted from adopting any standard related to the control of emissions from new motor vehicles by the clear language of § 209(a) of the CAA.¹⁶ While federal preemption is a familiar subject for those with a legal education, it is helpful to note that the Supremacy Clause of the United Constitution requires that federal law preempt state law.¹⁷ For the purpose of this writing, preemption means that Congress alone can set new vehicle emissions standards.¹⁸ Moreover, states cannot decide unilaterally whether the risks of mobile source emissions are so grave that

⁸ *Id.*

⁹ 42 U.S.C.A. § 7521(a)(1) (West 2017).

¹⁰ *Id.* § 7521(a)(2).

¹¹ REVESZ, *supra* note 1, at 315.

¹² 42 U.S.C.A. § 7511a(a)(2)(B)(i) (West 2017).

¹³ 40 C.F.R. § 93.118(a) (West 2017).

¹⁴ *See* 40 C.F.R. § 51.100(z); *see also* 46 Tex. Prac., Environmental Law § 23:4 (2d ed.) (demonstrating the state of Texas’ efforts to implement the TxLED Program, a clean fuel program).

¹⁵ REVESZ, *supra* note 1, at 469.

¹⁶ 42 U.S.C.A. § 7543(a).

¹⁷ 148 Am. Jur. Trials 211 (2017); U.S. CONST. art. VI, cl. 2.

¹⁸ 42 U.S.C.A § 7543(a) (Westlaw).

further regulation, or even a prohibition, is appropriate to protect citizens.¹⁹

However, there is one important exception codified in § 209(b)(1) of the CAA that allows the EPA administrator to waive federal preemption of California's emissions standards existing before March 30, 1966, "if the State determines that the State standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards."²⁰ Because California enacted such standards within that time frame, it can file waiver requests with the EPA.²¹ Additionally, under § 177 of the CAA, the forty-nine other states are authorized to adopt California's mobile source standards in lieu of the federal standards if they are identical to California's, and if two years pass before commencement of the standards to allow manufacturers time to bring that model year of vehicle into compliance.²²

In ardent support of Congress's purpose to regulate mobile source emissions, this Note proposes an amendment to the preemption provisions and aims to persuade those currently in positions to effectuate such change that there has never been a more urgent time than the present to take action. This Note proposes to amend the preemption language of § 209(b)(1) of the CAA to instead allow all fifty states a waiver of federal preemption where the state determines its standards will be as protective as applicable federal ones.²³ Expanding this privilege to avoid preemption of all states, and not just of California, will promote state sovereignty and the self-determination of its citizenry without threatening long held principles of federalism.²⁴ It will increase pressure on vehicle manufacturers to invest in vehicles with lower emissions, accelerate the transition to zero-emissions

¹⁹ *Id.*

²⁰ 42 U.S.C.A. § 7543(b)(1) (Westlaw through Pub. L. No. 115-223).

²¹ *Vehicle Emissions California Waivers and Authorizations*, U.S. ENVIRONMENTAL PROTECTION AGENCY, <https://www.epa.gov/state-and-local-transportation/vehicle-emissions-california-waivers-and-authorizations> (last updated June 23, 2017) [<https://perma.cc/SW9J-GHF4>].

²² 42 U.S.C.A. § 7507 (Westlaw through Pub. L. No. 115-223).

²³ 42 U.S.C.A. § 7543(b)(1) (Westlaw).

²⁴ Adam H. Kurland, *First Principles of American Federalism and the Nature of Federal Criminal Jurisdiction*, 45 EMORY L.J. 1 (1996).

vehicles,²⁵ support the overarching goals of the CAA, and represent a major step toward tackling the global challenge of climate change.²⁶

Critics of this proposal will likely argue that the § 177 provision allowing forty-nine states to adopt the more stringent California standards²⁷ is the most effective way of balancing the interests of interstate commerce with the concern for health and environmental risks to the state and its citizens.²⁸ Other critics seem likely to argue that this change will make little difference in the fight against global warming and that political capital would be better spent on changes that would have a more robust effect on the environment after centuries of human pollution.²⁹ Still other critics seem likely to argue that fifty-one separate emissions standards would place an unbearable burden on automakers and bankrupt an industry that is a vital cog in the economic machine of our nation.³⁰ Forecasting such valid concerns is an important step in the ongoing debate regarding what ameliorative measures should be taken.

This Note addresses these issues and seeks to offer a minimally disruptive proposal to federalism and to industry, while tackling environmental risks—particularly the enormous challenge of global warming—and human health concerns caused by vehicle emissions. Part I paints a grim picture of just how harmful mobile source emissions are to human health and the planet. This section will also discuss the need for regulation in this area. Part II begins by outlining many ways in which the current law falls short. It will further attempt to allay concerns of

²⁵See *Nissan Leaf*, NISSAN, <https://www.nissanusa.com/electric-cars/2018-leaf/> [<https://perma.cc/L3XA-SQBZ>]; see also *2018 Toyota Mirai Fuel Cell Electric Vehicle*, TOYOTA, <https://ssl.toyota.com/mirai/fcv.html> [<https://perma.cc/D3SX-LKTS>].

²⁶*Climate Change as a Global Challenge*, UNITED NATIONS, <http://www.un.org/ga/president/61/followup/climatechange/ClimateChangeBackgroundPaper.pdf> [<https://perma.cc/5XAX-TNTU>].

²⁷See 42 U.S.C.A. § 7507.

²⁸See Tara A. Stanton, *The Battle over the Electric Car: The Big Three v. the Northeastern States*, 8 TUL. ENVTL. L.J. 553 (1995).

²⁹*Industrial Revolution*, ENCYCLOPEDIA BRITANNICA, <https://www.britannica.com/event/Industrial-Revolution> (last updated Sept. 12, 2018) [<https://perma.cc/XT36-H4XR>].

³⁰Coral Davenport, *EPA Takes a Major Step to Roll Back Clean Car Rules*, N.Y. TIMES (May 31, 2018), <https://www.nytimes.com/2018/05/31/climate/epa-car-pollution-roll-back.html> [<https://perma.cc/QY6K-JC5R>].

burdening interstate commerce if changes are incorporated and outline a proposal for changing the current law. Part II concludes by providing precedent for such a change and discusses the expected outcomes. This Note concludes with a call to action aimed at current legislators and aspiring ones.

