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## The Gap-Filling Role of Nuisance in Interstate Air Pollution

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*Air pollutants from coal-fired power plants frequently cross state borders, which can impact a receiving state's ability to meet and maintain the National Ambient Air Quality Standards (NAAQS) mandated by the Clean Air Act (CAA). North Carolina asserted that such interstate air pollution was responsible for its nonattainment of certain NAAQS. After engaging in a protracted and circuitous petitioning process under the CAA, which failed to compel large electric utilities in thirteen states to reduce emissions of certain pollutants, North Carolina then looked to the common law of public nuisance for relief. Under public nuisance law, a defendant is liable for unreasonably interfering with a right common to the general public. In North Carolina ex rel. Cooper v. Tennessee Valley Authority (TVA), North Carolina sued the TVA, contending that the air pollution from the agency's eleven coal plants in three surrounding states crossed North Carolina's borders in unreasonable amounts, creating a public nuisance under the nuisance laws of each source state. This Note argues that, in overturning the lower court's finding that four of the plants created a public nuisance, the Fourth Circuit missed an important opportunity to use source state nuisance law as a gap-filler and provide relief where the CAA provided none. It explains how, in reaching its decision, the Fourth Circuit muddled the application of nuisance law, in contravention of the goals of public nuisance and the CAA, and misconstrued and misapplied Supreme Court precedent. This Note advances the popular contention that the common law of nuisance rightfully co-exists with, complements, and fills the gaps in, statutory regimes. Specifically, it defines the proper edges of the gap public nuisance actions may fill in the interstate air pollution context and advises the courts to adopt such a conception.*

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Introduction.....	481
I. Background .....	483
A. Private and Public Nuisance: Two Distinct Causes of Action .....	483
B. Background on the Focal Case: North Carolina v. TVA .....	484
C. Old King Coal's Merry Old Roll .....	486
1. Air Pollution .....	487
2. Health and Environmental Impacts.....	489
D. The Clean Air Act: A Cooperative Federalism Model .....	490
E. Overview and Critique of Interstate Air Pollution Controls under the CAA .....	493
1. CAA Statutory Provisions .....	495
2. EPA Rulemaking under the CAA.....	496
i. NO <sub>x</sub> SIP Call and Section 126 Rule .....	496
ii. Clean Air Interstate Rule .....	498
3. Critique of Interstate Air Pollution Approaches under the CAA.....	500
II. Public Nuisance: Filling in the Regulatory Gaps to Address Interstate Air pollution .....	501
A. Types of Common Law Nuisance Actions .....	501
1. Federal Common Law Nuisance Actions .....	502
2. Affected State versus Source State Common Law Nuisance Actions .....	503
B. A Tale of Two Courts in North Carolina v. TVA .....	504
1. The District Court Properly Applied Source State Nuisance Law .....	504
2. The Fourth Circuit Muddled the Application of Nuisance Law in Contravention of the Goals of Public Nuisance and the CAA .....	506
i. The District Court Did Not Apply North Carolina Law Extraterritorially .....	506
ii. The Source State Nuisance Laws Do Not Require a Showing of Negligence.....	507
iii. The CAA Does Not Preempt Source State Nuisance Law .....	510
iv. Summary of International Paper Co. v. Ouellette.....	512
v. Critique of the Fourth Circuit's Opinion .....	512
vi. There Are No Adequate Alternative Remedies .....	516
III. Source State Nuisance Law: Neither Replacement Nor Panacea .....	519
A. Common Law versus Public Law .....	519
1. Democratic Values .....	519
2. Effectiveness.....	521
3. Institutional Competency and Remedy Availability .....	522

4. Implication: Common Law and Public Law Offer Complementary, Overlapping Remedies .....	523
IV. Defining the Edges of the Gap: The Proper Boundaries of Public Nuisance .....	523
A. Guiding Principles .....	524
1. States May Sue in their <i>Parrens Patriae</i> Capacity .....	524
2. Strict Application of Nuisance Law to Facts .....	525
3. No Consideration of Fault.....	526
4. Narrowly Tailored Injunctive Relief.....	526
Conclusion .....	527

“Nuisance,’ unhappily, has been a sort of legal garbage can . . . used to designate anything from an alarming advertisement to a cockroach baked in a pie.”<sup>1</sup>

#### INTRODUCTION

Nuisance law has a bad reputation. It has colorfully been characterized as a “legal garbage can”; a “legal grab-bag [used] as a substitute for analysis whenever [courts wish] to redress an injury”;<sup>2</sup> a “chameleon word, with meaning technical or general, depending on who is using it when and where”;<sup>3</sup> and perhaps the most “impenetrable jungle in the entire law.”<sup>4</sup> Decades ago, William L. Prosser, the acclaimed “Master of Torts,”<sup>5</sup> counseled that in order to move beyond the “deplorable tendency [of] us[ing] the word as a substitute for any thought about a problem” and give “nuisance” real meaning, “it is necessary to disregard much of [its history] as mere aberration.”<sup>6</sup>

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1. William L. Prosser, *Nuisance Without Fault*, 20 TEX. L. REV. 399, 410 (1942).  
2. Jeff L. Lewin, *Boomer and the American Law of Nuisance: Past, Present, and Future*, 54 ALB. L. REV. 189, 192 (1989).  
3. Robert Abrams & Val Washington, *The Misunderstood Law of Public Nuisance: A Comparison with Private Nuisance Twenty Years after Boomer*, 54 ALB. L. REV. 359, 361 (1989).  
4. W. PAGE KEETON ET AL., PROSSER AND KEETON ON THE LAW OF TORTS § 86, at 616 (5th ed. 1984) (“There is perhaps no more impenetrable jungle in the entire law than that which surrounds the word ‘nuisance.’ It has meant all things to all people . . .”).  
5. Denise E. Antolini, *Modernizing Public Nuisance: Solving the Paradox of the Special Injury Rule*, 28 ECOLOGY L.Q. 755, 815 (2001).  
6. Prosser, *supra* note 1, at 410; *see also* Victor E. Schwartz & Phil Goldberg, *The Law of Public Nuisance: Maintaining Rational Boundaries on a Rational Tort*, 45 WASHBURN L.J. 541, 541 (2005) (“The tort of public nuisance has developed over nine centuries of English and American common law.”).

Public nuisance<sup>7</sup> claims brought under the nuisance law of the state in which the pollution source is located provide an important means for nuisance to shed some of its legal “garbage can” status and, more importantly, curb certain interstate air pollution problems that have been inadequately addressed by the federal environmental law regime. Although the federal government has tried to address interstate air pollution through the Clean Air Act (CAA), the existing statutory and regulatory provisions have proven incomplete. Through the lens of a recent cross-border state common law nuisance action, *North Carolina ex rel. Cooper v. Tennessee Valley Authority (TVA I–IV)*,<sup>8</sup> this Note argues that the Fourth Circuit missed an important opportunity to use source state<sup>9</sup> nuisance law as a gap-filler and provide relief where the CAA provided none. This Note is not intended to be a comprehensive examination of nuisance law or federal environmental law. Rather, by examining the relationship between source state nuisance law and the CAA in the context of one case study, it presents a role for source state nuisance law in addressing certain interstate air pollution problems.

Part I defines public nuisance as compared to private nuisance actions. It also provides background on the focal case, coal plant contributions to our nation’s air pollution problems, and the ways in which the CAA has tried to address interstate air pollution. Part II outlines the scope of the CAA’s preemption of nuisance claims and describes how the CAA does not affect the nuisance laws of source states. It then discusses how the district court in *TVA III* properly applied source state nuisance laws to find that the Tennessee Valley Authority’s (TVA) emissions created a public nuisance, and how the Fourth Circuit in *TVA IV* erred, as a matter of law, in striking down the lower court’s abatement order. Part III compares state common law and federal statutes in terms of their advantages and disadvantages to demonstrate, as a matter of policy, why both are needed to best address interstate air pollution—each fills the gaps the other leaves behind. Part IV then defines the proper edges of the gap public nuisance actions may fill in the interstate air pollution context and advises the courts to adopt such a conception.

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7. A public nuisance is “an unreasonable interference with a right common to the general public.” RESTATEMENT (SECOND) OF TORTS § 821B(1) (1979); *see also* *North Carolina ex rel. Cooper v. Tenn. Valley Auth. (TVA II)*, 549 F. Supp. 2d 725, 735 (W.D.N.C. 2008).

8. *North Carolina ex rel. Cooper v. Tenn. Valley Auth. (TVA III)*, 593 F. Supp. 2d 812 (W.D.N.C. 2009), *rev’d and rem’d*, 615 F.3d 291 (4th Cir. 2010). North Carolina filed a petition for rehearing on September 8, 2010, which the Fourth Circuit denied on September 21, 2010. Petition for Writ of Certiorari at 1, *North Carolina ex rel. Cooper v. Tenn. Valley Auth.*, No. 10-997 (U.S. Feb. 2, 2011). North Carolina filed a Petition for Writ of Certiorari on February 2, 2011. *Id.*

9. The source state is the state in which the pollution source is located.

## I. BACKGROUND

A. *Private and Public Nuisance: Two Distinct Causes of Action*

Nuisance law is “an important intersection between property and torts”<sup>10</sup> and includes two separate common law causes of action—private nuisance and public nuisance.<sup>11</sup> Even though the two are distinct causes of action, courts and scholars have frequently mingled their rules, which is a major source of the confusion surrounding nuisance law.<sup>12</sup> Private and public nuisance have little in common besides their focus on unreasonable interference with a protected interest and, of course, their names.<sup>13</sup>

Private nuisance is an ordinary tort arising from the unreasonable “invasion of another’s interest in the private use and enjoyment of land,” without involving trespass.<sup>14</sup> Public nuisance, however, arises from “an unreasonable interference” with a public right,<sup>15</sup> and “does not necessarily involve interference with use and enjoyment of land.”<sup>16</sup> The origins of public nuisance lie in criminal law; a public nuisance was an offense against the Crown prosecuted as a crime.<sup>17</sup> But the *Restatement (Second) of Torts* ultimately dropped the criminality concept from its definition,<sup>18</sup> and “[p]ublic

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10. Gideon Parchomovsky & Peter Siegelman, *Selling Mayberry: Communities and Individuals in Law and Economics*, 92 CAL. L. REV. 75, 99 (2004); see also JESSE DUKEMINIER & JAMES E. KRIER, PROPERTY 639 (3d ed. 1993) (“As a subject of study, the law of nuisance is part torts and part property—torts because nuisance liability arises from negligent or otherwise wrongful activity, and property because the liability is for interference with the use and enjoyment of land.”).

11. See Abrams, *supra* note 3, at 359.

12. See *id.* at 367–68; see also Louise A. Halper, *Untangling the Nuisance Knot*, 26 B.C. ENVTL. AFF. L. REV. 89, 130 (1998) (providing a detailed survey of the forces that have contributed to making the law of nuisance “a mess, a muddle, a knot”).

13. See Prosser, *supra* note 1, at 411 (citation omitted) (“The two have nothing in common, except that each causes annoyance or inconvenience to some one, and it is in the highest degree unfortunate that they are called by the same name.”).

14. RESTATEMENT (SECOND) OF TORTS § 821D (1979) (“A private nuisance is a nontrespassory invasion of another’s interest in the private use and enjoyment of land.”). “In private nuisance an intentional interference with the plaintiff’s use or enjoyment is not of itself a tort, and *unreasonableness* of the interference is necessary for liability.” *Id.* § 821D cmt. d (1979).

15. *Id.* § 821B(1) (1979). “It is not, however, necessary that the entire community be affected by a public nuisance, so long as the nuisance will interfere with those who come in contact with it in the exercise of a public right or it otherwise affects the interests of the community at large.” *Id.* § 821B(1) cmt. g (1979).

16. *Id.* § 821B(1) cmt. h (1979).

17. See Schwartz, *supra* note 6, at 543 (“Public nuisance theory has its foundation in twelfth-century English common law as a tort-based crime for infringing on the rights of the Crown.”); Donald G. Gifford, *Public Nuisance as a Mass Products Liability Tort*, 71 U. CIN. L. REV. 741, 745–46 (2003) (“Historically, public nuisance most often was not regarded as a tort, but instead as a basis for public officials to pursue criminal prosecutions or seek injunctive relief to abate harmful conduct.”).

18. See Abrams, *supra* note 3, at 366. “[T]o the extent that public nuisance is still a crime, it is codified by statute and does not exist in the common law.” *Id.* at 365 (citing RESTATEMENT (SECOND) OF TORTS § 821B cmts. c, d (1979)).

nuisance eventually became a source of common law civil liability.”<sup>19</sup> Modern day public nuisance actions are brought as civil actions pursuant to federal or state common law or to a state statute that has codified state nuisance principles.<sup>20</sup> Public nuisance actions are still brought by a government official representing the public at large,<sup>21</sup> with one exception: under the special injury rule, which is a “standing test,” a private citizen may bring an action against a public nuisance if she shows that she “suffered harm of a kind different from” that experienced by the larger community.<sup>22</sup> Finally, it is important to keep in mind that, whether public or private, nuisance is recognized as “a field of tort liability, a kind of damage done, rather than any particular type of conduct.”<sup>23</sup>

*B. Background on the Focal Case: North Carolina v. TVA*

In 2006, North Carolina sued the TVA,<sup>24</sup> contending that the air pollution from TVA’s eleven coal-fired power plants in Alabama, Tennessee, and Kentucky crossed North Carolina’s borders in unreasonable amounts, creating a common law public nuisance in violation of these states’ respective nuisance laws.<sup>25</sup> Common law nuisance actions to abate interstate pollution are brought under the state law where the pollution source is located rather than the law of the state that is affected by the pollution.<sup>26</sup> Alleging that the emissions harm

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19. *Connecticut v. Am. Elec. Power Co.*, 582 F.3d 309, 350 (2d Cir. 2009), *cert. granted*, 178 L. Ed. 2d 530 (2010) (No. 10-174).

20. *See Abrams*, *supra* note 3, at 365.

21. *See Schwartz*, *supra* note 6, at 541 (noting that the “essence” of public nuisance “is to allow governments to use the tort system to stop quasi-criminal conduct that, while not illegal, is unreasonable given the circumstances and could cause injury to someone exercising a common, societal right.”).

22. *See* RESTATEMENT (SECOND) OF TORTS § 821C; *see also Antolini*, *supra* note 5, at 765 (“Because public nuisance is a uniquely powerful tort, embodying a private attorney general concept, courts adhere to the special injury rule as a way to limit access to this unusual remedy.”). This hybrid action has been called a “public nuisance tort” to distinguish it from an action brought by a sovereign. *See Abrams*, *supra* note 3, at 363; *see also Antolini*, *supra* note 5, at 776 (explaining why the public nuisance action brought by a private plaintiff is “a bizarre hybrid tort”).

23. *Prosser*, *supra* note 1, at 416.

24. TVA is a U.S. government-owned utility that provides electricity to nine million people in parts of seven southeastern states. *See About TVA*, TENN. VALLEY AUTH., <http://www.tva.com/abouttva/index.htm> (last visited Apr. 23, 2011).

25. *See TVA II*, 549 F. Supp. 2d 725, 727 (W.D.N.C. 2008); *see also* Brief of Appellee at 2, *North Carolina ex rel. Cooper v. Tenn. Valley Auth. (TVA IV)*, 615 F.3d 291 (4th Cir. 2010) (No. 09-1623) (“TVA’s emissions travel to North Carolina where they harm health, acidify soil and water in sensitive ecosystems, degrade the beauty of scenic mountain areas, and the state’s economy.”). Alabama has codified its nuisance law and Kentucky and Tennessee follow the *Restatement (Second) of Torts*. *See infra* Part II.A.2.

26. *See Int’l Paper Co. v. Ouellette*, 479 U.S. 481, 487 (1987) (holding that the Clean Water Act’s (CWA) saving clause preserves the right to bring a public nuisance action to abate interstate water pollution so long as the nuisance law of the source state is applied). While the Court has not specifically addressed the scope of the CAA’s saving clause, the logic of *Ouellette* applies to the CAA’s virtually identical saving clause. No court has ruled otherwise. Rather, within the appellate courts, the Sixth Circuit found that the CAA did not preempt a state nuisance action brought under the law of the source

North Carolina's public health and welfare<sup>27</sup> and damage its natural resources and economy,<sup>28</sup> North Carolina sought an injunction requiring TVA to upgrade or install air pollution control equipment.<sup>29</sup>

After denying TVA's motion to dismiss<sup>30</sup> and ruling on cross-motions for summary judgment,<sup>31</sup> the U.S. District Court of the Western District of North Carolina analyzed the state public nuisance laws of Alabama, Tennessee, and Kentucky, and concluded that emissions from four TVA plants in Alabama and Tennessee located within 100 miles of North Carolina (the 100-Mile Plants) created a public nuisance in North Carolina and ordered the nuisance abated.<sup>32</sup> The court denied the request pertaining to the seven other plants, finding that there was "insufficient evidence that their emissions are having an *unreasonable* health, safety, or welfare impact."<sup>33</sup> The district court ordered TVA to upgrade or install pollution control systems at the four plants<sup>34</sup> at an estimated cost of one billion dollars.<sup>35</sup> The court also imposed sulfur dioxide

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state, *see* Her Majesty the Queen in Right of the Province of Ont. v. City of Detroit, 874 F.2d 332, 343 (6th Cir. 1989), and the Third Circuit found that the CAA's saving clause should be interpreted similarly to the CWA's, *see* Student Pub. Interest Research Group v. Fritzsche, Dodge & Olcott, Inc., 759 F.2d 1131, 1136 n.4 (3d Cir. 1985). Moreover, the Second Circuit allowed Connecticut, seven other states, New York City, and three land trusts to proceed with a public nuisance suit brought under federal common law against TVA and five other utilities; the suit alleged the power companies' greenhouse gas emissions constituted a public nuisance under federal common law. *See Connecticut v. Am. Elec. Power Co.*, 582 F.3d 309 (2d Cir. 2009), *cert. granted*, 178 L. Ed. 2d 530 (2010) (No. 10-174).

27. Adverse health effects include premature death, cardiovascular disease, asthma, and decreased lung function, among others. *See* Complaint at 4-7, *TVA III*, 593 F. Supp. 2d 812 (W.D.N.C. 2009) (No. 06-20), *rev'd and rem'd*, 615 F.3d 291 (4th Cir. 2010).

28. Air pollution from TVA's facilities robs the soil of nutrients for plant life and results in an increase in lost time from work and school, a rise in health care expenses, and reduced visibility in tourist areas. *See TVA III*, 593 F. Supp. 2d at 823.

29. *See* Complaint at 1, *TVA III*, 593 F. Supp. 2d 812 (W.D.N.C. 2009) (No. 06-20), *rev'd and rem'd*, 615 F.3d 291 (4th Cir. 2010) (seeking injunctive relief "to abate the harm caused by the TVA's emissions"); *see also* Petition for Writ of Certiorari at 6, *North Carolina ex rel. Cooper v. Tenn. Valley Auth.*, No. 10-997 (U.S. Feb. 2, 2011) (noting that "North Carolina sought no monetary damages from TVA" and "requested only that TVA be required to install and operate readily available pollution control equipment to abate the ongoing nuisance").

30. *North Carolina ex rel. Cooper v. Tenn. Valley Auth. (TVA I)*, 439 F. Supp. 2d 486 (W.D.N.C. 2006) (holding that the Supremacy Clause does not prohibit North Carolina from suing TVA in nuisance to seek reductions in air pollutant emissions from TVA coal plants), *aff'd*, 515 F.3d 344 (4th Cir. 2008).

