

SAVING PREEMPTION IN THE CLEAN AIR ACT: CLIMATE  
CHANGE, STATE COMMON LAW, AND PLAINTIFFS  
WITHOUT A REMEDY

BY  
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*Although scientists now broadly recognize the dangers posed by increasing atmospheric concentrations of greenhouse gases, comprehensive legislative and regulatory action has lagged behind. One particularly important issue left unaddressed by this lack of political action is the inability for individuals to seek recovery or assistance for damage caused by climate change. Recently, the Supreme Court announced in *American Electric Power* that the federal Clean Air Act fully displaces climate change claims sounding in federal common law, thus foreclosing any possible use of federal common law as a stop-gap solution. A question expressly reserved by the Supreme Court, and later highlighted by the Ninth Circuit, however, is whether the Clean Air Act preempts state common law claims as well. A detailed analysis of this question is important, as state common law, including public nuisance claims, is the primary remaining means by which plaintiffs may seek potential redress from climate change harm. This paper first addresses the current state of the law as to whether claims seeking compensation for damage caused by either climate change or traditional air pollution brought under state common law are preempted by the Clean Air Act. This paper then turns to the question of whether courts that have visited these questions following the Supreme Court's decision in *American Electric Power*, including several district court opinions in 2012, were correct.*

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## I. INTRODUCTION

Overwhelming scientific consensus now exists that the climate is changing and that these changes are due in large part to anthropogenic releases of greenhouse gases (GHGs).<sup>1</sup> This changing climate is already causing damage to public and private property. The Native Village of Kivalina's dire situation vividly illustrates this point. In 1992, the Village of Kivalina voted to fully abandon its historical home on a barrier island north of the Arctic Circle due to the effects of climate change.<sup>2</sup> Both the General Accountability Office and the Army Corps of Engineers recognize that multiple Alaskan tribes, including Kivalina, face imminent relocation due to erosion caused by climate change.<sup>3</sup> As climate change becomes more severe, these effects are likely to be felt by other at-risk Americans as well.<sup>4</sup> And yet, the federal government currently has no plan or funds in place to assist communities faced with imminent destruction and with the cost of relocating. Most assistance is only available from federal agencies *after* a disaster, not before.<sup>5</sup> Moreover, the Clean Air Act (CAA) provides no means for an aggrieved party to seek compensatory damages from a polluter under any circumstances except through its savings clause.<sup>6</sup> Providing a means for those harmed by climate change to recover from their losses is a significant hole currently left unaddressed by Congress.

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<sup>1</sup> The Intergovernmental Panel on Climate Change (IPCC), the leading international scientific body on climate change, explained in its most recent report that "[w]arming of the climate system is unequivocal"; "[m]ost of the observed increase in global average temperatures since the mid-20th century is very *likely* due to the observed increase in anthropogenic greenhouse gas concentrations"; and that "[c]ontinued greenhouse gas emissions at or above current rates would cause further warming." Intergovernmental Panel on Climate Change, Working Grp. I, *Summary for Policymakers*, in CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS 5, 10, 13 (Susan Solomon et al. eds., 2007), *available at* <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf> [hereinafter *Summary for Policymakers*]. The United States Global Climate Research Program, which is charged with integrating and coordinating climate change research from thirteen participating federal departments and agencies, came to the same conclusion. U.S. GLOBAL CHANGE RESEARCH PROGRAM, GLOBAL CHANGE IMPACTS IN THE UNITED STATES 9 (Thomas R. Karl et al. eds., 2009), *available at* <http://downloads.globalchange.gov/usimpacts/pdfs/climate-impacts-report.pdf>.

<sup>2</sup> Christine Shearer, *The Political Ecology of Climate Adaptation Assistance: Alaska Natives, Displacement, and Relocation*, 19 J. POL. ECOLOGY 174, 174 (2012), *available at* [http://jpe.library.arizona.edu/volume\\_19/Shearer.pdf](http://jpe.library.arizona.edu/volume_19/Shearer.pdf).

<sup>3</sup> U.S. GOVERNMENT ACCOUNTABILITY OFFICE, ALASKA NATIVE VILLAGES: MOST ARE AFFECTED BY FLOODING AND EROSION, BUT FEW QUALIFY FOR FEDERAL ASSISTANCE 17, 27 (2003), *available at* <http://www.gao.gov/new.items/d04142.pdf> (providing that four Alaskan villages are in imminent danger from erosion and are planning to relocate); see U.S. ARMY CORPS OF ENG'RS, ALASKA DIST., AN EXAMINATION OF EROSION ISSUES IN THE COMMUNITIES OF BETHEL, DILLINGHAM, KARTOVIK, KIVALINA, NEWTOK, SHISHMAREF, AND UNALAKLEET 5 (2006), *available at* [http://www.housemajority.org/coms/cli/AVETA\\_Report.pdf](http://www.housemajority.org/coms/cli/AVETA_Report.pdf).

<sup>4</sup> See *Summary for Policymakers*, *supra* note 1, at 17.

<sup>5</sup> Shearer, *supra* note 2, at 177 ("[M]ost disaster programs and funds are available only after disaster occurs, not before.").

<sup>6</sup> 42 U.S.C. § 7604(a),(e) (2006) (providing the right to citizen suit enforcement but no right to compensatory damages except through common law).

Traditionally, courts have filled such holes through the common law.<sup>7</sup> For example, it is foundational that courts have the ability to prevent harm from occurring through exercise of equitable powers and further ability to provide relief to aggrieved parties through their powers at law.<sup>8</sup> In the context of localized, intrastate air pollution, tort claims brought under theories of private and public nuisance as well as trespass formed the foundation of air pollution law well before state legislatures and Congress enacted statutory predecessors to the CAA.<sup>9</sup>

Recently, however, the Supreme Court held in *American Electric Power, Inc. v. Connecticut* (*AEP*) that *federal* common law is fully displaced by the CAA.<sup>10</sup> And yet, the Court also expressly reserved the question of whether the CAA similarly preempts *state* common law claims.<sup>11</sup> More recently, Judge Pro, concurring in a Ninth Circuit case brought by Kivalina against major GHG emitters, highlighted that this question remains an open question.<sup>12</sup> Against this backdrop, several lower courts have extended *AEP*'s conclusion to state common law in cases involving GHGs as well as traditional air pollutants. Specifically, these courts found that the CAA impliedly preempts state common law claims through the doctrines of field preemption and "objects and purposes preemption."<sup>13</sup>

These cases each suffered from at least one of three mistakes. First, they fundamentally misunderstood the CAA's two savings clauses.<sup>14</sup> Second, they mistakenly injected the Supreme Court's displacement analysis into their preemption analysis, even though preemption analysis is significantly more demanding.<sup>15</sup> And third, they conflated non-justiciability doctrines with

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<sup>7</sup> See *United States v. Little Lake Misere Land Co.*, 412 U.S. 580, 593 (1973) ("[T]he inevitable incompleteness presented by all legislation means that interstitial federal lawmaking is a basic responsibility of the federal courts.").

<sup>8</sup> 1 JOSEPH STORY, COMMENTARIES ON EQUITY JURISPRUDENCE AS ADMINISTERED IN ENGLAND AND AMERICA § 30 (Bernard D. Reams, Jr. ed., Williams S. Hein & Co., 12th ed. 1918).

<sup>9</sup> The first statewide air pollution law was passed in 1947. Cal. Stat. 632, § 1 (establishing air pollution control districts in California). The first federal air pollution law was passed in 1955. Air Pollution Control Act, Pub. L. No. 84-159, 69 Stat. 322 (1955) (providing primarily for research on air pollution control problems). Common law tort actions, beginning with simple cases involving smoke emissions, developed centuries before these statutes. See ARNOLD W. REITZE JR., THE ENVTL. LAW INST., AIR POLLUTION CONTROL LAW: COMPLIANCE AND ENFORCEMENT 9 (2001) ("The legal roots of air pollution control are found in common-law tort remedies. . ."); Harold W. Kennedy & Andrew O. Porter, *Air Pollution: Its Control and Abatement*, 8 VAND. L. REV. 854, 854-64 (1954-1955) (collecting common law air pollution cases prior to modern regulation); G. Nelson Smith, III, *Nuisance and Trespass Claims in Environmental Litigation: Legislative Inaction and Common Law Confusion*, 36 SANTA CLARA L. REV. 39, 41-44 (1995) (detailing two of the earliest known English trespass and nuisance air pollution cases from the 17th and 18th centuries).

<sup>10</sup> 131 S. Ct. 2527, 2537 (2011).

<sup>11</sup> *Id.* at 2540.

<sup>12</sup> *Kivalina v. Exxon Mobil Corp.*, 696 F.3d 849, 866 (9th Cir. 2012) (Pro, J., concurring).

<sup>13</sup> See *infra* Part IV.

<sup>14</sup> See *infra* discussion of *Cheswick* and *Homer* pp. 755-60.

<sup>15</sup> See *infra* discussion of *Cheswick* and *Homer* pp. 755-60.

their preemption analysis.<sup>16</sup> Although these mistakes are understandable given the extraordinary complexity of the CAA, the dramatic facts presented by climate change cases, and notoriously fuzzy Supreme Court preemption precedent, these mistakes are nonetheless problematic. They prevent parties aggrieved by climate change and localized pollution alike from seeking recovery for harm caused by pollution.

Given this background, a detailed analysis of whether the CAA preempts climate change claims and localized air pollution claims sounding in state common law is needed. This paper seeks to serve that purpose. To develop a framework for answering this question, Part II of this paper first explores the maximum extent to which the CAA may regulate greenhouse gases without further congressional action. The purpose of this Part is to provide context for determining the Act's preemptive effect on state law. Part III applies Supreme Court precedent to the CAA to determine whether it preempts state law under the doctrines of field or conflict preemption. Given the larger body of Supreme Court preemption precedent under the Clean Water Act (CWA), similarities and differences between the two Acts are explored. This Part concludes that the CAA does not preempt state common law claims against stationary sources, but that it does preempt claims against manufacturers of mobile sources. It further finds that this conclusion extends to GHG emissions as well. Part IV details four recent federal cases—all of which held that the CAA preempts state common law—and critically examines their holdings and rationales. This Part concludes that three of these cases incorrectly applied preemption analysis to the CAA and that the fourth case's analysis is in tension with the Supreme Court's CWA precedent. Part V concludes by expounding upon the following warning: although climate change litigation may present a host of difficulties for potential plaintiffs, including questions of non-justiciability and tort causation, to foreclose a case based on *preemption* may have profound implications for more traditional toxic tort cases.

## II. EXPLORING THE MAXIMUM REACH OF THE CLEAN AIR ACT

The CAA is deservedly recognized as one of the most complex statutes on the books.<sup>17</sup> This complexity is reflective of the numerous individual programs under the Act and the significant attention to detail paid to this area of law by Congress. This Part first addresses the basic structure of the Act, including its basic regulatory programs and the model of cooperative federalism it employs. Programs already used to regulate GHG emissions and programs that could be used to regulate these emissions are explored in greater detail. This Part then probes the maximum extent to which CAA

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<sup>16</sup> See *infra*, discussion of *Comer* pp. 757–58.

<sup>17</sup> 1 WILLIAM H. RODGERS JR., ENVIRONMENTAL LAW: AIR AND WATER § 1:2, at 8 (1986) (one “prominent feature of the Clean Air Act is its astonishing complexity.”).

jurisdiction could be asserted in the climate change context.<sup>18</sup> This question is particularly pertinent given that, in early 2013, President Obama indicated his willingness to employ available executive powers to address climate change.<sup>19</sup> The analysis in this Section provides backdrop for Part III, which explores whether the Act preempts state common law either because it fully occupies the field or presents a conflict with state common law.

A. *Structure of the Clean Air Act: Regulatory Programs and Cooperative Federalism*

Congress originally enacted the CAA in 1970 and amended it significantly in 1977 and 1990.<sup>20</sup> Its core mandate is to “protect . . . air resources . . . to promote the public health and welfare.”<sup>21</sup> Three major principles undergird nearly every aspect of the Act. First, technology-based emission standards, ambient air quality attainment standards, or a combination of the two can all yield improved air quality.<sup>22</sup> Second, new sources should be subject to more stringent emission controls than existing sources.<sup>23</sup> And third, implementing the Act’s far-reaching regulatory regime is dependent on partnerships with the states.<sup>24</sup> Nearly every program within the Act flows from these broad principles.

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<sup>18</sup> See *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 842–43 (1984) (where statute is ambiguous, implementing agency’s reasonable interpretation of the statute is entitled to judicial deference).

<sup>19</sup> Barack Obama, President of the United States, State of the Union Address (Feb. 12, 2013), available at <http://www.whitehouse.gov/the-press-office/2013/02/12/president-barack-obamas-state-union-address-prepared-delivery> (“[I]f Congress won’t act soon to protect future generations, I will. I will direct my Cabinet to come up with executive actions we can take, now and in the future, to reduce pollution, prepare our communities for the consequences of climate change, and speed the transition to more sustainable sources of energy.”).

<sup>20</sup> Clean Air Act of 1970, Pub. L. No. 91-604, 84 Stat. 1676; 1977 Amendments, Pub. L. No. 95-95, 91 Stat. 685; 1990 Amendments, Pub. L. No. 101-549, 104 Stat. 2399.

<sup>21</sup> 42 U.S.C. § 7401(b) (2006).

<sup>22</sup> See generally Arnold W. Reitze, Jr., *Air Quality Protection Using State Implementation Plans—Thirty-Seven Years of Increasing Complexity*, 15 VILL. ENVTL. L.J. 209, 211–21 (2004) (providing background on the 1970 Clean Air Act, which implemented ambient air quality standards, and the 1977 Amendments, which introduced more stringent technology based standards).

<sup>23</sup> See Arnold W. Reitze, Jr., *A Century of Air Pollution Control Law: What’s Worked; What’s Failed; What Might Work*, 21 ENVTL. L. 1549, 1591–93 (1991) (describing, among other things, increasingly stringent regulation of new sources with each Clean Air Act amendment while regulation of existing sources remained relatively lax).

<sup>24</sup> See generally John P. Dwyer, *The Practice of Federalism Under the Clean Air Act*, 54 MD. L. REV. 1183, 1193–99 (1995) (providing background on authority delegated states, the cooperative federalism model, and federalism generally under the Clean Air Act).

1. *Ambient Air Quality: Standards, Implementation of Standards, and Preventing Deterioration of Ambient Air Quality*

The National Ambient Air Quality Standards (“NAAQS”) form a large part of the CAA’s foundation. The purpose of the NAAQS is to set ambient air quality standards on a pollutant-by-pollutant basis nationwide.<sup>25</sup> Currently, NAAQS exist for six criteria pollutants.<sup>26</sup> The Act requires that the EPA Administrator add pollutants to this list and promulgate new ambient air quality standards upon a finding that such pollutants “endanger [the] public health or welfare.”<sup>27</sup> The Act splits the country into numerous air quality control regions to facilitate compliance with the NAAQS.<sup>28</sup> An air quality control region is in “attainment” if it meets the NAAQS for a pollutant.<sup>29</sup> Likewise, it is considered in “nonattainment” if it does not meet the standard for that individual pollutant.<sup>30</sup>

The EPA typically delegates responsibility and authority for achieving NAAQS attainment to the states.<sup>31</sup> To receive this delegated authority, a state must devise a state implementation plan (“SIP”) in which it sets forth a strategy to ensure attainment of all NAAQS in each air quality control region.<sup>32</sup> So long as the SIP meets this general goal, states retain significant regulatory discretion regarding stationary sources not otherwise regulated by the Act.<sup>33</sup>

The “prevention of significant deterioration” (PSD) program applies to air quality control regions that are in NAAQS attainment.<sup>34</sup> PSD’s basic purpose is to prevent areas with better ambient air quality than the NAAQS from backsliding to levels at or just above the NAAQS.<sup>35</sup> The PSD program is comprised of two main tools, the first of which provides each attainment area with finite levels of allowable air quality deterioration on a pollutant-by-pollutant basis, known as “increments.”<sup>36</sup> As a practical matter, once an

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<sup>25</sup> 42 U.S.C. § 7409(a) (2006).

<sup>26</sup> These include Carbon Monoxide (CO), Sulfur Oxide (SO<sub>x</sub>), Nitrogen Oxides (NO<sub>x</sub>), Ozone (O<sub>3</sub>), Lead (Pb), and particulate matter smaller than 10 microns and 2.5 microns (PM<sub>10</sub> and PM<sub>2.5</sub>). 40 C.F.R. § 50 (2012). Additionally, certain pollutants, such as volatile organic compounds (VOCs) are regulated as ozone precursors, although an ambient standard exists only for ozone itself. *Id.* For compiled ambient standards, see EPA, *National Ambient Air Quality Standards (NAAQS)*, <http://www.epa.gov/air/criteria.html> (last visited July 21, 2013).

<sup>27</sup> 42 U.S.C. § 7408(a) (2006).

<sup>28</sup> *Id.* § 7407; 40 C.F.R. § 81 (2012) (note that appendix A to this part lists all air quality control regions in the country).

<sup>29</sup> 42 U.S.C. § 7409 (2006).

<sup>30</sup> *Id.*

<sup>31</sup> *See* Dwyer, *supra* note 24, at 1193 (discussing authority delegated states in “the implementation and enforcement of air pollution policy”).

<sup>32</sup> 42 U.S.C. § 7410 (2006). If a state declines this delegated authority, then the Act requires the EPA to develop a federal implementation plan. *Id.* § 7410(c).

<sup>33</sup> *See id.*

<sup>34</sup> *Id.* § 7471(c).

<sup>35</sup> *Id.* § 7470.

<sup>36</sup> *Id.* § 7473(a). The PSD program also achieves its anti-backsliding goal through regulation of individual facilities, which is explained *infra* Part II.A.2.

increment is exhausted, additional sources cannot build unless they can secure offsets from other facilities.<sup>37</sup> The second tool, regulation of individual facilities, is discussed in the next subsection.