I. THE DANGER OF VEHICLE EMISSIONS AND THE STATE'S ROLE IN REGULATING THEM

It often seems like the political will to act is scarce until the gravest of circumstances is upon the electorate. Climate scientists have studied the human contribution to global warming and warned of its resulting effects as far back as the nineteenth century when Svante Arrhenius, a Swedish chemist, calculated that if carbon dioxide emissions doubled, the earth's surface temperature would increase by 5.5°F to 9°F.³¹ In 2014, the United Nations' Intergovernmental Panel on Climate Change (IPCC), which evaluates input from scientists across the globe, released an assessment concluding that even if fossil-fuel emissions halted entirely, some climate change effects will still "continue for centuries."³² Despite the fact that the United Nations' IPCC had been analyzing and reporting on the effects of climate change since 1990, the global community was not spurred to any form of serious action until 2016 when the Paris Climate Agreement was signed by 175 countries.³³

This progress may be short-lived, however. President Donald Trump's administration pulled the United States out of the Paris Agreement in 2018 and appointed an EPA administrator who is skeptical of climate science and has plans to substantially

³¹ Rudy Baum Sr., *The First Climate Change Believer*, SCIENCE HISTORY INSTITUTE (2016), <https://www.chemheritage.org/distillations/magazine/future-calculations> [https://perma.cc/68HT-D2YH].

³² Joby Warrick and Chris Mooney, *Effects of Climate Change 'Irreversible,' U.N. Panel Warns in Report*, THE WASHINGTON POST (November 2, 2014), https://www.washingtonpost.com/national/health-science/effects-of-climate-change-irreversible-un-panel-warns-in-report/2014/11/01/2d49aeecc-6142-11e4-8b9e-2ccdac31a031_story.html?utm_term=.ba600ab15ce3 (Nov. 2, 2014) [https://perma.cc/YQ9S-TAYP].

³³ *Id.*; *List of Parties that Signed the Paris Agreement on 22 April*, UNITED NATIONS, (April 2016) <http://www.un.org/sustainabledevelopment/blog/2016/04/parisagreementsingatures/> [https://perma.cc/BS96-LRHS].

curb the agency's role in fighting pollution.³⁴ This Note calls attention to these frustrating setbacks in hopes of sparking proactivity. Our generation must avoid the failings of our predecessors by acting swiftly to overcome the challenge of global warming.

For those not yet convinced by the United Nation's reports, or the news media's depictions of the problem, the following discussion will highlight the adverse effects of mobile source emissions on human health and the environment. The nonprofit Health Effects Institute, an organization financed jointly by the EPA and the auto industry, analyzed 700 peer-reviewed, international studies that focused on different aspects of motor vehicle emissions and health prior to issuing a report in 2010.³⁵ The report found evidence of a causal relationship between exposure to traffic pollution and lung-function impairment, as well as strong evidence that this pollution may accelerate hardening of the arteries, exacerbate asthma in children, and cause variations in heart rate that result in deaths.³⁶ The study found that the effects were most acutely felt among people who lived within a quarter of a mile of highways and major roads, which includes more than 100 million individuals in North America.³⁷

Moreover, the EPA has noted that nearly half of outdoor toxic emissions and cancer risks are attributable to mobile sources.³⁸ Despite these daunting figures, the EPA recognized that toxic emissions are projected to decline in the future due to the implementation of its standards.³⁹ Such hopeful projections, however, do not remove the cancer risk associated with these

³⁴ Evan Halper, *Trump's EPA Pick Casts Doubt on California's Power to Regulate Auto Emissions*, L.A. TIMES (Jan. 18, 2017, 3:45 PM), <http://www.latimes.com/nation/la-na-pol-epa-confirmation-20170118-story.html> [<https://perma.cc/L973-2G2L>]; Michael D. Shear, *Trump Will Withdraw U.S. from Paris Climate Agreement*, N.Y. TIMES, (June 1, 2017), <https://www.nytimes.com/2017/06/01/climate/trump-paris-climate-agreement.html> [<https://perma.cc/S36Z-GUXB>]

³⁵ Matthew L. Wald, *Report Links Vehicle Exhaust to Health Problems*, N.Y. TIMES (Jan. 12, 2010), <http://www.nytimes.com/2010/01/13/health/research/13exhaust.html> [<https://perma.cc/3V5F-MNVZ>].

³⁶ *Id.*

³⁷ *Id.*

³⁸ Control of Hazardous Air Pollutants from Mobile Sources, 72 Fed. Reg. 8428, 8434 (Feb. 26, 2007) (to be codified at 40 CFR Parts 59, 80, 85, and 86).

³⁹ *Id.*

emissions without additional controls.⁴⁰ The EPA anticipates that by 2030, a significant increase of individuals will be exposed to the highest risk levels of mobile source air toxins (MSATs).⁴¹ With the number of new cancer cases expected to rise by about seventy percent over the next two decades,⁴² it is time to take this deadly health risk more seriously.

Although pollution has a profound negative effect on human health, the adverse effects of mobile source emissions on the environment cannot be understated. The Fifth Assessment Report from the IPCC found that fourteen percent of 2010 global greenhouse gas emissions were produced by the transportation sector, primarily from “fossil fuels burned for road, rail, air, and marine transportation.”⁴³ While modern advances in fuel technology are on the horizon, nearly all “of the world’s transportation energy comes from petroleum-based fuels, largely gasoline and diesel.”⁴⁴ The report found that the transportation sector was responsible for the quickest growth in direct greenhouse gas emissions globally—a 120 percent increase between 1970 and 2004.⁴⁵ Perhaps more striking is the fact that while the global transportation sector is responsible for nearly one third of greenhouse gas emissions, the sector “represents less than one of every twelve tons of projected emission reductions.”⁴⁶ A Carnegie Endowment Report found that on-road transportation has the greatest negative effect on climate in the short term, primarily because of two distinctive on-road transportation traits: “nearly exclusive use of petroleum fuels, the combustion of which results in high levels of the principal warming gases (carbon dioxide, ozone, and black carbon); and minimal emissions of sulfates,

⁴⁰ *Id.*

⁴¹ *Id.* (The estimate of Americans above the ten-in-a-million cancer risk level from exposure to MSATs is projected to increase from 223 million in 1999 to 272 million in 2030).

⁴² *Cancer Factsheet*, WORLD HEALTH ORG., <https://afro.who.int/health-topics/cancer> (last visited Oct. 1, 2018) [<https://perma.cc/7QGT-XPZU>].

⁴³ *Global Greenhouse Gas Emissions Data*, ENVTL. PROT. AGENCY, <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data> (last visited Oct. 1, 2018) [<https://perma.cc/MK2Y-5NAR>].

⁴⁴ *Id.*

⁴⁵ Deborah Gordon, *The Role of Transportation in Driving Climate Disruption*, 117 CARNEGIE PAPERS: ENERGY AND CLIMATE PROGRAM 1 (Dec. 2010), https://carnegieendowment.org/files/transport_climate_disruption.pdf [<https://perma.cc/YA65-JLAH>].