31. *See TVA II*, 549 F. Supp. 2d 725, 727 (W.D.N.C. 2008).

32. *See TVA III*, 593 F. Supp. 2d at 830-31. Specifically, the 100-Mile Plants include the Widows Creek plant in northeastern Alabama as well three Tennessee plants: Bull Run near Oak Ridge; John Sevier near Rogersville; and Kingston in eastern Tennessee's Roane County. *See id.* The Kingston plant was the site of a disastrous 2008 coal ash spill. *See* Shaila Dewan, *Tennessee Ash Flood Larger than Initial Estimate*, N.Y. TIMES, Dec. 27, 2008, at A10.

33. *TVA III*, 593 F. Supp. 2d at 831 (emphasis added).

34. *See id.*

35. *See* Gabriel Nelson, *TVA's Air Pollution Isn't an Interstate Nuisance, 4th Circuit Rules*, N.Y. TIMES, July 28, 2010, <http://www.nytimes.com/gwire/2010/07/28/28greenwire-tvas-air-pollution-isnt-an-interstate-nuisance-69778.html>.

(SO<sub>2</sub>) and nitrogen oxide (NO<sub>x</sub>) emissions caps on all generating units at each of the four plants.<sup>36</sup>

TVA appealed the decision<sup>37</sup> and, on July 26, 2010, a unanimous, three-judge panel for the Fourth Circuit overturned the district court's order, holding that the interstate air pollution emissions originating from the four 100-Mile Plants in Alabama and Tennessee did not, under the nuisance laws of these source states, constitute a public nuisance downwind in North Carolina.<sup>38</sup>

### C. *Old King Coal's Merry Old Roll*

Air pollution respects no political boundaries.<sup>39</sup> Coal-fired power plants are the United States' main electric power source, producing nearly half of the nation's electricity.<sup>40</sup> Coal plants are also the country's single leading source of air pollution.<sup>41</sup> Emissions "can travel hundreds of miles and contribute to smog, haze, and air pollution in downwind states."<sup>42</sup> This Note focuses on the regional

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36. See *TVA III*, 593 F. Supp. 2d at 832–33.

37. Amici lined up on both sides of the appeal, filing nine amicus briefs. Industry groups and seven states (Alabama, Kentucky, Louisiana, North Dakota, South Dakota, Utah, and Wyoming) sided with TVA. Public interest groups and sixteen states (California, Connecticut, Delaware, Illinois, Iowa, Maine, Maryland, Massachusetts, Mississippi, New Hampshire, New Jersey, New Mexico, New York, Oklahoma, Rhode Island, and Vermont) sided with North Carolina. The pro-North Carolina states were arguably interested in bringing public nuisance suits of their own to improve their states' air quality by targeting out-of-state pollution sources. Eight of these states are also involved in a suit against TVA and five other electric utilities alleging public nuisance claims caused by the power companies' greenhouse gas emissions under federal common law. See *Connecticut v. Am. Elec. Power Co.*, 582 F.3d 309 (2d Cir. 2009), *cert. granted*, 178 L. Ed. 2d 530 (2010) (No. 10-174).

38. See *TVA IV*, 615 F.3d 291, 296 (4th Cir. 2010).

39. See Kay M. Crider, *Interstate Air Pollution: Over a Decade of Ineffective Regulation*, 64 *CHL-KENT L. REV.* 619, 619 (1988) (quoting EMILY DICKINSON, *THE COMPLETE POEMS OF EMILY DICKINSON* 483 (T. Johnson ed., 1955) ("Air has no Residence, no Neighbor, / No Ear, no Door, No Apprehension of Another / Oh, Happy Air!")).

40. U.S. ENERGY INFO. ADMIN., *ANNUAL ENERGY REVIEW 2009*, at 228 fig.8.2a (Aug. 2010), available at <http://www.eia.doe.gov/emeu/aer/pdf/aer.pdf> (showing that coal accounts for 45 percent of total net electricity generation across all sectors).

41. *Coal vs. Wind*, UNION OF CONCERNED SCIENTISTS, [http://www.ucsusa.org/clean\\_energy/coalvswind/c01.html](http://www.ucsusa.org/clean_energy/coalvswind/c01.html) (last visited Feb. 11, 2011); see also Nicholas H. Rabinowitch, Note, *Bringing New Source Review Back: The Supreme Court's Surprise (and Disguised) Attack on Grandfathering Old Coal Plants in Environmental Defense v. Duke Energy Corp.*, 31 *ENVIRONS ENVTL. L. & POL'Y J.* 251, 260 (2008) ("In 1999, coal-fired power plants were responsible for sixty percent of sulphur dioxide emissions, twenty-five percent of all nitrous oxide emissions, thirty-two percent of all carbon dioxide emissions, and twenty-one percent of all airborne mercury in the nation.") The Sierra Club maintains a website tracking all proposed new coal-fired power plants in the United States. See *Stopping the Coalrush*, SIERRA CLUB, <http://www.sierraclub.org/environmentallaw/coal/plantlist.aspx> (last visited Mar. 13, 2011).

42. *The Plain English Guide to the Clean Air Act: Interstate and International Air Pollution*, ENVTL. PROT. AGENCY, <http://www.epa.gov/air/peg/interstate.html> (last visited Feb. 7, 2011). Coal plants are also huge emitters of carbon dioxide, a main contributor to climate change. See U.S. ENERGY INFO. ADMIN., *Energy in Brief: What is the Role of Coal in the United States?*, [http://www.eia.doe.gov/energy\\_in\\_brief/role\\_coal\\_us.cfm](http://www.eia.doe.gov/energy_in_brief/role_coal_us.cfm) (last visited Apr. 24, 2011) ("Coal accounted for 37% of the total U.S. emissions of carbon dioxide released into the Earth's atmosphere in 2008.") However, this issue is

air quality impacts of coal plant emissions through the lens of North Carolina's nuisance action against TVA's eleven plants.

### 1. *Air Pollution*

A coal-fired power plant comprises a firebox, boiler, turbine, generators, and transformer.<sup>43</sup> Electricity is generated when pulverized coal is blown from the firebox into the boiler where it is burned to heat water and create the steam that spins the plant's generator.<sup>44</sup> To provide a sense of the massive scale of coal plant operations, a large plant "going full blast burns a thousand tons of coal an hour, or 30,000 pounds of coal a minute . . . generat[ing] a billion watts of electricity—in round numbers, enough for a million households."<sup>45</sup>

Coal combustion "creates a veritable devil's brew of dangerous and environmentally damaging air pollutants,"<sup>46</sup> which cause "smog, acid rain, global warming, and air toxics."<sup>47</sup> Air pollutants are classified as either primary or secondary: primary pollutants are directly emitted and secondary pollutants form through chemical reactions in the atmosphere.<sup>48</sup> The major primary air pollutants emitted by coal plants include mercury,<sup>49</sup> sulfur dioxide (SO<sub>2</sub>),<sup>50</sup> and

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beyond the scope of this Note. For a discussion of this problem, see, for example, *A Report of Working Group II of the Intergovernmental Panel on Climate Change, Summary for Policymakers*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, [http://www.grida.no/climate/ipcc\\_tar/wg2/005.htm](http://www.grida.no/climate/ipcc_tar/wg2/005.htm) (last visited Feb. 7, 2011), which documents the adverse health and environmental effects of global warming including detrimental impacts in many areas of the United States.

43. See BRIAN HAYES, *INFRASTRUCTURE: A FIELD GUIDE TO THE INDUSTRIAL LANDSCAPE* 186–98 (2005).

44. See *id.*

45. *Id.* at 186.

46. Patrick Parenteau, *Lead, Follow, or Get Out of the Way: The States Tackle Climate Change with Little Help from Washington*, 40 CONN. L. REV. 1453, 1457 (2008).

47. *Environmental Impacts of Coal Power: Air Pollution*, UNION OF CONCERNED SCIENTISTS, [http://www.ucsusa.org/clean\\_energy/coalvswind/c02c.html](http://www.ucsusa.org/clean_energy/coalvswind/c02c.html) (last visited Feb. 7, 2011); see also Jillian S. Hishaw, *Gone with the Wind: Coal, Fire & Brimstone—A Legal Analysis of the New Reality Facing the Coal Industry*, 5 ENVTL. & ENERGY L. & POL'Y J. 95, 97 (2010) ("At a more local and regional level, chemical elements such as sulfur, mercury, and chromium are deadly by-products of coal plants.").

48. See Michelle S. Bergin et al., *Regional Air Quality: Local and Interstate Impacts of NO<sub>x</sub> and SO<sub>2</sub> Emissions on Ozone and Fine Particulate Matter in the Eastern United States*, 41 ENVTL. SCI. & TECH. 4677, 4677 (2007).

49. Coal-fired power plants constitute the nation's largest source of mercury, annually emitting around 96,000 pounds. JEFF GOODELL, *BIG COAL: THE DIRTY SECRET BEHIND AMERICA'S ENERGY FUTURE* 134 (2007). Mercury is a potent neurotoxin that bioaccumulates through the food chain and has been linked to elevated blood levels in millions of women of childbearing age and neurological harm in children. *Id.* at 134–35.

50. Coal plants are the largest source of sulfur dioxide pollution. See ALICE MCKEOWN, *THE DIRTY TRUTH ABOUT COAL: WHY YESTERDAY'S TECHNOLOGY SHOULD NOT BE PART OF TOMORROW'S ENERGY FUTURE* 10 (2007) (citing ENVTL. PROT. AGENCY, NATIONAL AIR QUALITY AND EMISSIONS TRENDS REPORT app. A. (2003)); see also Timothy Talkington, *Interstate Air Pollution Abatement and the Clean Air Act Amendments of 1990: Balancing Interests*, 62 U. COLO. L. REV. 957, 958 (1991) ("Most sulfur dioxide emissions come from fossil fuel power plants and metal smelters.").

nitrogen oxide (NO<sub>x</sub>).<sup>51</sup> SO<sub>2</sub> and NO<sub>x</sub> undergo chemical changes in the atmosphere to create atmospheric sulfates<sup>52</sup> and nitrates,<sup>53</sup> which form a secondary pollutant called particulate matter (PM).<sup>54</sup> And when NO<sub>x</sub> emissions react with sunlight, they create a secondary pollutant called ground-level ozone or smog.<sup>55</sup>

Despite the existence of pollution control technologies,<sup>56</sup> concentrations of PM and ozone “are often above regulated levels and can be dependent on emissions from upwind states.”<sup>57</sup> While primary pollutants “can be managed directly” through emission reductions (assuming emissions can be identified and mitigated), secondary pollutants are more difficult to control “because their relationships to emission sources may not be readily apparent and response to emission reductions may not be proportional.”<sup>58</sup> A pollutant’s impact on regional air quality depends on several factors including “its rate and method of

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51. Coal plants are the second largest source of NO<sub>x</sub> in the nation. See McKeown, *supra* note 50, at 10 (citing ENVTL. PROT. AGENCY, NO<sub>x</sub>: HOW NITROGEN OXIDES AFFECT THE WAY WE LIVE AND BREATHE (1998)); see also HOLLY DOREMUS ET AL., ENVIRONMENTAL POLICY LAW: PROBLEMS, CASES AND READINGS 616 (5th ed. 2008) (“Nitrogen oxides (NO<sub>x</sub>), which include NO, NO<sub>2</sub> and other oxides of nitrogen, play a major role in the formation of ozone, particulate matter, and acid rain.”).

52. In the eastern United States, fine particulate matter (PM<sub>2.5</sub>) is chiefly comprised of sulfate, the majority of which is formed from coal plant SO<sub>2</sub> emissions. See *TVA III*, 593 F. Supp. 2d 812, 820 (W.D.N.C. 2009).

53. See *id.* at 819–20.

54. See *id.* at 820; see also Kati Kiefer, *A Missing Market: The Future of Interstate Emissions Trading Programs after North Carolina v. EPA*, 54 ST. LOUIS U. L.J. 635, 640 (2010) (defining particulate matter as “a chemically and physically diverse mixture of discrete particles and droplets, existing in a range of particle sizes”); *Particulate Matter: Basic Information*, ENVTL. PROT. AGENCY, <http://www.epa.gov/air/particlepollution/basic.html> (last visited Feb. 7, 2011) (defining PM<sub>2.5</sub> alternatively as “fine particles”); DOREMUS ET AL., *supra* note 51, at 617 (“Particulate matter (PM) refers to the mixture of solid particles and liquid droplets found in the air. Some particles are large or dark enough to be seen as soot or smoke. Others are so small they can be detected only with an electron microscope.”).

55. See *TVA III*, 593 F. Supp. 2d at 819; Christina C. Caplan, *The Failure of Current Legal and Regulatory Mechanisms to Control Interstate Ozone Transport: The Need for New National Legislation*, 28 ECOLOGY L.Q. 169, 170 (2001); ENVTL. PROT. AGENCY, NO<sub>x</sub>: HOW NITROGEN OXIDES AFFECT THE WAY WE LIVE AND BREATHE 3 (1998).

56. The most effective SO<sub>2</sub> control technology is the scrubber or flue gas desulfurizer, which uses chemical processes to remove SO<sub>2</sub> from the plant’s exhaust or “flue gas”; dry scrubbers can remove more than 90 percent of SO<sub>2</sub>, while wet scrubbers can remove 98 percent or more. *TVA III*, 593 F. Supp. 2d at 821. The two primary NO<sub>x</sub> control technologies include the selective catalytic reduction and selective non-catalytic reduction, which convert NO<sub>x</sub> in the flue gas into nitrogen and water; the former remove about 90 percent of NO<sub>x</sub> and the latter remove between 20 and 40 percent. See *TVA IV*, 615 F.3d 291, 297 (4th Cir. 2010). Both scrubbers and selective catalytic reduction are building-sized chemical plants, which can be larger than the power plants themselves and cost hundreds of millions of dollars to build. *TVA III*, 593 F. Supp. 2d at 821; *TVA IV*, 615 F.3d at 297.

57. Bergin et al., *supra* note 48, at 4677.

58. Michelle S. Bergin et al., *Regional Atmospheric Pollution and Transboundary Air Quality Management*, 30 ANN. REV. ENV’T & RESOURCES 1, 3 (2005).

emission and/or formation, [its] method of transport, and [its] removal and/or destruction processes.”<sup>59</sup>

## 2. *Health and Environmental Impacts*

Air pollution harms human health and ecosystems.<sup>60</sup> In their gaseous forms, SO<sub>2</sub> and NO<sub>x</sub> cause respiratory problems<sup>61</sup> and, after being converted to fine particulate matter and ground-level ozone, they cause premature mortality, asthma, chronic bronchitis, and other cardiopulmonary illnesses.<sup>62</sup> Particulate matter (PM), also known as particle pollution, is “solid or liquid particles suspended in the air which carry poison into the lungs.”<sup>63</sup> PM<sub>2.5</sub>, which is approximately twenty to thirty times smaller than the width of a human hair<sup>64</sup>, annually causes tens of thousands of premature deaths from respiratory disease.<sup>65</sup> Exposure to ground-level ozone, also called smog,<sup>66</sup> has been likened to “getting a sunburn in the lungs,”<sup>67</sup> and results in a variety of health problems,

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59. *Id.*

60. See generally *What Are the Six Common Air Pollutants?* Env'tl. Prot. Agency, <http://www.epa.gov/air/urbanair/> (last visited Apr. 24, 2011) (linking to “Health and Environment” information for each of the six criteria pollutants); see also GOODELL, *supra* note 49, at xxiv (providing the sobering statistic that in the three years it took the author to research and write his book, “the American Lung Association calculate[d], about 72,000 people in the United States died prematurely from the effects of coal-fired power plant pollution—more than from AIDS, murder, or drug overdose”).

61. See *Sulfur Dioxide: Health*, ENVTL. PROT. AGENCY, <http://www.epa.gov/air/sulfurdioxide/health.html> (last visited Feb. 8, 2011); *Nitrogen Dioxide: Health*, ENVTL. PROT. AGENCY, <http://www.epa.gov/air/nitrogenoxides/health.html> (last visited Feb. 8, 2011).

62. See *Sulfur Dioxide: Health*, ENVTL. PROT. AGENCY, <http://www.epa.gov/air/sulfurdioxide/health.html> (last visited Feb. 8, 2011). “Of the six pollutants, particle pollution and ground-level ozone are the most widespread health threats.” *Cleaning Up Commonly Found Air Pollutants*, Env'tl. Prot. Agency, <http://www.epa.gov/air/urbanair/> (last visited Apr. 24, 2011).

63. Frona M. Powell, *The Supreme Court Rejects the New Nondelegation Doctrine: Implications for the Administrative State*, 71 MISS. L.J. 729, 739 (2002); see also *PM Standards Revision—2006: Particulate Matter*, ENVTL. PROT. AGENCY, <http://www.epa.gov/air/particlepollution/naaqsr2006.html> (last visited Feb. 8, 2011). EPA has two categories of particle pollution: (1) PM<sub>10</sub>, “inhalable coarse particles” less than 10 micrometers in diameter but larger than 2.5 micrometers, and (2) PM<sub>2.5</sub>, “fine particles” 2.5 micrometers in diameter or less. See *Particulate Matter*, ENVTL. PROT. AGENCY, <http://www.epa.gov/air/particlepollution/> (last visited Apr. 24, 2011).

64. See *TVA III*, 593 F. Supp. 2d 812, 820 (W.D.N.C. 2009) (“By way of comparison, a human hair has a diameter of 50–70 [micrometers]. Dust, pollen, and mold are typically about 10 [micrometers] in diameter.”); see also *Particulate Matter: Basic Information*, ENVTL. PROT. AGENCY, <http://www.epa.gov/air/particlepollution/basic.html> (last visited Apr. 24, 2011) (“The average human hair is about 70 micrometers in diameter – making it 30 times larger than the largest fine particle.”)

65. See GOODELL, *supra* note 49, at xxiv (explaining that PM “can trigger heart attacks and strokes, worsen asthma, cause irregular heartbeat, and lead to premature death.”); *TVA III*, 593 F. Supp. 2d at 821 n.5 (“NC Exh. 242 is a 2006 expert report commissioned by the EPA for reasons entirely unrelated to this lawsuit. In light of the resulting objectivity, the Court finds the report to be uniquely compelling in the area of premature mortality resulting from PM<sub>2.5</sub> exposure.”).

66. See *Cleaning Up Commonly Found Air Pollutants*, ENVTL. PROT. AGENCY, <http://www.epa.gov/air/urbanair/> (last visited Apr. 24, 2011).

67. McKeown, *supra* note 50, at 10 (citing ENVTL. PROT. AGENCY, *OZONE AND YOUR HEALTH* (1999)).

especially in sensitive populations like children.<sup>68</sup> Coal plant emissions create acid rain that degrades water quality and soils;<sup>69</sup> damages vegetation and commercial crops;<sup>70</sup> and produces haze that obscures scenic views, which harms tourism.<sup>71</sup>

#### D. *The Clean Air Act: A Cooperative Federalism Model*

Enacted in 1970 as the nation's "first major, modern federal pollution control statute,"<sup>72</sup> the CAA<sup>73</sup> provides a cooperative federalism model<sup>74</sup> in which the federal government sets national uniform standards<sup>75</sup> and the states create regulatory schemes to meet this federal floor.<sup>76</sup> The CAA directs the

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68. See ENVTL. PROT. AGENCY, NO<sub>x</sub>: HOW NITROGEN OXIDES AFFECT THE WAY WE LIVE AND BREATHE 3 (1998).