## 2. *Technology-Based Emission Standards for New Stationary Sources*

Unlike sources regulated primarily through a SIP, new stationary sources of air pollution that meet certain thresholds based on size of the facility or total emissions of certain pollutants are subject to strict federal technology-based standards. These include sources that undergo significant modifications.<sup>38</sup> Three broad programs apply to new sources: the New Source Performance Standards (NSPS), PSD New Source Review (NSR), and Nonattainment New Source Review (NNSR). Additionally, the CAA's air toxics program also applies to new sources. However, because it does not share the same degree of overlap with the other three programs and applies to existing sources as well, this Part considers it separately.

### *a. New Source Performance Standards*

New source performance standards are technology-based emission standards that must be met by new or modified sources within specific source categories.<sup>39</sup> There are currently approximately seventy source categories, many of which contain a threshold based on size of the "affected facility."<sup>40</sup> The Act requires the EPA Administrator to create new categories upon finding that a category of sources "causes, or contributes significantly to, air pollution which . . . endanger[s] the public health or welfare."<sup>41</sup> The Act further requires the Administrator to develop emission standards for new source categories.<sup>42</sup> These standards must be reviewed "at least every eight years."<sup>43</sup> The text of the CAA does not limit NSPS to any particular pollutant.<sup>44</sup> Therefore, the Administrator may regulate as few or as many

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<sup>37</sup> See Craig N. Oren, *Prevention of Significant Deterioration: Control-Compelling Versus Site-Shifting*, 74 IOWA L. REV. 1, 110 (1988).

<sup>38</sup> 42 U.S.C. § 7411(a) (2006); *id.* § 7479(2)(C) (definition of "construction" includes "modification").

<sup>39</sup> *Id.* § 7411(a)(1) (defining "standard of performance"). If an emission standard is impracticable for a source category, the Administrator must instead designate appropriate design, equipment, work practice, or operational standards. See *id.* § 7411(h)(1).

<sup>40</sup> 40 C.F.R. § 60 (2012) (lists all current source categories in subpart headings); *id.* § 60.1(a) (2013) (NSPS applies to "affected facilities," which is defined in 40 C.F.R. § 60.2 (2012) to mean "any apparatus to which a standard is applicable"). An example of a typical NSPS based on size/output of the facility may be found at 40 C.F.R. § 60.40b (2012) (subpart Db Standards for Commercial-Industrial Steam Generating Units, providing that emission standards are applicable to new, modified, or reconstructed sources with heat input greater than 29 megawatts, equivalent to 100 MMBtu/hr).

<sup>41</sup> 42 U.S.C. § 7411(b)(1)(A) (2006).

<sup>42</sup> *Id.* § 7411(b)(1)(B).

<sup>43</sup> *Id.*

<sup>44</sup> See *id.* (statutory requirement for promulgation of an NSPS is not based on pollutants emitted).

pollutants as necessary within each source category. This includes regulation of non-criteria pollutants.<sup>45</sup> The Act requires the EPA Administrator to take certain considerations such as cost into account when developing an NSPS for a particular source category.<sup>46</sup> Although these standards are technology-based, they do not per se require use of any particular technology.<sup>47</sup> Rather, they consist of simple emission rates that affected sources must achieve.<sup>48</sup>

Because the Act does not tie NSPS to any particular pollutant, EPA may apply them to GHG emitters.<sup>49</sup> The EPA recently promulgated a GHG NSPS for the oil refineries source category.<sup>50</sup> It is also well into the process of applying NSPS for GHGs to the electric utility generating units source category.<sup>51</sup>

*b. Prevention of Significant Deterioration New Source Review and the Best Available Control Technology Standard*

New Source Review under the Act's PSD Program triggers a second major technology-based requirement known as Best Available Control Technology (BACT).<sup>52</sup> A source must undergo NSR when two requirements are met. First, the source must be a "major" new or modified source.<sup>53</sup> A source is major if it emits at least 250 tons of any regulated NSR pollutant per year or, if the source is in one of twenty-eight listed source categories, if it emits more than 100 tons of any regulated NSR pollutant per year.<sup>54</sup> Second, a source is then subject to NSR for each regulated NSR pollutant emitted above the pollutant's respective significant emission rate (SER).<sup>55</sup>

<sup>45</sup> Criteria pollutants are listed in *supra* note 26.

<sup>46</sup> 42 U.S.C. § 7411 (a)(1) (2006) (defining "standard of performance").

<sup>47</sup> *Id.* § 7411 (b)(1)(B)(5).

<sup>48</sup> *Id.* § 7411 (a)(1) ("a standard of performance" shall reflect "the degree of emission limitation . . . achievable. . ."). *Id.* § 7411 (b)(5) ("except [where not feasible,] nothing in this section shall be construed to require . . . install[ation of] . . . any particular technological system. . .").

<sup>49</sup> For more detailed discussion of this topic, see *infra* Part II.B.2.

<sup>50</sup> Standards of Performance for Petroleum Refineries, 77 Fed. Reg. 56,422 (Sept. 12, 2012) (to be codified at 40 C.F.R. pts. 9 and 60).

<sup>51</sup> Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units, 77 Fed. Reg. 22,392 (proposed Apr. 13, 2012) (to be codified at 40 C.F.R. pt. 60).

<sup>52</sup> In combination with creation of increments, discussed *supra* Part II.A.1, facility-specific regulation is the second major pillar of PSD. Although there are multiple NSR requirements under PSD, BACT is the most prominent because it establishes an emission standard on a pollutant-by-pollutant basis for every facility subject to NSR. See 42 U.S.C. § 7479(3) (2006).

<sup>53</sup> 42 U.S.C. §§ 7479(1), (3) (2006) (defining "major emitting facility" and "construction").

<sup>54</sup> *Id.* § 7479. Each individual pollutant need not individually be emitted beyond the 100/250 tpy threshold due to EPA's "major for one, major for all policy." See Requirements for Preparation, Adoption, and Submittal of Implementation Plans; Approval and Promulgation of Implementation Plans, 45 Fed. Reg. 52,676, 52,700 (Aug. 7, 1980) (codified at 40 C.F.R. pts. 51, 52, and 124).

<sup>55</sup> SERs are listed at 40 C.F.R. § 52.21(b)(23) (2009).

For existing sources, this second element is met when a modification to a facility results in new net emissions in an amount beyond the SER.<sup>56</sup> A host of NSR requirements apply to a source that meets these two elements, the most prominent of which is required installation of BACT.<sup>57</sup> Like NSPS, although BACT is technology-based, it does not per se require use of any particular technology. It ultimately consists of a simple emission rate established from the best technology currently in use at other similar facilities, taking into account considerations including cost.<sup>58</sup>

Of note, the PSD program includes GHGs as regulated NSR pollutants.<sup>59</sup> Because even a small facility that normally would not otherwise trigger NSR may emit thousands of tons of carbon dioxide, a listed GHG,<sup>60</sup> EPA developed a “Tailoring Rule” to effectively establish a second, larger regulatory SER for GHGs, in addition to the existing mass-based requirements of 250/100 tpy.<sup>61</sup> Under the Tailoring Rule, EPA developed the following methodology to determine if a stationary source is subject to PSD for GHG emissions. A new source is subject to GHG PSD if it is either a major source notwithstanding its GHG emissions and it emits at least 75,000 tpy CO<sub>2</sub>e<sup>62</sup> or if its GHG emissions meet the 250/100 tpy mass-based

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<sup>56</sup> See *id.* § 52.21(a)(2)(iv)(c-d) (2009).

<sup>57</sup> 42 U.S.C. § 7475(a)(4) (2006) (“no major emitting facility may be constructed . . . unless . . . subject to the best available control technology for each pollutant”).

<sup>58</sup> *Id.* § 7479(3) (“The term ‘best available control technology’ means an *emission limitation*. . .”) (emphasis added). Although BACT is typically an emission limit, where impracticable, it may instead consist of a design, equipment, operational, or work practice standard. 40 C.F.R. § 52.21(b)(12) (2009).

<sup>59</sup> 40 C.F.R. § 52.21(b)(50)(iv) (2012). Although greenhouse gases are not expressly mentioned in Title I Subchapter C (the PSD program), EPA’s authority to regulate these pollutants stems from its interpretation of CAA §§ 165(a)(4), 169(3), both of which use the wording “each pollutant regulated under this chapter.” See Memorandum from Stephen L. Johnson, Adm’r, EPA to Reg’l. Adm’rs. n.2 (Dec. 18, 2008), *available at* [http://www.epa.gov/NSR/documents/psd\\_interpretive\\_memo\\_12.18.08.pdf](http://www.epa.gov/NSR/documents/psd_interpretive_memo_12.18.08.pdf) (original EPA interpretive guidance); Reconsideration of Interpretation of Regulations That Determine Pollutants Covered by Clean Air Act Permitting Programs (“Timing Rule”), 75 Fed. Reg. 17,004 (Apr. 2, 2010) (reaffirming interpretation in 2008 guidance); *Coal. for Responsible Regulation, Inc. v. EPA*, 684 F.3d 102, 134 (D.C. Cir. 2012) (“any air pollutant’ includes *all* regulated air pollutants, including greenhouse gases”).

<sup>60</sup> Regulating Greenhouse Gas Emissions Under the Clean Air Act, 73 Fed. Reg. 44,354, 44,498 (July 30, 2008) (“For example, the calculated size of a natural gas-fired furnace that has a potential to emit 250 tpy of CO<sub>2</sub>, if year-round operation (8760 hours per year) were assumed—would be only 0.49 MMBTU/hr, which is comparable to the size of a very small commercial furnace.”).

<sup>61</sup> Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule (“Tailoring Rule”), 75 Fed. Reg. 31,514, 31,523–24 (June 3, 2010) (providing current emission thresholds and explaining that thresholds may be tightened at a later date); see also EPA-457/B-11-001, PSD AND TITLE V PERMITTING GUIDANCE FOR GREENHOUSE GASES, 6–16 (2011), *available at* <http://www.epa.gov/nsr/ghgdocs/ghgpermittingguidance.pdf> (distilling Tailoring Rule into terms more easily understood by the regulated public, including determination of PSD applicability and BACT analysis).

<sup>62</sup> CO<sub>2</sub>e is the aggregate of the following six gases: carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>). Tailoring Rule, 31 Fed. Reg. 31,514, 31,518 (June 3, 2010).

requirement and it emits at least 100,000 tpy CO<sub>2</sub>e.<sup>63</sup> An existing source is subject to GHG PSD in any of three circumstances: first, if it is a major source notwithstanding its GHG emissions and it emits at least 75,000 tpy new CO<sub>2</sub>e; second, if it already emits at least 100,000 tpy CO<sub>2</sub>e, it emits CO<sub>2</sub>e beyond the 250/100 tpy mass-based major source levels, and net CO<sub>2</sub>e will increase by at least 75,000 tpy; third, if the existing source is minor prior to the facility modification and CO<sub>2</sub>e solely from the modification will equal at least 100,000 tpy CO<sub>2</sub>e and 250/100 tpy on a mass basis.<sup>64</sup>

### *c. Nonattainment New Source Review*

The Act requires certain sources located in nonattainment areas to undergo Nonattainment New Source Review (NNSR) on a pollutant-by-pollutant basis. NNSR, which requires installation of technology meeting the Lowest Achievable Emission Rate (LAER),<sup>65</sup> is triggered by a source emitting more than 100 new net tons per year of a nonattainment criteria pollutant.<sup>66</sup> The main difference between BACT and LAER is that BACT allows a project to take cost and certain other considerations into account in choosing a control technology, while such considerations are impermissible under LAER.<sup>67</sup> GHGs are currently subject to BACT only, however, because EPA has not set NAAQS for the six regulated GHG pollutants.

### *3. Technology-Based Emission Standards for Existing Stationary Sources*

Three types of technology-based standards apply to existing sources.<sup>68</sup> First, NSPS for non-criteria pollutants apply to these sources through a SIP-like procedure when NSPS would otherwise regulate the source if it were a new or modified source.<sup>69</sup> Second, existing major sources contributing to NAAQS nonattainment are subject to installation of “reasonably available control technology” (RACT).<sup>70</sup> Because the Act does not define RACT and allows EPA to apply the standard through guidelines as opposed to rules,

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<sup>63</sup> *Id.* at 31,523.

<sup>64</sup> *Id.* at 31,523–24.

<sup>65</sup> 42 U.S.C. § 7501(3) (2006) (defining LAER); 40 C.F.R. § 51.165(a)(1)(xiii) (2012).

<sup>66</sup> 42 U.S.C. § 7602(j) (2006) (definition of “major stationary source”). For areas in severe nonattainment, EPA sets the SER lower. *See* EPA, NEW SOURCE REVIEW (NSR) PROGRAM BASICS 30, available at [www.epa.gov/air/tribal/attachmts/NSRBasics110106.ppt](http://www.epa.gov/air/tribal/attachmts/NSRBasics110106.ppt).

<sup>67</sup> Compare 42 U.S.C. § 7501(3) (2006) (defining LAER) to 42 U.S.C. § 7479(3) (2006) (defining BACT).

<sup>68</sup> A fourth, known as Best Available Retrofit Technology (BART), exists under the Act’s visibility standards. 42 U.S.C. § 7491(b)(2)(A) (2006). However, because the rule has for the most part been fully adopted by all applicable facilities, there are few if any additional facilities that could be covered by the standards. Regional Haze Regulations, 64 Fed. Reg. 35,714, 35,725 (July 1, 1999) (codified at 40 C.F.R. pt. 51) (providing definite date by which BART must be applied to eligible sources through SIPs).

<sup>69</sup> 42 U.S.C. § 7411(d) (2006).

<sup>70</sup> *Id.* § 7502(c)(1); 40 C.F.R. § 51.100(o) (2012) (defining “reasonably available control technology”).

jurisdictional elements (e.g., in terms of minimum required emissions to trigger the standard) and substantive control standards for different types of emitters tend to differ.<sup>71</sup> Third, the National Emission Standards for Hazardous Air Pollutants (NESHAPS—the Act’s Air Toxics program) subjects existing major sources to technology-based standards. The next Part discusses NESHAPS in more detail.

#### 4. *Technology-Based Standards under the Air Toxics Program*

Section 112 of the Act regulates hazardous air pollutants (HAPs) through a program that operates independently of other portions of the Act.<sup>72</sup> When distilled to its most basic elements, section 112 employs a strong technology-based program along with risk-based health standards to address these pollutants. The 1990 CAA Amendments included a statutory list of nearly 200 HAPs.<sup>73</sup> The Act requires the Administrator to periodically modify the list where “pollutants . . . present, or may present . . . threat of adverse human health effects . . . or adverse environmental effects.”<sup>74</sup> Based off of this list, the Administrator is then required to “publish . . . a list of all categories and subcategories” of HAP sources and promulgate emission standards on a pollutant-by-pollutant basis for each category and subcategory.<sup>75</sup> Together, these standards form the NESHAPS program.

NESHAPS requires major sources, which are defined by the Act as sources that emit at least 10 tpy of a single HAP or 25 tpy of all HAPs collectively,<sup>76</sup> to install “maximum achievable control technology” (MACT).<sup>77</sup> This standard requires new major sources to achieve the “maximum degree of reduction in emissions . . . deemed achievable . . . in a category,” which cannot be less than the best controlled source in the category or subcategory.<sup>78</sup> The CAA requires that the MACT at existing sources be at least as stringent as the best-performing 12% of sources in the category or the average of the best five.<sup>79</sup> Area sources—minor sources under section 112—are subject to “generally available control technology” (GACT), which is less stringent than MACT.<sup>80</sup> After EPA promulgates a NESHAP, the Act requires the EPA to look at remaining residual risk to human health and the

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<sup>71</sup> See generally William H. Lewis, Jr. & Hunter L. Prillaman, *Reasonably Available Control Technology Under the Clean Air Act: Is EPA Following Its Statutory Mandate?*, 16 HARV. ENVTL. L. REV. 343 (1992) (discussing states’ latitude on judging the feasibility of recommended controls).

<sup>72</sup> 42 U.S.C. § 7412 (2006).

<sup>73</sup> *Id.* § 7412(b).

<sup>74</sup> *Id.* § 7412(b)(2).

<sup>75</sup> *Id.* § 7412(c)(1). Additionally, the Administrator may regulate through design, equipment, work practice, operational standards, or a combination of these regulatory tools. *Id.* § 7412(d)(2)(d).

<sup>76</sup> *Id.* § 7412(a)(1) (defining “major source” for the air toxics program).

<sup>77</sup> *Id.* § 7412(d)(2).

<sup>78</sup> *Id.* § 7412(d)(3).

<sup>79</sup> *Id.*

<sup>80</sup> *Id.* § 7412(d)(5).

environment and promulgate risk-based ambient air quality standards if carcinogenic risk is over a certain threshold.<sup>81</sup> To date, the EPA has elected not to regulate greenhouse gases under the air toxics program.

### 5. Regulation of Mobile Sources

The CAA regulates mobile sources primarily at the federal level.<sup>82</sup> The Act regulates mobile source emissions by first splitting these sources into two categories: road and non-road sources. Self-propelled automobiles used primarily on roadways are road sources.<sup>83</sup> Any mobile source that is not a road source is a non-road source.<sup>84</sup> The Act contains two primary mobile source regulatory programs—emission standards and fuel standards.<sup>85</sup>

Where any pollutant may “cause, or contribute, to air pollution which may reasonably be anticipated to endanger public health or welfare,” the Act requires the Administrator to promulgate emission standards.<sup>86</sup> Under this “endangerment” standard, the EPA now regulates GHGs for light- and medium-duty vehicles under the CAA.<sup>87</sup> Although the Administrator is precluded from regulating GHGs for heavy-duty trucks due to the Act’s requirement that the EPA regulate only certain pollutants for these vehicles,<sup>88</sup> the Energy Independence and Security Act of 2007 (EISA)<sup>89</sup> requires fuel economy standards for these vehicles. Thus, through a combination of the CAA and EISA, the EPA now regulates GHGs from heavy-duty trucks as well.<sup>90</sup>

The CAA also grants the EPA notable authority to regulate fuels used by mobile sources. The Act allows the EPA to “prohibit the manufacture . . . or sale of any fuel or fuel additive for use in a motor vehicle . . . or nonroad vehicle” upon a finding that pollution resulting from use of the fuel endangers the public health or welfare.<sup>91</sup> Although the wording of this statutory provision is extraordinarily broad, the EPA has not used this

<sup>81</sup> *Id.* § 7412(f)(2).