⁴⁶ *Id.*

aerosols, and organic carbon from on-road transportation sources to counterbalance warming with cooling effects.”⁴⁷

Because global warming is an international challenge, it requires a statistical analysis focusing on global observations and trends. For any detractor that may argue that the focus of any potential U.S. policy change should be predicated solely on domestic evidence of impact, this Note submits the glaring observation that the United States is the clear leader in both GHG emissions and contributions to global warming, having “pumped more carbon dioxide into the atmosphere than any other nation between 1850 and 2014.”⁴⁸ Furthermore, the United States remains the second-largest global emitter of carbon dioxide—trailing only China—despite major efforts to curb emissions, shift consumer behaviors, increasing political activism, and rapidly advancing technologies across almost every industry.⁴⁹

II. SOLUTIONS TO THE MOBILE-SOURCE PROBLEM

A. Lack of Industry Incentives Creates the Need for Regulation

Automobile manufacturers’ main objective is the enhancement of both corporate profit and shareholder gain, just like all of their corporate peers.⁵⁰ Other pursuits, such as public welfare, humanitarianism, education, and philanthropy are merely permissive, and corporate directors are bound to exercise such secondary pursuits within a reasonableness framework,

⁴⁷ *Id.*

⁴⁸ Nadja Popovich, *Who’s Most Responsible for Global Warming?*, THE NEW YORK TIMES, (April 26, 2018), <https://www.nytimes.com/2018/04/26/climate/countries-responsible-global-warming.html> [<https://perma.cc/AL3C-T5P7>].

⁴⁹ *Global Greenhouse Gas Emissions Data*, ENVTL. PROT. AGENCY, <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data> (last visited Oct. 1, 2018) [<https://perma.cc/MK2Y-5NAR>].

⁵⁰ PRINCIPLES OF CORP. GOVERNANCE: ANALYSIS AND RECOMMENDATIONS § 2.01(a) (AM. LAW. INST. 1994); Jia Lynn Yang, *Maximizing shareholder value: The goal that changed corporate America*, The Washington Post, (August 26, 2013), https://www.washingtonpost.com/business/economy/maximizing-shareholder-value-the-goal-that-changed-corporate-america/2013/08/26/26e9ca8e-ed74-11e2-9008-61e94a7ea20d_story.html?utm_term=.4bef184846eb [<https://perma.cc/QUU4-UPK2>].

always keeping in mind the primary objective of profits.⁵¹ Understanding this hierarchy of corporate decision lends support to the promulgation of regulations in this case.

Although congressional concern over the problem of automotive emissions dates back to the 1950s, it was not until the passage of the CAA in 1965 that Congress established that the federal government would control regulation in this area.⁵² The Secretary of the Department of Health, Education, and Welfare testified in 1967 that “the state of the art has tended to meander along until some sort of regulation took it by the hand and gave it a good pull . . . There has been a long period of waiting for it, and it hasn’t worked very well.”⁵³ D.C. Circuit Judge Harold Leventhal described the pace of the development of emission control technology by the automobile industry during this period as proceeding “haltingly.”⁵⁴ Judge Leventhal also noted that “(t)he legislative background must also take into account the fact that in 1969 the Department of Justice brought suit against the four largest automobile manufacturers on grounds that they had conspired to delay the development of emission control devices.”⁵⁵

The legislative history describing the actions taken by the automobile industry in the early stages of regulation should not come as a surprise given the priority of profits over all else. Although the maximization of profit is often proclaimed as a law of capitalism, and this approach deserves praise for driving businesses to create products that consumers want, for employing vast swaths of the economy, and for motivating banks to lend, it also turns a blind eye to societal priorities such as shrinking income inequality or maintaining a clean environment.⁵⁶

⁵¹ PRINCIPLES OF CORP. GOVERNANCE: ANALYSIS AND RECOMMENDATIONS § 2.01(b) (AM. LAW. INST. 1994).

⁵² *Ruckelshaus*, 478 F.2d at 622.

⁵³ *Id.* at 622-23.

⁵⁴ *Id.*

⁵⁵ *Id.* at 623 (referencing *United States v. Automobile Manufacturers Ass’n.*, 307 F.Supp. 617 (C.D.Cal. 1969), *aff’d sub nom. City of New York v. United States, et al.*, 397 U.S. 248, 90 S.Ct. 1105, 25 L.Ed.2d 280 (1970)).

⁵⁶ Barack Obama, *The way ahead*, THE ECONOMIST, (Oct. 8, 2016), <https://www.economist.com/briefing/2016/10/08/the-way-ahead> [<https://perma.cc/Z4UG-LDVU>]; Henry Blodget, *Time for a better capitalism*, BUSINESS INSIDER, (Jun. 14, 2016), <https://www.businessinsider.com/time-for-a-better-capitalism-2016-6> [<https://perma.cc/M6T5-96SG>].

Opponents of regulation often argue that the “invisible hand” of the market will guide auto manufacturers toward more fuel-efficient standards as consumer demand shifts, and that we would be better to wait for the natural market shift than bear the burden of heavy regulation.⁵⁷ History should color us all skeptics to this argument, particularly as demand for more efficient vehicles ebbs and flows with the price of gasoline.⁵⁸

Recognizing that emissions from mobile sources are harmful and that the problem of global warming is reaching an irreversible point, government regulation was and remains necessary to force progress toward lowering emissions. With profit as an incentive, the auto industry cannot be trusted to advance fast enough to meet the vast environmental and public health crisis we face today. Therefore, Congress properly enacted a technology-forcing standard to mandate a powerfully reluctant automobile industry.⁵⁹

B. Shortcomings of the Current Law

As previously described, the current law allows California to seek waivers from preemption if it adopts more stringent vehicle emission standards than the federal standards, and affords the remaining forty-nine states the right to enact California’s exact standards.⁶⁰ This law has undoubtedly opened additional avenues through which states might pursue air quality control measures,

⁵⁷ Deepa Seetharaman, *MPG forecast: Automakers weigh regulation vs. demand*, CHICAGO TRIBUNE, (Jan. 15, 2014), <http://www.chicagotribune.com/autos/ct-xpm-2014-01-15-sns-mpg-forecast-automakers-weigh-regulation-vs-demand-20140116-story.html> [<https://perma.cc/P4L-PL6U>].

⁵⁸ Paul A. Eisenstein, *Low gas prices dent demand for fuel-efficient cars*, CNBC, (Nov. 14, 2014), <https://www.cnbc.com/2014/11/14/gas-prices-dent-demand-for-fuel-efficient-cars.html> [<https://perma.cc/EW4V-3BP3>]; *High gas prices motivate drivers to change direction*, CONSUMER REPORTS, (May 2012), <https://www.consumerreports.org/cro/2012/05/high-gas-prices-motivate-drivers-to-change-direction/index.htm> [<https://perma.cc/F6UC-M9WU>]; Nicholas Rossolillo, *How Are Gas Prices Affecting U.S. Automakers?*, THE MOTLEY FOOL, (May 10, 2016), <https://www.fool.com/investing/general/2016/05/10/how-are-gas-prices-affecting-us-automakers.aspx> [<https://perma.cc/R46U-72W6>].

⁵⁹ REVESZ, *supra* note 1, at 468.

⁶⁰ 42 U.S.C.A. § 7543(b) (West 2017); 42 U.S.C.A. § 7507 (West 2017).

but challenges remain that prevent states from fully executing their plans to control pollution.