69. See *TVA III*, 593 F. Supp. 2d at 823–24.

70. See *Health and Environment: Ground-level Ozone*, ENVTL. PROT. AGENCY, <http://www.epa.gov/air/ozonepollution/health.html> (last visited Feb. 8, 2011); *TVA III*, 593 F. Supp. 2d at 824 (stating that ozone harms many native North Carolina species by "caus[ing] plant leaves to develop black discoloration caused by damage to cell walls and chloroplasts").

71. See, e.g., *TVA III*, 593 F. Supp. 2d at 823–24 ("PM<sub>2.5</sub>, in particular sulfate, also has significant effects on visibility due to its efficient scattering of light," which creates haze and obscures North Carolina's scenic vistas at "cherished, pristine wilderness areas" and "world-famous attractions."); see also Brief of Appellee at 44, *TVA IV*, 615 F.3d 291 (4th Cir. 2010) (No. 09-1623) (citing *TVA III*, 593 F. Supp. 2d 812, 823 (W.D.N.C. 2009)) ("PM<sub>2.5</sub> haze and other air pollution impacting visibility at [state-owned recreation and scenic area] vistas creates a difficult problem from both a social and economic perspective," and diminishes "an extremely valuable resource to this state.").

72. Robert L. Glicksman, *From Cooperative to Inoperative Federalism: The Perverse Mutation of Environmental Law and Policy*, 41 WAKE FOREST L. REV. 719, 720 (2006).

73. Pub. L. No. 91-604, 84 Stat. 1676 (1970) (codified as amended at 42 U.S.C. §§ 7401–7671q (2006)).

74. See generally Glicksman, *supra* note 72, at 721 (noting that cooperative federalism in environmental law "reflect[s] the understanding that, despite the creation of an extensive body of federal environmental restrictions, the states would continue to play an important role in the adoption and implementation of environmental policy, and that, in particular, they would remain free to supplement or exceed federally established goals or standards"); see also Holly Doremus & W. Michael Hanemann, *Of Babies and Bathwater: Why the Clean Air Act's Cooperative Federalism Framework Is Useful for Addressing Global Warming*, 50 ARIZ. L. REV. 799, 817 (2008) (noting that the CAA "was the first modern federal environmental statute to employ a 'cooperative federalism framework,' assigning responsibilities for air pollution control to both federal and state authorities"); *Connecticut v. EPA*, 696 F.2d 147, 151 (2d Cir. 1982) (characterizing the CAA as a "bold experiment in cooperative federalism").

75. See John P. Dwyer, *The Practice of Federalism under the Clean Air Act*, 54 MD. L. REV. 1183, 1195 (1995) ("Congress's widely repeated justification for preempting less stringent state ambient air quality standards and certain stationary source emission standards . . . was the states' natural tendency to compete in a 'race-to-the-bottom' for business. Because of their willingness to relax environmental standards to attract or keep economic development, states could not be trusted to adopt adequate standards.").

76. See Robert L. Fischman, *Cooperative Federalism and Natural Resources Law*, 14 N.Y.U. ENVTL. L.J. 179, 189 (2005). To achieve the NAAQS, states may tailor federal standards to local conditions, establish compliance strategies, implement permit programs, and enforce rules. See *id.*; see also Talkington, *supra* note 50, at 961. ("In many ways the Clean Air Act embodies federalist ideals because it is a national program that delegates a great deal of management power to the states."); Emma

Environmental Protection Agency (EPA) to list criteria pollutants that are present in the ambient air as a result of emissions from many sources that “may reasonably be anticipated to endanger public health or welfare.”<sup>77</sup> EPA then promulgates National Ambient Air Quality Standards (NAAQS)<sup>78</sup> for these criteria pollutants, which currently include SO<sub>2</sub>, NO<sub>x</sub>, PM, ozone, carbon monoxide, and lead.<sup>79</sup> EPA must establish for each criteria pollutant both a primary NAAQS that is sufficient to “protect the public health” within “an adequate margin of safety” and a secondary NAAQS in order “to protect the public welfare.”<sup>80</sup> EPA lists these standards as a maximum permissible amount of the pollutant in a quantity of air, with measurements averaged over a specific time interval.<sup>81</sup> These ambient standards set forth the minimum levels of environmental quality that the EPA will tolerate, but states are free to enact more stringent standards.<sup>82</sup> The NAAQS are considered the “heart” of the CAA because they require objective improvement in air quality throughout the nation.<sup>83</sup>

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Hutchinson & Peter W. Kennedy, *State Enforcement of Federal Standards: Implications for Interstate Pollution*, 30 RESOURCE & ENERGY ECON. 316, 336 (2008) (presenting a mathematical model which shows that “the EPA is able to monitor the adoption of technology-based standards more closely than it can monitor state-level enforcement, and that this causes an effective division of control between [federal and state agencies]”).

77. Clean Air Act § 108(a)(1), 42 U.S.C. § 7408(a)(1)(A) (2006).

78. See also *National Ambient Air Quality Standards (NAAQS)*, ENVTL. PROT. AGENCY, <http://www.epa.gov/air/criteria.html> (last visited Feb. 8, 2011). EPA defines the pollution standards for the Act’s other air pollution programs, which are outside the scope of this Note. See, e.g., 42 U.S.C. § 7411 (new source performance standards); *id.* § 7412 (hazardous air pollutants); *id.* §§ 7470–7479 (standards for prevention of significant deterioration in attainment areas).

79. See EPA National Primary and Secondary Ambient Air Quality Standards, 40 C.F.R. §§ 50.4–.15 (2010). For a brief description of NAAQS and a table of the six criteria pollutants, see *National Ambient Air Quality Standards (NAAQS)*, ENVTL. PROT. AGENCY, <http://www.epa.gov/air/criteria.html> (last visited Feb. 8, 2011). The NAAQS are set out in 40 C.F.R. pt. 50.

80. 42 U.S.C. § 7409(b) (2006). Both the criteria and the NAAQS are supposed to be reviewed every five years and revised when appropriate. *Id.* § 7409(d)(1).

81. See Harry Moren, Note, *The Difficulty of Fencing in Interstate Emissions: EPA’s Clean Air Interstate Rule Fails to Make Good Neighbors*, 36 ECOLOGY L.Q. 526, 528 (2009) (citing 40 C.F.R. § 50.3). For example, the PM<sub>2.5</sub> NAAQS consists of an annual primary standard of 15 micrograms per cubic meter and a 24-hour primary standard of 65 micrograms per cubic meter. The secondary standard is the same. 40 C.F.R. § 50.7 (2010); *National Ambient Air Quality Standards for Particulate Matter*, 62 Fed. Reg. 38,652 (July 18, 1997).

82. See Clean Air Act § 116, 42 U.S.C. § 7416 (2006). For example, North Carolina’s Clean Smokestacks Act requires in-state coal plants to reduce their SO<sub>2</sub> and NO<sub>x</sub> emissions to lower levels than the NAAQS. See N.C. GEN. STAT. § 143-215.107D(b)–(e) (2010).

83. See *Train v. Natural Res. Def. Council*, 421 U.S. 60, 66 (1975); see also Robert W. Adler, *Integrated Approaches to Water Pollution: Lessons from the Clean Air Act*, 23 HARV. ENVTL. L. REV. 203, 207 (1999) (noting NAAQS “are set at levels deemed necessary to protect human health and environmental quality, without regard to technological feasibility or economic impacts. These ambient standards are designed to address aggregate releases from multiple, usually diverse, pollution sources.”).

States consist of one or more “air quality control regions,”<sup>84</sup> each of which EPA designates as being in either “attainment” or “nonattainment” for each of the criteria pollutants on a pollutant-by-pollutant basis.<sup>85</sup> Nonattainment areas come under stricter federal control, which varies with respect to different pollutants.<sup>86</sup> States are responsible for adopting state implementation plans (SIPs) that employ air pollution-reduction methods to provide for the “implementation, maintenance, and enforcement” of the NAAQS for each of the criteria pollutants.<sup>87</sup> “A SIP both extensively analyzes the current air quality within the state, including individual source emissions, and models possible scenarios for NAAQS attainment based on the analysis.”<sup>88</sup> Thus the CAA gives states the freedom to balance their air pollution budgets according to their own economic policies.<sup>89</sup> While NAAQS establish the minimum acceptable levels of environmental quality, they do not directly restrain the activities of any polluter. Instead, states primarily use a permitting process to implement SIP requirements, with each permit intended as a source-specific guidebook for

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84. 42 U.S.C. § 7407(c) (2006). An air quality control region may span multiple states when appropriate. *See id.*

85. *See id.* § 7407(d)(1)(A). An area may remain “unclassified” if there is insufficient information about the area’s pollution. *See id.* § 7407(d)(1)(A)(iii).

86. Within a nonattainment area, sources of a nonattainment pollutant must install “reasonably available control technology.” Clean Air Act § 172(c)(1), 42 U.S.C. § 7502(c)(1) (2006). New sources wishing to locate in the nonattainment area must meet an emissions standard defined by reference to the “lowest achievable emission rate.” Clean Air Act §§ 171(3), 173(a)(2), 42 U.S.C. §§ 7501(3), 7503(a)(2) (2006). For a description of SIP requirements in attainment and nonattainment areas see Andrew Jackson Heimert, Note, *Keeping Pigs Out of Parlors: Using Nuisance Law to Affect the Location of Pollution*, 27 ENVTL. L. 403, 422–25 (1997).

87. 42 U.S.C. § 7410(a)(1) (2006). If EPA rejects a SIP as inadequate, or a state fails to submit one, EPA may promulgate a federal implementation plan (FIP) for the area. *See id.* § 7410(c)(1)(A). A SIP must be revised when NAAQS change or new technology becomes available. *See id.* § 7410(a)(2)(H)(i) (stating that each SIP “shall” be revised “from time to time as may be necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of attaining such standard”). If a state is untimely in revising its SIP, EPA may make the revision. *See id.* § 7410(c)(1). A SIP also must contain provisions for the compilation of data on ambient air quality. *See id.* § 7410(a)(2)(B)(i); DAVID WOOLEY & ELIZABETH MORSS, CLEAN AIR ACT HANDBOOK § 1:20 (West 2010) (setting out the general requirements for SIPs from Clean Air Act § 110(a)(2), 42 U.S.C. § 7410(a)(2)). *See generally* ARNOLD W. REITZ, STATIONARY SOURCE AIR POLLUTION LAW 55–126 (2005) (describing the SIP process).

88. Moren, *supra* note 81, at 528 (citing 42 U.S.C. § 7410(a)(2)(B), (F), (K) (2006)).

89. *See* Union Elec. Co. v. EPA, 427 U.S. 246, 269 (1976) (noting states have “the power to determine which sources would be burdened and to what extent”); *see also* 42 U.S.C. § 7407(a) (2006) (noting states have “primary responsibility for assuring [their own] air quality”); Philip J. Weiser, *Federal Common Law, Cooperative Federalism, and the Enforcement of the Telecom Act*, 76 N.Y.U. L. REV. 1692, 1697–98 (2001) (“Congress and the federal agency bear responsibility for setting forth the basic framework within which state agencies can act, defining relevant federal statutory terms, and instituting uniform minimum standards. State agencies then can supplement that framework and experiment with regulatory approaches that are consistent with it.”).

CAA compliance for that polluting source.<sup>90</sup> Once the EPA approves a SIP, the permits issued under the SIP are enforceable by the EPA and the state as federal law.<sup>91</sup> Even after the EPA has approved a state's SIP, the agency has statutory authority under section 110(k)(5) to "'call' the SIP," that is, request its revision, if it fails to comply with a provision of the CAA.<sup>92</sup> If after two years a state fails to submit an approved SIP or its approved SIP fails to meet the minimum "completeness" criteria, EPA must promulgate a federal implementation plan (FIP) under the CAA,<sup>93</sup> and the state is subject to EPA imposed sanctions.<sup>94</sup>

*E. Overview and Critique of Interstate Air Pollution Controls under the CAA*

States have largely failed to achieve the NAAQS.<sup>95</sup> A critical reason for this failure is interstate air pollution, which is "generally accepted as a situation in which federal intervention is required," but which the CAA "has failed to fully address."<sup>96</sup> Interstate air pollution problems and possible solutions have been widely considered and debated.<sup>97</sup> Scientific research and modeling studies demonstrate that air pollutants travel long distances, with geographic transport patterns being influenced by the type of pollutant, location of the emissions, weather, and topography.<sup>98</sup> Consequently, air pollution in one state is partly caused by emissions from another state, with the severity of the interstate impact primarily dependent on the quantity and character of the emissions

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90. See *Virginia v. Browner*, 80 F.3d 869, 873 (4th Cir. 1996) (noting that the permit is a "source-specific bible for Clean Air Act compliance" that "contains, in a single, comprehensive set of documents, all CAA requirements relevant to the particular polluting source").

91. See 42 U.S.C. § 7413 (2006).

92. Patricia Ross McCubbin, *Michigan v. EPA: Interstate Ozone Pollution and EPA's "NO<sub>x</sub> SIP Call"*, 20 ST. LOUIS U. PUB. L. REV. 47, 66 (2001) (citing 42 U.S.C. § 7410(k)(5) (2006)).

93. See 42 U.S.C. § 7410(c)(1)(A) (2006).

94. See William V. Luneburg, *Drawing Boundaries for Air Quality Control Under the Clean Air Act: The Importance of Not Being Nonattainment*, 1 PITT. J. ENVTL. PUB. HEALTH L. 61, 65 (2006) ("[S]erious legal and economic sanctions may attend missing [the NAAQS] if the failure is due to inadequate implementation efforts (e.g., increased restrictions on new source growth and cut-offs of federal highway funds to a state).").

95. See, e.g., Bergin et al., *supra* note 48, at 4677 (noting that in 2002, more than 50 percent of the U.S. population lived in counties where air pollution exceeded the NAAQS, particularly for ozone and particulate matter); WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW § 3.10, at 258 (1986) (noting that SIPs "have failed conspicuously to achieve ambient goals").

96. Kiefer, *supra* note 54, at 673; see also Craig N. Oren, *Clean Air and Interstate Transport: Seeing the Big Picture*, 10 N.Y.U. ENVTL. L.J. 196, 204 (2002) ("Clean Air Act's interstate pollution provisions have not worked well").

97. See, e.g., Hutchinson & Kennedy, *supra* note 76, at 316–44; Kiefer, *supra* note 54; Oren, *supra* note 96; Geoffrey L. Wilcox, *New England and the Challenge of Interstate Ozone Pollution under the Clean Air Act of 1990*, 24 B.C. ENVTL. AFF. L. REV. 1 (1996); Bergin et al., *supra* note 58.

98. See, e.g., Bergin et al., *supra* note 48.

themselves, the locations of the sources, and the height of the source stacks.<sup>99</sup> A National Research Council report identified pollutant transport across multistate regions as one of the seven major air quality challenges facing the United States in the coming decade.<sup>100</sup> While addressing interstate pollution externalities is a common justification for developing federal environmental regulation,<sup>101</sup> arguably “little of the regulatory regime actually advances this goal.”<sup>102</sup>

By policing only intrastate rather than interstate pollution, it has been suggested that the CAA represents a “bizarre twist on the federal role” that has “actually caused much of today’s interstate pollution.”<sup>103</sup> Indeed, in the early years of the CAA, some states satisfied NAAQS by allowing power plants within their borders to build very tall smoke stacks to disperse air pollution to downwind states.<sup>104</sup> While the CAA principally “focuses a state’s attention on its own air quality, and does little to encourage states to minimize air pollution that drifts across state boundaries,”<sup>105</sup> the Act does contain provisions that deal with interstate air pollution, and the EPA has also taken steps to address the problem. The details of these complex regional pollution control efforts are beyond the scope of this Note, and have been widely discussed and analyzed

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99. See Kenneth L. Hirsch & Steven Abramovitz, *Clearing the Air: Some Legal Aspects of Interstate Air Pollution Problems*, 18 DUQ. L. REV. 53, 54 (1979); see also Richard L. Revesz, *Federalism and Interstate Environmental Externalities*, 144 U. PA. L. REV. 2341, 2376 (1996). For a given stack height and location, a source’s impact on a downwind state’s air quality increases as emission levels increase and distance between the source and downwind state’s border decreases. For a given location and emission level, as stack height increases, the source will have a smaller air quality impact closer to downwind states and larger impact on states farther away. *Id.*

100. See NAT’L RES. COUNCIL, AIR QUALITY MANAGEMENT IN THE UNITED STATES 5 (2004), available at [http://www.nap.edu/openbook.php?record\\_id=10728&page=5](http://www.nap.edu/openbook.php?record_id=10728&page=5) (identifying as a “key challenge[.]” the ability to understand and address “multistate and international transport of pollutants”).

101. See, e.g., Dwyer, *supra* note 75, at 1219 (“The usual justifications for a dominant federal role in environmental regulation are to take advantage of economies of scale with regard to research and data collection, to regulate interstate pollution, and to replace unduly weak state regulation.”).

102. Revesz, *supra* note 99, at 2414; see also *id.* at 2341 (noting that the “interstate externalities justification is theoretically compelling but little of the regulatory regime actually advances this goal”); Thomas W. Merrill, *Panel III: International Law, Global Environmentalism, and the Future of American Environmental Policy*, 21 ECOLOGY L.Q. 485 (1994) (arguing that of the three customary explanations for centralized control—interstate externalities, a universal right to an unpolluted environment, and the race-to-the-bottom or “protectionism” rationale—only the third is generally apparent in the resultant federal legislation).

103. David Schoenbrod, Joel Schwartz & Ross Sandler, *Air Pollution: Building on the Successes*, 17 N.Y.U. ENVTL. L.J. 284, 290 (2008). In 1977, Congress added section 123 to the CAA, which limits a state’s ability to use tall stacks as a method to meet the NAAQS. See Clean Air Act § 123, 42 U.S.C. § 7423 (2006).

104. See Revesz, *supra* note 99, at 2349 (explaining that “the distance that pollution travels increases with the height of the stack”). While Congress largely curtailed this practice with the addition of section 123 in the 1977 amendments, Clean Air Act § 123, 42 U.S.C. § 7423 (2006), which placed restrictions on stack height, “[t]all stacks remain a means by which excessive pollution can be externalized.” Revesz, *supra* note 99, at 2354.

105. Kiefer, *supra* note 54, at 635.

elsewhere.<sup>106</sup> This Note summarizes the main statutory provisions and federal regulatory actions taken to address interstate air pollution, and offers some reasons why they have not wholly solved the problem.