<sup>82</sup> The statute allows only California to break from uniform federal standards, subject to EPA approval. *Id.* § 7543(e)(2)(A).

<sup>83</sup> *Id.* § 7550(2) (defining “motor vehicle” as used in § 7521(a)(1)).

<sup>84</sup> *Id.* § 7550(10) (defining “nonroad engine”).

<sup>85</sup> *Id.* § 7521 (emission standards for road sources); *id.* § 7547(a) (emission standards for nonroad sources); *id.* § 7545(a) (fuel regulations applicable to road and nonroad sources). Additionally, evaporative standards apply to road sources. *Id.* § 7521(6) (vapor recovery requirements).

<sup>86</sup> *Id.* § 7521(a)(1) (light- and medium-duty vehicles); *id.* § 7547(a)(4) (nonroad sources); *id.* § 7571 (aircraft).

<sup>87</sup> Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards; Final Rule, 75 Fed. Reg. 25,324 (May 7, 2010) (to be codified at 40 C.F.R. pts. 85, 86, and 600).

<sup>88</sup> CAA § 7602(b)(i) limits regulation of pollutants to those listed in § 7521(a)(3)(A).

<sup>89</sup> Pub. L. No. 110-140, 121 Stat. 1492, 1499–1500 (2007).

<sup>90</sup> Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, 76 Fed. Reg. 57,106 (Sept. 15, 2011) (EPA rules codified at 40 C.F.R. pts. 85, 86, 600, 1033, 1036, 1037, 1039, 1065, 1066, and 1068).

<sup>91</sup> *Id.* § 7545(c).

provision to regulate GHG emissions from mobile sources. Rather, the statute explicitly sets forth requirements for production of lower carbon fuels in an effort to reduce lifecycle GHGs.<sup>92</sup>

#### 6. *Interstate, Regional, and International Regulatory Authority Under the Act*

Each of the previously mentioned CAA programs is either national in scope (e.g., technology-based programs) or is applied based mainly on authority at the state level (SIPs and the NAAQS). Because pollutants do not respect political boundaries, however, the Act also contains several additional authorities that allow for cooperative interstate, regional, and international regulatory programs. These are of specific relevance for GHGs because these pollutants become globally mixed in the atmosphere.<sup>93</sup>

Section 110(a)(2)(D) of the Act contains what is perhaps the most important of these authorities. This section requires SIPs to “contain adequate provisions . . . prohibiting . . . any emissions activity within the State from emitting any air pollutant in amounts which will [interfere with NAAQS attainment or compliance with PSD increments in another state].”<sup>94</sup> This section has yielded two major EPA rules, the NO<sub>x</sub> SIP Call<sup>95</sup> and the Clean Air Interstate Rule (CAIR).<sup>96</sup> The former deals with interstate ozone transport<sup>97</sup> and NO<sub>x</sub>'s effect on this problem.<sup>98</sup> Through the NO<sub>x</sub> SIP Call Rule, EPA developed a cap-and-trade program for NO<sub>x</sub> in the Eastern United States to mitigate upwind states' impacts on ozone nonattainment in

<sup>92</sup> 42 U.S.C. § 7545 (o)(1) (definition of advanced fuels includes accounting for lifecycle greenhouse gas emissions); *id.* § 7545 (o)(2)(B) (requiring certain volumes of advanced fuels to be produced).

<sup>93</sup> IPCC, 2007: TECHNICAL SUMMARY. IN *CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS*. CONTRIBUTION OF WORKING GROUP I TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 24 (2007), *available at* <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-ts.pdf>.

<sup>94</sup> 42 U.S.C. § 7410(a)(2)(D) (2006).

<sup>95</sup> Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone, 63 Fed. Reg. 57,356 (Oct. 27, 1998) (codified at 40 C.F.R. pts. 51, 72, 75, and 96) [hereinafter NO<sub>x</sub> SIP Call Rule].

<sup>96</sup> Rule To Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule); Revisions to Acid Rain Program; Revisions to the NO<sub>x</sub> SIP Call, 70 Fed. Reg. 25,162 (May 12, 2005) (to be codified at 40 C.F.R. pts. 51, 72, 73, 74, 77, 78, and 96) (hereinafter CAIR Rule); *but see* N. Carolina v. EPA, 531 F.3d 896, 929 *reh'g in part granted*, 550 F.3d 1176, 1178 (D.C. Cir. 2008) (remanding rule to EPA); EME Homer City Generation, L.P. v. EPA, 696 F.3d 7, 38 (D.C. Cir. 2012) (same).

<sup>97</sup> Ozone transport is the movement of ozone pollution over long distances. *See* ZACH PARSONS ET AL., WESTERN STATES AIR RESOURCES COUNCIL, OZONE TRANSPORT IN THE WEST: AN EXPLANATORY STUDY 2 (2004), *available at* <http://www.colorado.gov/cs/Satellite?blobcol=urldata&blobheadername1=Content-Disposition&blobheadername2=Content-Type&blobheadervalue1=inline%3B+filename%3D%22Ozone+Transport+in+the+West.pdf%22&blobheadervalue2=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1251808871845&ssbinary=true>.

<sup>98</sup> NO<sub>x</sub> SIP Call Rule, 63 Fed. Reg. at 57,356.

downwind states.<sup>99</sup> Similarly, EPA developed CAIR to mitigate impacts of upwind states on downwind states' PM<sub>2.5</sub> and ozone nonattainment, largely through operation of a voluntary NO<sub>x</sub> and SO<sub>2</sub> cap-and-trade program.<sup>100</sup> Section 126, a related provision, requires states to notify other states when a new emission source may impact non-source states and further provides a process through which states can petition the EPA to find that an emission source violates section 110(a)(2)(D). Through these combined authorities, Congress empowered EPA to moderate and resolve issues amongst the states involving air pollution concerns.

Sections 115 and 179B are the Act's primary international authorities. Section 115 allows EPA to require that states amend their SIPs to address U.S. emissions of "any air pollutant" impacting a foreign country.<sup>101</sup> To use this authority, the United States must sign a reciprocal international agreement with the foreign country.<sup>102</sup> Section 179B is essentially the opposite of Section 115. Section 179B requires EPA approval of a SIP where a state shows that attainment would be achieved *but for* emissions from another country. Together, the Act's international authorities as well as its interstate authorities extend the NAAQS, a tool that is inherently intrastate, to fit the reality that air pollution does not respect geopolitical borders.

### 7. *Clean Air Act Remedies*

One final, but important, element of the Act is its treatment of remedies. The CAA contains a citizen suit provision that allows for private enforcement of the Act.<sup>103</sup> However, although this provision allows for injunctive relief as well as recovery of costs and attorney's fees, it does not allow for recovery of damages.<sup>104</sup> In fact, there is no provision within the CAA that allows an individual to seek recovery for actual harm caused by air pollution. Instead, the Act contains a savings clause, which provides: "Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any emission standard or limitation or to seek any other relief."<sup>105</sup> Although apparent from the plain meaning of this savings clause, legislative history further shows that it was intended to preserve traditional common law claims for pollution damages.<sup>106</sup>

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<sup>99</sup> *Id.* at 57,366.

<sup>100</sup> CAIR Rule, 63 Fed. Reg. at 25,162.

<sup>101</sup> 42 U.S.C. § 7415(a) (2006).

<sup>102</sup> *Id.* § 7415(c).

<sup>103</sup> *Id.* § 7604.

<sup>104</sup> *Id.*

<sup>105</sup> *Id.* § 7604(e).

<sup>106</sup> The strongest legislative history is from the CAA's sister act, the Clean Water Act, which contains a similar savings clause. S. Rep. No. 92-414 (1972), *reprinted in* 1972 U.S.C.C.A.N. 3668, 3746-47 ("[T]he section would specifically preserve any rights or remedies under any other law. Thus, if damages could be shown, other remedies would remain available. Compliance with

*B. Clean Air Act Authority to Regulate GHGs*

Following *Massachusetts v. EPA*<sup>107</sup> and the EPA's subsequent finding under section 202(a) that GHGs endanger the public health and welfare,<sup>108</sup> the EPA issued an Advanced Notice of Proposed Rulemaking setting forth every possible CAA provision that could potentially be used to regulate GHGs.<sup>109</sup> In turn, this led to a flurry of academic, industry, and government commentary on the most appropriate provisions to use.<sup>110</sup> This Part

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requirements under this Act would not be a defense to a common law action for pollution damages.”)

<sup>107</sup> 549 U.S. 497, 534–35 (2007) (requiring EPA to make an affirmative determination as to whether GHGs endanger the public health and welfare under the Act's section 202 motor vehicle provisions).

<sup>108</sup> Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496 (Dec. 15, 2009) (to be codified 40 C.F.R. ch. 1).

<sup>109</sup> Regulating Greenhouse Gas Emissions Under the Clean Air Act, 73 Fed. Reg. 44,354 (Advance Notice of Proposed Rulemaking issued July 30, 2008).

<sup>110</sup> See, e.g., Arnold W. Reitze, Jr., *Federal Control of Carbon Dioxide Emissions: What Are the Options?*, 36 B.C. ENVTL. AFF. L. REV. 1 (2009); Arnold W. Reitze, Jr., *Federal Control of Greenhouse Gas Emissions*, 40 ENVTL. L. 1261 (2010); Arnold W. Reitze, Jr., *The Intersection of Climate Change and Clean Air Act Stationary Source Programs*, 43 ARIZ. ST. L.J. 901; *Clean Air Act Mechanisms for Regulating Greenhouse Gas Emissions*, 20 No. 5 AIR POLLUTION CONSULTANT 1.3 (2010); Craig N. Oren, *Is the Clean Air Act at A Crossroads?*, 40 ENVTL. L. 1231 (2010); Daniel Brian, Note, *Regulating Carbon Dioxide Under the Clean Air Act As A Hazardous Air Pollutant*, 33 COLUM. J. ENVTL. L. 369 (2008); George F. Allen & Marlo Lewis, *Finding the Proper Forum for Regulation of U.S. Greenhouse Gas Emissions: The Legal and Economic Implications of Massachusetts v. EPA*, 44 U. RICH. L. REV. 919 (2010); Hannah Chang, *Cap-and-trade Under the Clean Air Act?: Rethinking §115*, 40 ENVTL. L. REP. NEWS & ANALYSIS 10,894 (2010); Janine Maney, Note, *Carbon Dioxide Emissions, Climate Change, and the Clean Air Act: An Analysis of Whether Carbon Dioxide Should Be Listed As A Criteria Pollutant*, 13 N.Y.U. ENVTL. L.J. 298 (2005); John Copeland Nagle, *Climate Exceptionalism*, 40 ENVTL. L. 53 (2010); Jonathan Miller, *Double Absurdity: Regulating Greenhouse Gas Under the Clean Air Act*, 47 HOUS. L. REV. 1389 (2011); Kassie Siegel et al., *Strong Law, Timid Implementation. How the EPA Can Apply the Full Force of the Clean Air Act to Address the Climate Crisis*, 30 UCLA J. ENVTL. L. & POL'Y 185 (2012); M. Rhead Enion, *Using Section 111 of the Clean Air Act for Cap-and-Trade of Greenhouse Gas Emissions: Obstacles and Solutions*, 30 UCLA J. ENVTL. L. & POL'Y 1 (2012); Nathan Richardson et al., *Greenhouse Gas Regulation Under the Clean Air Act: Structure, Effects, and Implications of A Knowable Pathway*, 41 ENVTL. L. REP. NEWS & ANALYSIS 10,098 (2011); Nathan Richardson, *Greenhouse Gas Regulation Under the Clean Air Act: Does Chevron Set the EPA Free?*, 29 STAN. ENVTL. L.J. 283 (2010); Nathan Richardson, *International Greenhouse Gas Offsets Under the Clean Air Act*, 40 ENVTL. L. REP. NEWS & ANALYSIS 10,887 (2010); Patricia Ross McCubbin, *Cap-and-trade Programs Under the Clean Air Act: Lessons from the Clean Air Interstate Rule and the NO<sub>x</sub> S<sub>ip</sub> Call*, 18 PENN ST. ENVTL. L. REV. 1 (2009); Patricia Ross McCubbin, *EPA's Endangerment Finding for Greenhouse Gases and the Potential Duty to Adopt National Ambient Air Quality Standards to Address Global Climate Change*, 33 S. ILL. U. L.J. 437 (2009); Rich Raiders, *How EPA Could Implement A Greenhouse Gas NAAQS*, 22 FORDHAM ENVTL. L. REV. 233 (2011); Robert D. Brenner & Anna Marie Wood, *Comment on Developing a Comprehensive Approach to Climate Change Mitigation Policy in the United States: Integrating Levels of Government and Economic Sectors*, 39 ENV. L. & POL'Y ANN. REV. 10,723 (2009); Robert R. Nordhaus, *New Wine into Old Bottles: The Feasibility of Greenhouse Gas Regulation Under the Clean Air Act*, 15 N.Y.U. ENVTL. L.J. 53 (2007); Scott Schang & Teresa Chan, *Federal Greenhouse Gas Control Options from an Enforcement Perspective*, 2 SAN DIEGO J. CLIMATE & ENERGY L. 87, 102–08 (2010); SIEGAL ET AL., CENTER FOR BIOLOGICAL DIVERSITY, NO

synthesizes these findings to determine the maximum reach of the CAA as well as any potential GHG-related issues that are likely beyond the reach of the CAA in its current statutory form. This Part ultimately concludes that the Act delegates sufficient authority to EPA for it to regulate every source of GHG pollution in the United States. The degree to which the CAA could comprehensively address GHG releases and the effects of these releases have direct bearing on the question of field preemption, which is taken up in Part III.

### 1. *Ambient Air Quality Approach to Regulating GHG Sources*

The ambient air quality approach is the most all-encompassing approach to addressing GHG releases. EPA has the authority to promulgate a GHG NAAQS.<sup>111</sup> Indeed, because the first requirement for promulgation of a NAAQS is a finding of endangerment and EPA has already made this finding under section 202 of the Act, EPA is already well on its way to promulgating a GHG NAAQS if it desires to do so.<sup>112</sup> As structured by the CAA, any NAAQS is a nationwide ambient air quality standard. Pollutants currently regulated by NAAQS are present in different concentrations in different parts of the United States, resulting in some areas that are in NAAQS attainment and some that are in nonattainment. Due to the well-mixed, global nature of GHGs, however, promulgation of a GHG NAAQS would result in the entirety of the United States being either in attainment or nonattainment.<sup>113</sup>

Notably, this approach has the ability to cover *every* source of GHGs in the United States, depending on the ambient air quality standard the EPA sets.<sup>114</sup> In the most extreme case of EPA setting the NAAQS at natural

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REASON TO WAIT: REDUCING GREENHOUSE GAS EMISSIONS THROUGH THE CLEAN AIR ACT (2011), available at [http://www.biologicaldiversity.org/programs/climate\\_law\\_institute/legislating\\_for\\_a\\_new\\_climate/pdfs/NoReasonToWait.pdf](http://www.biologicaldiversity.org/programs/climate_law_institute/legislating_for_a_new_climate/pdfs/NoReasonToWait.pdf); Teresa B. Clemmer, *Staving Off the Climate Crisis: The Sectoral Approach Under the Clean Air Act*, 40 ENVTL. L. 1125 (2010); Thomas D. Peterson et al., *Developing a Comprehensive Approach to Climate Change Mitigation Policy in the United States: Integrating Levels of Government and Economic Sectors*, 39 ENV. L. & POL'Y ANN. REV. 10,711 (2009); Timothy J. Mullins & M. Rhead Enion, *(If) Things Fall Apart: Searching for Optimal Regulatory Solutions to Combating Climate Change Under Title I of the Existing CAA If Congressional Action Fails*, 40 ENVTL. L. REP. NEWS & ANALYSIS 10,864 (2010); Tom Munteer, *Obama Administration Efforts to Control Stationary Source Greenhouse Gas Emissions Through Rulemaking*, 41 ENVTL. L. REP. NEWS & ANALYSIS 11, 127 (2011).

<sup>111</sup> 42 U.S.C. § 7408(a) (2006); see also *Regulating Greenhouse Gas Emissions Under the Clean Air Act*, 73 Fed. Reg. 44,354, 44,477–86 (July 30, 2008) (discussing hypothetical creation of GHG NAAQS in detail).

<sup>112</sup> Both CAA sections 108(a)(1)(A) and 202(a)(1) contain the same language: “air pollution which may reasonably be anticipated to endanger public health or welfare.” 42 U.S.C. § 7408(a)(1)(A), 7521(a)(1).

<sup>113</sup> 73 Fed. Reg. at 44,480.

<sup>114</sup> States have explicit authority to regulate stationary sources of GHGs through their SIPs. 42 U.S.C. § 7410(a)(2)(A). Although states may not directly regulate mobile source emissions standards, SIPs may indirectly regulate mobile sources by placing limitations on vehicle miles

conditions, this would result in the requirement of reasonable further progress toward zero anthropogenic GHG contributions, meaning that every source, regardless of size or type, would eventually be regulated.<sup>115</sup> Depending on the ambient standard that EPA determines is necessary to protect public health and welfare, differing numbers of GHG sources would ultimately have to reduce their GHG emissions. A more stringent standard would result in more sources being covered.