One shortcoming of the current law is that the waiver must be granted by the EPA—a process that is still subject to political risks. The EPA administrator has the discretion to deny the preemption waiver if, among other reasons, the administrator determines the state does not need more stringent standards to meet “compelling and extraordinary” conditions.⁶¹ In 2005, California sought a waiver from the EPA that would allow it to regulate motor vehicle emissions of greenhouse gases, which the EPA delayed in deciding while *Massachusetts v. EPA* was waiting decision before the Supreme Court.⁶² Despite the Court holding that the CAA authorizes the EPA to regulate greenhouse gas emissions from new motor vehicles,⁶³ in 2008, under President George W. Bush’s administration, the administrator formally refused California’s waiver finding no “compelling and extraordinary circumstances.”⁶⁴ In 2009, the Obama Administration directed the EPA to reconsider the waiver request, eventually overruling its previous decision and deciding to grant the waiver.⁶⁵

Although California has requested—and has been granted—more than fifty waivers since 1977,⁶⁶ political uncertainty remains. The EPA is led by an administrator appointed by the president,⁶⁷ and therefore reflects the political ideals of the party in power. Chief Justice William Rehnquist, dissenting in *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, approved of an agency changing its mind with the election of a new president.⁶⁸ Given the overwhelming scientific evidence concerning mobile source emissions, climate change, and its impact on human health, there seems to be no “rational

⁶¹ 42 U.S.C.A. § 7543(b)(1)(B).

⁶² REVESZ, *supra* note 1, at 479-80.

⁶³ *Massachusetts v. E.P.A.*, 549 U.S. 497, 497 (2007).

⁶⁴ REVESZ, *supra* note 1, at 480.

⁶⁵ *Id.*

⁶⁶ *Id.* at 479, (citing U.S. Gov’t Accountability Office, *GAO-09-249R*, Clean Air Act: Historical Information on EPA’s Process for Reviewing California Waiver requests (2009)).

⁶⁷ 40 C.F.R. § 1.23 (2017).

⁶⁸ *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 59 (1983).

connection between facts and judgment required to pass muster under the arbitrary and capricious standard” for any denial of a waiver.⁶⁹ Yet, the risk of political influence on these waiver decisions prevent states from implementing higher emission control standards, as seen in 2008, and may also dissuade or delay states from applying for waivers. Additionally, given the current administration’s disdain for climate science—having appointed a climate change denialist as EPA administrator⁷⁰—it seems a finding of “compelling and extraordinary circumstances” over the next four years is unlikely.

A second shortcoming of the current law is the threat posed by the powerful automotive industry. States other than California seeking to adopt more stringent standards than the federal emissions limits are required to adopt emissions standards identical California’s.⁷¹ This requirement opens states up to scrutiny and challenge by the auto industry—a problem exacerbated by California’s shifting emissions standards. The auto-industry has mounted several successful challenges on this specific issue against states attempting to adopt California’s emissions limits.⁷² A prominent example of such a scenario played out in the 1990s as California adopted emissions standards focusing on “zero-emissions vehicles” (ZEVs) under the state’s more comprehensive “low-emission vehicle” (LEV) program, which was granted a § 209(b) waiver by the EPA a few years later.⁷³ Subsequently, Massachusetts and New York replicated California’s program pursuant to § 177 of the CAA.⁷⁴ After three years of operation under the waiver, California revoked the ZEV portion of its LEV program because it was feckless.⁷⁵ Due to the repeal of the ZEV sales requirement for model years 1998-2002,

⁶⁹ *Id.* at 56.

⁷⁰ Coral Davenport and Eric Lipton, *Trump Picks Scott Pruitt, Climate Change Denialist, to Lead E.P.A.*, N.Y. TIMES (Dec. 7, 2016), <https://www.nytimes.com/2016/12/07/us/politics/scott-pruitt-epa-trump.html> [https://perma.cc/Y594-WAMJ].

⁷¹ 42 U.S.C.A. § 7507(1) (2017).

⁷² REVESZ, *supra* note 1, at 480.

⁷³ *Ass’n of Int’l Auto. Mfrs., Inc. v. Comm’r, Mass. Dep’t of Env’tl. Prot.*, 208 F.3d 1, 3 (1st Cir. 2000).

⁷⁴ *Id.*; *Am. Auto. Mfrs. Ass’n v. Cahill*, 152 F.3d 196, 199 (2d Cir. 1998).

⁷⁵ *Ass’n of Int’l Auto. Mfrs.*, 208 F.3d at 3.

California entered into individual Memorandums of Agreement (“MOAs”) with seven of the largest automobile manufacturers.⁷⁶

Shortly thereafter, the auto industry seized the opportunity to challenge both New York’s and Massachusetts’ ZEV sales requirements. In *American Automobile Manufacturers Ass’n v. Cahill*, the Court held that “[o]ther states cannot opt-in to a California standard that no longer exists.”⁷⁷ Therefore, New York’s ZEV sales requirement was preempted by § 209 of the CAA and the auto industry prevailed in challenging New York’s standards.⁷⁸ Massachusetts met a similar fate in *Association of International Automobile Manufacturers v. Commissioner, Massachusetts Department of Environmental Protection*, despite having amended its ZEV mandates to reflect the automaker’s obligations under the MOAs.⁷⁹ In *Association of International Automobile Manufacturers*, the Court held that California’s MOAs were not “standards” for purposes of § 177 of the CAA.⁸⁰ Therefore, Massachusetts’ regulations purporting to copy California’s MOAs were not “identical to California standards for which a waiver [had] been granted” and were consequently preempted.⁸¹ These cases demonstrate the scrutiny a state regulation may face due to California’s ever-changing emission standards. Therefore, state legislators must constantly monitor California’s laws for any subtle change and must be prepared for the inevitable challenge by well-funded automotive industry interest groups.

The current law also falls short because of the court’s broad interpretation of the scope of federal preemption power under § 209, which pre-empts “any pre-sale regulation of motor vehicles—even if a state is merely attempting to enforce a federal standard or enforcement mechanism through state regulation.”⁸² This interpretation was on display in *Engine Manufacturers Ass’n v. South Coast Air Quality Management District*. In *Engine*, the Air Quality Management District was responsible under state law for air pollution control in Los Angeles and enacted six “Fleet Rules”

⁷⁶ *Id.*; *Cahill*, 152 F.3d at 199.

⁷⁷ *Cahill*, 152 F.3d at 201.

⁷⁸ *Id.*

⁷⁹ *Ass’n of Int’l Auto. Mfrs.*, 208 F.3d at 3-4.

⁸⁰ *Id.* at 8.