### 1. CAA Statutory Provisions

As part of the 1990 CAA amendments, Congress enacted Title IV, known as the Acid Rain Program (ARP), to control the emission of acid rain precursors SO<sub>2</sub> and NO<sub>x</sub> from coal plants.<sup>107</sup> The ARP set an innovative cap-and-trade system for SO<sub>2</sub> emissions<sup>108</sup> and “a more traditional regulatory approach” for NO<sub>x</sub> emissions that set facility-specific limits.<sup>109</sup> The ARP has been widely heralded as a success, particularly the SO<sub>2</sub> cap-and-trade program, which has resulted in lower regulatory costs for both regulators and the regulated community.<sup>110</sup>

Other statutory provisions include section 176(A), which authorizes EPA to designate “transport regions” impacted by a shared interstate air pollution problem and establish a “transport commission” comprised of state representatives to recommend mitigation measures.<sup>111</sup> In section 184, Congress itself established the first such transport region: the Northeast Ozone Transport Region for twelve northeastern and mid-Atlantic states<sup>112</sup> and the District of Columbia.<sup>113</sup> The Region’s Ozone Transport Commission established the NO<sub>x</sub> Budget Program—a NO<sub>x</sub> cap-and-trade program designed to reduce NO<sub>x</sub> emissions from stationary sources within the region in order to promote attainment of the ozone NAAQS. Implemented from 1999 to 2002, it was largely based on the ARP, except that a group of collaborating states set the

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106. See, e.g., Kiefer, *supra* note 54; Robert A. Wyman, Jr. & Janda D.R. Kuhnert, *Regional SIP Issues*, in THE CLEAN AIR ACT HANDBOOK 109, 109–30 (Robert J. Martineau & David P. Novello eds., 2 ed. 2004); Moren, *supra* note 81; Caplan, *supra* note 55; McCubbin, *supra* note 92.

107. See Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2399 (adding 42 U.S.C. §§ 7651–7651o (2006)).

108. See Moren, *supra* note 81, at 530 (“Title IV of the Act mandates a maximum tonnage limit of annual SO<sub>2</sub> emissions for the plants (a ‘cap’) and directs EPA to allocate allowances, equivalent to one ton of emissions per year, among the plants. The Act then allows the plants to transfer (or ‘trade’) the allowances.”).

109. See *id.* at 531.

110. See Schoenbrod, Schwartz, & Sandler, *supra* note 103, at 289 (noting that under the ARP, the costs of reducing SO<sub>2</sub> from power plants dropped by more than half, saving the public billions); Moren, *supra* note 81, at 530–31 (noting that the ARP reduced the economic costs of regulatory compliance for the power industry).

111. See 42 U.S.C. § 7506a(a)–(b) (2006).

112. Including Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Maryland, Delaware, the northern counties of Virginia, and the District of Columbia. *Ozone Transport Commission (OTC) NO<sub>x</sub> Budget Program, 1999–2002*, ENVTL. PROT. AGENCY, <http://www.epa.gov/airmarkt/progsregs/nox/otc.html> (last visited Feb. 20, 2011).

113. 42 U.S.C. § 7511c(a) (2006).

emission caps, rather than Congress.<sup>114</sup> In 2003, EPA replaced the commission's program with the NO<sub>x</sub> Budget Trading Program under the NO<sub>x</sub> SIP Call.<sup>115</sup>

Two other CAA provisions specifically address interstate air pollution. First, section 110(a)(2)(D), or the "good neighbor provision," requires SIPs to, among other things, prohibit emissions that "contribute significantly to nonattainment in, or interfere with maintenance" of the NAAQS in another state.<sup>116</sup> Second, section 126(b) gives any state or political subdivision the right to petition EPA to find that "any major source or group of stationary sources [in upwind states] emits or would emit air pollution [into downwind states] in violation of the prohibition in section 110(a)(2)(D)(ii)."<sup>117</sup> In turn, section 110(a)(2)(D)(ii) requires a SIP to "contain adequate provisions" that will insure compliance with the "provisions relating to interstate and international pollution abatement"—sections 126<sup>118</sup> and 115<sup>119</sup>, respectively. If EPA grants such a petition, the sources must comply with EPA emissions limitations or shut down within at most three years.<sup>120</sup> Such direct regulation under section 126 of sources that violate the good neighbor provision "depart[s] from the general precept that the states regulate their own emission sources."<sup>121</sup> As will be demonstrated, however, these statutory provisions have not solved interstate air pollution problems.

## 2. *EPA Rulemaking under the CAA*

### i. *NO<sub>x</sub> SIP Call and Section 126 Rule*

Following successful implementation of the ARP, EPA created a NO<sub>x</sub> cap-and-trade program in the controversial NO<sub>x</sub> SIP Call Rule.<sup>122</sup> Lacking Title

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114. See Moren, *supra* note 81, at 531–33; *Overview of the Ozone Transport Commission (OTC) NO<sub>x</sub> Budget Program*, ENVTL. PROT. AGENCY, <http://www.epa.gov/airmarkets/progsregs/nox/otc-overview.html> (last visited Mar. 13, 2011).

115. See *NO<sub>x</sub> Budget Trading Program/NO<sub>x</sub> SIP Call, 2003–2008*, ENVTL. PROT. AGENCY, <http://www.epa.gov/airmarkets/progsregs/nox/sip.html> (last visited Mar. 13, 2011); see also *infra* Part I.E.2.i.

116. Clean Air Act § 110(a)(2)(D)(i)(I), 42 U.S.C. § 7410(a)(2)(D)(i)(I) (2006).

117. *Id.* § 7426(b). The CAA also permits transport commissions to ask EPA to find that the SIP of any state in the transport region is inadequate to comply with the section 110(a)(2)(D) good neighbor provision. See *id.* § 7506a(c).

118. *Id.* § 7426. While section 126(b) grants states EPA petitioning power, section 126(a) operates as a notice provision, requiring states to provide written notice to other affected states about new or existing major sources that may significantly contribute to air pollution levels in excess of NAAQS. See *id.* § 7426(a).

119. *Id.* § 7415.

120. See *id.* § 7426(c); see also Wyman, *supra* note 106, at 119.

121. Moren, *supra* note 88, at 534.

122. See 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.

IV's express congressional authorization and instruction to implement such programs, EPA adopted the NO<sub>x</sub> SIP Call program pursuant to its authority to "call," that is to request revisions to, SIPs for violations of the good neighbor provision.<sup>123</sup> The rule regulates NO<sub>x</sub> emissions, primarily from power plants, in twenty-two states and the District of Columbia to address NO<sub>x</sub> transport that has prevented states along the eastern seaboard from meeting NAAQS requirements for ozone.<sup>124</sup> EPA required each jurisdiction to revise its SIP to meet the maximum NO<sub>x</sub> emission budget that EPA had set for it.<sup>125</sup>

While EPA was developing the NO<sub>x</sub> SIP Call, eight northeastern states petitioned the agency under CAA section 126 to find that NO<sub>x</sub> emissions from certain upwind states were interfering with their ability to meet the NAAQS for ozone.<sup>126</sup> EPA determined that sources in twelve states<sup>127</sup> and the District of Columbia were in violation of the good neighbor provision<sup>128</sup> and imposed federal reduction requirements on these sources by mandating that they participate in the cap-and-trade program EPA had developed for the NO<sub>x</sub> SIP Call.<sup>129</sup> While both the NO<sub>x</sub> SIP Call and section 126 petition were ultimately

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Reg. 57,356, 57,359 (Oct. 27, 1998). The rule required emission reduction measures to be in place by May 1, 2003. *See id.* at 57,366; *see also Finding of Significant Contribution and Rulemakings for Certain States in the Ozone Transport Assessment Group Region*, ENVTL. PROT. AGENCY, <http://www.epa.gov/ttn/naaqs/ozone/rto/sip/index.html> (last visited Feb. 20, 2011) ("The NO<sub>x</sub> SIP call builds upon analyses conducted by the Ozone Transport Assessment Group . . . a partnership between the EPA, the Environmental Council of the States and various industry and environmental groups which assessed the long-range transport of ozone and ozone precursors.").

123. *See* McCubbin, *supra* note 92, at 51 ("To issue the NO<sub>x</sub> SIP Call pursuant to section 110(a)(2)(D), EPA faced enormous challenges. EPA had to determine not only which states' emissions were contributing to ozone levels in distant downwind states (and to what degree), but also had to define which emissions would be considered 'significant,' for nowhere does the Clean Air Act define the phrase 'contribute significantly' or provide any guidance for its interpretation. In addition, EPA had to develop a regulatory mechanism that would force the states to reduce their emissions while, at the same time, leaving each state the flexibility to choose which pollution control measures to adopt in order to obtain the necessary reductions.").

124. For an analysis of the unsuccessful legal challenge to the NO<sub>x</sub> SIP Call brought in federal court by industries and eight of the twenty-three upwind states, *see* McCubbin, *supra* note 92. The district court held that the "resulting [NO<sub>x</sub>] emissions budgets, while appearing to restrict the states' choices, in fact allowed each state sufficient flexibility to implement a variety of pollution control measures, thereby preserving the careful balance of authority mandated by the cooperative federalism of the Clean Air Act." *Id.* at 66.

125. *See id.*

126. *See Technology Transfer Network / NAAQS Ozone Implementation: Section 126 Petitions*, ENVTL. PROT. AGENCY, <http://www.epa.gov/ttn/naaqs/ozone/rto/126/index.html> (last visited Feb. 20, 2011).

127. Including Delaware, Indiana, Kentucky, Maryland, Michigan, North Carolina, New Jersey, New York, Ohio, Pennsylvania, Virginia, and West Virginia.

128. *See Findings of Significant Contribution and Rulemaking on Section 126 Petitions for Purposes of Reducing Interstate Ozone Transport*, 64 Fed. Reg. 28,250 (May 25, 1999).

129. *See Findings of Significant Contribution and Rulemaking on Section 126 Petitions for Purposes of Reducing Interstate Ozone Transport*, 65 Fed. Reg. 2,674 (Jan. 18, 2000).

upheld in court<sup>130</sup> and have produced beneficial results,<sup>131</sup> protracted legal battles delayed their implementation.<sup>132</sup>

*ii. Clean Air Interstate Rule*

In light of persistent ozone nonattainment problems in the northeast, as well as increasing state difficulty attaining the PM<sub>2.5</sub> NAAQS, EPA issued the Clean Air Interstate Rule (CAIR) in 2005.<sup>133</sup> CAIR imposed a market-based program on SO<sub>2</sub> and NO<sub>x</sub>—the two main ozone and PM precursors from electric power plants in the eastern and central United States.<sup>134</sup> CAIR established three separate cap and trade programs: an annual SO<sub>2</sub> program, an annual NO<sub>x</sub> program, and a seasonal NO<sub>x</sub> program.<sup>135</sup> EPA modeled the CAIR's SO<sub>2</sub> rule after the ARP's SO<sub>2</sub> trading program and "intended for CAIR to subsume the NO<sub>x</sub> SIP Call program."<sup>136</sup> The CAIR capped regional SO<sub>2</sub> and NO<sub>x</sub> emissions and allocated emission reductions among the regulated twenty-eight states and the District of Columbia. Pursuant to the good neighbor provision, states subject to the CAIR were required to revise their SIPs to achieve reductions.<sup>137</sup> While permitted to use other measures, all states chose to

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130. See *Michigan v. EPA*, 213 F.3d 663, 669–70 (D.C. Cir. 2000) (upholding the NO<sub>x</sub> SIP Call); *Appalachian Power Co. v. EPA*, 249 F.3d 1032, 1047–52 (D.C. Cir. 2001) (holding that EPA has the authority to impose direct federal controls on individual sources found to contribute significantly to nonattainment in downwind states, irrespective of the requirements of the NO<sub>x</sub> SIP Call).

131. See, e.g., Moren, *supra* note 88, at 533–35 (describing the NO<sub>x</sub> SIP Call and its successes, including leading to EPA's re-designation of 83 of the region's 126 nonattainment areas to attainment areas for the eight-hour ozone NAAQS and a reduction in biomass loss from ozone exposure).

132. See Caplan, *supra* note 55, at 181–85.

133. See Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule), 70 Fed. Reg. 25,162 (May 12, 2005) (codified at 40 C.F.R. pts. 96–97).

134. See *id.*; see also *Clean Air Interstate Rule: Basic Information*, ENVTL. PROT. AGENCY, <http://www.epa.gov/interstateairquality/basic.html> (last visited Feb. 8, 2011). For a description of the changes finalized by CAIR and critique of their validity, see Jamie Gibbs Pleune, *Do We CAIR About Cooperative Federalism in the Clean Air Act?*, 2006 UTAH L. REV. 537 (2006).

135. See Kiefer, *supra* note 54, at 652 ("Continuing a strategy of interstate air pollution control through market-based emissions trading programs, EPA replaced the NO<sub>x</sub> SIP Call Trading Program with the CAIR ozone-season NO<sub>x</sub> Trading Program to reduce ozone. . . . [And for] PM<sub>2.5</sub> regulation, EPA added an annual NO<sub>x</sub> Trading Program, and streamlined the Acid Rain SO<sub>2</sub> Trading Program with CAIR's SO<sub>2</sub> Trading Program."); Matthew D. Tait, *A Remedy Even the Plaintiffs Don't Like. The D.C. Circuit's Vacatur of the Clean Air Interstate Rule North Carolina v. E.P.A.*, 16 MO. ENVTL. L. & POL'Y REV. 552, 563 (2009) (noting that EPA designed CAIR's three separate cap and trade programs "to mirror the structure of the NO<sub>x</sub> SIP Call and to coordinate with the Acid Rain Program"); see also WOOLEY & MORSS, *supra* note 87 ("As the NO<sub>x</sub> SIP Call was only a seasonal (summer) regulation, and CAIR was an annual one, the EPA decided to implement two separate NO<sub>x</sub> trading programs in CAIR to avoid complications.").

136. See Moren, *supra* note 88, at 536.

137. See Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule), 70 Fed. Reg. 25,162, 25,162 (May 12, 2005) (codified at 40 C.F.R. pts. 96–97) ("Based on State obligations to address interstate transport of pollutants under section 110(a)(2)(D) of the Clean Air Act (CAA), EPA is specifying statewide emissions reduction requirements for SO<sub>2</sub> and NO<sub>x</sub>.").

adopt EPA's model cap-and-trade program.<sup>138</sup> EPA also used this model emissions trading program for the CAIR's FIP, which served as the default until the states submitted, and EPA approved, their revised SIPs.<sup>139</sup>

Numerous petitioners, including North Carolina, challenged the CAIR, arguing that, among other things, it lacked reasonable measures to assure that upwind states would abate their unlawful emissions as required by the CAA's good neighbor provision.<sup>140</sup> CAIR's nationwide emission trading system permitted states contributing to downwind nonattainment in another state to buy emission allowances to comply with the cap, rather than actually reduce their emissions. The court held that such a scheme violates the CAA, which requires that programs eliminate emissions from the specific sources contributing to downwind nonattainment areas.<sup>141</sup> The court also concluded that EPA ignored statutory language requiring SIPs to contain adequate provisions to preclude sources from interfering with NAAQS maintenance in downwind states.<sup>142</sup> According to the court, EPA failed to consider upwind sources that interfere with downwind maintenance when it established the CAIR, effectively ignoring those states that barely meet attainment due in part to upwind sources.<sup>143</sup> In sum, the court determined that CAIR was fatally flawed in five of the nine issues raised by challengers.<sup>144</sup> The D.C. Circuit originally vacated the rule,<sup>145</sup> but, in order to "at least temporarily preserve the environmental values covered by CAIR," it eliminated the vacatur on rehearing and left the CAIR in place during remand rulemaking.<sup>146</sup>

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138. WOOLY AND MORSS, *supra* note 87 ("All states subject to the CAIR chose to participate in regional trading.")

139. *See* Moren, *supra* note 88, at 537 (citing Federal Implementation Plans to Reduce Interstate Transport of Fine Particulate Matter and Ozone, 71 Fed. Reg. 25,328, 25,330 (Apr. 28, 2006)).

140. *See* Clean Air Act § 110(a)(2)(D)(i)(I), 42 U.S.C. § 7410(a)(2)(D)(i)(I) (2006).

141. *But see* Kiefer, *supra* note 54, at 671–72 (arguing that "[c]onceptually, CAIR did address the goal of section 110(A)(2)(D)(i), which sought to prevent out-of-state emissions from hindering the efforts of a state in attaining NAAQS for a particular pollutant, although as a region-wide effort").

142. *See* North Carolina v. EPA, 531 F.3d 896, 908–11 (D.C. Cir. 2008) (citing North Carolina v. EPA, 550 F.3d 1176 (D.C. Cir. 2008) (citing 42 U.S.C. § 110(a)(2)(D)(i)(I) (2006))).

143. *See id.*

144. *See* Tait, *supra* note 135, at 565 (2009) ("Of the five fatal flaws the court found in the CAIR rule, three were unique issues of the rule itself, while two of the flaws found were very close to similar measures in the Acid Rain Program and the NO<sub>x</sub> SIP Call that were previously found to be acceptable by the court."); *id.* at 553 (summarizing the range of objections to the CAIR).

145. *See id.* at 552–53 ("Ultimately the court held that because the EPA adopted CAIR as one integral action, the only proper remedy was to vacate CAIR completely, and its associated federal implementation plan (FIP), and remand to the EPA.")

146. North Carolina v. EPA, 550 F.3d 1176, 1178 (D.C. Cir. 2008) ("[N]otwithstanding the relative flaws of CAIR, allowing CAIR to remain in effect until it is replaced by a rule consistent with [the] opinion would at least temporarily preserve the environmental values covered by CAIR."). Consequently, the CAIR took effect in January 2009 for the annual NO<sub>x</sub> program and in May 2009 for the ozone season NO<sub>x</sub> program. WOOLEY & MORSS, *supra* note 87, § 3:8.

### 3. Critique of Interstate Air Pollution Approaches under the CAA

A first critique of the CAA is that its emission standards for stationary sources are not a “well-targeted means for controlling interstate externalities”<sup>147</sup> since the standards only restrict the pollution emitted from each source, and fail to regulate the quantities or locations of the sources within a state.<sup>148</sup> Although the 1977 and 1990 CAA amendments attempted to address regional air quality challenges by placing constraints on stack height and creating the ARP and regional transport commissions, as discussed above,<sup>149</sup> these strategies have not solved the pollution transport problem. The stack height and acid rain provisions offer “at best a partial response to the problem”<sup>150</sup> since they pertain only to two criteria pollutants (SO<sub>2</sub> and NO<sub>x</sub>), and only to electric utilities.<sup>151</sup> A criticism of interstate transport commissions is that they have only the power to study transport problems and make recommendations to the EPA, and lack independent decision-making authority.<sup>152</sup>

While this leaves CAA sections 110(a)(2)(D) and 126(b) as the remaining available avenues to comprehensively address the interstate pollution problem, these provisions, too, have received criticism. For example, Professor Richard L. Revesz considers them “wholly ineffective,”<sup>153</sup> faulting the EPA’s and the federal courts’ failure “to define a coherent and logical body of law”<sup>154</sup> and offering three improvements to address the CAA’s shortcomings. First, he argues for a determination of whether the stack height and location of a proposed source “are motivated by an effort to externalize the effects of pollution;” he maintains that the current, limited inquiry of “whether the emissions of a proposed source in an upwind state are excessive” does not adequately address interstate spillover.<sup>155</sup> Second, he calls for an assessment of the permissibility of upwind pollution even when there is no NAAQS violation in a downwind state; this would promote a proper allocation of “the downwind state’s margin for growth” and safeguard the downwind state’s “legitimate interests” in requiring stricter air quality standards.<sup>156</sup> Finally, Revesz favors undertaking “a dynamic analysis, which examines desirable allocations of the pollution-control burden between upwind and downwind sources in light of

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147. Revesz, *supra* note 99, at 2350.

148. *See id.*

149. *See supra* Part I.E.1.

150. Revesz, *supra* note 99, at 2350.

151. *See id.* at 2359 (citing Clean Air Act § 401(b), 42 U.S.C. § 7651(b) (2006)).

152. *See* Caplan, *supra* note 55, at 195.

153. *See* Revesz, *supra* note 99, at 2344.