The fact that NAAQS are implemented at the state level is of little, if any consequence to this analysis. Through promulgation of SIPs (or alternatively Federal Implementation Plans, which must be promulgated by EPA if a state submits an inadequate SIP), states would be required to achieve their fair share of emission reductions under a GHG NAAQS, especially due to interstate requirements set forth under section 110(a)(2)(D).<sup>116</sup> Nor does the fact that states may not actually be able to achieve the ambient standard without significant international cooperation have any bearing on this analysis due to states' ability to obtain section 179B waivers.<sup>117</sup> Moreover, notwithstanding the D.C. Circuit's ruling that EPA overreached its authority on the CAIR Rule,<sup>118</sup> EPA still probably has the ability to implement a cap-and-trade program through section 110(a)(2)(D) based on its prior experience with the acid rain program and NO<sub>x</sub> SIP calls.<sup>119</sup>

## 2. *Technology-Based Approach to Regulating Stationary GHG Sources*

EPA has three main technology-based approaches that it could potentially use to regulate stationary sources of GHGs. These are NSPS, BACT, and MACT under NESHAPS.<sup>120</sup> Before turning to NSPS and BACT, MACT may quickly be disposed of as legally impermissible.<sup>121</sup> Section 112(b)(2), read without any context, suggests that EPA could use NESHAPS to regulate GHGs due to their "adverse environmental effects." However, surrounding text, context, and congressional intent overwhelmingly show

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traveled and by generally regulating transportation itself. *See id.* § 7408(f)(1)(A). In this way, EPA has statutory authority to regulate all GHG emitters through the NAAQS.

<sup>115</sup> *See id.* § 7502(c)(2).

<sup>116</sup> *See id.* § 7410(a)(2)(D).

<sup>117</sup> These waivers require EPA approval of a SIP if a state establishes the adequacy of the SIP "but for" international emissions. *See id.* § 7509a(a)(2).

<sup>118</sup> *North Carolina EPA*, 531 F.3d 896, 929–30 (D.C. Cir. 2008), *reh'g granted in part*, 550 F.3d 1176, 1178 (D.C. Cir. 2008) (remanding rule to EPA); *EME Homer City Generation*, 696 F.3d 7, 38 (D.C. Cir. 2012) (same).

<sup>119</sup> *See generally* McCubbin, *supra* note 110 (comparing SIP Call Rule to CAIR rule and concluding that, although boundaries of EPA's ability to develop cap-and-trade programs under current judicial interpretation of the CAA is fuzzy, they are likely allowable); *see also supra* notes 94–100 and accompanying text (describing prior EPA cap-and-trade programs).

<sup>120</sup> *See* 42 U.S.C. §§ 7411(a)(1), 7475(a)(4), 7412(d)(3) (2006).

<sup>121</sup> *But see* Daniel Brian, Note, *Regulating Carbon Dioxide Under the Clean Air Act As a Hazardous Air Pollutant*, 33 COLUM. J. ENVTL. L. 369, 396 (2008) (proposing GHG regulation under section 112(b)(2) due to GHGs' "adverse environmental effects.").

that section 112 only applies to air toxics.<sup>122</sup> CO<sub>2</sub> and methane in particular are inherently not air toxics.<sup>123</sup> For this reason, regulation of GHGs under the air toxics program would be an unreasonable exercise of EPA authority and unlikely to withstand review under *Chevron*.<sup>124</sup>

On the other hand, EPA has already implemented NSPS for certain source categories of GHGs.<sup>125</sup> If EPA desired, the plain text of the CAA's NSPS provisions under section 111 allows regulation of *every* stationary source of GHG pollutants in the United States, including existing sources through operation of section 111(d). Section 111(a)'s definitions of "new source" and "stationary source" provide for regulation of any source emitting any pollutant, contingent on EPA's section 111(b) determination that a category of stationary sources emitting this pollutant "may reasonably

<sup>122</sup> For example, surrounding text within CAA § 112(b)(2) refers expressly to toxicological effects. 42 U.S.C. § 7412(b)(2) (2006). CAA § 112(b)(1) is a list of nearly two hundred pollutants that are toxic to humans and the environment. 42 U.S.C. § 7412(b)(1). Legislative history explains that, "[b]eyond the cancer and other adverse health effects caused by exposure to air toxics, these air pollutants also cause widespread environmental degradation. It is estimated that a large percentage of the toxics in the Great Lakes—up to 80% of the toxics in Lake Superior—are deposited from the air rather than from surface runoff. Lakes all across the northern tier of states are now posted with warnings for pregnant women and children because of high mercury levels in fish attributable to mercury emissions from coal-fired powerplants." S. Rep. No. 101-228, 1990 U.S.C.C.A.N. 3385, 3515 (1989). In short, "adverse environmental effects" means effects that are toxic to the environment, especially wildlife. This same report then explicitly referenced greenhouse gases and climate change, but in the context of a program completely separate from HAPs. *Id.* at 3705 ("[T]he Committee has received extensive scientific testimony that increases in the human-caused emissions of carbon dioxide and other greenhouse gases will lead to catastrophic shocks in the global climate system. Accordingly, new title IV shapes an acid rain reduction policy that encourages energy efficiency and other policies aimed at controlling greenhouse gases.").

<sup>123</sup> Significant increases in carbon dioxide or methane result in direct health impacts only through deprivation of oxygen and not through toxicological effects. *Compare* CATHERINE H. MIDDLECAMP ET AL., CHEMISTRY IN CONTEXT 12 (McGraw Hill 2009) (natural level of carbon dioxide is 0.04%), *available at* <http://highered.mcgraw-hill.com/sites/dl/free/0073048763/232418/chapter01.pdf>, *with* U.S. DEP'T OF HEATH, EDUC. & WELFARE, CRITERIA FOR A RECOMMENDED STANDARD. . . . OCCUPATIONAL EXPOSURE TO CARBON DIOXIDE 97–98 (Aug. 1976) (CO<sub>2</sub> has no carcinogenic or mutagenic effects and effects such as loss of motor control, unconsciousness, and mortality appear possible only through forced changes in air composition orders of magnitude beyond natural CO<sub>2</sub> air composition), *available at* <http://www.cdc.gov/niosh/docs/1970/76-194.html>; *see also* N.Y. State Dept. of Health, *Important Things to Know About Landfill Gas*, (2010), *available at* [http://www.health.ny.gov/environmental/outdoors/air/docs/landfill\\_gas.pdf](http://www.health.ny.gov/environmental/outdoors/air/docs/landfill_gas.pdf) ("Health effects associated with both methane and carbon dioxide result from the lack of oxygen rather than direct exposure to these gases."). GHGs do, however, cause indirect health effects, as the EPA noted in its endangerment finding under section 202(a). Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, 66,497–98 (Dec. 15, 2009) (health impacts of GHGs are indirect and occur through increased occurrence of heat waves and extreme weather events, increased production of ozone due to increased temperature, and increased production of aeroallergens and certain pathogens).

<sup>124</sup> *Chevron*, U.S.A., Inc. v. Natural Res. Def. Council, Inc., 467 U.S. 837, 842–43 (1984) (where statute is ambiguous, implementing agency's reasonable interpretation of the statute is entitled to judicial deference).

<sup>125</sup> *See supra* notes 50–52 and accompanying text.

be anticipated to endanger public health or welfare.”<sup>126</sup> Because section 202 contains this same phrase, EPA’s section 202 endangerment sets EPA well on its way to finding endangerment from GHGs under NSPS as well.

Given this context, the scope of EPA’s NSPS authority does not appear limited by the Act itself; rather, if any source of limitation exists on this authority, it appears to stem primarily from practical considerations. Section 111(a) interlocks with 111(b) by requiring EPA to establish standards of performance by *category* of polluter.<sup>127</sup> EPA’s roughly seventy existing NSPS source categories cover many, but not all, of the larger pollution sources, and by estimation, approximately half of the categories do not contain thresholds that limit NSPS’s reach based on size of the facility.<sup>128</sup> If EPA desired to regulate every stationary source of GHGs under NSPS, it would have to either redefine its existing source categories for GHGs or add new source categories, both of which would require significant time and expense.<sup>129</sup> Nonetheless, this is possible. Moreover, EPA has suggested that creation of “supercategories” might be one avenue by which it could rapidly apply NSPS to numerous sources while easing its administrative burden.<sup>130</sup> Such categories could focus directly on processes alone, grouping many existing categories into one larger category (e.g., all GHG emissions emanating from a stack).<sup>131</sup> Such categories could also focus, alternatively, on lifecycle emissions in vertically integrated industries (e.g., oil and gas).<sup>132</sup>

Apart from NSPS, EPA now requires application of BACT under PSD to sources in accordance with the Tailoring Rule.<sup>133</sup> Understanding the reasoning behind why EPA promulgated the Tailoring Rule sheds light on the extraordinary extent to which BACT could potentially apply if EPA so desired. As discussed earlier, PSD major source levels are 100 tpy of an NSR pollutant if in a listed source category or 250 tpy if not in a listed source category.<sup>134</sup> By design, the purpose of these limits was to exempt sources that were not significant contributors to air pollution from PSD requirements, especially BACT.<sup>135</sup> However, GHGs are fundamentally different from other NSR pollutants because they are typically emitted at

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<sup>126</sup> See 42 U.S.C. §§ 7411(a), (d), (f) (2006).

<sup>127</sup> See *id.* § 7411(b).

<sup>128</sup> This is because many source categories contain a size threshold as part of the definition of “affected facility.” Although a detailed list of which categories contain size requirements is beyond the scope of this paper, they can be easily checked by comparing the definition of “affected source” under each source category as listed at 40 C.F.R. § 60 (2012). EPA’s authority to incorporate size requirements stems directly from 42 U.S.C. § 7411(b)(2) (“The Administrator may distinguish among classes, types, and *sizes* within categories . . .”) (emphasis added).

<sup>129</sup> See Howard Latin, *Regulatory Failure, Administrative Incentives, and the Clean Air Act*, 21 ENVTL L. 1647, 1653 (1991) (discussing expense and difficulty of EPA rulemaking).

<sup>130</sup> Regulating Greenhouse Gas Emissions Under the Clean Air Act, 73 Fed. Reg. 44,354, 44,488 (Advance Notice of Proposed Rulemaking issued July 30, 2008).

<sup>131</sup> *Id.*

<sup>132</sup> *Id.*

<sup>133</sup> Tailoring Rule, 75 Fed. Reg. at 31,514 (June 3, 2010).

<sup>134</sup> 42 U.S.C. § 7479(1) (2006).

<sup>135</sup> Tailoring Rule, 75 Fed. Reg. at 31,514 (June 3, 2010).

rates orders of magnitude greater than other NSR pollutants.<sup>136</sup> Therefore, the purpose of the Tailoring Rule was to effectively continue the existing scheme of exempting minor sources from PSD requirements, including BACT.<sup>137</sup> As noted in Part II, the Tailoring Rule limits are currently set at 100,000 tpy for new sources, 75,000 new net tpy for sources already subject to PSD for a different pollutant, and at either 75,000 new net tpy or 100,000 new net tpy, depending on whether the preexisting source is classified as major or minor, for modified sources.<sup>138</sup> EPA expects that these thresholds will encompass sources responsible for approximately 70% of U.S. stationary source GHG emissions.<sup>139</sup>

Therefore, EPA's maximum potential authority to regulate GHGs from stationary sources through the BACT requirement is defined by the traditional major source PSD levels of 100 and 250 tpy. In short, if EPA wished to use the PSD program to the fullest extent possible to regulate GHGs, it could do so simply by removing the Tailoring Rule. EPA has already indicated that it may lower the tailoring thresholds prior to April, 2016 to 50,000 tpy.<sup>140</sup> Like NSPS, the extent to which EPA could cover nearly every stationary source under the PSD program does not appear to stem from the CAA, but rather from practical considerations. In the most extreme example of EPA abandoning the Tailoring Rule altogether and acting under the statutory thresholds alone, sources potentially as small as homes or offices with small furnaces would be subject to PSD.<sup>141</sup> Given the onerous and expensive statutory requirements associated with PSD apart from BACT, these practical considerations are important.<sup>142</sup> It is nearly certain that they would prevent EPA from fully abandoning tailoring thresholds. Still, barring these practical considerations and based on the statutory text alone, EPA has authority to regulate nearly every stationary source under PSD's BACT requirement and every stationary source of GHGs in the country under NSPS, if it desires to do so.

### 3. *Technology-Based Approach to Regulating Mobile GHG Sources*

Through the CAA supplemented by EISA for heavy-duty-vehicles, EPA can effectively regulate GHGs from all road sources under existing statutory

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<sup>136</sup> *Id.* at 31,516–18.

<sup>137</sup> *Id.* (noting that the Tailoring Rule was needed to prevent serious permit backlog and severe burdens to entities that otherwise are not subject to new source review).

<sup>138</sup> *Supra* notes 61–64 and accompanying text.

<sup>139</sup> EPA, FINAL RULE: PREVENTION OF SIGNIFICANT DETERIORATION AND TITLE V GREENHOUSE GAS TAILORING RULE FACT SHEET 1, *available at* [http://www.epa.gov/nsr/documents/2010\\_0413fs.pdf](http://www.epa.gov/nsr/documents/2010_0413fs.pdf).

<sup>140</sup> Tailoring Rule, 75 Fed. Reg. at 31,522 (June 3, 2010).

<sup>141</sup> Regulating Greenhouse Gas Emissions Under the Clean Air Act, 73 Fed. Reg. 44,354, 44,498 (Advance Notice of Proposed Rulemaking issued July 30, 2008).

<sup>142</sup> Non-BACT requirements include demonstration that the pollution source will not violate an increment or NAAQS, a visibility assessment for Class I areas (air quality related values assessment), growth-related air quality impacts assessment, and certain monitoring to measure impact on air quality. *See* 42 U.S.C. § 7475 (2006).

authority. Indeed, EPA has already done so.<sup>143</sup> The agency's ability to regulate new mobile sources completely is unquestionable given the wording of CAA section 202 and the actions already taken by the agency.<sup>144</sup> One wrinkle to EPA's otherwise unfettered authority is that California may adopt its own emissions standards for road sources that are at least as strict as EPA's, although EPA may effectively veto a California standard.<sup>145</sup> An important implication of this wrinkle is that California may adopt its own GHG mobile source standards, subject to EPA approval. Further, through section 177 of the Act, other states may peg their own mobile source standards to California's standards.<sup>146</sup> To date, California has agreed to treat federal standards as compliant with the state's GHG mobile source rules through 2016.<sup>147</sup> If this agreement is not renewed, though, dual regulatory requirements could result.

EPA also has significant, although not unlimited, authority to regulate nonroad sources.<sup>148</sup> Section 213(a)(4) allows the agency to set emission standards for nonroad engines and vehicles.<sup>149</sup> These include agricultural equipment, mining equipment, mobile industrial equipment, locomotives, marine vessels, and any other vehicle that is not a road vehicle.<sup>150</sup> Like section 202, EPA's ability to regulate any and all sources of GHGs in the nonroad category appears unrestricted, with the exception of aircraft.<sup>151</sup> EPA may also regulate emissions from aircraft, but it is required to consult with the Federal Aviation Administration when developing these emission standards and is barred from setting standards that "would significantly increase noise and adversely affect safety."<sup>152</sup> Thus, EPA's ability to regulate aircraft emissions, although directly spoken to by the Act, is restricted to a greater extent than for other mobile sources. Apart from this minor limit on EPA's authority, though, EPA's delegated authority to regulate GHGs from mobile sources under the existing CAA is unrestricted upon finding that these gases cause or contribute to endangerment of the public health and welfare.

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<sup>143</sup> See *supra* notes 87–90 and accompanying text.

<sup>144</sup> *Id.*

<sup>145</sup> 42 U.S.C. § 7543(a)–(b) (2006).

<sup>146</sup> *Id.* § 7507.

<sup>147</sup> Jody Freeman, *The Obama Administration's National Auto Policy: Lessons from the "Car Deal"*, 35 HARV. ENVTL. L. REV. 343, 345 (2011).

<sup>148</sup> *Id.* § 7547(a)(4) (nonroad sources); *id.* § 7571 (aircraft).

<sup>149</sup> *Id.* § 7547(a)(4).

<sup>150</sup> EPA, TECHNICAL SUPPORT DOCUMENT: CONTROL OF EMISSIONS OF HAZARDOUS AIR POLLUTANTS FROM MOTOR VEHICLES AND MOTOR VEHICLE FUELS 183 (2000), available at <http://www.epa.gov/oms/regs/toxics/r00023.pdf>.

<sup>151</sup> 42 U.S.C. § 7547(a)(4) (2006) (nonroad sources); *id.* § 7571 (aircraft).

<sup>152</sup> *Id.* § 7571(a)(2).

#### 4. *In Summary*

The above analysis shows that EPA could regulate every domestic source of GHGs under its existing CAA authority. Moreover, it has significant discretion in how to structure its approach. For example, EPA could establish NAAQS in combination with stationary and mobile source technology-based standards. Establishment of one does not preclude the other, except that establishment of NAAQS for GHGs would effectively prevent application of NSPS to existing sources under section 111(d).<sup>153</sup> NAAQS for GHGs, although severely lacking in direction because they would require states and emitters to work from ambient standards to determine technology-based standards, is effectively all-encompassing—every source in the United States would fall under the ambient standard. The only question is which sources would then be required to take action in order to reduce national GHG emissions to acceptable levels. Similarly, statutory authorities for technology-based standards applicable to stationary and mobile sources alike appear sufficient to regulate every source of GHG emissions in the country.