⁸¹ *Id.*

⁸² REVESZ, *supra* note 1, at 477.

to address said pollution.⁸³ The Fleet Rules prohibited some private and public fleet operators from purchasing or leasing vehicles that did not comply with emission requirements.⁸⁴ The Court held that the Fleet Rules were not entirely outside the preemptive reach of § 209(a) and applied the preemption provision broadly.⁸⁵

Strongly opposing the Court's broad interpretation, Justice David Souter summed up the significance of the Court's ruling in one sentence: "[t]he Court holds that preemption by the Clean Air Act . . . prohibits one of the most polluted regions in the United States from requiring private fleet operators to buy clean engines that are readily available on the commercial market."⁸⁶ Souter continued to critique the Court's interpretation of the CAA in his dissent, arguing that it had no preemptive application to the District's fleet purchase requirement and that the federal government effectively disabled the states from engaging in the same project.⁸⁷ The "standards" that § 209(a) preempts, accordingly, are production mandates imposed directly on manufacturers as a condition of sale and § 209(a) simply does not speak to regulations that govern a vehicle buyer's choice between various commercially available options.⁸⁸ The Supreme Court's broad interpretation of the CAA's preemption provision precludes a vast range of powers traditionally left to states⁸⁹ and is unduly burdensome in the fight against mobile source emissions.

A fourth and final critique of the current law is its inconsistency in approach. The CAA prohibits states from implementing more stringent emission limitations than those promulgated by the federal government.⁹⁰ However, states are also burdened with designing and enforcing emission programs to achieve and maintain federally defined National Ambient Air

⁸³ *Engine Mfrs. Ass'n v. S. Coast Air Quality Mgmt. Dist.*, 541 U.S. 246, 248-49 (2004) ("The District is responsible under state law for developing and implementing a 'comprehensive basinwide air quality management plan' to reduce emission levels and thereby achieve and maintain 'state and federal ambient air quality standards.'").

⁸⁴ *Id.*

⁸⁵ *See id.* at 258-59.

⁸⁶ *Id.* at 259 (Souter, J., dissenting).

⁸⁷ *Id.* at 262.

⁸⁸ *Id.*

⁸⁹ *See id.* at 260-63.

⁹⁰ 42 U.S.C.A. § 7543(a) (West, Westlaw through Pub. L. No. 115-223).

Quality Standards (NAAQS).⁹¹ Under 42 U.S.C.A. § 7409(a)(1) and 40 C.F.R. § 50.2(b), the CAA imposes upon the EPA administrator the responsibility of promulgating primary ambient air quality standards that have an adequate margin of safety to protect the public health, and secondary ambient air quality standards which the administrator deems necessary to protect the public welfare.⁹² The CAA does give states the primary burden of implementing these standards through State Implementation Plans (SIPs), which after EPA approval become federal regulations.⁹³ Each SIP must contain several elements including air quality monitoring and reporting systems, adequate provisions to prohibit interstate spillover, enforceable emissions limits to meet the NAAQS, emergency powers to prevent emissions that cause “imminent harm or substantial endangerment,” along with several other requirements.⁹⁴ As Souter properly noted, § 101 of the CAA states that “air pollution prevention (that is, the reduction or elimination, through any measures, of the amount of pollutants produced or created at the source) and air pollution control at its source is the primary responsibility of States and local governments.”⁹⁵ Notwithstanding federal reliance on the resources and enforcement mechanism of states, Congress has preempted the regulation of mobile source emissions, taking away a powerful tool from the states. Critics forget this legislation was created in an effort to assist states struggling to meet federal pollution standards by allowing other states to “piggyback” onto California’s preemption exemption for more stringent limits.⁹⁶ Congress still requires achievement and maintenance of NAAQS, but much more progress must be made at the state level—therefore it is time to remove the preemption barrier and allow states to fully control mobile source emissions.

The risk of imminent, harmful consequences of mobile source pollution is frightening, especially when considering each of the above deficiencies in the current law. Any chance of prohibition

⁹¹ 42 U.S.C.A. § 7410.

⁹² 42 U.S.C.A. § 7409(a)(1); 40 C.F.R. § 50.2(b) (2017).

⁹³ *People of State of Cal. v. Dep’t of the Navy*, 624 F.2d 885, 887 (9th Cir. 1980).

⁹⁴ REVESZ, *supra* note 1, at 346-347.

⁹⁵ *Engine Mfrs. Ass’n*, 541 U.S. 246, 260.

⁹⁶ *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. New York State Dep’t of Env’tl. Conservation*, 17 F.3d 521, 527 (2d Cir. 1994).

or delay of tougher standards only serves to compound the problem.

C. Interstate Commerce Concerns

Potentially forcing auto manufacturers into burdensome compliance with fifty-one different mobile-source emissions standards strikes fear into the minds of legislators, business leaders, and judges alike. Preemption is seen as a way to protect against undue burdens on interstate commerce by limiting the ability of states to enact their own standards.⁹⁷ However, it prevents citizens of those states from deciding for themselves at what point the profound advantages of the automobile are outweighed by the disadvantageous aspects, particularly as a source of air pollution that threatens human health and well-being.⁹⁸

Ground level ozone and carbon monoxide are created primarily by automobiles. This kind of ozone—which functions as a component of the familiar phenomenon of urban smog—“inhibits the human immune system and damages otherwise healthy lung tissue.”⁹⁹ For the reasons outlined in this section, this Note argues that the interstate commerce fears are overblown and that the consequences resulting from pollution vastly outweigh any temporary decline in profits that might occur if fifty-one standards were adopted.

First, the auto industry is more capable of meeting auto emissions limits than they would like to admit. In fact, since the 1970 amendments, the auto industry has repeatedly met imposed deadlines even after predictions that they would be unable to do so.¹⁰⁰ Although these emissions limits are designed as technology-forcing standards to guarantee progress is being made, the CAA requires that auto manufacturers be afforded at least two years before commencement of the period for which the standards take

⁹⁷ *Motor Vehicle Mfrs. Ass'n of U.S. v. N.Y. State Dep't of Env'tl. Conservation*, 810 F. Supp. 1331, 1338 (N.D.N.Y. 1993), *modified on reconsideration*, 831 F. Supp. 57 (N.D.N.Y. 1993), *aff'd in part, rev'd in part*, F.3d 521 (2d Cir. 1994).

⁹⁸ *Motor Vehicle Mfrs. Ass'n of U.S., Inc.*, 17 F.3d at 524.

⁹⁹ *Id.*

¹⁰⁰ REVESZ, *supra* note 1, at 468.

effect.¹⁰¹ This built-in statutory buffer period ensures that the auto industry can come into compliance without interrupting sales.

Second, manufacturers will be incentivized by profits when it reaches compliance with additional standards under this proposed change. When Congress provided California a waiver for more stringent standards, it concluded that in light of the size of California's economy and corresponding demand for automobiles that "this new state authority should not place an undue burden on vehicle manufacturers who will be required, in any event, to produce vehicles meeting the California standards for sale in California."¹⁰² Congress acknowledges that regardless of the additional emissions limits, auto manufacturers will find a way to comply because of the profits that would be realized in such a large market. Concededly, the demand in California is much greater than in smaller states such as Vermont or Montana. However, smaller states will have the discretion to negotiate with auto manufacturers prior to adopting more stringent regulations. States with smaller consumer bases will perform a different set of calculations when weighing the costs and benefits of more stringent emissions limits and can negotiate with manufacturers that wish to continue selling in their state.