154. *Id.*

155. *Id.*

156. *Id.* at 2345.

economic growth,” over the current analysis that considers the problem “statically, at one point in time.”<sup>157</sup>

Moreover, while EPA has increasingly acted under CAA sections 110(a)(2)(D) and 126, reliance on EPA’s delegated regulatory authority to tackle interstate pollution has been criticized because parties strategically use judicial review of EPA rulemakings “to delay and disable” well-intentioned agency action “at the expense of the interests of other states and the environment.”<sup>158</sup> For example, EPA’s lengthy and costly rulemakings to address the ozone transport problem through implementing the NO<sub>x</sub> SIP Call and granting section 126 petitions were met by litigation at every step of the way.<sup>159</sup> Moreover, the section 126 process is subject to immense agency discretion, which has proven problematic in the past.<sup>160</sup> In light of the federal legal and regulatory regime’s shortcomings,<sup>161</sup> it is important to determine the nature and scope of common law nuisance’s role in addressing regional air pollution problems.

## II. PUBLIC NUISANCE: FILLING IN THE REGULATORY GAPS TO ADDRESS INTERSTATE AIR POLLUTION

### A. *Types of Common Law Nuisance Actions*

Three common law nuisance theories can arise in the interstate air pollution context: (1) the federal common law of nuisance; (2) the nuisance law of the affected state; and (3) the nuisance law of the source state.<sup>162</sup> This Part explains why the CAA preempts the first two options, and then demonstrates why North Carolina appropriately brought suit under source state nuisance. I

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157. *Id.*

158. Caplan, *supra* note 55, at 189.

159. *See supra* Part I.E.2.i.

160. For example, during the first several decades of the Act, EPA rejected every state petition it received. *See id.*; *see also* Nigel Barrella, *North Carolina v. Tennessee Valley Authority*, 35 HARV. ENVTL. L. REV. 247, 250 (2011) (“From 1977 to 1998 EPA never granted [a section 126(b)] petition, and since 1998 EPA has still generally avoided or denied such petitions, often by claiming that they are mooted by contemporaneous rulemaking.”); Vickie L. Patton, *The New Air Quality Standards, Regional Haze and Interstate Air Pollution Transport*, 28 ENVTL. L. REP. 10155, 10156 (1998) (“Since the adoption of the 1970 Clean Air Act, . . . EPA has resisted restrictions on downwind pollution transport or allocating emissions reduction responsibilities among states to address transboundary pollution.”). The weaker versions of sections 110(a)(2)(D) and 126 that existed in earlier versions of the Act may partly explain EPA’s failure to utilize its section 126 authority. *See* Caplan, *supra* note 55, at 207–08. These interstate provisions were strengthened with the 1990 CAA Amendments, and, as discussed above, EPA granted its first section 126 petitions in the late 1990s to address the ozone transport problem. *See supra* Part I.E.2.ii.

161. *See generally* Caplan, *supra* note 55 (critiquing the efficacy of multiple efforts to control interstate ozone pollution—CAA rulemakings, interstate transport commissions, voluntary negotiations, and litigation—and calling for a legislative solution).

162. *See* Heimert, *supra* note 86, at 481.

argue that, as a matter of law, the Fourth Circuit erred in holding that public nuisance doctrine does not provide remedies to states for interstate air pollution.

### 1. *Federal Common Law Nuisance Actions*

Prior to the passage of the Clean Water Act (CWA) and CAA, the U.S. Supreme Court developed a body of federal common law nuisance to adjudicate *parens patriae* pollution disputes between states.<sup>163</sup> Following the enactment of these comprehensive pollution control statutes, the question arose whether they preempted federal common law nuisance claims. In *City of Milwaukee v. Illinois*, the Supreme Court answered in the affirmative by holding that the comprehensive nature of the 1972 CWA amendments precluded use of the federal common law.<sup>164</sup> The Court reaffirmed this position in *Middlesex County Sewerage Authority v. National Sea Clammers Association*, stating that “the federal common law of nuisance is entirely preempted by the more comprehensive scope” of the CWA.<sup>165</sup> Although the Supreme Court has not directly addressed whether the CAA bars federal common law nuisance actions concerning regulated criteria pollutants, the same reasoning suggests that it would.<sup>166</sup> If federal common law is not available, the question then becomes whether state public nuisance laws can provide a remedy.

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163. See, e.g., *Georgia v. Tenn. Copper Co.*, 206 U.S. 230, 237 (1907) (granting the state of Georgia an injunction against two Tennessee copper smelters because Georgia “has an interest independent of and behind the titles of its citizens, in all the earth and air within its domain”).

164. See *City of Milwaukee v. Illinois*, 451 U.S. 304, 317 (1981). See generally Calvin R. Dexter & Teresa J. Schwarzenbart, Note, *City of Milwaukee v. Illinois: The Demise of the Federal Common Law of Water Pollution*, 1982 WIS. L. REV. 627 (1982).

165. See *Middlesex Cnty. Sewerage Auth. v. Nat’l Sea Clammers Ass’n*, 453 U.S. 1, 22 (1981).

166. See Crider, *supra* note 39, at 643 (explaining why “it is highly unlikely that the Supreme Court would uphold a federal common law nuisance action in an interstate air pollution suit”). Note, however, that the public nuisance claims in *Connecticut v. Am. Elec. Power Co.*, 582 F.3d 309 (2d Cir. 2009), *cert. granted*, 178 L. Ed. 2d 530 (2010) (No. 10-174), and *Comer v. Murphy Oil USA*, 585 F.3d 855 (5th Cir. 2009), *vacated*, 607 F.3d 1049 (5th Cir. 2010), were brought under the federal common law of nuisance since carbon dioxide is not regulated under the CAA as a criteria air pollutant requiring NAAQS. These cases have not been decided on the merits, but there is a strong likelihood that the public nuisance claim under federal common law will be upheld. For further discussion, see generally Thomas W. Merrill, *Global Warming as a Public Nuisance*, 30 COLUM. J. ENVTL. L. 293 (2005); David A. Grossman, *Warming up to a Not-So-Radical Idea: Tort-Based Climate Change Litigation*, 28 COLUM. J. ENVTL. L. 1 (2003); Sarah Olinger, *Filling the Void in an Otherwise Occupied Field: Using Federal Common Law to Regulate Carbon Dioxide in the Absence of a Preemptive Statute*, 24 PACE ENVTL. L. REV. 237 (2007); James R. Drabick, “Private” Public Nuisance and Climate Change: Working Within, and Around, the Special Injury Rule, 16 FORDHAM ENVTL. L. REV. 503 (2005).

## 2. *Affected State versus Source State Common Law Nuisance Actions*

The nuisance law of a particular state may be “defined in statute,” a “creature of the courts,” or both.<sup>167</sup> For example, Alabama has codified its common law nuisance principles, defining a nuisance as “anything that works hurt, inconvenience, or damage to another”<sup>168</sup> and a public nuisance as “one which damages all persons who come within the sphere of its operation, though it may vary in its effects on individuals.”<sup>169</sup> Tennessee does not have a nuisance statute; its courts follow the *Restatement (Second) of Torts* section 821B, which defines a public nuisance as “an act or omission that unreasonably interferes with or obstructs rights common to the public.”<sup>170</sup> Kentucky’s courts have also adopted the *Restatement* definition of public nuisance.<sup>171</sup>

The CWA and CAA contain materially identical saving clauses, which preserve state common law remedies, with one important exception concerning interstate pollution. The CWA’s saving clause is contained in sections 505(e)<sup>172</sup> and 510.<sup>173</sup> The CAA’s saving clause also consists of two provisions: section 304(e), which is identical to CWA section 505(e),<sup>174</sup> and section 116.<sup>175</sup>

In *International Paper Co. v. Ouellette*, the Supreme Court interpreted the CWA’s saving clause to preserve interstate nuisance claims brought “pursuant to the law of the *source* State” only.<sup>176</sup> The law of the affected state is, however,

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167. G. Nelson III Smith, *Nuisance and Trespass Claims in Environmental Litigation: Legislative Inaction and Common Law Confusion*, 36 SANTA CLARA L. REV. 39, 49 (1995) (citations omitted) (“In some instances, what may be considered a nuisance is poorly defined in statute, while in some states nuisance appears to be a creature of the courts.”); see also Antolini, *supra* note 5, at 768 (noting that “American states incorporated the notion of public nuisance both through common law and by statute”); Abrams, *supra* note 3, at 365; REITZE, *supra* note 87, at 27 (“Today, [statutory] nuisance laws primarily are used to regulate air pollutants not covered by the comprehensive Clean Air Act,” such as odors.).

168. ALA. CODE § 6-5-120 (2010).

169. *Id.* § 6-5-121.

170. See, e.g., *Wayne Cnty. v. Tenn. Solid Waste Disposal Control Bd.*, 756 S.W.2d 274, 283 (Tenn. Ct. App. 1988) (citing RESTATEMENT (SECOND) OF TORTS § 821B (1977)).

171. See, e.g., *Roberie v. VonBokern*, 2006 WL 2454647 at \*3 (Ky. 2006) (citing RESTATEMENT (SECOND) OF TORTS § 821B (1977)). This Note will not further explore Kentucky nuisance law since the district court found that none of the Kentucky-based plants created a public nuisance in North Carolina.

172. 33 U.S.C. § 1365(e) (2006) (providing that the CWA does not “restrict any right which any person . . . may have under any statute or common law to seek enforcement of any effluent standard or limitation or to seek any other relief”).

173. *Id.* at § 1370 (providing that the CWA does not “preclude or deny the right of any State or political subdivision . . . or interstate agency to adopt or enforce (A) any standard or limitation respecting discharges of pollutants, or (B) any requirement respecting control or abatement of pollution”).

174. The only difference between these CAA and CWA saving clause sections is the use of “emission” and “effluent” respectively. Compare 42 U.S.C. § 7604(e) (2006) with 33 U.S.C. § 1365(e) (2006).

175. 42 U.S.C. § 7416 (2006) (saving from pre-emption “any requirement respecting control or abatement of air pollution”).

176. *Int’l Paper Co. v. Ouellette*, 479 U.S. 481, 497 (1987) (emphasis in original). The issue in the case was whether the CWA “pre-empts a common-law nuisance suit filed in a Vermont court under

preempted by the CWA.<sup>177</sup> Lower courts have subsequently extended the *Ouellette* holding to the CAA.<sup>178</sup> Thus, because the CWA and, by inference, the CAA preempt both federal common law nuisance and the nuisance law of the affected state, the nuisance law of the source state governs public nuisance actions against interstate pollution.<sup>179</sup>

### B. *A Tale of Two Courts in North Carolina v. TVA*

#### 1. *The District Court Properly Applied Source State Nuisance Law*

Both Alabama and Tennessee have long recognized public nuisance common law claims.<sup>180</sup> The issue in *North Carolina v. TVA* was whether, under the laws of Alabama and Tennessee, TVA's plants cause a public nuisance in North Carolina. The district court applied Alabama law to find that TVA's emissions from its Widows Creek plant constitute such a public nuisance.<sup>181</sup> The court based its finding on the plant's proximity to North Carolina, the air quality impacts of its emissions, the substantial health and environmental harms caused by the resulting PM<sub>2.5</sub> and ozone,<sup>182</sup> and the feasibility and affordability

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Vermont law, when the source of the alleged injury is located in New York." *Id.* at 483. The Court held that the plaintiff was barred from bringing an action under Vermont's law, but that it could bring suit in Vermont court against the New York-based polluter under New York's (the source state's) nuisance law. *See id.* at 497.

177. *See id.* For a comprehensive discussion of the case, see Randolph L. Hill, *Preemption of State Common Law Remedies by Federal Environmental Statutes: International Paper Co. v. Ouellette*, 14 ECOLOGY L.Q. 541 (1987).

178. *See, e.g., Ouellette v. Int'l Paper Co.*, 666 F. Supp. 58, 62 (D. Vt. 1987) ("We feel the same concerns that led the *Ouellette* Court to require application of the source state's law in the interstate water disputes are equally applicable to plaintiffs' air claims."); *Her Majesty the Queen in Right of the Province of Ont. v. City of Detroit*, 874 F.2d 332, 343 (6th Cir. 1989) (applying *Ouellette* to the CAA); *Gutierrez v. Mobile Oil Corp.*, 798 F. Supp. 1280, 1285 (W.D. Tex. 1992) (stating that a decision that the CAA preempts state common law actions would "entirely preclude any compensatory relief that . . . plaintiffs may show is justified," which "would not further the goals of the CAA or the intent of Congress").

179. *See Ouellette*, 479 U.S. at 497 ("[N]othing in the [CWA] bars aggrieved individuals from bringing a nuisance claim pursuant to the law of the source State."). For a critique of the *Ouellette* holding and argument for allowing the nuisance laws of the affected state, see generally Ann M. Lininger, *Narrowing the Preemptive Scope of the Clean Water Act as a Means of Enhancing Environmental Protection*, 20 HARV. ENVTL. L. REV. 165 (1996); Heimert, *supra* note 86, at 481.

180. *See, e.g., Penn-Dixie Cement Corp. v. City of Kingsport*, 225 S.W.2d 270, 273 (Tenn. 1949) ("It is generally recognized that whatever is injurious to human life or detrimental to health, or whatever deprives the inhabitants of pure, uncontaminated and inoffensive air, constitutes a public nuisance." (citation omitted) (internal quotation marks omitted)); *Hundley v. Harrison*, 26 So. 294, 294 (Ala. 1898) ("[E]very man has a right, by the common law, to . . . pure air.").

181. *See TVA III*, 593 F. Supp. 2d 812, 830 (W.D.N.C. 2009) ("[P]ollutants . . . from Widows Creek 'work[] significant hurt, inconvenience [and] damage' in North Carolina."), *rev'd and rem'd*, 615 F.3d 291 (4th Cir. 2010).

182. *See id.* at 821–25, 830.

of available pollution control technology.<sup>183</sup> The district court then exercised its equitable authority under Alabama law to abate the public nuisance.<sup>184</sup> Under Alabama law, injunctive relief is appropriate if the “nuisance and harmful damage to complainant may be abated at reasonable cost and effort on respondent’s part.”<sup>185</sup> Based on undisputed expert testimony, the court found that “it is financially feasible for TVA to bear the costs of the installation, maintenance, and year-round operation of the pollution control technology” that it ordered for the Alabama-based plant.<sup>186</sup> In a similar analysis, the district court held that TVA’s emissions from three of its Tennessee plants constitute a public nuisance in North Carolina under Tennessee common law.<sup>187</sup> Again the court specified emissions limits and completion deadlines, and ordered TVA to pay for the installation, maintenance, and continuous operation of pollution control technology at these plants.<sup>188</sup>

After determining that the “greatest negative impacts from pollution emitted by TVA power plants accrue close to those plants, with lesser impacts at greater distances,”<sup>189</sup> the district court held that emissions from TVA’s seven other power plants in Alabama, Tennessee, and Kentucky did not cause a public nuisance in North Carolina under the laws of those three source states. The court explained that these other plants “do not have nearly the same impact on North Carolina’s air as the easternmost four.”<sup>190</sup>

This case presents a classic example of the type of supplemental state common law action to abate air pollution expressly preserved by the CAA.<sup>191</sup> Not only did the district court’s partial injunctive relief abate an unreasonable interference with a public interest, but it also promoted the CAA’s pollution

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183. See *id.* at 830 (“TVA’s conduct in failing to install readily available pollution controls on Widows Creek constitutes ‘a course of conduct . . . that, in its natural and foreseeable consequences, [is] proximately caus[ing] the hurt, inconvenience, [and] damage.’”).

184. See *TVA II*, 549 F. Supp. 2d 725, 735 (W.D.N.C. 2008) (citing *Nat’l S. Prod. Corp. v. City of Tuscaloosa*, 20 So. 2d 329 (Ala. 1977), and *Martin Bldg. Co. v. Imperial Laundry Co.*, 124 So. 82 (Ala. 1929), as authorizing injunctive relief).

185. *Martin Bldg. Co.*, 124 So. at 85; see also Smith, *supra* note 159, at 50 (“[T]his attempt to balance rights [between that of the property owner and public and neighboring land owners], as opposed to establishing a comprehensive statutory scheme, causes a great deal of confusion for litigants.”).

186. See *TVA III*, 593 F. Supp. 2d at 827–28.

187. See *id.* at 831.

188. See *id.* at 827–28, 831–34; see also Brief of Appellee at 11, *TVA IV*, 615 F.3d 291 (4th Cir. 2010) (No. 09-1623) (“TVA sets its own electricity rates, which are currently among the lowest in the country. North Carolina’s utility economics expert demonstrated that TVA could easily absorb between \$3–\$5 billion in additional pollution controls, which at most would impact average customers by \$3 to \$4 a month.” (internal citations omitted)).

189. *TVA III*, 593 F. Supp. 2d at 825.

190. *Id.* at 826.

191. See 42 U.S.C. §§ 7416, 7604(e) (comprising the CAA analogs of the CWA’s saving clause). The *Ouellette* Court held that the CWA saving clause “specifically preserves” common law nuisance actions under source state law. *Int’l Paper Co. v. Ouellette*, 479 U.S. 481, 479 (1987).

reduction goals. However, the Fourth Circuit disagreed and reversed the district court's decision.<sup>192</sup>

2. *The Fourth Circuit Muddled the Application of Nuisance Law in Contravention of the Goals of Public Nuisance and the CAA*

The Fourth Circuit panel unanimously held that the district court's ruling was flawed for three main reasons: (1) the injunction undermined principles of federalism by applying North Carolina law extraterritorially to TVA's plants in Alabama and Tennessee,<sup>193</sup> (2) TVA's emissions cannot constitute a public nuisance under Alabama's and Tennessee's state nuisance laws because the emissions are expressly permitted and the plants are not operated negligently,<sup>194</sup> and (3) the CAA preempts common law nuisance actions where the criteria pollutants at issue are comprehensively regulated.<sup>195</sup> Finally, the court noted that North Carolina had several alternative remedies available to it in lieu of a public nuisance action.<sup>196</sup> This Part explains why, as a matter of law, the Fourth Circuit's conclusions were in error.

i. *The District Court Did Not Apply North Carolina Law Extraterritorially*

The Fourth Circuit held that the district court's injunction "compromised principles of federalism"<sup>197</sup> by improperly applying North Carolina's state law, the Clean Smokestacks Act,<sup>198</sup> extraterritorially, in direct contradiction with the Supreme Court's decision in *Ouellette*, which emphasized that a "court must apply the law of the State in which the point source is located."<sup>199</sup> While the Fourth Circuit conceded that the district court had recognized the appropriate standard, it declared that "for all practical purposes" the lower court did "little

192. See *TVA IV*, 615 F.3d 291, 311–12 (4th Cir. 2010).

193. See *id.* at 306–07.

194. See *id.* at 309–11.

195. See *id.* at 302–07.

196. See *id.* at 310–11.

197. *Id.* at 306.

198. In 2002, North Carolina passed the North Carolina Clean Smokestacks Act, which requires the state's fourteen large coal-fired power plants "to reduce their emissions of NO<sub>x</sub> and SO<sub>2</sub> to levels even lower than those specified in EPA regulations promulgated pursuant to the Clean Air Act." *Id.* at 297 (quoting N.C. GEN. STAT. § 143-215.107D(b)–(e) (2010)); see also Petition at 1, Rulemaking on Section 126 Petition from North Carolina to Reduce Interstate Transport of Fine Particulate Matter and Ozone, 71 Fed. Reg. 25,328 (Apr. 28, 2006) (to be codified at 40 C.F.R. pts. 51, 52, 72, 73, 74, 78, 96, 97) (No. EPA-HQ-OAR-2004-0076), available at <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2004-0076-0002> ("The State has gone beyond federal requirements in order to reduce the contribution of in-state [electric generating unit] emissions to PM<sub>2.5</sub> and ozone problems."). Since passage of the Act, the utilities have decreased their SO<sub>2</sub> and NO<sub>x</sub> emissions "by more than 75% each, and the state has also observed associated decreases in ambient ozone and fine particles." Barrella, *supra* note 160, at 252.