### III. CLEAN AIR ACT PREEMPTION OF STATE COMMON LAW

The question at the core of this paper is, on its face, simple enough: “Does the CAA preempt state common law actions for damage resulting from either climate change or localized air pollution?” And yet district courts faced with CAA preemption questions have arrived at remarkably different results, spanning the entire range from full preemption to non-preemption.<sup>154</sup> Perhaps this is not surprising. Preemption doctrine is notoriously fuzzy.<sup>155</sup>

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<sup>153</sup> *Id.* § 7411(d)(1).

<sup>154</sup> Compare discussion *infra* Part IV (providing details of four recent cases holding the CAA preempted common law claims), with *Pollock v. Ga. Power Co.*, 234 S.E.2d 107 (Ga. Ct. App. 1977) (upholding jury’s verdict that power plant negligently emitted air pollutants causing crop damage); *Chestang v. IPSCO Steel (Alabama), Inc.*, 50 So. 3d 418, 434, 436 (Ala. 2010) (failing to address question of CAA preemption but concluding instead that evidence was insufficient to present claims to jury in case involving common law claims brought by landowners for pollution emitted by steel manufacturer); *Action Marine, Inc. v. Cont’l Carbon Inc.*, 481 F.3d 1302, 1307–08, 1311–12, 1317 (11th Cir. 2007) (failing to address CAA preemption while upholding \$1.2 million in compensatory damages and \$17.5 million in punitive damages awards from common law claims arising from facts, where 1) plaintiffs’ property was “darkened” by emissions from carbon black plant, and 2) plant further damaged Action Marine’s boats sufficiently that they could only be sold at a loss, eventually forcing Action Marine to close); *Her Majesty The Queen In Right of the Province of Ontario v. City of Detroit*, 874 F.2d 332, 342–44 (6th Cir. 1989) (holding CAA does not preempt state common law actions, even when that action might result in a more stringent emission standard); *Gutierrez v. Mobil Oil Corp.*, 798 F. Supp. 1280, 1285–86 (W.D. Tex. 1992) (holding that the CAA does not preempt state common law actions).

<sup>155</sup> For example, Justice Thomas described the “doctrine of ‘purposes and objectives’ preemption” as “vague and ‘potentially boundless.’” *Wyeth v. Levine*, 555 U.S. 555, 587 (2009) (Thomas, J., concurring in judgment) (quoting *Geier v. Am. Honda Motor Co.*, 529 U.S. 861, 907 (2000) (Stevens, J., dissenting)).

Supreme Court tests for determining if state law is preempted are similarly open-ended and therefore subject to the varied interpretations of district court judges.<sup>156</sup> And applying preemption doctrine to the extraordinarily complex CAA and its many overlapping regulatory schemes is bound to lead to results that are even more varied than usual.

Part A of this section is an overview of preemption as a doctrine, including its historical underpinnings and purpose. Part B sets forth Supreme Court preemption precedent under the CWA. Part C notes possible shifts in the Supreme Court's approach to preemption following these Water Act cases, especially in recent years. Part D applies underpinnings of preemption doctrine and the Supreme Court's case law to the CAA. This part concludes that only claims against mobile sources are fully preempted and that claims against stationary sources are not preempted because the Act's savings clause and express non-preemption clauses, when read together, indicate that certain state acts were intended to be shielded from the CAA's otherwise fully preemptive effect.

Before proceeding with this analysis though, a brief note on terminology is necessary: as used in this paper, *displacement* means the act of federal statutory law setting aside federal common law. *Preemption* means the act of federal law "displacing" or otherwise setting aside state law of any type. These definitions must be made explicit at the outset because they are occasionally used interchangeably.<sup>157</sup>

#### A. *Preemption as a Doctrine: Background, Historical Underpinnings, and Purpose*

Any discussion of preemption necessarily must begin from one source: the Supremacy Clause of the U.S. Constitution. The Clause states:

This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.<sup>158</sup>

The purpose of the Supremacy Clause is to make clear our government's federalist hierarchy and vertical separation of powers.<sup>159</sup> Where the federal

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<sup>156</sup> See *infra* notes 204–07 (discussing preemption questions on which current Supreme Court justices disagree).

<sup>157</sup> See Dan Mensher, *Common Law on Ice: Using Federal Judge-Made Nuisance Law to Address the Interstate Effects of Greenhouse Gas Emissions*, 37 ENVTL. L. 463, 467–78 (2007) (noting that the Supreme Court and academics alike sometimes confuse the terms).

<sup>158</sup> U.S. CONST. art. VI, § 1, ¶ 2.

<sup>159</sup> "If a number of political societies enter into a larger political society, the laws which the latter may enact, pursuant to the powers intrusted to it by its constitution, must necessarily be supreme over those societies, and the individuals of whom they are composed. It would

government legislates or acts within the boundaries of its constitutionally enumerated powers, these actions are “supreme” over the states. Without this arrangement, James Madison opined that “the world would have seen, for the first time, a system of government founded on an inversion of the fundamental principles of all government; it would have seen the authority of the whole society every where subordinate to the authority of the parts; it would have seen a monster, in which the head was under the direction of the members.”<sup>160</sup>

The clause has resulted in two broad types of preemption: express preemption and implied preemption.<sup>161</sup> Preemption is express when an act of Congress makes explicit that state law is preempted.<sup>162</sup> Implied preemption, on the other hand, takes the form of two varieties, both of which are found in the absence of explicit statutory preemption. The first form is “field preemption,” which occurs when Congress has so pervasively occupied an area of law or the federal government has such a strong interest in an area of law that there is no room for state action.<sup>163</sup> The second form is “conflict preemption,” which comes in three subspecies: “impossibility preemption,” standard “conflict preemption,” and “obstacle preemption.”<sup>164</sup> These three forms of implied preemption “represent points on a continuum of degrees of conflict.”<sup>165</sup> Thus, “impossibility preemption” is found when it is impossible for an actor to physically comply with both state and federal law simultaneously.<sup>166</sup> “Conflict preemption” occurs when state and federal laws conflict, but complying with both is not necessarily impossible.<sup>167</sup> “Obstacle preemption” will be found where a state or local law “stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.”<sup>168</sup> Obstacle preemption is sometimes also referred to as “purposes and objectives” preemption.<sup>169</sup>

The Supreme Court relies on two jurisprudential cornerstones when undertaking preemption analysis:

First, the purpose of Congress is the ultimate touchstone in every pre-emption case. Second, [i]n all pre-emption cases, and particularly in those in

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otherwise be a mere treaty. . . . We perceive that the clause which declares the supremacy of the laws of the Union, like the one we have just before considered, only declares a truth, which flows immediately and necessarily from the institution of a federal government.” THE FEDERALIST NO. 33 (Alexander Hamilton).

<sup>160</sup> THE FEDERALIST NO. 44 (James Madison).

<sup>161</sup> See generally Alan Untereiner, *The Defense of Preemption: A View from the Trenches*, 84 TUL. L. REV. 1257, 1258–61 (2010) (providing an overview of the preemption doctrine).

<sup>162</sup> *Id.* at 1259.

<sup>163</sup> *Id.*

<sup>164</sup> *Id.* at 1259–60.

<sup>165</sup> *Id.* at 1259.

<sup>166</sup> See, e.g., *PLIVA, Inc. v. Mensing (PLIVA)*, 131 S. Ct. 2567, 2577–78 (2011).

<sup>167</sup> See, e.g., *North Carolina ex rel. Cooper v. Tenn. Valley Auth.*, 615 F.3d 291, 302–04. (4th Cir. 2010).

<sup>168</sup> *Hines v. Davidowitz*, 312 U.S. 52, 67 (1941).

<sup>169</sup> See Untereiner, *supra* note 161, at 1260.

which Congress has legislated . . . in a field which the States have traditionally occupied, . . . [the Court] start[s] with the assumption that the historic police powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress.<sup>170</sup>

The Court has often relied on this wording to conclude that a “presumption against preemption” can sometimes be appropriate, especially in implied preemption cases.<sup>171</sup> However, as Part C will show, this conclusion is currently on shaky, and potentially shifting, footing and has been the subject of recent strident debate among members of the Court.

### *B. Clean Water Act Precedent, a Bellwether for the Clean Air Act?*

The CWA and CAA are often considered sibling acts.<sup>172</sup> They were both originally passed and amended in the 1970s, they are both “command-and-control” statutes, and they are generally two of the most well-known environmental laws.<sup>173</sup> They both also strongly rely on cooperative federalism for their success and delegate significant authority and discretion to states as final implementers of these statutes.<sup>174</sup> Nonetheless, while they could be considered similar in many ways and share many common roots, the structure they employ for substantive regulation is markedly different.

The CWA begins from a premise that ambient water quality standards are wholly insufficient to mitigate, minimize, and prevent water pollution. Instead, the CWA adopts a “technology first” approach, with ambient water quality standards as a backup.<sup>175</sup> Further, the Clean Water Act is founded on the premise that any discharge from a point source into a water of the United States without a permit is unlawful.<sup>176</sup> There is no statutory exception to this rule—it is a blanket prohibition.<sup>177</sup> As noted in Part II, the CAA takes a different approach. It begins from a premise that ambient air quality

<sup>170</sup> *Wyeth v. Levine*, 555 U.S. 555, 565 (2009) (internal quotes and citations omitted).

<sup>171</sup> *See, e.g., Maryland v. Louisiana*, 451 U.S. 725, 746 (1981) (analysis begins with the presumption that “Congress did not intend to displace state law.”) (citing *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947)); *but see* Mary J. Davis, *Unmasking the Presumption in Favor of Preemption*, 53 S.C. L. REV. 967, 968 (2002) (presumption against preemption does not exist and, if it ever did exist, the current Court employs the opposite presumption—one in favor of preemption).

<sup>172</sup> Robert W. Adler, *Integrated Approaches to Water Pollution: Lessons from the Clean Air Act*, 23 HARV. ENVTL. L. REV. 203, 206 (1999).

<sup>173</sup> *Id.*; Esther Bartfeld, *Point-Source Trading: Looking Beyond Potential Cost Savings*, 23 ENVTL. L. 43, 48 (1993); Norman W. Fichthorn, *Command-and-Control vs. The Market: The Potential Effects of Clean Air Act Requirements on Acid Rain Compliance*, 23 ENVTL. L. 2069, 2072 (1991).

<sup>174</sup> *See generally*, Robert V. Percival, *Environmental Federalism: Historical Roots and Contemporary Models*, 54 MD. L. REV. 1141, 1160–62 (1995) (providing background on federalism models employed in Clean Water Act and CAA).

<sup>175</sup> *See* Adler, *supra* note 172, at 206–07 (comparing the Clean Water Act and CAA’s standards).

<sup>176</sup> 33 U.S.C. §§ 1311(a), 1362(12) (2006).

<sup>177</sup> *See generally* 33 U.S.C. § 1311 (2006) (laying out the effluent limitations).

standards (the NAAQS) *are* an appropriate starting point.<sup>178</sup> From this starting point, the CAA then requires technology-based standards for certain facilities.<sup>179</sup> Although the CAA's toxics program takes its signal from the CWA and employs a technology-first approach, the CAA's toxics program only applies to "major facilities."<sup>180</sup> This background sets the stage for discussion of the Supreme Court's seminal CWA preemption case.

In *International Paper v. Ouellette*,<sup>181</sup> Vermont landowners on Lake Champlain filed a common law private nuisance suit against a paper mill discharging from the New York side of the lake.<sup>182</sup> The plaintiffs alleged that these discharges harmed their property values by diminishing their use of the lake.<sup>183</sup> The question presented was whether the CWA preempted the plaintiffs' tort claim, which sought to apply Vermont common law to the New York polluter.<sup>184</sup>

In an opinion authored by Justice Powell, the majority concluded that the plaintiffs' claim was preempted because they brought their case under Vermont nuisance law.<sup>185</sup> However, the Court further concluded that application of *source* state nuisance law (i.e., New York Law) was not preempted and that, therefore, the plaintiffs were not without a remedy.<sup>186</sup> The Court reached this decision by undertaking a field preemption and obstacle preemption analysis.

The Court first addressed the comprehensiveness of the CWA in combination with its savings clauses. The Court determined that the CWA was comprehensive based on its detailed permitting requirements, far-reaching jurisdiction, and significant attention to remedies.<sup>187</sup> The Court further cited *City of Milwaukee v. Illinois & Michigan's (Milwaukee II)*<sup>188</sup> discussion of the CWA's legislative history for this proposition.<sup>189</sup> Thus, in the absence of a savings clause, field preemption would have barred any additional state action, including under common law.<sup>190</sup> The Court explained that the CWA's two savings clauses did not speak directly to the issue of whether the law of the affected state was preempted.<sup>191</sup> Therefore, instead of

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<sup>178</sup> Joseph M. Feller, *Non-Threshold Pollutants and Air Quality Standards*, 23 ENVTL. L. 821, 822-23 (1994).

<sup>179</sup> See *supra* Part II.A.2-4.

<sup>180</sup> 42 U.S.C. 7412(a)(1) (2006) (defining "major source" for the air toxics program).

<sup>181</sup> 479 U.S. 481 (1987).

<sup>182</sup> *Id.* at 483-84.

<sup>183</sup> *Id.* at 484.

<sup>184</sup> *Id.* at 483.

<sup>185</sup> *Id.* at 495-97.

<sup>186</sup> *Id.* at 497-500.

<sup>187</sup> *Id.* at 491-94.

<sup>188</sup> 451 U.S. 304 (1981).

<sup>189</sup> *Ouellette*, 479 U.S. at 492.

<sup>190</sup> *Id.* at 492 ("Although Congress intended to dominate the field of pollution regulation, the saving clause negates the inference that Congress 'left no room' for state causes of action.").

<sup>191</sup> The two savings clauses are as follows: "[e]xcept as expressly provided in this chapter, nothing in this chapter shall (1) preclude or deny the right of any State or political subdivision thereof or interstate agency to adopt or enforce (A) any standard or limitation respecting

relying on statutory text alone, the Court reached its conclusion based on policy grounds and congressional intent, holding that “the CWA precludes a court from applying the law of an affected State against an out-of-state source.”<sup>192</sup>

The Court then turned to the question of whether application of affected state law would stand as an obstacle to the CWA’s permitting system. The Court concluded that such application would indeed stand as an obstacle to the Act’s implementation because it would upset “the balance of public and private interests so carefully addressed by the Act.”<sup>193</sup> This balance is partly indicated by the fact that recourse among states can be sought by appealing to the EPA, which then can take appropriate action if it makes a finding of “undue impact” on the receiving state’s waters.<sup>194</sup> Further, the Court explained that allowing multiple states to impose limitations on one another would undermine the efficiency and predictability of the CWA’s permitting system.<sup>195</sup>

Nonetheless, the Court concluded that the CWA’s two savings clauses did not preempt application of *source* state common law.<sup>196</sup> The first clause expressly allows a state to regulate waters within its territory above and beyond federal standards set forth in the CWA.<sup>197</sup> In essence, it clarifies that federal standards are merely a floor. The second savings clause explains that nothing in the CWA’s citizen suit provision limits any person’s rights under any other statute or under common law to seek enforcement or relief.<sup>198</sup> Together, these clauses allow a plaintiff to bring a state common law action seeking compensation for harm caused by water pollution. The Court thus

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discharges of pollutants, or (B) any requirement respecting control or abatement of pollution; except that if an effluent limitation, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance is in effect under this chapter, such State or political subdivision or interstate agency may not adopt or enforce any effluent limitation, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance which is less stringent than the effluent limitation, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance under this chapter; or (2) be construed as impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters (including boundary waters) of such States.” Clean Water Act § 510, 33 U.S.C. § 1370 (2006). “Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any effluent standard or limitation or to seek any other relief (including relief against the Administrator or a State agency).” *Id.* § 505(e).

<sup>192</sup> *Ouellette*, 479 U.S. at 494.

<sup>193</sup> *Id.*

<sup>194</sup> *Id.* at 490–91.

<sup>195</sup> *Id.* at 496.

<sup>196</sup> *Id.* at 497–500.

<sup>197</sup> The exact language of this clause is: “[e]xcept as expressly provided . . . nothing in this chapter shall . . . be construed as impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters (including boundary waters) of such States.” CWA § 510, 33 U.S.C. § 1370 (2006).

<sup>198</sup> The relevant portion of this clause is: “Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any effluent standard or limitation or to seek any other relief. . . .” *Id.* § 505(e).

read the two savings clauses together to mean that a state may impose more stringent standards on sources within its own borders but not beyond its own borders, and, therefore, application of common law in the receiving state is preempted.<sup>199</sup> However, on the other side of the same coin, application of the source state's common law would not be preempted because the CWA expressly allows states to regulate above and beyond what is required by federal law.<sup>200</sup>

The Court highlighted that non-preempted regulation “may include the right to impose higher common-law” (e.g., pollutant discharge standards that are more stringent than existing state or federal regulations) and cited *Milwaukee II* for this proposition.<sup>201</sup> It also explained that without explicit direction from Congress, the remedy sought has no bearing on the right that is either preserved or preempted.<sup>202</sup> Thus, injunctive relief, compensatory damages, and punitive damages tied to a source-state common law action are not preempted under the CWA.<sup>203</sup>

### C. *The Supreme Court's Evolving Preemption Doctrine*

After the year 2000, the Supreme Court's opinions on preemption issues became increasingly splintered and there is some indication that the foundations of the Court's jurisprudence are shifting. Ernest Young's article in the 2011 Supreme Court Review is telling.<sup>204</sup> Mr. Young sets forth several questions central to preemption doctrine, which roughly include: the conflict necessary between state and federal law for preemption to occur; whether there is a presumption against preemption; proper application of statutory text, legislative history, administrative agency views, and legislative canons; and separation of powers concerns as to whether the executive or legislature's views, or both, should count in determining if state law is preempted.<sup>205</sup> He then notes that most Justices “remain uncommitted” to clear positions on many of these issues, with the clear exception of Justice Thomas.<sup>206</sup> This remains true even after the Court issued five separate preemption opinions in 2011.<sup>207</sup> The apparent result of these disparate views

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<sup>199</sup> *Ouellette*, 479 U.S. at 497 (“By its terms the CWA allows States such as New York to impose higher standards on their own point sources, and in *Milwaukee II* we recognized that this authority may include the right to impose higher common-law as well as higher statutory restrictions,” [further], “nothing in the Act bars aggrieved individuals from bringing a nuisance claim pursuant to the law of the *source* State.”).