Third, if given the opportunity to seek a preemption waiver, states will not make decisions in isolation. The business community remains in constant communication with governors and state legislators, often utilizing chambers of commerce to facilitate discussions.¹⁰³ An example of this give-and-take between legislators and the business community was seen in the late nineties, when California abandoned the ZEV sales requirement for model years 1998 to 2002.¹⁰⁴ A state's decision to enact more stringent emission limitations will only be made after consulting with the industries affected by the potential change in order to ensure that the optimal balance is struck.

¹⁰¹ 42 U.S.C.A. § 7543(e)(2)(B)(ii) (West 2017).

¹⁰² *Cahill*, 152 F.3d at 201.

¹⁰³ See *About the Kentucky Chamber*, KENTUCKY CHAMBER OF COMMERCE, <https://www.kychamber.com/about-kentucky-chamber> (last visited Oct. 5, 2018) [<https://perma.cc/L6CU-HUTP>]; *Mission*, OHIO CHAMBER OF COMMERCE, <http://ohiochamber.com/about-us/mission/> (last visited Oct. 5, 2018) [<https://perma.cc/7SKP-LFHJ>].

¹⁰⁴ *Cahill*, 152 F.3d at 199.

The fourth point is a critique of assumptions. The Congressional enactments at issue here represent a compromise between competing objectives: “Congress sought to permit state regulation of new motor vehicle emissions, however, in doing so Congress expressed a clear intent to protect motor vehicle manufacturers from the undue burden of complying with more than two different regulatory schemes.”¹⁰⁵ Legislators and courts often argue that “[t]he purpose of this additional restriction on the states’ ability to adopt motor vehicle emissions standards was obviously to protect the automobile industry from the undue burden of potentially having to produce [fifty-one] different vehicles.”¹⁰⁶ This argument assumes that automobile manufacturers will need to invent or adopt fifty-one separate emissions-control systems for their vehicles in order to sell them nationwide. However, automobile manufacturers would only need to comply with the most stringent level imposed by any one state to be in compliance with the remaining fifty emissions limitations standards. The carefully balanced compromise Congress reached would be maintained and automobile manufacturers would be free to continue selling standardized products nationwide without risk of non-compliance if they meet the most stringent level imposed by any one state.

Last is an argument for shifting the product mix toward more fuel-efficient vehicles. At this point in time, almost all major automobile manufacturers sell at least one, if not many, hybrid electric, all electric, or zero emissions vehicles such as hydrogen fuel cell.¹⁰⁷ The federal and California emissions standards are promulgated as “fleet averages” of emissions for the applicable model year of each manufacturer.¹⁰⁸ By setting exhaust and

¹⁰⁵ *Motor Vehicle Mfrs. Ass’n of U.S.*, 810 F. Supp. at 1338-39.

¹⁰⁶ *Id.* at 1338.

¹⁰⁷ See *2019 Volt: Plug-In Hybrid-Electric Car*, CHEVROLET, <http://www.chevrolet.com/electric/volt-plug-in-hybrid> (last visited Oct. 1, 2018) [<https://perma.cc/9QXK-T8NT>]; see also *Nissan Leaf*, NISSAN, <https://www.nissanusa.com/electric-cars/2018-leaf/> [<https://perma.cc/L3XA-SQBZ>]; see also *Toyota Mirai Fuel Cell Electric Vehicle*, TOYOTA, <https://ssl.toyota.com/mirai/fcv.html> (last visited Oct. 1, 2018) [<https://perma.cc/GZU6-4DQM>]; see also *Tesla Model S*, TESLA, <https://www.tesla.com/models> (last visited Oct. 1, 2018) [<https://perma.cc/AM3J-78P9>]; see also *Fuel Efficiency: Ford Hybrids, Plug-In Hybrids & EVs*, <https://www.ford.com/fuel-efficient-hybrids-evs> (last visited Oct. 1, 2018) [<https://perma.cc/TJD6-ALW9>].

¹⁰⁸ See CAL. CODE REGS. tit. 13, § 1961.3 (2017).

evaporative standards on the basis of fleet-wide averages, such regulations allow each auto manufacturer to alter its product mix to meet the fleet average.¹⁰⁹ It does not require auto manufacturers to stop selling vehicles entirely; it merely seeks to ensure that the vehicles sold in the new model year achieve the fleet-wide average.¹¹⁰ There is a great economic opportunity for auto manufacturers innovative enough to design SUVs and pickup trucks with the fuel efficiency of a compact sedan or even a hybrid.¹¹¹ Automobile manufacturers are free to pursue this economic opportunity without hesitation and should focus their energy here rather than quibbling about compliance.

D. Proposal for Change

As reiterated throughout this Note, all of this research and debate means nothing if it does not incite action. As Harold Wilson, former Prime Minister of the United Kingdom, once said, “he who rejects change is the architect of decay. The only human institution that rejects progress is the cemetery.”¹¹² The following is a proposed plan of action consisting of simple changes to existing law that would aid in the fight against global warming and further the stated purpose of the emissions limits Congress sought to regulate.

First, § 209(b)(1) of the CAA should be amended to allow all states a waiver of federal preemption. If the state determines its own standards, in the aggregate, they will all be at least as protective of public health and welfare as applicable federal ones.¹¹³ Next, § 177 should be amended to allow any state to peg its standards for emissions limits to those of any other state, as long as they have already been approved by the EPA.¹¹⁴ Third, the

¹⁰⁹ See John M. Broder, *Obama to Toughen Rules on Emissions and Mileage*, N.Y. TIMES (May 18, 2009), <http://www.nytimes.com/2009/05/19/business/19emissions.html> [<https://perma.cc/5JWG-ETK9>]

¹¹⁰ See CAL. CODE REGS. tit. 13, § 1961.3 (2017); see also Broder, *supra* note 109.

¹¹¹ Steve Cohen, *The “Can’t-Dp” Approach of the American Auto Industry*, EARTH INST.: COLUMBIA U. (Mar. 27, 2017), <https://blogs.ei.columbia.edu/2017/03/27/the-cant-do-approach-of-the-american-auto-industry/> [<https://perma.cc/Y2KE-D8R3>].

¹¹² *All About Change*, THE TIMES OF INDIA (Dec. 14, 2011), <https://timesofindia.indiatimes.com/edit-page/All-About-Change/articleshow/11097542.cms> [<https://perma.cc/L95V-889U>].

¹¹³ See 42 U.S.C.A. § 7543(b)(1) (West 2017).