199. *TVA IV*, 615 F.3d at 311–12 (citing *Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 487 (1987)).

more than mention the black letter nuisance law of Alabama and Tennessee on its way to crafting a remedy derived entirely from the North Carolina Act.”<sup>200</sup>

This conclusion is surprising given the lower court’s careful analysis of each of the three source state nuisance laws<sup>201</sup> and its ultimate conclusion that, in light of the “strict requirements as to both causation and unreasonableness of the harm,”<sup>202</sup> only four of the eleven plants constituted a nuisance.<sup>203</sup> Consistent with source state nuisance law, North Carolina sought to prove that TVA’s emissions were “at an unreasonable rate” and that “the responsible thing to do would be to take some action to reduce those emissions at a faster rate than [TVA] currently plan[ned] to.”<sup>204</sup>

Moreover, the district court’s remedy of unit-by-unit pollution control technologies and emission limits on only four of the eleven plants does not resemble North Carolina’s Clean Smokestacks Act, which establishes system-wide SO<sub>2</sub> and NO<sub>x</sub> caps for the state’s fourteen coal plants and prescribes no pollution control technologies.<sup>205</sup> Finally, the district court’s remedy resembles TVA’s own air pollution reduction plan, albeit at an accelerated rate, yet one that the court found was technologically and financially reasonable.<sup>206</sup>

*ii. The Source State Nuisance Laws Do Not Require a Showing of Negligence*

The Fourth Circuit found that even if it assumed that the district court applied the appropriate source state nuisance laws, TVA’s power plants could not logically constitute a public nuisance because they complied with their emissions permits.<sup>207</sup> The court explained that Alabama’s and Tennessee’s state nuisance laws prohibit a nuisance finding for activities that, in the absence of

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200. *Id.* at 306–07.

201. *See supra* Part II.B.1 .

202. *TVA III*, 593 F. Supp. 2d 812, 817 (W.D.N.C. 2009).

203. *See id.* at 831–32.

204. Brief of Appellee at 29, *TVA IV*, 615 F.3d 291 (4th Cir. 2010) (No. 09-1623).

205. *Id.* at 26–27 (citing N.C. GEN. STAT. § 143-215.107D (2010)).

206. *See TVA III*, 593 F. Supp. 2d at 827–28; *see also* Brief of Appellee at 10–12, *TVA IV*, 615 F.3d 291 (4th Cir. 2010) (No. 09-1623) (describing TVA’s pollution control plans); Petition at 23, Rulemaking on Section 126 Petition from North Carolina to Reduce Interstate Transport of Fine Particulate Matter and Ozone, 71 Fed. Reg. 25,328 (Apr. 28, 2006) (to be codified at 40 C.F.R. pts. 51, 52, 72, 73, 74, 78, 96, 97) (No. EPA-HQ-OAR-2004-0076), *available at* <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2004-0076-0002> (“The TVA has embarked on a plan to effect sizable reductions of emissions of SO<sub>2</sub> and NO<sub>x</sub> from some of its coal-fired facilities primarily in Tennessee.”).

207. *TVA IV*, 615 F.3d 291, 309 (4th Cir. 2010) (“It would be odd, to say the least, for specific state laws and regulations to expressly permit a power plant to operate and then have a generic statute countermand those permissions on public nuisance grounds.”).

negligence,<sup>208</sup> are “expressly permitted and extensively regulated by both federal and state government.”<sup>209</sup>

Absent from the Fourth Circuit’s analysis is a discussion of the Supreme Court’s holding in *Ouellete*, which the district court had found spoke “conclusively” to the dispute.<sup>210</sup> The *Ouellette* Court balanced the competing interests of a federal permitting system and state nuisance law by recognizing “that, on one hand, ‘[state] nuisance law may impose separate standards and thus create some tension with the permit system,’ but on the other hand, ‘the restriction of suits to those brought under source-state nuisance law prevents a source from being subject to an indeterminate number of potential regulations.’”<sup>211</sup>

Rather than accept some tension between the CAA permit requirements and those imposed by the abatement remedy,<sup>212</sup> the Fourth Circuit instead read a negligence requirement into Alabama’s and Tennessee’s nuisance laws to preclude a nuisance finding. The court cited to Alabama Supreme Court decisions that stated that “there can be no abatable nuisance for doing in a proper manner what is authorized by law.”<sup>213</sup> But these “few Alabama cases that apply a negligence requirement” are the exception, not the rule.<sup>214</sup> They are distinguishable in that they “involve either municipal defendants with express legislative authorization to conduct governmental activities, or circumstances where the plaintiff ‘comes to the nuisance.’”<sup>215</sup> TVA is not a municipality,<sup>216</sup> nor was a “municipality’s right to engage in activities that would otherwise be a nuisance” even at issue in the case.<sup>217</sup> Consequently, the negligence standards established in these discrete Alabama cases should not apply to TVA<sup>218</sup>—a critical point the Fourth Circuit ignored. Additionally, Alabama’s nuisance statute does not mention a negligence requirement; rather, it expressly recognizes that “[t]he fact that the act done may otherwise be lawful does not

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208. *See id.* at 309–10.

209. *Id.* at 296.

210. *See TVA II*, 549 F. Supp. 2d 725, 732 (W.D.N.C. 2008).

211. *Id.*; *accord* *Int’l Paper Co. v. Ouellette*, 479 U.S. 481, 507 (1987) (Brennan, J., concurring in part and dissenting in part) (“But Congress set out to establish ‘clear and identifiable’ discharge standards, . . . it did not intend to reform the ‘impenetrable jungle’ of state nuisance law . . . As both legislative history and EPA regulations indicate, compliance with effluent standards is not a defense to state tort suits . . .” (emphasis added) (internal citations omitted)).

212. Indeed, the Fourth Circuit directly rejected this possible tension, noting that “[a]s TVA’s facilities operate under permits, required by Congress and EPA regulations, we cannot say that the plant emissions of which North Carolina complains are a public nuisance.” *TVA IV*, 615 F.3d at 310 (emphasis added).

213. *Id.* at 309 (emphasis added) (internal citations omitted).

214. Brief of Appellee at 51, *TVA IV*, 615 F.3d 291 (4th Cir. 2010) (No. 09-1623).

215. *Id.* (citing six case examples).

216. *See id.* at 51–52 (noting that TVA is “the functional equivalent of a private corporation”).

217. *Id.* at 51.

218. *See id.* at 52.

keep it from being a nuisance.”<sup>219</sup> Under the statute, the proper causation analysis is “whether the [defendant] . . . has engaged in a course of conduct, or has permitted to exist a set of circumstances, that, in its natural and foreseeable consequences, proximately caused the hurt, inconvenience, or damage complained about.”<sup>220</sup>

The Fourth Circuit also cited two Tennessee cases to support its conclusion that “[a]n activity that is explicitly licensed and allowed by Tennessee law cannot be a public nuisance.”<sup>221</sup> The very different facts of these cases as compared to the present dispute demonstrate the depths to which the court went to mold the law to its holding. In one, a nuisance suit against a liquor store was dismissed because the store had a license to operate, and the opinion included no discussion of negligence.<sup>222</sup> In the other, an injured plaintiff sued a company whose employees, while cutting a pipe, caused a shard of iron to enter the plaintiff’s eye.<sup>223</sup> The court found that the question of negligence should have been submitted to the jury.<sup>224</sup> This holding demonstrates that the court treated nuisance and negligence as two different causes of action;<sup>225</sup> it did not, however, hold that negligence is required for a finding of nuisance, which is the proposition for which the Fourth Circuit cited it. Tennessee common law is clear “that a nuisance that interferes with persons’ enjoyment of their own property, particularly by pollution, is actionable regardless of whether it is a lawful activity or undertaken pursuant to a license.”<sup>226</sup> The cases cited by the Fourth Circuit fail to address, let alone preclude, public nuisance actions.

The Fourth Circuit relied on two additional contentions, which are equally unconvincing. First, the Fourth Circuit provided no support for its broad assertion that the law distinguishes “between activities which are merely not illegal . . . and those which are expressly permitted.”<sup>227</sup> Rather, aided by

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219. ALA. CODE § 6-5-120 (2010); *see also* Russell Corp. v. Sullivan, 790 So. 2d 940, 951 (Ala. 2001) (“This Court has recognized that even a lawful and careful activity, when combined with culpable acts, constitutes a nuisance if the activity hurts, inconveniences, or damages the complaining party.”).

220. *TVA III*, 593 F. Supp. 2d 812, 829 (W.D.N.C. 2009) (quoting Tipler v. McKenzie Tank Lines, 547 So. 2d 438, 440–41 (Ala. 1989)).

221. *TVA IV*, 615 F.3d 291, 310 (4th Cir. 2010) (citing O’Neil v. State *ex rel.* Baker, 206 S.W.2d 780, 781 (Tenn. 1947); Fey v. Nashville Gas & Heating Co., 64 S.W.2d 61, 62 (Tenn. Ct. App. 1933)).

222. *See* O’Neil v. State *ex rel.* Baker, 206 S.W.2d 780 (Tenn. 1947).

223. *See Fey*, 64 S.W.2d at 62.

224. *See id.*

225. *See id.* at 62 (“The fact that one has a license to interfere with a highway or a street only relieves him from the imputation of creating a *public nuisance*, but no license will relieve him from the consequences of carelessness or *negligence*. It is an implied condition of every such license that the licensee will use ordinary care in prosecuting his work, and diligence in completing it.” (emphasis added)).

226. Brief of Appellee at 54, *TVA IV*, 615 F.3d 291 (4th Cir. 2010) (No. 09-1623) (citations omitted).

227. *TVA IV*, 615 F.3d 291, 309 (4th Cir. 2010).

circular reasoning, it continued to speak in a conclusory fashion, stating that the fact that “an act that is not illegal can still be a nuisance” is irrelevant to the present dispute “because TVA’s Tennessee plants are expressly permitted to operate as they do.”<sup>228</sup>

Second, the court stated that the NAAQS (which are designed to protect people particularly sensitive to emissions) are more stringent than source state nuisance laws (which prohibit activities that significantly interfere with the average person). The Fourth Circuit then reasoned that “[i]f TVA is in compliance with the more demanding federal EPA requirements and state law SIPs, it cannot be in violation of less-stringent state law nuisance standards.”<sup>229</sup> But comparing national uniform regulatory standards to case-specific application of source state nuisance laws makes little sense. Here, Alabama’s and Tennessee’s nuisance laws, under which the district court found a public nuisance, are more stringent than the federal standards.<sup>230</sup>

*iii. The CAA Does Not Preempt Source State Nuisance Law*

The primary question before the Fourth Circuit was “whether individual states will be allowed to supplant the cooperative federal-state framework that Congress, through the EPA, has refined over many years.”<sup>231</sup> Framed in a way that telegraphs the result, the court found such state action impermissible.<sup>232</sup> Pointing to the CAA’s comprehensive treatment of emissions control, it concluded that, through its nuisance action, North Carolina was effectively asking the federal courts to impose a more stringent set of standards than those “authorized by Congress, established by the EPA, and implemented through Alabama and Tennessee permits.”<sup>233</sup> The court held that allowing such nuisance lawsuits to drive emission standards would “supplant,”<sup>234</sup> “scuttle,”<sup>235</sup>

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228. *Id.* at 310.

229. *Id.*

230. The “Restatement principles have served as the backbone of state nuisance law.” *Connecticut v. Am. Elec. Power Co., Inc.*, 582 F.3d 309, 351 (2d Cir. 2009), *cert. granted*, 178 L. Ed. 2d 530 (2010) (No. 10-174). The Fourth Circuit correctly points out that a comment to the RESTATEMENT (SECOND) OF TORTS states that “[a]lthough it would be a nuisance at common law, conduct that is fully authorized by statute, ordinance or administrative regulation does not subject the actor to tort liability.” *TVA IV*, 615 F.3d at 309 (citing RESTATEMENT (SECOND) OF TORTS § 821B cmt. f). However, the *Restatement* is only binding to the extent that the courts have adopted it. In the face of contrary state common law standards, case precedent is the proper authority to follow. After a review of state nuisance codes and case law, the district court came to the more compelling judgment that the laws of Alabama and Tennessee “are unanimous in concluding that otherwise lawful actions may be the subject of nuisance lawsuits.” *See TVA II*, 549 F. Supp. 2d 725, 732 (W.D.N.C. 2008).

231. *TVA IV*, 615 F.3d at 298.

232. *See id.* at 301–06.

233. *Id.* at 301.

234. *Id.* at 306 (“It is not open to this court to ignore the words of the Supreme Court, overturn the judgment of Congress, *supplant* the conclusions of agencies, and upset the reliance interests of source states and permit holders in favor of the nebulous rules of public nuisance.” (emphasis added)).

“overturn,”<sup>236</sup> and “replace”<sup>237</sup> the CAA’s carefully crafted state and federal regulatory schemes and would result in confusion “to the detriment of industry and the environment alike.”<sup>238</sup> The Fourth Circuit further explained that it would be unfair to replace the CAA’s regulatory framework with the “uncertain twists and turns” of public nuisance litigation since individual states, government entities, and private industries reasonably expect that they are complying with the law if they follow the CAA’s prescribed regulatory standards.<sup>239</sup>

Moreover, the court cautioned that a “patchwork of nuisance injunctions” might lead to increased air pollution because different standards set forth by the CAA and public nuisance laws “could create perverse incentives for power companies to increase utilization of plants in regions subject to less stringent judicial decrees.”<sup>240</sup> Stating that “the purpose of Congress is the ultimate touchstone in every preemption case,”<sup>241</sup> the court contended that emission standards should be established by agencies rather than courts because Congress, in enacting the CAA, “opted rather emphatically for the benefits of agency expertise in setting standards of emissions controls.”<sup>242</sup> Finally, the court pointed out that the judicial system is ill equipped to emulate EPA’s expertise in determining proper emissions standards,<sup>243</sup> and that “North Carolina’s approach would [improperly] reorder the respective functions of courts and agencies.”<sup>244</sup>

Recognizing that it “cannot anticipate every circumstance that may arise in every future nuisance action,” the Fourth Circuit stopped short of holding that

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235. *Id.* at 298 (“The district court’s well-meaning attempt to reduce air pollution cannot alter the fact that its decision threatens to *scuttle* the extensive system of anti-pollution mandates that promote clean air in this country.” (emphasis added)).

236. *Id.* (“If courts across the nation were to use the vagaries of public nuisance doctrine to *overturn* the carefully enacted rules governing airborne emissions, it would be increasingly difficult for anyone to determine what standards govern. Energy policy cannot be set, and the environment cannot prosper, in this way.” (emphasis added)).

237. *Id.* at 304 (“[T]he case . . . involves an attempt to *replace* comprehensive federal emissions regulations with a contrasting state perspective about the emission levels necessary to achieve those same public ends.” (emphasis added)); *see also id.* at 301 (“To *replace* duly promulgated ambient air quality standards with standards whose content must await the uncertain twists and turns of litigation will leave whole states and industries at sea and potentially expose them to a welter of conflicting court orders across the country.” (emphasis added)).

238. *Id.* at 296.

239. *See id.* at 301.

240. *Id.* at 302.

241. *Id.* at 303 (internal citation omitted).

242. *Id.* at 304.

243. *See id.* at 305 (“[W]e doubt seriously that Congress thought that a judge holding a twelve-day bench trial could evaluate more than a mere fraction of the information that regulatory bodies can consider.”).

244. *Id.* at 304.

the CAA has completely preempted the field of emissions regulation.<sup>245</sup> But indeed, the court left little room for such suits, and it emphasized that the Supreme Court “created the strongest cautionary presumption” against common law nuisance suits “that have the potential to undermine” federal and state regulatory laws.<sup>246</sup>

iv. *Summary of International Paper Co. v. Ouellette*

In *Ouellette*, Vermont property owners sued a New York paper mill under Vermont common law for creating a public nuisance in Vermont by discharging pollutants into Lake Champlain. The Supreme Court rejected the paper mill’s contention that the CWA preempted any action brought under state law, explaining that the CWA’s saving clause “negates the inference that Congress ‘left no room’ for state causes of action.”<sup>247</sup> But the Court held that the CWA only preserved “a nuisance claim pursuant to the law of the source State.”<sup>248</sup> It determined that application of the affected state’s law to a source in another state was impermissible for three main reasons: (1) such an action “could effectively override both the permit requirements and the policy choices made by the source State,”<sup>249</sup> (2) it would allow the affected state to “regulate the conduct of out-of-state sources,”<sup>250</sup> and (3) it would subject the source “to a variety of common-law rules established by the different States along the interstate waterways.”<sup>251</sup>

v. *Critique of the Fourth Circuit’s Opinion*

The Fourth Circuit failed to recognize that the CAA’s text, structure, and legislative history demonstrate clear congressional intent to preserve traditional state authority to use common law public nuisance actions to address interstate air pollution from stationary sources. Moreover, the court repeatedly misconstrued and misapplied the *Ouellette* Court’s holding to reach its conclusion.

The Fourth Circuit explained that the *Ouellette* Court established that “state law is preempted ‘if it interferes with the methods by which the federal statute was designed to reach [its] goal,’” and warned against “‘common-law

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245. *Id.* at 302.

246. *Id.* at 303–04 (“[A] state law is preempted ‘if it interferes with the methods by which the federal statute was designed to reach [its] goal.’” (quoting *Int’l Paper Co. v. Ouellette*, 479 U.S. 481, 494 (1987))).

247. *Ouellette*, 479 U.S. at 492.

248. *Id.* at 497.

249. *Id.* at 495.

250. *Id.*

251. *Id.* at 496.

suits that have the potential to undermine [the] regulatory structure.”<sup>252</sup> Under the preemption doctrine,<sup>253</sup> there are two traditional types of preemption: express and implied. Express preemption occurs where a federal law explicitly preempts state or local law.<sup>254</sup> Implied preemption, which is based on clear congressional intent, consists of two basic varieties: field preemption and conflict preemption. Field preemption exists where the pervasiveness of the federal regulatory scheme suggests that “Congress [has] left no room for the States to supplement it.”<sup>255</sup> Conflict preemption exists when there is an actual conflict between state and federal law.<sup>256</sup> The CAA’s saving clause<sup>257</sup> and citizen suit provisions<sup>258</sup> plainly rule out express and field preemption, leaving us to consider only whether conflict preemption bars a nuisance action in this case. The Supreme Court has summarized the test for conflict preemption as “where it is impossible for a private party to comply with both state and federal requirements, or where state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.”<sup>259</sup> Applying this test, it is clear that there is also no conflict preemption since North Carolina’s common law nuisance action does not contradict federal law. Not only is it possible for TVA to comply with both state and federal requirements, it is *certain*; that is, by complying with the district court’s abatement order pursuant to the source state nuisance laws, TVA would also be in compliance with the less stringent federal requirements set forth in the plant permits.