<sup>200</sup> *Id.*

<sup>201</sup> *Id.*

<sup>202</sup> *Id.* at 498 n.19 (citing *Silkwood v. Kerr-McGee Corp.*, 464 U.S. 238, 255 (1984)).

<sup>203</sup> *Id.*

<sup>204</sup> Ernest A. Young, “*The Ordinary Diet of the Law*”: *The Presumption Against Preemption in the Roberts Court*, 2011 SUP. CT. REV. 253 (2012).

<sup>205</sup> *Id.* at 256.

<sup>206</sup> *Id.* at 305.

<sup>207</sup> *Williamson v. Mazda Motor of Am., Inc.*, 131 S. Ct. 1131 (2011); *PLIVA, Inc. v. Mensing*, 131 S. Ct. 2567 (2011); *Bruesewitz v. Wyeth, LLC*, 131 S. Ct. 1068 (2011); *AT&T Mobility, LLC v. Concepcion*, 131 S. Ct. 1740 (2011); *Chamber of Commerce v. Whiting*, 131 S. Ct. 1968 (2011).

(or undecided views) is that each preemption case is currently being decided on a case-by-case basis. Even though the Supreme Court cites to the same rules in these cases, application of these rules appears different from case to case. In short, the foundation of the Court's preemption jurisprudence is on uncertain footing. This uncertainty is particularly apparent in *PLIVA, Inc. v. Mensing*, a case which suggests that at least several members of the Court are willing to take preemption jurisprudence in an entirely new direction.<sup>208</sup>

Before discussing *PLIVA*, however, some background is necessary. Justice Thomas has repeatedly staked out a firm position that "obstacle preemption," also known as "purpose and objectives" preemption, is "inherently flawed."<sup>209</sup> Professor Nelson authored a seminal article that argued flatly against the presumption against preemption.<sup>210</sup> This article brought new historical evidence to light that the final phrase of the Supremacy Clause—"any Thing in the Constitution or Laws of any State to the Contrary notwithstanding"—was intended as an explicit signal that federal law was to be applied "notwithstanding" state and local law.<sup>211</sup> In other words, the Court's decades of "presumption against preemption" precedent was misplaced.<sup>212</sup> Moreover, Professor Nelson argued for a unified "logical-contradiction" preemption test, explaining that the distinction between various subclasses of preemption such as express preemption, implied preemption, and conflict preemption, are unnecessary in light of this constitutional command.<sup>213</sup>

*PLIVA* involved several plaintiffs' state law tort claims against a generic drug manufacturer.<sup>214</sup> The plaintiffs alleged that they were harmed through use of a generic drug and that, under state tort law, the drug manufacturer's label provided insufficient warning of the dangers associated with use of the drug.<sup>215</sup> The generic drug manufacturer argued that "impossibility preemption" applied.<sup>216</sup> In short, because the generic drug manufacturer was

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<sup>208</sup> 131 S. Ct. 2567.

<sup>209</sup> *Wyeth v. Levine*, 555 U.S. 555, 594 (2009) (Thomas, J., concurring in judgment) ("This Court's entire body of 'purposes and objectives' pre-emption jurisprudence is inherently flawed."); see also *Bates v. Dow Agrosciences LLC*, 544 U.S. 431, 459 (2005) (Thomas, J., concurring in judgment in part and dissenting in part) ("pre-emption analysis is not '[a] freewheeling judicial inquiry into whether a state statute is in tension with federal objectives'" (quoting *Gade v. Nat'l Solid Wastes Mgmt. Ass'n*, 505 U.S. 88, 111 (1992) (Kennedy J., concurring in part and concurring in the judgment))); *Geier v. Am. Honda Motor Co., Inc.*, 529 U.S. 861, 906 (2000) (Stevens J., dissenting) (dissent joined by Justice Thomas and quoting *Gade*).

<sup>210</sup> Caleb Nelson, *Preemption*, 86 VA. L. REV. 225, 290–303 (2000).

<sup>211</sup> *Id.* at 237–64 (describing historical function of Supremacy Clause's non obstante clause).

<sup>212</sup> *Id.* at 290–303.

<sup>213</sup> *Id.* at 234, 260 ("The Supremacy Clause supplies a concrete test for preemption: It requires courts to ignore state law if (but only if) state law contradicts a valid rule established by federal law, so that applying the state law would entail disregarding the valid federal rule.").

<sup>214</sup> *PLIVA, Inc. v. Mensing*, 131 S. Ct. 2567, 2572 (2011).

<sup>215</sup> *Id.* at 2573.

<sup>216</sup> *Id.*

required to provide the same label as the brand-name drug manufacturer,<sup>217</sup> the generic drug-maker argued it was unable to unilaterally comply with both state common law and the federal requirement of sameness between labels.<sup>218</sup>

Nonetheless, the generic drug manufacturers had a duty to report to the Food and Drug Administration if they believed their label was inadequate, and this would initiate a process that *might* result in changes to the brand-name manufacturer's label, and therefore the generic's label as well.<sup>219</sup> The defendants in this case did not pursue this option. Thus, the question presented was whether, in light of the defendant's lack of any attempt to comply with both state law and federal law by appealing to the FDA, the plaintiffs' tort claims were preempted.<sup>220</sup> Agreeing with the manufacturers, the Court held that these claims were preempted due to "impossibility," regardless of whether the manufacturers had a duty to report inadequate labeling to the FDA.<sup>221</sup>

Justice Thomas's analysis is, in some ways, remarkable, because it signals that four justices, and possibly five, may be willing to entertain a substantial shift in how the Court addresses preemption. The five-Justice majority explained that "[w]hen the 'ordinary meaning' of federal law blocks a private party from independently accomplishing what state law requires, that party has established pre-emption."<sup>222</sup> The Court reasoned that because the defendants could not independently and unilaterally comply with state law without approval from a federal agency, "impossibility preemption" was met.<sup>223</sup>

A four-Justice plurality, again authored by Justice Thomas, then cited explicitly to Professor Nelson's article, devoting an entire section to it.<sup>224</sup> The plurality cited to Professor Nelson's historical evidence and explained that the Supremacy Clause's non obstante clause "instructed courts not to apply the general presumption against implied repeals."<sup>225</sup> This, in short, is the exact opposite of the traditional presumption against preemption. Although Justice Kennedy declined to join this portion of the opinion, the threads of this analysis necessarily underlay the majority's ultimate finding of

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<sup>217</sup> This is because the FDA "interprets its regulations to require that the warning labels of a brand-name drug and its generic copy must always be the same—thus, generic drug manufacturers have an ongoing federal duty of 'sameness.'" *Id.* at 2574–75.

<sup>218</sup> *Id.*

<sup>219</sup> *Id.* at 2576–77, 2479.

<sup>220</sup> *Id.* at 2572 ("The question presented is whether federal drug regulations applicable to generic drug manufacturers directly conflict with, and thus pre-empt, these state-law claims."); *id.* at 2574 ("What is in dispute is whether, and to what extent, generic manufacturers may change their labels *after* initial FDA approval.") (emphasis added); *id.* at 2576–77 ("The Manufacturers and the FDA disagree over whether this alleged duty to request a strengthened label actually existed.").

<sup>221</sup> *Id.* at 2577–78.

<sup>222</sup> *Id.* at 2580.

<sup>223</sup> *Id.* at 2581.

<sup>224</sup> *Id.* at 2579–80.

<sup>225</sup> *Id.* at 2579.

impossibility preemption in this case. The Court essentially read the applicable federal law in the most natural way possible, “notwithstanding” state law, and made no attempt to harmonize the two, which is precisely what Professor Nelson argued for.<sup>226</sup> Moreover, the majority’s finding of “impossibility preemption,” a form of preemption rarely invoked, may signal that the majority was collapsing the subspecies of implied preemption into one test: the unilateral action test described by Justice Thomas.

At this point, it is not clear if *PLIVA* represents a substantial shift in the underpinnings of the Court’s preemption analysis. And determining how this case will be applied by the lower courts on a broad scale is likely impossible at this point. So far, lower courts appear to be taking pains to distinguish *PLIVA*. For example, the First Circuit read *PLIVA* as an exception carved out to a rule in an earlier case and declined to extend *PLIVA*’s reasoning beyond the precise factual situation presented.<sup>227</sup> The First Circuit noted a rapidly developing split in the courts and stated that, whether courts should extend *PLIVA*’s rationale to other contexts is an “issue [that] needs a decisive answer from the only court that can supply it.”<sup>228</sup> The Supreme Court granted certiorari on this case and oral argument took place on March 19, 2013.<sup>229</sup> In light of these recent events, the only certainty at this point is that the test for preemption is uncertain.

#### D. Applying the Court’s Jurisprudence to the Clean Air Act

The analysis in Part II.B.4 concluded that “EPA could regulate every source of GHGs under its existing CAA authority. Moreover, it has significant discretion in how to structure its approach.” In light of the *Ouellette* court’s focus on field preemption as well as obstacle preemption, this is important. In determining whether state common law claims are preempted by the CAA, a threshold question is *preempted how?* In other words, would claims be preempted expressly or impliedly? And if implied preemption applies, what subspecies of the doctrine is applicable?

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<sup>226</sup> If the Court wished to harmonize state and federal law in this case, it could have done so by finding that federal law did not bar compliance with state law because the generic manufacturer could have petitioned for a labeling change. As shown by the Court’s following conclusion, it did not do so: “[h]ere, state law imposed a duty on the Manufacturers to take a certain action, and federal law barred them from taking that action. The only action the Manufacturers could independently take—asking for the FDA’s help—is not a matter of state-law concern. Mensing and Demahy’s tort claims are pre-empted.” *Id.* at 2581.

<sup>227</sup> *Bartlett v. Mut. Pharm. Co., Inc.*, 678 F.3d 30, 37–38 (1st Cir. 2012) *cert. granted*, 133 S. Ct. 694 (2012).

<sup>228</sup> *Id.* at 38.

<sup>229</sup> *Mut. Pharm. Co. v. Bartlett*, 133 S. Ct. 694 (2012) (granting certiorari); *see also* Transcript of Oral Argument, *Mut. Pharm. Co., v. Bartlett*, No. 12-142 (U.S. Mar. 19, 2013), *available at* [http://www.supremecourt.gov/oral\\_arguments/argument\\_transcripts/12-142.pdf](http://www.supremecourt.gov/oral_arguments/argument_transcripts/12-142.pdf).

### 1. *Express Preemption of Common Law Claims Against Mobile Sources*

There is no question that any common law claim against a mobile source that is in compliance with federal standards is fully preempted by the CAA. Section 209 of the Act provides that, with the exception of California, “[n]o State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles.”<sup>230</sup> It provides similar language, and a similar California exemption, for non-road vehicles as well.<sup>231</sup> These are express preemption clauses indicating that federal standards are the *only* applicable standards for mobile source emissions. Put simply, these federal standards are both a floor and a ceiling that mobile source manufacturers must comply with.

### 2. *Implied Preemption of Common Law Claims Against Stationary Sources for Traditional Air Pollutants*

Unlike mobile sources, the relevant CAA stationary source provisions are highly analogous to the CWA. The CAA contains, for all material purposes, the same savings clauses as the CWA. Section 116 makes clear that states may regulate above and beyond federal standards, thus clarifying that federal standards are a floor and not a ceiling.<sup>232</sup> Section 304(e) provides that nothing in the CAA’s citizen suit provision limits any person’s right under other statutes or common law to obtain relief.<sup>233</sup> Therefore, *Ouellette* provides a helpful guide for interpreting the CAA’s preemptive effect in light of its savings clauses.

#### a. *Field Preemption*

Given these similarities, the conclusion is inescapable that common law claims against stationary sources are not preempted under *Ouellette*’s precedent if applying field preemption doctrine. Under *Ouellette*’s framework, claims are preempted if a statute fully occupies a field of law, except if the claim falls within a savings clause.<sup>234</sup> Here, the CAA’s savings clauses exist against a backdrop of comprehensive statutory delegated authority and significant EPA exercise of this authority, much like the CWA. Further, the CAA’s savings clauses are materially the same as the CWA’s, with each sharing much of the same language.<sup>235</sup> In other words, the inputs to *Ouellette*’s preemption test are almost precisely the same under either the CWA or the CAA—both statutes occupy the field, and both shield state authority through their savings clauses to the same extent. For this reason,

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<sup>230</sup> 42 U.S.C. § 7543(a) (2006).

<sup>231</sup> *Id.* § 7543(e).

<sup>232</sup> Compare *id.* § 7416, with Federal Water Pollution Control Act § 510, 33 U.S.C. § 1371 (2006).

<sup>233</sup> Compare 42 U.S.C. 7604(e) (2006), with 33 U.S.C. 1365(e) (2006).

<sup>234</sup> 479 U.S. 481, 492 (1987).

<sup>235</sup> See *supra* notes 232–33 and accompanying text.

*Ouellette* would almost certainly control the field preemption result in the CAA context.

*b. Other Implied Preemption Theories*

Although *stare decisis* suggests that courts are required to find that state common law claims against stationary sources of air pollution are not preempted by the CAA under *Ouellette*, it is unclear that the Supreme Court would reach the same result today given its shifting preemption jurisprudence. Put differently, if the Court were to decide *Ouellette* today, there is no guarantee that it would arrive at the same result as the Powell majority. Thus, it seems appropriate to reflect on whether a state common law claim would render it “impossible” for an emitter to comply with federal law, present an “obstacle” to achieving the CAA’s goals and purpose, or otherwise present a conflict with the CAA.

There is no situation in which an emitter could not simultaneously comply with a common law decree while also complying with the mandates of the CAA, at least as far as emission standards are concerned.<sup>236</sup> Every emission standard under the Act, regardless of the program it is ultimately derived from, is simply a numeric threshold that the emitter must comply with.<sup>237</sup> If a common law ruling resulted in a more stringent emission standard either through remedies at law<sup>238</sup> or at equity, the emitter could comply with both sets of laws simply by complying with the stricter common law requirement.<sup>239</sup> Moreover, although one could foresee one unlikely impossibility scenario arising if two separate common law judges imposed different standards,<sup>240</sup> such a result would typically be barred by

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<sup>236</sup> It is true that certain pollution controls can operate to decrease one pollutant at the expense of another. In this sense, one could foresee technical impossibility complying with both a more stringent common law standard and a regulatory standard at the same time. However, this impossibility is limited by available technology alone. With changing technology, this impossibility may disappear. Thus, this type of impossibility is quite different from legal impossibility under the preemption doctrine, which requires true impossibility of complying with both federal and state law at the same time.

<sup>237</sup> See, e.g., 42 U.S.C. § 7411(a)(1) (2006) (“a standard of performance shall reflect the degree of *emission limitation* . . . achievable. . .”) (emphasis added); *id.* § 7479(3) (“The term ‘best available control technology’ means an *emission limitation* . . .”) (emphasis added).

<sup>238</sup> Damages at law, while not a direct emission limitation, could have the effect of inducing an emitter to reduce emissions because the court ruling would cause the damages to be internalized by the polluter.

<sup>239</sup> This reasoning should not be extended beyond emission standards to areas such as work-practices. The reasoning presented here will usually be incompatible in contexts outside of emission standards. For example, work practices are typically applied in lieu of emission standards based on impossibility of enacting an emission standard. See, e.g., 42 U.S.C. § 7411(h)(1) (NSPS work practices provision).

<sup>240</sup> For example, if one court order required emissions *between* 2 ppm and 3 ppm, and another court order required emissions less than 2 ppm, complying with both orders would be impossible. Of course, even though a court has the power to require emissions *between* two amounts, such an order should be exceedingly rare.

requiring application of the source state's laws and through operation of issue preclusion (collateral estoppel).

The more difficult question is whether a state common law claim would present an "obstacle" to achieving the Act's goals and purpose. The Act's broad goals are four-fold. First, and perhaps obviously, one goal is to minimize air pollution in order to protect public health, safety, and welfare.<sup>241</sup> A second goal is to prevent a "race to the bottom" among states by providing for uniform minimum standards.<sup>242</sup> A third goal is to assist states in achieving air quality through research and technical assistance by bringing federal agency resources to bear on these issues.<sup>243</sup> A fourth goal is to balance economic growth with air pollution concerns.<sup>244</sup> Common among all of these goals is that the Act strikes a delicate "balance among federal, source-state, and affected-state interests," similar to the CWA.<sup>245</sup> More narrowly, the Act sets emission standards,<sup>246</sup> provides mechanisms to ensure efficiencies in pollution mitigation,<sup>247</sup> and facilitates intricate delegation of federal authority to the states while ensuring that individual states do not unreasonably interfere with each other's pollution levels.<sup>248</sup>

Considering CAA obstacle preemption given these purposes under *Ouellette's* approach, the question is one of balancing. In short, is a more stringent emission limitation resulting from common law preempted when taking into account the CAA's purposes and objectives? Under *Ouellette*, the clear answer is "no." The purposes and objectives of the CWA are for all practical purposes identical to those of the CAA.

All things considered, there is no reason that a more stringent common law standard would present an "obstacle" to the CAA's proper implementation. The Act explicitly contemplates that source states might regulate stationary sources to a greater degree than required by federal standards.<sup>249</sup> As stated previously, so long as the law of the source state is applied, there is simply no difference between a common law standard and a state administrative or statutory standard.<sup>250</sup> While it is true that a common

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<sup>241</sup> See 42 U.S.C. § 7401 (2006).