¹¹⁴ See 42 U.S.C.A. § 7507.

buffer period of two years¹¹⁵ for any emissions standards on new model year vehicles should be increased to three years. This amendment would quell fears of the auto industry. Finally, the EPA administrator should create a mandatory duty of approval if the state's plan is, in the aggregate, more stringent than applicable federal standards.¹¹⁶ The EPA administrator is subject to political influence; thus, the statute should be amended to remove the discretionary language that he or she may disapprove state emissions limitations or fail to approve them for a lack of compelling and extraordinary circumstances.

E. Precedent for Proposed Changes

Congress has provided statutory exemptions from federal law preemption to the states in various environmental-law constructs.¹¹⁷ One prominent example of a statutory exemption to the federal environmental regulatory regime is found in the Resource Conservation and Recovery Act (RCRA), which provides that no state shall be precluded from “adopting or enforcing requirements ... more stringent or more extensive than those required” under the act or “operating a program with a greater scope of coverage than that required.”¹¹⁸ By establishing a viable federal-state partnership to carry out RCRA's explicit objectives of promoting the protection of health and the environment—while conserving valuable material and energy resources—Congress envisioned cooperation between the two levels of government as they each promulgated environmental protection standards.¹¹⁹ Another example of statutory exemption from federal law preemption is found in the CAA itself, which provides that the promulgation of national primary and secondary ambient air quality standards does not prohibit states from establishing their own ambient air-quality standards, even if they are more stringent than federal ones.¹²⁰ Because ambient air-quality standards are

¹¹⁵ See 42 U.S.C.A. § 7507(2).

¹¹⁶ See 42 U.S.C.A. § 7543(b)(1)(A)-(C).

¹¹⁷ See 40 C.F.R. § 271.1 (2018); see also 40 C.F.R. § 50.2(d).

¹¹⁸ 40 C.F.R. § 271.1(i).

¹¹⁹ *Hermes Consol., Inc. v. People*, 849 P.2d 1302, 1306 (Wyo. 1993).

¹²⁰ 40 C.F.R. § 50.2(d).

necessary to protect the public health and welfare,¹²¹ under the CAA the EPA administrator should define standards to protect those who are sensitive to the effects of pollution—while erring on the side of overprotection—regulating well beyond the known dangers to human health.¹²² It follows that if states are allowed to set their own, more stringent ambient air-quality standards, they have the power to provide a much broader margin of safety to their citizens as they deem necessary.

Additionally, Congress' extension of the California mobile source emissions exemption supports the argument that state experimentation in the adoption of more stringent control measures furthers the federal government's purpose for environmental regulations. A prominent example of this symbiotic relationship occurred when the EPA adopted a national LEV program for new model year 2001 vehicles.¹²³ After observing and modeling the California program, the EPA adopted its standards with slight alterations after undergoing negotiations with the automotive industry.¹²⁴ In light of this and many other examples, the law should actively support more state experimentation so the federal government can collect data, weigh the pros and cons of alternative programs, and adopt a national program that is beneficial to all parties.

As becomes apparent from the above discussion, by promulgating exemptions to the federal environmental regulation regime, Congress has implicitly recognized that they further the goals of protecting human health and lessening the threat to the environment. By promulgating technology-forcing standards for the regulation of mobile source emissions, Congress would similarly further its goals of protecting the public health and welfare by permitting state experimentation.¹²⁵ Unlike many other administrative law contexts that balance costs and benefits of regulation, environmental regulation involves factors that can pose significant risks to health and the environment, requiring both state and federal actors to look beyond economic costs.

¹²¹ 40 C.F.R. § 50.2(b).

¹²² *Am. Petroleum Inst. v. Costle*, 665 F.2d 1176, 1186 (D.C. Cir. 1981).

¹²³ REVESZ, *supra* note 1, at 481.

¹²⁴ *Id.*

¹²⁵ *See* 42 U.S.C.A. § 7521 (West 2017).

F. Expected Consequences if Change is Adopted

Allowing each state to decide for itself what threshold of mobile source emissions its citizenry is willing to accept places the task of valuing human health and balancing environmental concerns against the auto industry's enormous economic impact. Demand for more stringent emission standards is evidenced by the fact that approximately a quarter of the states have used § 177 of the CAA to adopt California's emissions standards for new motor vehicles.¹²⁶ By logical extension, if states are granted permission to set new vehicle emission standards based on their own cost-benefit analysis, calculations, and perceptions of the political will of its citizenry, then significantly more states would be inclined to do so. This conclusion is further supported by the projected calamitous consequences of global warming that will manifest with increasing frequency each passing year that the status quo is maintained.¹²⁷ Furthermore, the automotive industry has successfully challenged a state's adoption of the California standards, demonstrating that this seemingly innocuous barrier to stricter emissions standards has more bite than may anticipate.¹²⁸ Adopting these proposed changes would pave the way for increased state consideration of more stringent standards and allow local citizens to have more control over pollution-emitting vehicles sold in their state.

This new standard would apply additional pressure to industry by increasing the stringency of emissions limits for a standard that is already characterized as "technology-forcing."¹²⁹ A technology-forcing standard defines reductions available using technology the EPA determines will be available for a future model year.¹³⁰ In a majority opinion, Justice Leventhal wrote that "[i]t is clear from the legislative history that Congress expected the Clean

¹²⁶ Evan Halper, *Trump's EPA Pick Casts Doubt on California's Power to Regulate Auto Emissions*, L.A. TIMES (Jan. 18, 2017, 3:45 PM), <http://www.latimes.com/nation/la-na-pol-epa-confirmation-20170118-story.html> [<https://perma.cc/JEY4-E6V7>].

¹²⁷ See Melissa Denchak, *Are the Effects of Global Warming Really that Bad?*, NRDC (Mar. 15, 2016), <https://www.nrdc.org/stories/are-effects-global-warming-really-bad> [<https://perma.cc/55E6-PQZ8>].

¹²⁸ *Cahill*, 152 F.3d. at 197.

¹²⁹ REVESZ, *supra* note 1, at 468.

¹³⁰ 42 U.S.C.A. § 7521.

Air Amendments to force the industry to broaden the scope of its research, to study new types of engines and new control system.”¹³¹ In this same opinion, Leventhal noted that “it is the belief of many experts—both in and out of the automobile industry—that air pollution cannot be effectively checked until the industry finds a substitute for the conventional automotive power.”¹³² Unfortunately, forty-five years since this famous opinion, the industry remains reliant on internal combustion engines. Despite the soaring growth of electric vehicle sales in 2016, less than one percent of all new vehicles sold in the United States were electric vehicles.¹³³ Yet, the most interesting observation from 2016 industry-wide sales is the fact that more than half of all electric vehicle sales took place in California, a figure at least partially driven by the state’s ZEV mandate.¹³⁴ This is affirmative proof that additional pressure on industry can have a profound impact on forcing the adoption of new technology in line with Congress’ statutory purpose.