Additionally, the nuisance action does not undermine the CAA and its cooperative intent because “public nuisance law *is* the policy of the [source] State, not an impingement on it.”<sup>260</sup> The application of source state nuisance law also does not interfere with the operation of the air pollution reduction programs established under the Act.<sup>261</sup> While the district court’s order obliged the 100-Mile Plants sources to reduce emissions ahead of federal schedules and mandated actual controls, rather than allow the plants to purchase pollution

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252. *TVA IV*, 615 F.3d at 303 (citing *Ouellette*, 479 U.S. at 494, 497).

253. The preemption doctrine derives from the U.S. Constitution’s Supremacy Clause, which makes federal laws “the supreme Law of the Land.” U.S. CONST., art. VI, cl. 2.

254. See ERWIN CHERMERINSKY, *CONSTITUTIONAL LAW: PRINCIPLES AND POLICIES* 392–93 (3d ed. 2006).

255. *Gade v. Nat’l Solid Wastes Mgmt. Assoc.*, 505 U.S. 88, 98 (1992) (citation omitted).

256. See CHERMERINSKY, *supra* note 254, at 393.

257. 42 U.S.C. § 7604(e) (2006) (preserving common law actions).

258. *Id.* § 7604(a) (2006).

259. *Sprietsma v. Mercury Marine*, 537 U.S. 51, 65 (2002) (citing *Freightliner Corp. v. Myrick*, 514 U.S. 280, 287 (1995)).

260. Brief of Appellee at 77, *TVA IV*, 615 F.3d 291 (4th Cir. 2010) (No. 09-1623) (“The CAA, like ‘the CWA allows States . . . to impose higher standards on their own point sources, and . . . this authority may include the right to impose higher common-law as well as higher statutory restrictions.’” (citing *Int’l Paper Co. v. Ouellette*, 479 U.S. 481, 497 (1987))).

261. See *supra* Part I.E.2 (discussing the ARP, NO<sub>x</sub> SIP Call, section 110(a)(2)(D) good neighbor provision, and section 126(b) petition process).

credits through existing emissions trading programs,<sup>262</sup> these requirements would have promoted the purpose of the CAA by reducing major emissions of criteria pollutants. Moreover, by complying with the injunction, TVA's emission reductions would have created "cap and trade pollution allowances," which TVA still could have sold or banked for later use.<sup>263</sup> Source state nuisance law actions frustrate the CAA's purpose only if they "discourage conduct that federal legislation specifically seeks to encourage."<sup>264</sup> Here, this is clearly not the case. The plain goal of the CAA is to combat air pollution,<sup>265</sup> North Carolina's nuisance suit and the lower court's abatement remedy would have accomplished just that.

A straightforward application of the implied preemption doctrine does not support the Fourth Circuit's conclusion that "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."<sup>266</sup> Nor does the Fourth Circuit's assertion that the *Ouellette* decision created "the strongest cautionary presumption against" nuisance actions hold water.<sup>267</sup> Tennessee and Alabama retained the job of achieving the NAAQS through their SIPs; the nuisance action brought under their own state nuisance laws complements the CAA by promoting pollution reduction values.<sup>268</sup> The Fourth Circuit improperly recast North Carolina's suit as "an attempt to replace comprehensive federal emissions regulations with a contrasting state perspective about the emission levels necessary to achieve those same public ends."<sup>269</sup> It ignored both the district court's strict application

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262. See Brief for Appellant at 59–60, *TVA IV*, 615 F.3d 291 (4th Cir. 2010) (No. 09-1623); Page Proof Brief of Amici Curiae for Kentucky et al. at 24–26, *TVA IV*, 615 F.3d 291 (4th Cir. 2010) (No. 09-1623); Brief of Amici Curiae Chamber of Commerce of the United States et al. in Support of Defendant-Appellant at 6–13, *TVA IV*, 615 F.3d 291 (4th Cir. 2010) (No. 09-1623).

263. See Brief of Appellee at 78–79, *TVA IV*, 615 F.3d 291 (4th Cir. 2010) (No. 09-1623). State regulations that are more stringent than CAIR "do not directly interfere with . . . CAIR." *Id.* (citing *Mirant Potomac River, L.L.C. v. EPA*, 577 F.3d 223, 230 (4th Cir. 2009)). Banking means an allowance holder keeps its emissions allowance for use in future years rather than applying it to the present year. See 42 U.S.C. § 7651b(b) (2006); 40 C.F.R. § 73.36 (2010).

264. Brief of Appellee at 78, *TVA IV*, 615 F.3d 291 (4th Cir. 2010) (No. 09-1623) (quoting *Morgan City v. S. Louisiana Elec. Coop. Ass'n.*, 31 F.3d 319, 322 (5th Cir. 1994)).

265. See 42 U.S.C. § 7401(b)(1) (2006) ("The purposes of this subchapter are . . . to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population . . .").

266. *TVA IV*, 615 F.3d 291, 303 (4th Cir. 2010).

267. *Id.*

268. Cf. *Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 506 (1987) (Brennan, J., concurring in part and dissenting in part) ("Subjecting polluters to state common-law liability simultaneously promotes the main federal goal of eliminating water pollution entirely . . . and obeys the congressional command to leave state common law intact.").

269. *TVA IV*, 615 F.3d at 304.

of the source state nuisance laws to the facts alleged at trial and the district court's narrowly tailored remedy of *partial* injunctive relief.<sup>270</sup>

The *Ouellette* Court said it best: bringing an action under source state nuisance law would “not frustrate the goals of the CWA,”<sup>271</sup> would “not disturb the balance among federal, source-state, and affected-state interests,”<sup>272</sup> and would “not disrupt the regulatory partnership established by the permit system.”<sup>273</sup> The Court recognized that the CWA (and thus, by extension, the CAA in light of the statutes' materially identical saving clauses)<sup>274</sup> “allows States . . . to impose higher standards on their own point sources, and . . . this authority may include the right to impose higher common-law as well as higher statutory restrictions.”<sup>275</sup> Moreover, while the Supreme Court has acknowledged that there is “no one crystal clear distinctly marked formula” for federal preemption of state standards,<sup>276</sup> courts are inclined to recognize a “presumption against preemption in areas traditionally regulated by the states.”<sup>277</sup> Indeed, such a “presumption against preemption where the relevant state regulatory activity falls within a field of traditional state authority” is one of the widely recognized “black letter rules” of Supreme Court preemption jurisprudence.<sup>278</sup> Air quality protection “is a classic exercise of the state's police power to protect the health, safety, and welfare of their citizens.”<sup>279</sup>

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270. The district court found that fewer than half of the challenged plants met the common law's strict causation requirements. *Id.* at 830–31 (finding that four of eleven challenged TVA coal plants created a public nuisance in North Carolina).

271. *Ouelette*, 479 U.S. at 498.

272. *Id.* at 499.

273. *Id.*

274. See *supra* II.A.2.

275. *Ouelette*, 479 U.S. at 497.

276. See *Fla. Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 165 n.11 (1963) (citation omitted).

277. Ann E. Carlson, *Federalism, Preemption, and Greenhouse Gas Emissions*, 27 ENVIRONS ENVTL. L. & POL'Y J. 281, 300 (2003).

278. Robert R. Gasaway, *The Problem of Federal Preemption: Reformulating the Black Letter Rules*, 33 PEPP. L. REV. 25–26 (2005); see also *City of Milwaukee v. Illinois*, 451 U.S. 304, 316 (1981) (“The Court is less likely . . . to find federal preemption of state common law because it begins ‘with the assumption that the historic police powers of the states were not to be superseded by [federal legislation] unless that was the clear and manifest purpose of Congress.’”); James R. May, *Of Happy Incidents, Climate, Federalism, and Preemption*, 17 TEMP. POL. & CIV. RTS. L. REV. 465, 481 (2008) (noting that “[t]he Court generally upholds state action concerning matters traditionally under state control, such as energy and pollution control,” which “includes . . . common law causes of action for environmental nuisance or negligence”); Sandra Zellmer, *Preemption by Stealth*, 45 HOUS. L. REV. 1659, 1675 (2009) (“State and local governments historically grappled with air pollution problems through smoke abatement ordinances and the like, and air pollution prevention falls squarely within states’ traditional police powers of protecting their citizens’ health.”)

279. PHILIP WEINBERG & KEVIN A. REILLY, UNDERSTANDING ENVIRONMENTAL LAW 78 (2d ed. 2008); see also *Huron Portland Cement Co. v. Detroit*, 362 U.S. 440, 442 (1960) (recognizing that the authority of states “to free from pollution the very air that people breathe clearly falls within the exercise of even the most traditional concept of what is compendiously known as the police power”).

The Fourth Circuit rejected North Carolina's nuisance claim by improperly invoking the *Ouellette* Court's language out of context. One example is the *Ouellette* Court's determination that "[i]t is unlikely—to say the least—that Congress intended to establish such a chaotic regulatory structure."<sup>280</sup> But the Court was not referring to the use of source state nuisance law. Rather, it was explaining why the nuisance law of the affected state should not apply extraterritorially.<sup>281</sup> The Court explicitly ruled that source state common law is applicable.<sup>282</sup> Similarly, the Fourth Circuit pointed to the *Ouellette* Court's statement that the CWA's saving clause did not allow states to "undermine this carefully drawn statute through a general savings clause."<sup>283</sup> Again, the Court's focus was on the CWA's preemptive effect on nuisance actions based on the law of an *affected* state.<sup>284</sup>

vi. *There Are No Adequate Alternative Remedies*

Finally, the Fourth Circuit found that "North Carolina has a number of possible paths to pursue [outside of public nuisance injunctions] in its entirely laudable quest to guarantee pure air to its citizens."<sup>285</sup> The court's "non-exclusive" list included: (1) North Carolina's previous opportunity to comment on and object to Alabama's and Tennessee's SIPs before they were approved by the EPA and implemented by the states;<sup>286</sup> (2) the CAA citizen suit provision authorizing a private suit against an entity that fails to comply with emissions standards or implementing state permit programs;<sup>287</sup> (3) the CAA provision authorizing a cause of action against EPA for failure to perform any

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280. *Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 497 (1987).

281. *See supra* Part II.B.2.iv.

282. *Ouellette*, 479 U.S. at 496–97 ("For a *number of different states* to have independent and plenary regulatory authority over a single discharge would lead to chaotic confrontation between sovereign states. Dischargers would be forced to meet not only the statutory limitations of all states potentially affected by their discharges but also the common law standards developed through case law of those states. It would be virtually impossible to predict the standard for a lawful discharge into an interstate body of water. Any permit issued under the Act would be rendered meaningless. . . . *It is unlikely—to say the least—that Congress intended to establish such a chaotic regulatory structure.*" (emphasis added)).

283. *TVA IV*, 615 F.3d 291, 304 (4th Cir. 2010).

284. *Ouellette*, 479 U.S. at 494 ("Because we do not believe Congress intended to undermine this carefully drawn statute through a general saving clause, we conclude that the CWA precludes a court from applying the law of an *affected State* against an out-of-state source." (emphasis added)); *see also id.* at 497 ("The saving clause specifically preserves other state actions, and therefore *nothing in the Act bars aggrieved individuals from bringing a nuisance claim pursuant to the law of the source State.*" (emphasis added)).

285. *TVA IV*, 615 F.3d at 311.

286. *See id.* (noting that North Carolina "apparently chose not to do so, and cannot complain now that it desires a different resolution").

287. *See id.*

nondiscretionary responsibility;<sup>288</sup> and (4) the petition process under CAA section 126.<sup>289</sup>

The first three alternatives are patently empty. First, North Carolina cannot go back in time to alter its participation in the source state SIP proceedings, and, given the complexity of the problem, it is unclear whether the state could have known or shown that TVA's emissions would impact its ability to meet the NAAQS. Second, since TVA appears to be in compliance with its permits,<sup>290</sup> the referenced CAA citizen suit provision for emission violations is of no use to North Carolina. Third, the court fails to explain how a suit against EPA for failure to perform a nondiscretionary duty<sup>291</sup> would work to alleviate TVA's unreasonable emissions. Moreover, it is unclear what that failed nondiscretionary duty could even be,<sup>292</sup> and the court provides no suggestion, since a plaintiff is barred from challenging how EPA performs its duties.<sup>293</sup>

The court's fourth proffered solution, the CAA section 126 petition process, also fails to pass muster since the *Ouellette* Court expressly recognized that federal law and source state common law may provide for overlapping remedies without conflict.<sup>294</sup> This proposal warrants additional analysis given that North Carolina pursued this avenue prior to bringing its nuisance action. In its section 126(b) petition, filed in 2004, North Carolina sought a specific determination from EPA that emissions from large electric utilities in thirteen upwind states were significantly contributing to PM<sub>2.5</sub> and/or ozone nonattainment and maintenance problems in North Carolina.<sup>295</sup> Two years later,

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288. *See id.*

289. *See id.* ("North Carolina's section 126 claims . . . remain pending, and there is no suggestion that the process will fail to provide North Carolina with a full and fair venue for airing its concerns.")

290. *But see* Brief of Appellee at 55–57, *TVA IV*, 615 F.3d 291 (4th Cir. 2010) (No. 09-1623) (challenging TVA's proof of permit compliance and noting that the district court "never made such a finding").

291. As authorized by 42 U.S.C. § 7604(a)(2) (2006).

292. For example, a permissible challenge to a nondiscretionary duty would be EPA's failure to timely review proposed SIP revisions. But a challenge to the EPA's approval of a SIP, which is "inherently discretionary," would be impermissible. *See WEINBERG, supra* note 279, at 101.

293. *See id.* at 100–01 (citing *Wisconsin's Env'tl. Decade, Inc. v. Wis. Power & Elec. Co.*, 395 F. Supp. 313 (W.D. Wis. 1975)).

294. *See Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 498 n.18 (1987) ("Nothing in our decision, of course, affects respondents' right to pursue remedies that may be provided by the Act.")

295. *See* Petition at 21, Rulemaking on Section 126 Petition from North Carolina to Reduce Interstate Transport of Fine Particulate Matter and Ozone, 71 Fed. Reg. 25,328 (Apr. 28, 2006) (to be codified at 40 C.F.R. pts. 51, 52, 72, 73, 74, 78, 96, 97) (No. EPA-HQ-OAR-2004-0076), available at <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2004-0076-0002> ("Based on the technical information presented in this petition, North Carolina has concluded that SO<sub>2</sub> and NO<sub>x</sub> emissions from the [large electric generating units] are the most prevalent contributors to the State's nonattainment issues. In its discretion under section 126, the State elects to petition against such sources at this time.")

EPA denied the petition, electing to rely on the CAIR FIP<sup>296</sup> to address interstate transport affecting North Carolina.<sup>297</sup> After the D.C. Circuit remanded rulemaking of CAIR, it also ordered EPA to reconsider North Carolina's section 126 petition.<sup>298</sup> Almost two years later, the Fourth Circuit accurately noted that "North Carolina's section 126 claims . . . remain pending."<sup>299</sup>

Even if the Fourth Circuit is correct that the process still offers North Carolina "a full and fair venue for airing its concerns,"<sup>300</sup> the court overlooks that the state's section 126 petition and its common law public nuisance suit are two different actions, based on different justifications, with different remedies; accordingly, the two may proceed simultaneously. Indeed, the district court specifically found that North Carolina's nuisance action was not impermissibly duplicative of its pending petition because the petition sought emissions reductions from sources in thirteen states, while the suit named TVA sources in only three of those states and restricted its arguments to their respective nuisance laws. A successful abatement of the nuisance would remedy the specific health and environmental harms alleged in the complaint. The Fourth Circuit also overlooked the extremely slow pace of the section 126 petition process, finding it acceptable that North Carolina continue to wait for relief, seven years after filing its petition. This waiting game comes at a high price to the state's public health, welfare, environment, and economy. While the section 126 petition process has thus far failed North Carolina, the district court order in its nuisance action offered tangible relief from TVA's unreasonable emission levels.<sup>301</sup>

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296. See *supra* Part I.E.2.ii (summarizing the Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule), 70 Fed. Reg. 25,162 (May 12, 2005) (codified at 40 C.F.R. pts. 96-97)).

297. See Rulemaking on Section 126 Petition from North Carolina to Reduce Interstate Transport of Fine Particulate Matter and Ozone, 71 Fed. Reg. 25,328, 25,338 (Apr. 28, 2006).

298. See *Sierra Club v. EPA*, 313 F. App'x 331, 331 (D.C. Cir. 2009) ("EPA concedes this Court's holding in *North Carolina v. EPA*, 531 F.3d 896 (D.C. Cir. 2008), and its order in that case of December 23, 2008, have eliminated the legal basis for EPA's denial of North Carolina's Section 126 petition with regards to PM<sub>2.5</sub>").

299. *TVA IV*, 615 F.3d 291, 311 (4th Cir. 2010); *Cf. Barrella, supra* note 16082, at 253 (predicting that "[w]hen EPA does eventually respond to North Carolina's petition, its response will likely be (if history is any guide) that the petition's concerns will be addressed by EPA's latest rulemaking involving interstate emissions").

300. *Id.*

301. *Accord* Petition for Writ of Certiorari at 18, *North Carolina ex rel. Cooper v. Tenn. Valley Auth.*, No. 10-997 (U.S. Feb. 2, 2011) (noting that the "net effect of the Fourth Circuit's decision . . . is to deny injured plaintiffs even the right to pursue a remedy," which "is hardly the result counseled by *Ouellette*").

### III. SOURCE STATE NUISANCE LAW: NEITHER REPLACEMENT NOR PANACEA

This Note, like many before it, acknowledges that modern environmental statutes grew up to fill in the gaps left by common law nuisance doctrines,<sup>302</sup> but it rejects the contention that such statutes offer a complete solution. Rather, the common law of nuisance co-exists with, complements, and fills the gaps in, statutory regimes. A comparison of common law and federal statutory law demonstrates why both are needed to reduce pollution to environmentally safe levels.

This Part weighs the comparative merits of common law nuisance and then concludes that, as a matter of policy, courts should apply source state public nuisance doctrine to cases of interstate air pollution.

#### A. *Common Law versus Public Law*

The relative advantages and disadvantages of common law and public law have been widely considered.<sup>303</sup> Professor Alice Kaswan summarizes the strengths and weaknesses of each through the lens of four evaluative parameters: “(1) democratic principles; (2) effectiveness as a tool for addressing environmental problems (considering such factors as comprehensiveness, consistency, flexibility, and advance notice); (3) institutional competence; and (4) the availability of a remedy for pollution victims.”<sup>304</sup> This Part summarizes and builds upon Professor Kaswan’s analytical framework.

##### 1. *Democratic Values*

Public law receives the highest marks for democratic principles because Congress enacts laws through a democratic process, and agencies, with delegated authority, generally use a notice and comment rulemaking procedure that allows public participation.<sup>305</sup> Common law cases, on the other hand, are

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302. See, e.g., Alice Kaswan, *The Domestic Response to Global Climate Change: What Role for Federal, State, and Litigation Initiatives?*, 42 U.S.F. L. REV. 39, 102 n. 331 (2007) (explaining that the increased promulgation of new federal environmental laws beginning in 1970 was “partly a response to the failure of state regulatory measures,” as well as representing “an implicit rejection of the common law as an environmental policy tool.” (citations omitted)); see also Roger Meiners & Bruce Yandle, *Common Law and the Conceit of Modern Environmental Policy*, 7 GEO. MASON L. REV. 923, 956–58 (1999) (“Critics of common law argue that common law protection is unreliable in that bad consequences still happen despite the law, that evidence of cause and effect is difficult to provide, and that enforcement is subject to unpredictable whims of common law judges and juries.”).