<sup>242</sup> See Joshua D. Sarnoff, *The Continuing Imperative (But Only from A National Perspective) for Federal Environmental Protection*, 7 DUKE ENVTL. L. & POL'Y F. 225, 251 (1997).

<sup>243</sup> 42 U.S.C. § 7401(b)(3) (2006).

<sup>244</sup> See, e.g., *id.* § 7479(3) (defining BACT to include consideration of cost); *id.* § 7411(a)(1) (defining "standard of performance" under NSPS to include consideration of cost).

<sup>245</sup> *Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 498–99 (1987).

<sup>246</sup> For example through NSPS and BACT. See *supra* Part II.A.2.

<sup>247</sup> For example, by charging EPA with pollution-control research that can be filtered to the states (this is implicit in many of EPA's mandates to develop emission standards and explicit in section 101(b)(2)), by often requiring EPA to consider polluters as categories that can be regulated together (e.g., under NSPS, PSD, and NESHAPS), and through creation of a permitting program (Title V of the Act).

<sup>248</sup> 42 U.S.C. §§ 7410, 7426 (2006).

<sup>249</sup> *Id.* § 7416.

<sup>250</sup> See *supra* note 199 and accompanying text (discussing the *Ouellette* and *Milwaukee II* courts' conclusion that state common law may be used to regulate more stringently than required by the Clean Water Act).

law ruling either forcing (through equity) or inducing (through damages at law) a stationary source to achieve more stringent emission standards might impose an element of uncertainty on the regulated community, such uncertainty is already possible given that states are expressly allowed to incorporate more stringent standards and can pass these standards at any time.<sup>251</sup>

While judges might find it expedient to simply state that these claims are preempted because a purpose of the CAA is to bring expert agency resources to bear on air quality issues,<sup>252</sup> an equally strong goal was to preserve state authority. The CAA states as a Congressional finding that “air pollution prevention . . . is the primary responsibility of States and local governments.”<sup>253</sup> One of a state’s most important interests is protecting its citizens and providing a forum for aggrieved citizens to seek recompense.<sup>254</sup> Recognizing that the CAA was legislated against a backdrop of traditional tort litigation as the primary means of enforcing air quality, further recognizing that the CAA does not contain any provision that would allow aggrieved parties to seek compensation for pollution harm, and finally taking note that the CAA does include a savings clause that explicitly mentions common law, preemption of state common law claims would disserve Congress’s clear purpose, in violation of the Court’s touchstone rule for preemption analysis. In short, the Act’s remedies savings clause was intended to ensure that a significant hole in the Act was filled by traditional common law principles.

Finally, under the possible new preemption test set forth by Justice Thomas in *PLIVA*, it seems unlikely that the CAA preempts state common law claims either. Again, that test states “[w]hen the ‘ordinary meaning’ of federal law blocks a private party from independently accomplishing what state law requires, that party has established pre-emption.” Here, although federal permission is required for an emitter to pollute in certain circumstances (typically if the source is “major” under one of the Act’s programs), it is not always required.<sup>255</sup> More importantly, though, it is never required if a polluter wants to adopt emission rates that are more stringent

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<sup>251</sup> See 42 U.S.C. § 7416 (2006).

<sup>252</sup> See, e.g., *id.* § 7401(b)(2) (one goal of the Act is to “initiate and accelerate . . . research . . . to achieve the prevention . . . of air pollution). This subsection’s goal is born out in numerous provisions of the Act, including every instance where EPA is required to develop an emission standard.

<sup>253</sup> *Id.* § 7401(a)(3).

<sup>254</sup> See Earl M. Maltz, *Reflections on A Landmark: Shaffer v. Heitner Viewed from A Distance*, 1986 B.Y.U. L. REV. 1043, 1053 (1986) (“a state *always* has an interest in ensuring that its own citizens obtain recompense for wrongs done to them by others; indeed, the basic reason for establishing a court system is to provide forums in which such recompense can be obtained.”) (citation omitted).

<sup>255</sup> For example, minor sources regulated solely by a SIP are not required to meet federal standards to operate. See 42 U.S.C. § 7410(a)(2) (2006) (listing requirements for EPA approval of state SIP, which do not include specific standards for minor sources not otherwise covered by the Act).

than what is required by federal law.<sup>256</sup> Again, this result stems from the fact that the CAA's various programs serve as floors as opposed to ceilings, at least as far as emission standards are concerned.

### 3. *Do Greenhouse Gas Pollutants Deserve Different Preemption Treatment Due to Their Fundamentally Different Nature?*

Greenhouse gases are inherently a different type of pollutant than any other pollutants regulated under the CAA, except perhaps under the stratospheric ozone program, which is distinctly separate from the rest of the Act. The two main anthropogenically emitted GHGs, carbon dioxide and methane, do not directly cause human health impacts except when breathed at orders of magnitude beyond natural levels.<sup>257</sup> Nor are they localized. Rather, they become "well-mixed" in the atmosphere such that the ambient level of atmospheric CO<sub>2</sub>, in particular, is nearly uniform.<sup>258</sup> These traits place GHGs in stark contrast to other pollutants, which tend to have localized or regional effects and typically cause direct health impacts to humans and wildlife.<sup>259</sup> The key question is whether these differences warrant different preemption treatment for state common law claims.

As illustrated in the previous subpart, the only two potentially applicable preemption theories are field preemption and objectives preemption, as there is no applicable express preemption provision for stationary sources and impossibility is not an issue when emission standards are merely floors. There are certain regulatory approaches that EPA is contemplating that would bring EPA close to the line of "occupying the field" of GHG regulation. However, there is a line that EPA may not cross. The Act's section 116 savings clause does more than simply preserve state authority. It acts as an explicit bar preventing EPA from taking regulatory

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<sup>256</sup> For example, as discussed *supra* Part II.A.2, the CAA contains three major technology-based standards: NSPS, BACT under PSD, and MACT under NESHAPS. Both NSPS and NESHAPS emission standards are drafted such that the regulated entity may not emit "in excess" of the standard or in an amount "that exceed[s]" the standard. *See, e.g.*, 40 C.F.R. § 63.302 (2013) (coke oven NESHAPS); 40 C.F.R. § 60.44(a) (2013) (fossil fuel steam fired generators NSPS). While fixed EPA emission standards do not typically exist for BACT because the standard must be determined on a case-by-case basis and the standard typically increases over time as the "best" improves, BACT standards are typically written into Title V permits in the same way, e.g., "not to exceed" a certain emission rate.

<sup>257</sup> Significant increases in carbon dioxide or methane result in direct health impacts only through deprivation of oxygen and not through toxicological effects. For more detailed discussion, see *supra* note 123 and accompanying text.

<sup>258</sup> IPCC, *supra* note 93, at 24.

<sup>259</sup> *See, e.g.*, Vlad Isakov et al., *Combining Regional- and Local-Scale Air Quality Models with Exposure Models for Use in Environmental Health Studies*, 59 J. OF AIR & WASTE MGMT. ASS'N., 461, 465–66 (2009), available at <http://www.tandfonline.com/doi/pdf/10.3155/1047-3289.59.4.461> (discussing health effects of PM<sub>2.5</sub> and Benzene in New Haven, Connecticut by modeling dispersion of these pollutants and finding that effects were largely local); EPA CLEAN AIR TECHNOLOGY CENTER, NITROGEN OXIDES (NOX), WHY AND HOW THEY ARE CONTROLLED 6 (1999), available at <http://www.epa.gov/ttn/catc/dir1/fnoxdoc.pdf> (discussing regional transport issues associated with NO<sub>x</sub> emissions).

action that sets both a floor *and* a ceiling for emissions from regulated entities. Section 116's statement that "nothing in this chapter shall preclude or deny the right of any state . . . to adopt or enforce . . . any standard or limitation respecting emissions of air pollutants or . . . any requirement respecting control or abatement of air pollution" places a clear limit on the authority that Congress delegated to EPA.

An example illustrates how this could play out for GHG regulation. EPA has contemplated using the CAA's interstate provisions to create a cap-and-trade program.<sup>260</sup> While EPA may indeed be able to implement such a program given its prior experience with SIP-calls, the CAIR rule, and the Acid Rain program,<sup>261</sup> GHGs' "well-mixed" nature means that if a certain state wishes to go above and beyond the requirements of the national cap-and-trade program, the state's action will have no net effect on national emissions and the national program could prevent the state from ever achieving its more stringent goal. Other states would simply purchase offsets from the state with more stringent standards, and the cost of creating these offsets would be more expensive than in other states.<sup>262</sup>

A hypothetical best explains the problem with this approach. If the EPA mandates a national 50% reduction in GHG emissions by 2030 through an emissions cap and California simultaneously mandates a 65% intrastate reduction in GHG emissions by 2030, the end result is that states outside of California would be able to emit more, as sources in other states would trade disproportionately with California. This trade could prevent California from ever achieving its more stringent goal. Such a cap-and-trade program would thus effectively operate as both a floor as well as a ceiling beyond which states could not regulate. Although such a result could be characterized as preempting a state from moving forward with its own more stringent program under the doctrines of field preemption and purposes and objectives preemption, this result is impermissible under the Act's non-preemption clause in section 116.<sup>263</sup>

This example contains within it an important lesson for GHG CAA preemption analysis. Section 116 carves out an explicit role for the states.

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<sup>260</sup> Regulating Greenhouse Gases Under the Clean Air Act, 73 Fed. Reg. at 44,354, at 44,409, 44,514.

<sup>261</sup> Title IV of the Act mandated that the EPA establish an emissions cap and trade program to reduce SO<sub>2</sub> emissions from power plants, along with other requirements for NO<sub>x</sub>. This program achieved great success. See generally A. DENNY ELLERMAN ET AL., *MARKETS FOR CLEAN AIR: THE U.S. ACID RAIN PROGRAM* (2000); Sam Napolitano et al., *The U.S. Acid Rain Program*, *ELECTRICITY J.*, Aug.–Sept. 2007, at 47; Byron Swift, *How Environmental Laws Work: An Analysis of the Utility Sector's Response to Regulation of Nitrogen Oxides and Sulfur Dioxide Under the Clean Air Act*, 14 TUL. ENVTL. L.J. 309 (2001).

<sup>262</sup> This is because under a cap, there is a finite quantity of allowable emissions. When one state reduces its emissions above and beyond what the market would achieve on its own, the "trade" component of cap-and-trade would negate this reduction—other states would simply be able to purchase offsets from the over-achieving state. For more detail on cap-and-trade programs generally, see Robert N. Stavins, *A Meaningful U.S. Cap-and-Trade System to Address Climate Change*, 32 HARV. ENVTL. L. REV. 293 (2008).

<sup>263</sup> 42 U.S.C. § 7416 (2006).

They are expressly allowed to regulate above and beyond federal requirements, and federal law *cannot interfere* with this zone of express state authority. This is true regardless of the fact that GHGs are different than other pollutants regulated under the Act, as the statutory non-preemption clause in section 116 is pollutant-blind. Additionally, the private action saving clause in section 304(e) makes clear that the Act's citizen suit provisions do not remove state common law courts from the section 116 carve out. Common law courts may participate in providing "any relief" to an aggrieved party.<sup>264</sup> While it may be administratively difficult for a court to implement a comprehensive GHG remedy, ability to craft an appropriate remedy is a fundamentally different question than preemption. Thus, the CAA does not preempt state common law claims for damage caused by GHG releases.

Courts should be particularly careful not to conflate non-justiciability issues related to inability to craft an appropriate remedy with *preemption*. Misapplication of preemption doctrine due to the inherently different nature of GHGs may cause precedential problems for traditional common law air pollution cases. Indeed, one court has already made this mistake by extending preemption analysis from a GHG common law case to a separate case where plaintiffs alleged damage due to highly localized non-GHG pollution.<sup>265</sup> The latter claim is perhaps the quintessential air pollution toxic tort, with roots dating back to the seventeenth century.<sup>266</sup> Moreover, Congress explicitly intended to save such claims from the Act's otherwise preemptive effect, as directly provided in the statutory text<sup>267</sup> and backed by legislative history.<sup>268</sup> In short, not only does finding that GHG common law claims are preempted by the CAA disserve the Act's statutory text, but it erodes centuries of common law that Congress intended to preserve. Thus, although preemption may seem a tempting way for courts to dispose of such cases, courts should not do so. Further, beyond these statutory and historical reasons and on a practical and purely human level, dismissing cases where plaintiffs have incurred significant harm due to climate change will leave aggrieved plaintiffs without any remedy—a result that is undesirable at best, and at worst, can be tragic.<sup>269</sup>

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<sup>264</sup> *Id.* § 7604(e); *see also supra* notes 199–200 and accompanying text (discussing *Milwaukee II* and *Ouellette*).

<sup>265</sup> *See infra* note 320 and accompanying text (discussing a district court reference in traditional toxic tort case to GHG preemption discussion from another district court).

<sup>266</sup> *See supra* note 9 and accompanying text.

<sup>267</sup> 42 U.S.C. § 7604(e) (2006).

<sup>268</sup> The strongest legislative history is from the CAA's sister act, the Clean Water Act, which contains a similar savings clause. S. Rep. No. 92-414 (1972), *reprinted in* 1972 U.S.C.C.A.N. 3668, 3746–47 (“[T]he section would specifically preserve any rights or remedies under any other law. Thus, if damages could be shown, other remedies would remain available. Compliance with requirements under this Act would not be a defense to a common law action for pollution damages.”).

<sup>269</sup> As mentioned in the opening of this paper, the imminent destruction of the Native Tribe of Kivalina's village starkly illustrates the tragic effects that climate change is already producing. *See supra* p. 715.

#### IV. RECENT CLEAN AIR ACT CASES AND MISAPPLICATION OF PREEMPTION DOCTRINE

Recently, several federal district courts have decided state common law air pollution cases on preemption grounds.<sup>270</sup> All three district court cases cited *AEP* and directly injected portions of *AEP*'s displacement analysis into their preemption analyses. Further, in 2010, the Fourth Circuit issued what is presently considered a leading opinion in this area.<sup>271</sup> This Part first describes *AEP* to provide context. It then details these four recent cases addressing CAA preemption and critically examines their holdings and rationales.

##### A. *Setting the Stage: American Electric Power v. Connecticut and the Difference Between Displacement and Preemption*

In *AEP*, several states and other entities sued major domestic greenhouse emitters under federal common law for alleged increased risk of harm to public health and welfare caused by climate change.<sup>272</sup> The question presented was whether the CAA displaced these federal claims, which the Court answered affirmatively.<sup>273</sup> The Court's analysis focused on two main points. First, application of federal common law is no longer necessary or warranted when Congress has directly spoken to an issue.<sup>274</sup> Here, Congress had directly spoken to regulation of GHGs because these are considered "air pollutants" under the CAA.<sup>275</sup> Second, the Court explained that EPA is better suited than federal judges to determine appropriate GHG emission standards due to its scientific expertise.<sup>276</sup> That federal common law is specialized and rarely invoked provided important context for both prongs of the Court's analysis.<sup>277</sup> Thus, when compared to preemption, "[l]egislative displacement of federal common law does not require the same sort of evidence of a clear and manifest congressional purpose demanded for preemption of state law."<sup>278</sup>

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<sup>270</sup> Although this section focuses on recent cases, two earlier cases addressing CAA preemption include: *Her Majesty The Queen ex rel. Ontario v. Detroit*, 874 F.2d 332 (6th Cir. 1989) (holding that the CAA does not preempt state common law actions, even when that action might result in a more stringent emission standard); *Gutierrez v. Mobil Oil Corp.*, 798 F. Supp. 1280 (W.D. Tex. 1992) (stating that the CAA does not preempt state common law actions).

<sup>271</sup> See *North Carolina ex rel. Cooper v. Tenn. Valley Auth.*, 615 F.3d 291 (4th Cir. 2010).

<sup>272</sup> *Am. Elec. Power Co., Inc. v. Connecticut*, 131 S. Ct. 2527, 2532 (2011).

<sup>273</sup> *Id.*

<sup>274</sup> *Id.* at 2537.

<sup>275</sup> See *Massachusetts v. EPA*, 549 U.S. 497, 528 (2007).

<sup>276</sup> *Am. Elec. Power Co.*, 131 S.Ct. at 2539–40.

<sup>277</sup> *Id.* at 2535–36.

<sup>278</sup> *Id.* at 2537 (internal quotes and minor changes omitted).

*B. North Carolina v. Tennessee Valley Authority*

The Fourth Circuit's *North Carolina v. Tennessee Valley Authority* (TVA) opinion is currently the most comprehensive treatment of CAA preemption of state common law.<sup>279</sup> However, its facts are quite unique. In that case, North Carolina brought a public nuisance claim under North Carolina common law against the Tennessee Valley Authority (TVA), alleging that eleven of TVA's coal-fired plants were causing violation of North Carolina air pollution law.<sup>280</sup> The district court granted an injunction requiring immediate installation of emission controls on four of these facilities.<sup>281</sup> On appeal, the Fourth Circuit reversed.<sup>282</sup> First, the court correctly explained that extraterritorial application of the home state's common law is impermissible under *Ouellette*.<sup>283</sup> It then proceeded to discuss at length the various options available to North Carolina under the CAA to reduce pollution emanating from the source states, such as section 126.<sup>284</sup> Based on existing statutory means to remedy interstate air pollution disputes, the court concluded that it would be inappropriate for a court to disturb this carefully crafted process.<sup>285</sup> The court further held that even applying home state common law, North Carolina's claims were barred.<sup>286</sup>

The court's rationale can be distilled into two main threads. First, the court's preemption analysis is a fluid discussion that fluctuates between field preemption and obstacle preemption. The court's analysis is best described as finding that North Carolina's action was preempted by both doctrines.<sup>287</sup> On one hand, the court explained that the CAA nearly completely occupies the field, although perhaps select common law claims may not be preempted.<sup>288</sup> On the other hand, the court stated that judicial interference would be an obstacle to operation of the CAA's mechanisms for states to resolve interstate air pollution disputes.<sup>289</sup>

Although this result is defensible under the limits of the Supreme Court's current jurisprudence, it is in some tension with *Ouellette's* field

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<sup>279</sup> North Carolina *ex rel.* Cooper v. Tenn. Valley Auth., 615 F.3d 291 (4th Cir. 2010).