Additionally, technology-forcing legislation has been used effectively to push the auto industry toward innovation in the past, as observed by the success of the Motor Vehicle Safety Act.¹³⁵ The freedom gained from automobile travel came at a high cost of American lives and limbs.¹³⁶ Automobiles have been the leading cause of accidental deaths and injuries in the United States since 1929, with 46,300 American lives lost to motor vehicle accidents in 1982 alone.¹³⁷ The Motor Vehicle Safety Act was necessary because the industry was not reacting to the safety issues surrounding cars.¹³⁸ The Supreme Court explained that “(t)he Act intended that safety standards not depend on current technology and could be ‘technology-forcing’ in the sense of inducing the development of

¹³¹ *Ruckelshaus*, 478 F.2d at 635.

¹³² *Id.* at 634.

¹³³ Robert Rapier, *U.S. Electric Vehicle Sales Soared In 2016*, FORBES (Feb. 5, 2017, 11:28 PM), <https://www.forbes.com/sites/rrapier/2017/02/05/u-s-electric-vehicle-sales-soared-in-2016/#4ae05aae217f> [<https://perma.cc/8WQZ-YLD2>]; see also, Associated Press, *2016 U.S. auto sales set a new record high, led by SUVs*, L.A. TIMES (Jan. 04, 2017, 3:40 PM), <http://www.latimes.com/business/autos/la-fi-hy-auto-sales-20170104-story.html> [<https://perma.cc/7X3P-GUMS>].

¹³⁴ *Id.*

¹³⁵ See *Motor Vehicle Mfrs. Ass’n*, 463 U.S. at 32–33.

¹³⁶ *Id.*

¹³⁷ *Id.*

¹³⁸ *Id.* at 49.

superior safety design.”¹³⁹ Consequently, seatbelts have saved more than 250,000 lives since 1985, while airbags have saved an estimated additional 30,000.¹⁴⁰ Just as the industry fought hard to avoid federal regulation under the Motor Vehicle Safety Act, the industry fights hard today to avoid perceived overbearing emissions regulations. But the potential to accomplish great things through technology-forcing regulation is clear and this proposed amendment would capitalize on this reality.

The industry will argue that allowing all fifty states and the District of Columbia an exemption from federal law preemption will subject it to choosing winner and loser states in which it can do business. Further, the industry is likely to argue that compliance with fifty-one separate emissions standards is economically impracticable, if not impossible. Fortunately, these concerns may be alleviated by promoting the idea that the industry need only comply with the state standard that is most restrictive of vehicle emissions so that the manufacturer then remains compliant in the remaining states. Additionally, shifting consumer preferences and the rise of eco-conscious consumerism might pay large dividends to the industry leaders that first adopt and market products based on their reduction in emissions.¹⁴¹

As noted earlier, on-road transportation has significant short-term impacts on climate change, leading many scientists to agree that cutting on-road transportation emissions would be unmistakably good for the climate and public health.¹⁴² Additionally, it would help fight the urban heat island effect¹⁴³ and would lower health risks for large swaths of the population.

¹³⁹ *Id.*

¹⁴⁰ NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, TRAFFIC SAFETY FACTS 2008 DATA, <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/811160> (last visited Oct. 7, 2018) [<https://perma.cc/ZJ8W-2Q3W>]; *Policy Impact: Seat Belts*, CTR. FOR DISEASE CONTROL & PREVENTION <https://www.cdc.gov/motorvehiclesafety/seatbeltbrief/index.html> (last updated Jan. 21, 2014) [<https://perma.cc/5WA7-SKXW>].

¹⁴¹ See generally Tom Gara, *Trust The Label: Eco-Friendly Consumers Really Do*, WALL ST. J. BLOG (Dec. 5, 2012, 4:39 PM), <https://blogs.wsj.com/corporate-intelligence/2012/12/05/trust-the-label-environmentally-conscious-consumers-really-do/> [<https://perma.cc/T5SL-XVSC>].

¹⁴² See Gordon, *supra* note 45, at 1.

¹⁴³ Bianca Nogrady, *Urban heat islands: cooling things down with trees, green roads and fewer cars* (Feb. 20, 2016, 5:50 PM), <https://www.theguardian.com/sustainable-business/2017/feb/21/urban-heat-islands-cooling-things-down-with-trees-green-roads-and-fewer-cars> [<https://perma.cc/CW6U-WQQC>].

Furthermore, these proposed changes would give states a powerful tool to aid in their achievement and maintenance of the NAAQS. Congress acknowledged the potential benefits of giving states more control over mobile emissions in *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. New York State Dep't of Env'tl. Conservation*, where the federal court wrote:

Prior to 1977, New York was limited in the avenues that it could pursue to meet the NAAQS. However, in that year Congress enacted § 177 of the Act, 42 U.S.C. § 7507, which altered the preexisting preemption rule. § 177 allows states to 'adopt and enforce for any model year standards relating to control of emissions from new motor vehicles ... if: (1) such standards are identical to the California standards for which a waiver has been granted for such model year, and (2) California and such State adopt such standards at least two years before commencement of such model year ...' 42 U.S.C. § 7507.

One of the principal reasons for the adoption of § 177 was that by 1977 only a few states had met the NAAQS for ozone, and many others had failed to meet the carbon monoxide standard. § 177 gives these nonattainment states the option of adopting the California vehicle emissions program to support their efforts to comply with the ozone and carbon monoxide standards.¹⁴⁴

The changes proposed in this Note would provide states with additional support in their efforts to comply with the NAAQS.

¹⁴⁴ *Motor Vehicle Mfrs. Ass'n v. N.Y. State Dep't of Env'tl. Conservation*, 810 F. Supp. 1331, 1338 (N.D.N.Y. 1993), *modified on reconsideration*, 831 F. Supp. 57 (N.D.N.Y. 1993), *aff'd in part, rev'd in part*, 17 F.3d 521 (2d Cir. 1994).

CONCLUSION

Justice Louis Brandeis, a Louisville, Kentucky native, famously wrote in his *New State Ice Co. v. Liebmann* dissent:

[T]he advances in the exact sciences and the achievements in invention remind us that the seemingly impossible sometimes happens. There are many men now living who were in the habit of using the age-old expression: 'It is as impossible as flying.' The discoveries in physical science, the triumphs in invention, attest the value of the process of trial and error. In large measure, these advances have been due to experimentation... . To stay experimentation in things social and economic is a grave responsibility. Denial of the right to experiment may be fraught with serious consequences to the nation. It is one of the happy incidents of the federal system that a single courageous state may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country.¹⁴⁵

This Note is mindful of Brandeis' wise words and advocates an expansion of state experimentation that has proven useful in the fight against mobile source emissions that threaten our health and our planet. The risks of further human health effects—and of reaching a point-of-no-return in the fight against global warming—now calls for maximal effort from all branches of government. This proposal should be adopted so states can pioneer efforts to limit the devastating impact of mobile sources emissions. If adopted, it alone will not be enough to reverse the course we find ourselves on, but it will be one large step in charting a more prosperous course.

¹⁴⁵ *New State Ice Co. v. Liebmann*, 285 U.S. 262, 310-11 (1932).