<sup>280</sup> *Id.* at 297.

<sup>281</sup> *Id.* at 296.

<sup>282</sup> *Id.*

<sup>283</sup> *Id.* at 306–07.

<sup>284</sup> *Id.* at 300–01.

<sup>285</sup> *Id.* at 310–11.

<sup>286</sup> *Id.* at 296.

<sup>287</sup> For example, at one point, the court explained that “Where Congress has chosen to grant states an extensive role in the Clean Air Act’s regulatory regime through the SIP and permitting process, *field and conflict* preemption principles caution at a minimum against according states a wholly different role and allowing state nuisance law to contradict joint federal-state rules so meticulously drafted.” *Id.* at 303 (emphasis added).

<sup>288</sup> *Id.* at 302–03.

<sup>289</sup> Although not mentioned by the court explicitly, the court’s analysis also could be characterized as sounding in administrative exhaustion. In short, so long as North Carolina had an administrative option available, the court was not prepared to disturb preexisting CAA processes. *See id.* at 310–11.

preemption and obstacle preemption analyses. If other circuits address this issue, they could arrive at a different conclusion. *Ouellette's* treatment of field preemption simply concluded that affected state common law was preempted.<sup>290</sup> The Court gave no indication that this reasoning should be extended to preemption of source state common law as well. *TVA*, though, pushes *Ouellette's* reasoning to the limit by suggesting in dicta that there are few common law cases that are not preempted.<sup>291</sup> Indeed, the *TVA* court may have over-read *Ouellette's* field preemption analysis in this sense.

Another important aspect of *Ouellette* is its allowance that even in light of the CWA's provision of an EPA process for affected states to address pollution emanating from source states and impacting affected state waters, private plaintiffs could still use the courts to obtain relief.<sup>292</sup> The *TVA* court, however, concluded that states must first use the EPA process.<sup>293</sup> Still, although the *TVA* decision is in tension with *Ouellette*, some of this tension can be explained by the fact that private parties do not have this administrative option, while state governments do have this administrative option.<sup>294</sup> Thus, *TVA* could, and probably should, be limited solely to interstate public nuisance claims and should not be extended to common law claims brought by private parties. Moreover, it is worth noting that if the Supreme Court continues with Justice Thomas's approach of whittling obstacle preemption but strengthening impossibility preemption, some of the reasoning underpinning *TVA* could be eroded given that the court focused on field and obstacle preemption, and not impossibility.<sup>295</sup>

Still, while *TVA's* preemption holding may not be perfectly in tune with *Ouellette*, *TVA's* methodical process of parsing the CAA to determine its preemptive effect under doctrines of field preemption and obstacle preemption is fully correct. Courts citing *TVA* for its preemption analysis should take note of the extremely rigorous analysis it applied to the CAA and the specific attention it paid to the sections of the statute applicable to the case. Under the Supreme Court's preemption jurisprudence, reaffirmed by *AEP's* statement that "evidence of a clear and manifest congressional purpose" is "demanded for preemption of state law,"<sup>296</sup> this rigorous analysis is required.

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<sup>290</sup> See *Int'l Paper Co. v. Ouellette*, 479 U.S. 481 (1987).

<sup>291</sup> *TVA*, 615 F.3d at 303 ("[W]e cannot state categorically that the *Ouellette* Court intended a flat-out preemption of each and every conceivable suit under nuisance law. We can state, however, with assurance that *Ouellette* recognized the considerable potential mischief in those nuisance actions seeking to establish emissions standards different from federal and state regulatory law and created the strongest cautionary presumption against them.").

<sup>292</sup> *Ouellette*, 479 U.S. at 490–91, 497 (describing EPA's ability to step in when one state's water pollution presents an "undue impact" to a receiving state but still holding that private nuisance suit under source-state common law is not preempted).

<sup>293</sup> *TVA*, 615 F.3d at 310–11.

<sup>294</sup> For example, section 126(b) of the CAA may only be invoked by a "State or political subdivision." 42 U.S.C. § 7426(b) (2006).

<sup>295</sup> *TVA*, 615 F.3d at 310–11.

<sup>296</sup> *Am. Elec. Power Co., Inc. v. Connecticut*, 131 S. Ct. 2527, 2537 (2011).

The second thread of the *TVA* court's analysis, although somewhat opaque, suggests that North Carolina's inability to recover under source state public nuisance law is a result of those states' interpretations of those laws and not a function of CAA preemption. This is suggested by the court's citation to *Ouellette* for the proposition that "[s]tates can be expected to take into account their own nuisance laws in setting permit requirements."<sup>297</sup> While the court's treatment of the issues surrounding this case is comprehensive and there is no reason to think this case is incorrect as a matter of law, it should be easily distinguishable for most cases given its interstate, governmental, and public nuisance aspects.

### C. Recent Federal District Court Cases

Three state common law cases concerning air pollution were decided by federal district courts in 2011 and 2012. Interestingly, two of these cases were decided by the same judge.<sup>298</sup> The first is *Bell v. Cheswick Generating Station*.<sup>299</sup> This case involved a class action suit against a coal-fired power plant in Pennsylvania in which plaintiffs alleged that the plant was causing property damage resulting in the need for plaintiffs to constantly clean their property.<sup>300</sup> Among other claims, the plaintiffs alleged violation of state law private nuisance and trespass, for which the plaintiffs requested both damages and injunctive relief.<sup>301</sup> All 1,500 members of the class resided within one mile of the plant.<sup>302</sup> The court dismissed the case for failure to state a claim.<sup>303</sup>

The court first reasoned that several of the plaintiffs' claims were insufficient due to their conclusory nature.<sup>304</sup> The court then determined that the remaining claims would necessarily require the court to establish emission standards in order to provide a remedy to the plaintiffs.<sup>305</sup> The court quickly held that the CAA preempted this result.<sup>306</sup>

The preemption aspect of this case was almost certainly wrongly decided for three reasons. First, the court only cited the citizen suit savings clause and did not cite the second savings clause in section 116.<sup>307</sup> As Justice Powell explained in *Ouellette*, both savings clauses must be read together to

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<sup>297</sup> *TVA*, 615 F.3d at 309.

<sup>298</sup> Terrence F. McVerry judged both *Bell v. Cheswick Generating Station*, No. 2:12-CV-929, 2012 WL 4857796 (W.D. Pa. Oct. 12, 2012), and *United States v. EME Homer City Generation L.P.*, 823 F. Supp. 2d 274 (W.D. Pa. 2011).

<sup>299</sup> No. 2:12-CV-929, 2012 WL 4857796 (W.D. Pa. Oct. 12, 2012).

<sup>300</sup> *Id.* at \*1.

<sup>301</sup> *Id.* at \*2.

<sup>302</sup> *Id.* at \*1.

<sup>303</sup> *Id.*

<sup>304</sup> *Id.* at \*7 ("[T]he averments at each count are little more than formulaic recitations of the elements to each cause of action").

<sup>305</sup> *Id.*

<sup>306</sup> *Id.* at \*7-9.

<sup>307</sup> *Native Vill. of Kivalina v. ExxonMobil Corp.*, 696 F.3d 849, 865 (9th Cir. 2012).

reach the conclusion that similar claims under the CWA are not preempted.<sup>308</sup> Given the similarity between the CWA and CAA and their almost verbatim savings clauses, not discussing the CAA's second savings clause was an oversight.

Second, if the court had applied both savings clauses, it would have concluded that *AEP's* statement that “[f]ederal judges lack the scientific, economic, and technological resources an agency can utilize [in] coping with issues of this order” applies only to displacement analysis and not to preemption analysis.<sup>309</sup> This statement simply backed the Supreme Court’s conclusion that federal common law is truly interstitial and was no longer necessary after *Massachusetts v. EPA*. However, as noted previously, the *AEP* court was explicit that the test for preemption is significantly more demanding than the test for displacement.<sup>310</sup> It is somewhat surprising that a court would cite *AEP* in a preemption case without addressing this important fact.

Third, the court cited *TVA* to support its holding, but this case should have been distinguished. *TVA*, as noted previously, involved an interstate public nuisance claim brought by a state government.<sup>311</sup> North Carolina, in that case, already had an available remedy under section 126 of the Act, which was available for interstate, intergovernmental disputes.<sup>312</sup> *Cheswick*, on the other hand, involved local plaintiffs suing an intrastate defendant under private nuisance and trespass. The plaintiffs in *Cheswick* had no other remedy available under the Act. The *Cheswick* court inexplicably found that *TVA* involved “a very similar state law *public nuisance claim*.”<sup>313</sup> The *Cheswick* court then cited *TVA* for the proposition that the existence of “meticulously drafted” CAA rules “caution[s] . . . against according states a wholly different role.”<sup>314</sup> But the *TVA* court was referring to an affected state directly applying its own public nuisance law to a source state to subvert the SIP and permitting process and was not referring to a classic tort case where air pollution was causing alleged harm to neighbors of a power plant.<sup>315</sup>

Ultimately, *Cheswick's* conclusion rests on the faulty assumption that district courts are preempted from setting emission standards.<sup>316</sup> This statement is incorrect. State common law has a defined role to play under

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<sup>308</sup> See *Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 485 (1987) (discussing both clauses together as one clause).

<sup>309</sup> *Bell v. Cheswick*, No. 2:12-CV-929, 2012 WL 4857796, at \*8 (W.D. PA Oct. 12, 2012) (quoting *Am. Elec. Power Co., Inc. v. Connecticut*, 131 S. Ct. 2527, 2539–40 (2011)).

<sup>310</sup> *Id.* (“Legislative displacement of federal common law does not require the same sort of evidence of a clear and manifest congressional purpose demanded for preemption of state law.”) (internal quotes and brackets omitted).

<sup>311</sup> *North Carolina ex rel. Cooper v. Tenn. Valley Auth.*, 615 F.3d 291, 296 (4th Cir. 2010).

<sup>312</sup> *Id.* at 310.

<sup>313</sup> *Cheswick*, 2012 WL 4857796, at \*8 (emphasis added).

<sup>314</sup> *Id.*

<sup>315</sup> *North Carolina ex rel. Cooper*, 615 F.3d at 303.

<sup>316</sup> *Id.* at \*9.

the CAA.<sup>317</sup> But just as importantly, this conclusion forecloses aggrieved plaintiffs from obtaining any potential redress, a result inconsistent with Congressional intent.<sup>318</sup> Given that “the purpose of Congress is the ultimate touchstone in every pre-emption case,” this is necessary to take into account.<sup>319</sup> Interestingly, *Cheswick* also cited the next case, which highlights this author’s concern that misapplication of preemption doctrine in the context of GHGs can create dangerous precedent and persuasive authority for traditional air pollution tort cases.<sup>320</sup>

*Comer v. Murphy Oil USA, Inc.* was a second case decided in 2012.<sup>321</sup> Although there are several other cases that bear the same name,<sup>322</sup> this case was separately filed and stands on its own. Plaintiffs in this case alleged that damage caused by Hurricane Katrina, including increased insurance premiums and reduced home values, were the result of GHG releases from numerous named defendants.<sup>323</sup> The plaintiffs sued under theories of negligence, public and private nuisance, and trespass under state law.<sup>324</sup> Although the court held that the case was barred by doctrines of issue and claim preclusion, “out of an abundance of caution” it reached numerous other issues, including preemption.<sup>325</sup> The court cited *AEP* for its “concern that the plaintiffs were calling upon the federal courts to determine what amount of carbon-dioxide emissions is unreasonable . . . [even though] those determinations had been entrusted by Congress to the EPA.”<sup>326</sup> Without any further reasoning, the court concluded that the CAA preempts a judicial determination that emissions are unreasonable.<sup>327</sup> The court, although not explicitly stated, could only have reached this conclusion under the theories of field preemption or obstacle preemption.

The application of these doctrines was incorrect for reasons similar to *Cheswick*. Without more detail on the court’s reasoning, it is impossible to explain precisely why the court reached this incorrect conclusion—but one likely theory is that it simply conflated non-justiciability doctrines, especially the political question doctrine, into its finding of preemption. This

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<sup>317</sup> See *supra* notes 106–107 (providing CAA’s savings clause and providing legislative history helpful to its interpretation).

<sup>318</sup> See *supra* note 106 (discussing legislative history of the CAA’s sibling act, the Clean Water Act).

<sup>319</sup> *Wyeth v. Levine*, 555 U.S. 555, 565, (2009).

<sup>320</sup> *Bell v. Cheswick*, No. 2:12-CV-929, 2012 WL 4857796, at \*8 (W.D. PA Oct. 12, 2012).

<sup>321</sup> 839 F. Supp. 2d 849 (S.D. Miss. 2012) (*Comer II*).

<sup>322</sup> Only one other district court case was filed. However, due to procedural history that resulted in an en banc Fifth Circuit opinion being dismissed for lack of quorum, a series of cases stemmed from this one initial case. See *Comer v. Murphy Oil USA*, 607 F.3d 1049, 1053 (5th Cir. 2010) (en banc, but lacking quorum).

<sup>323</sup> *Comer II*, 839 F. Supp. 2d at 852.

<sup>324</sup> *Id.* at 854.

<sup>325</sup> *Id.* at 857.

<sup>326</sup> *Id.* at 865.

<sup>327</sup> Although the court used the word “displaced,” its holding clearly spoke only to preemption. *Id.*

conclusion seems likely given the court's assumption that EPA was best suited to determine reasonableness of emissions.<sup>328</sup>

The third case recently decided was *United States v. EME Homer City Generation L.P.*<sup>329</sup> This case involved a coal-fired power plant in Pennsylvania that was grandfathered under the CAA and later made modifications that should have triggered the Act's requirements.<sup>330</sup> However, because Pennsylvania issued the facility a permit without realizing that these modifications had occurred, the facility was issued an operating permit that did not incorporate these requirements.<sup>331</sup> Pennsylvania and New Jersey sought relief through public nuisance, among other claims.<sup>332</sup> The court flatly held that the public nuisance claim was preempted by the CAA and cited *TVA* to support this holding.<sup>333</sup> Although *Homer* is more similar to *TVA* than *Cheswick* due to *Homer's* public nuisance component, *TVA* still should have been distinguished. Here, Pennsylvania was applying its own public nuisance law and application of this law by Pennsylvania was clearly intrastate. The *Homer* court applied the same reasoning as from *Cheswick* and quotes the same material from *TVA*.<sup>334</sup> However, as already noted, the *TVA* court was especially concerned with application of affected state public nuisance law in an interstate capacity to source states. And that case was further decided on the home states' interpretations of their own public nuisance laws.<sup>335</sup> Here, the relevant portion of *TVA*—that applying source state public nuisance law—was left out of the opinion, while the portion inapplicable to the preemption analysis due to fundamentally different facts was directly quoted.<sup>336</sup> In short, dismissal of Pennsylvania's state common law claim in this case on the premise that "Pennsylvania has a statutorily defined role through the SIP and permitting process" was incorrect.<sup>337</sup>

## V. CONCLUSION

I leave the reader with a couple concluding thoughts. First, there is little question that preemption doctrine is inherently complicated and difficult to apply, especially given the Supreme Court's heavily splintered opinions in this area. However, at least in the context of the CAA, this need not be the

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<sup>328</sup> *Id.* (citing AEP's conclusion that EPA is best suited to address climate change favorably).

<sup>329</sup> 823 F. Supp. 2d 274 (W.D. Pa. 2011).

<sup>330</sup> *Id.* at 276–77.

<sup>331</sup> *Id.* at 277.

<sup>332</sup> *Id.* at 278.

<sup>333</sup> *Id.* at 297 (finding that the CAA represents a "comprehensive statutory . . . scheme[]," that "Pennsylvania has a statutorily defined role through the SIP and permitting process," and thus holding that "common law public nuisance claims are preempted").

<sup>334</sup> *Cheswick*, No. 2:12-CV-929, 2012 WL 4857796, at \*8 (W.D. PA Oct. 12, 2012); *Homer*, 823 F. Supp. 2d at 296–97.

<sup>335</sup> *TVA*, 615 F.3d 291, 310 (4th Cir. 2010) (holding that *TVA's* plants could not be public nuisances under Alabama and Tennessee law).

<sup>336</sup> *See id.* at 306–08; *see also Homer*, 823 F. Supp. 2d at 296–97 (citing *TVA*, 615 F.3d at 303).

<sup>337</sup> *Homer*, 823 F. Supp. 2d at 297.

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case. As far as emission limitations are concerned, the Act is clear: state legislatures, agencies, and judges applying common law are not preempted from taking action that will result in emission limits that are stricter than federal requirements.

Second, climate change tort cases do not appear to be slowing down anytime soon. Using the Native Village of Kivalina as an example, plaintiffs involved in these cases may have legitimate and even tragic cases. Preemption should not prevent these cases from moving forward. Invoking preemption in these cases may deprive plaintiffs of a remedy needed to right a wrong, and it may further erode centuries-old precedent allowing common law air pollution claims involving traditional air pollutants to move forward—claims expressly preserved by CAA. Two years ago, Professor Kysar predicted in this journal that climate change could have an impact on tort law.<sup>338</sup> He suggested that these changes would ultimately be welcome. The recent decisions cited here, however, suggest that an additional point must be made. Common law climate change claims may have an impact on preemption as well. Instead of ultimately advancing tort law, though, these impacts have the potential to damage the structure of the CAA and, in the process, prevent harm incurred by individuals from ever being addressed.

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<sup>338</sup> Douglas A. Kysar, *What Climate Change Can Do About Tort Law*, 41 ENVTL. L. 1 (2011).