303. See, e.g., David C. Vladeck, *Preemption and Regulatory Failure Risks*, in PREEMPTION CHOICE 54, 56–57 (2009) (explaining why common law regimes should be preserved despite overlapping federal regulation).

304. Kaswan, *supra* note 302, at 98.

305. See Administrative Procedure Act, 5 U.S.C. § 553 (2006).

limited to the parties, intervenors, and court-authorized amici participants, and are decided by judges who may not be politically accountable.<sup>306</sup> Moreover, given “the delicate political balance between environmental and economic concerns” common to environmental debates, politically responsive institutions may be more suitable actors.

But “[t]he [federal] judiciary’s lack of political accountability,” by insulating the courts from lobbyists, “can also be seen as one of its virtues.”<sup>307</sup> Common law can thus function to “protect rights, not . . . interest groups”<sup>308</sup> and “correct[] for a regulatory system that is too easily controlled by the very interests it is supposed to be controlling.”<sup>309</sup> Moreover, the legislative branch, which can pass laws that courts must follow, has the “ultimate democratic check” on the court’s ability to use its common law authority. Additionally, common law doctrines are flexible and can provide unique responses to societal changes,<sup>310</sup> “often . . . without changing the doctrines themselves.”<sup>311</sup> For example, in nuisance law, “the concept of what types of actions are ‘unreasonable’ is capable of evolving as society evolves, without requiring a fundamental doctrinal shift, and without requiring all of the necessary political stars to align.”<sup>312</sup> Thus “the common law process is continuous; it draws together information on controversies as they occur; and evolves as the world changes.”<sup>313</sup>

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306. Federal judges generally are not politically accountable. *See* U.S. CONST. art. II, § 2, cl. 2 (stating that the the President “shall nominate, and by and with the Advice and Consent of the Senate, shall appoint” federal judges); U.S. CONST. art. III, § 1 (explaining that federal judges enjoy life tenure and cannot be removed from office except through impeachment). However, state judges are generally elected. *See Judicial Selection in the States*, THE AMERICAN JUDICATURE SOCIETY, <http://www.judicialselection.us/> (last visited Apr. 25, 2011) (containing comprehensive information on judicial selection processes in each of the fifty states and the District of Columbia).

307. Kaswan, *supra* note 302, at 99; *see also* Richard E. Levy & Robert L. Glicksman, *Access to Courts and Preemption of State Remedies in Collective Action Perspective*, 59 CASE W. RES. L. REV. 919, 953 (2009) (“[T]he institutional structure of courts differs from that of legislatures. These differences insulate judges from the political pressures that create problematic incentives for legislatures.”).

308. Meiners & Yandle, *supra* note 302, at 956.

309. Kaswan, *supra* note 302, at 99 (citation omitted).

310. *See* Henry N. Butler, *A Defense of Common Law Environmentalism: The Discovery of Better Environmental Policy*, 58 CASE W. RES. L. REV. 705, 705–06 (2008).

311. Kaswan, *supra* note 302, at 100.

312. *Id.*

313. Meiners & Yandle, *supra* note 302, at 959; *see also* Butler, *supra* note 310, at 705–06 (“Command-and-control bureaucrats and legislators are often oblivious to changes inherent in a dynamic world, but common law environmentalism and jurisdictional competition provide a dynamic process through which policy options are discovered and discarded in response to the reality of perpetual changes in technology and political preferences.”).

## 2. Effectiveness

In terms of comprehensiveness, consistency, and advance notice to the regulated, which Kaswan uses as helpful proxies for effectiveness,<sup>314</sup> public law, again, has the upper hand. Where public law establishes “objective, consistent standards,” the common law relies on a piecemeal approach dependent on individual plaintiffs suing individual polluters.<sup>315</sup> The high cost of litigation,<sup>316</sup> free rider problems,<sup>317</sup> and proof difficulties<sup>318</sup> serve as roadblocks to successful common law actions, likely leading some polluters to escape liability. Moreover, even when similarly situated actors are subject to common law action, results may differ “due to the lack of precise standards and the notorious subjectivity of nuisance law.”<sup>319</sup> Finally, public law gives the regulated community notice of legal principles, which is lacking from the common law’s retroactive application of variable nuisance standards.<sup>320</sup>

However, the effectiveness of uniform federal legal standards is diminished when enforced non-uniformly.<sup>321</sup> Moreover, the SIP process is not a model of clarity. For example, due to “the inherent complexity of developing and setting standards for a multiplicity of pollutants and types of sources all at the same time,”<sup>322</sup> EPA inevitably revises the NAAQS for the six criteria pollutants at different times, which tends to cause states to revise their SIPs pollutant-by-pollutant.<sup>323</sup> Such piecemeal announcement of obligations can be problematic for the regulated industry “because sources typically emit many

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314. See Kaswan, *supra* note 302, at 100–02.

315. See *id.* at 101.

316. The expense of litigation leads some harmed plaintiffs to abstain from bringing suit because these costs would exceed the benefits received from an injunction or damages award. Heimert, *supra* note 86, at 415.

317. Since an injunction benefits everyone in the surrounding area of the pollution, people have an incentive to “free ride” and wait for someone else to bear the cost of litigation. See Kaswan, *supra* note 302, at 100–01 (“Many instances of environmental harm might not be addressed because the victims lack the resources to bring suit, or because of the ‘free rider’ problem: each resident’s hope that someone else will bring suit.”).

318. See, e.g., Jason J. Czarnecki & Mark L. Thomsen, *Advancing the Rebirth of Environmental Common Law*, 34 B.C. ENVTL. AFF. L. REV. 1, 5 (2007) (“[T]ort law plaintiffs face the burden of having to show causation, which can be especially difficult if there are multiple polluters, and often plaintiffs must expend substantial financial resources to bring common law tort actions against entities having potentially far greater resources.”); Daniel A. Farber, *Toxic Causation*, 71 MINN. L. REV. 1219, 1220 (1987) (describing how proving causation is difficult in the context of toxic pollution); REITZE, *supra* note 87, at 3 (“The interaction of many chemicals, before and during exposure, and the limits of scientific knowledge make proving causation difficult.”).

319. Kaswan, *supra* note 302, at 101.

320. See *id.*

321. See Meiners & Yandle, *supra* note 302, at 957 (explaining that federal laws “lead to uniform rules with variable enforcement”).

322. Schoenbrod, Schwartz & Sandler, *supra* note 103, at 294.

323. See *id.* at 294–95.

kinds of pollutants and many pollutants are controlled by the same methods.”<sup>324</sup> Moreover, nuisance principles are not as “vague” and “indeterminate” as the Fourth Circuit would have us believe.<sup>325</sup> “Tort law still applies community or collective norms, often under a rubric of ‘unreasonableness’”;<sup>326</sup> the difference is that these norms are “spelled out through an iterative process of individualized litigation, [rather than] through an intentional decision of some public entity.”<sup>327</sup> And as North Carolina’s CAA section 126 petition process experience demonstrates, administrative remedies may be cumbersome and slow, with public nuisance suits potentially offering faster relief.<sup>328</sup> North Carolina’s nuisance action embodies the forecast made decades ago that

[a]part from its usefulness as a gap-filler, public nuisance has the flexibility to provide a remedy when an administrative agency, charged with providing the necessary environmental and health protection pursuant to a comprehensive regulatory scheme, nevertheless allows a serious pollution problem to go unabated.<sup>329</sup>

### 3. *Institutional Competency and Remedy Availability*

Administrative agencies with delegated authority to enforce public laws have scientific and policy expertise, which legal generalist judges admittedly lack.<sup>330</sup> But concern about “deep judicial involvement in highly technical matters” is not unique to common law actions. Such concern has existed “throughout the modern history of environmental law” since agency regulations challenged in court are subject to judicial review.<sup>331</sup> Nor are concerns about the court’s role in “adjudicating transboundary pollution disputes implicating the interests of two ‘quasi-sovereign’ states”<sup>332</sup> unique to common law actions.

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324. *Id.*

325. *See TVA IV*, 615 F.3d 291, 303 (4th Cir. 2010).

326. Christopher H. Schroeder, *Lost in the Translation: What Environmental Regulation Does That Tort Cannot Duplicate*, 41 WASHBURN L.J. 583, 585 (2002).

327. *Id.*

328. Antolini, *supra* note 5, at 759 n.6 (noting that “public nuisance fills statutory gaps when administrative remedies are ‘slow,’ restricted, or too weak”) (citation omitted).

329. Abrams, *supra* note 3, at 397; *see also* Antolini, *supra* note 5, at 775 (“Given that federal and state environmental statutes are never likely to form a seamless web of environmental protection and that national political shifts can poke huge holes in the web, there will always be an important practical role for public nuisance.”)

330. *See* Kaswan, *supra* note 302, at 102.

331. DOREMUS ET AL., *supra* note 51, at 95 (“Judicial review of agencies may involve determinations of whether an agency has acted beyond its delegated authority or beyond constitutional limits, whether an agency’s findings of fact are adequately supported, whether an agency’s interpretation of the law is proper, and whether an agency has made reasonable judgments.”). *See* Administrative Procedure Act, 5 U.S.C. § 706 (2006).

332. Thomas W. Merrill, *Golden Rules for Transboundary Pollution*, 46 DUKE L.J. 931, 945 (1997).

Moreover, judges “have the benefit of sworn experts” to help them understand complex scientific and technological matters.<sup>333</sup>

Lastly, the common law can offer pollution victims “compensatory damages, punitive damages, and injunctive relief tailored to the circumstances,”<sup>334</sup> which federal environmental laws cannot. For example, under the CAA, penalties are paid into a U.S. Treasury fund that finances nationwide compliance and enforcement efforts; consequently, such payments may not translate into compensation to those actually harmed by the violation.<sup>335</sup>

#### 4. *Implication: Common Law and Public Law Offer Complementary, Overlapping Remedies*

In sum, common law and public law “are not mutually exclusive”; indeed, “they often coexist,” particularly “with respect to state common law.”<sup>336</sup> Where statutes provide a “comprehensive, preventative, regulatory regime,”<sup>337</sup> the common law is reactive, offering pollution victims a remedy for past harm.<sup>338</sup> A commonly advanced reason for why nuisance law endures “amid apparently comprehensive federal and state environmental regulations” is because of its “nearly infinite flexibility and adaptability and . . . inherent capacity to fill gaps in statutory controls.”<sup>339</sup> Through injunctive relief, common law actions can “promote timely restoration of damaged natural resources and polluted lands,” which are goals of the federal environmental statutes themselves.<sup>340</sup>

### IV. DEFINING THE EDGES OF THE GAP: THE PROPER BOUNDARIES OF PUBLIC NUISANCE

While allowing common law to play an overlapping, gap-filling role in the modern administrative state is not a novel idea in American governance,<sup>341</sup> it is

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333. Kaswan, *supra* note 302, at 102.

334. *Id.* at 103.

335. See WEINBERG, *supra* note 279, at 101. Although in some cases, funds may instead be used for beneficial mitigation projects related to the Act, called supplemental environmental projects. See DOREMUS ET AL., *supra* note 51 at 829 (noting the variety of supplemental environmental projects, including, for example, “an air toxics reduction demonstration study”).

336. Kaswan, *supra* note 302, at 103. The CAA’s saving clause explicitly preserves state common law actions. See 42 U.S.C. § 7604(e) (2006).

337. Kaswan, *supra* note 302, at 103.

338. See *id.*

339. John Harleston & Kathleen M. Harleston, *The Suffolk Syndrome: A Case Study in Public Nuisance Law*, 40 S.C. L. REV. 379, 380 (1989).

340. See Czarnezki & Thomsen, *supra* note 318, at 2–3; see also Alexandra B. Klass, *Common Law and Federalism in the Age of the Regulatory State*, 92 IOWA L. REV. 545, 599 (2007) (“The building blocks for state common law are there for those who wish to use them as a progressive force.”).

341. See, e.g., Klass, *supra* note 340, at 599; see also THE COMMON LAW AND THE ENVIRONMENT: RETHINKING THE STATUTORY BASIS FOR MODERN ENVIRONMENTAL LAW (Roger E. Meiners &

not altogether welcome, as the Fourth Circuit's decision demonstrates. The court noted that industry would face debilitating uncertainty if it remained susceptible to common law nuisance actions despite permit compliance.<sup>342</sup> "[P]redictability and consistency," however, "are not the only values served by the law"; certainly, "the common law's ability to respond to unique circumstances is intrinsically valuable."<sup>343</sup> Moreover, given the comprehensive nature of federal air pollution regulations and the common law's strict causation requirements, it is unlikely that there will be a flood of public nuisance suits with debilitating impacts on industry.<sup>344</sup>

### A. Guiding Principles

For public nuisance actions brought to address interstate air pollution problems, the following principles should guide courts' decisions: (1) such actions should only be brought by the attorney general in the name of the state; (2) the court should base its decision on a strict application of the source state nuisance law to the factual record to ensure injuries meet robust causation requirements; (3) the court should not apply fault principles because public nuisance liability is predicated upon unreasonable injury, not unreasonable conduct; (4) the court should only provide injunctive relief, narrowly tailored to the record, to abate the public nuisance.

#### 1. States May Sue in their *Parens Patriae* Capacity

A state has standing as *parens patriae* ("parent of the country") to sue for an injury to its "quasi-sovereign interest," which includes its interest in its citizens' health, safety, and welfare, and interest in a healthy environment.<sup>345</sup>

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Andrew P. Morriss eds., 2000); Butler, *supra* note 310; Czarnecki & Thomsen, *supra* note 318; Meiners & Yandle, *supra* note 302; Olinger, *supra* note 166; Merrill, *supra* note 166; Heimert, *supra* note 86; William H. Wilson, *Nuisance as a Modern Mode of Land Use Control*, 46 WASH. L. REV. 47 (1970).

342. See *TVA IV*, 615 F.3d 291, 306 (4th Cir. 2010) ("A company, no matter how well-meaning, would be simply unable to determine its obligations *ex ante* under such a system, for any judge in any nuisance suit could modify them dramatically. Rather than take this risk in the future, 'otherwise worthy permit applicants will weigh the formidable costs in delay and litigation, and simply will not apply.'" (citation omitted)).

343. Kaswan, *supra* note 302, at 104.

344. See Caplan, *supra* note 55, at 202 (noting that nuisance litigation "is time-consuming, expensive, and likely to fail on issues of causation"); see also Brief of Amici Curiae Nat'l Parks Conservation Ass'n et al. at 21, *TVA IV*, 615 F.3d 291 (4th Cir. 2010) (No. 09-1623) (arguing that the district court's decision would not "open the floodgates to a surge in nuisance litigation or establish near-universal liability").

345. See Abrams, *supra* note 3, at 384 n.149 (citation omitted); see also *Connecticut v. Am. Elec. Power Co.*, 582 F.3d 309, 334 (2d Cir. 2009), *cert. granted*, 178 L. Ed. 2d 530 (2010) (No. 10-174). ("Parens patriae is an ancient common law prerogative which 'is inherent in the supreme power of every state . . . [and is] often necessary to be exercised in the interests of humanity, and for the prevention of injury to those who cannot protect themselves.'" (citation omitted)); Allan Kanner, *The Public Trust*

Parens patriae suits to protect the public health and welfare from public nuisance are “well-established.”<sup>346</sup> While it is generally possible for a private plaintiff to bring a private action against a public nuisance under the special injury rule,<sup>347</sup> courts should recognize that the special injury rule should play no role in public nuisance suits brought to abate interstate air pollution. A public nuisance action to address an interstate air pollution problem should only be brought by the state attorney general. Requiring an attorney general to assess public complaints and conduct independent investigations to determine whether there is adequate factual basis to support a public nuisance challenge is far more efficient than a piecemeal approach of individual private actions for public nuisance grounded in a special injury rule. This is particularly true in light of the high costs of litigation and technical experts needed to meet nuisance law’s strict causation and proof requirements.

## 2. *Strict Application of Nuisance Law to Facts*

In tort law, as in all law, each case stands on its own facts.<sup>348</sup> A court must limit its review to the facts in the record and resist the temptation to make policy judgments.<sup>349</sup> For example, the district court held that certain coal plants created a public nuisance based on the harms they caused to North Carolina’s environment, economy, and the health and welfare of its citizens. These harms were well established in the factual record and were the type of injuries commonly recognized by the nuisance laws of the two source states. The court granted only partial relief because there was insufficient proof that emissions from TVA’s other seven plants were having an unreasonable health, safety, or welfare impact in North Carolina.<sup>350</sup>

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*Doctrine, Parens Patriae, and the Attorney General as the Guardian of the State’s Natural Resources*, 16 DUKE ENVTL. L. & POL’Y F. 57, 101 (2005).

346. Abrams, *supra* note 3, at 384 n.149 (citations omitted).

347. The private plaintiff must show that he suffered harm different from that experienced by the larger community, in addition to establishing the other elements of public nuisance. *See supra* Part I.A.

348. *See Tipler v. McKenzie Tank Lines*, 547 So. 2d 438, 440 (Ala. 1989) (explaining that under Alabama law, in order to find a nuisance, a court must “look to the particular *facts* of each case” (emphasis added)); *Memphis Light, Gas & Water Div. v. Goss*, 494 S.W.2d 766, 769 (Tenn. 1973) (explaining that under Tennessee law, what constitutes a nuisance “must . . . be determined upon the *facts* shown in any particular case” (emphasis added) (internal citation omitted)).

349. *See MELVIN EISENBERG, THE NATURE OF THE COMMON LAW* 3 (1991) (“Although the judge is not limited to doctrines found in past official texts, neither is he free, as would be a legislator, to employ those social propositions he thinks best, or to establish those rules he thinks best, on the basis of his own moral and political convictions. Rather, the judge is under an obligation to employ only those social propositions that satisfy certain criteria, and to establish only those rules that are generated by the application of the institutional principles of adjudication.”).

350. *See TVA III*, 593 F. Supp. 2d 812, 831–32 (W.D.N.C. 2009).

### 3. *No Consideration of Fault*

A fault analysis of whether the offending party acted negligently, like that engaged in by the Fourth Circuit, is illogical in a public nuisance suit.<sup>351</sup> The public should not have to endure an unreasonable interference with its rights simply because the responsible entity has acted non-negligently or even, as in TVA's case, has acted in compliance with pollution permits. While negligence liability is predicated upon unreasonable conduct, nuisance liability is predicated upon unreasonable injury.<sup>352</sup>

### 4. *Narrowly Tailored Injunctive Relief*

A finding of public nuisance in the interstate air pollution context should solely establish a right to injunctive relief,<sup>353</sup> which must be narrowly tailored to address the established injuries. It would be impractical to employ a so-called "balancing of the equities"<sup>354</sup> process because a public nuisance does not always, nor should it, lend itself to quantifiable injury. For example, the "right to breathe clean air" is "not readily amenable to comparative assessment," nor would it be proper for a court to view this right as an "amenit[y] which can be sacrificed for the benefits associated with a worthy private enterprise."<sup>355</sup> Through public nuisance actions, states, acting in their *parens patriae* capacities, have historically exercised authority to seek abatement of interstate air pollution.<sup>356</sup>

The district court's remedy specifying plant-specific emissions caps and control technologies demonstrates a proper, narrowly tailored abatement remedy. Moreover, while the court recognized the efficiency of reducing TVA's total emissions (based on a system-wide cap for all TVA plants developed by North Carolina's expert) it chose not to use this limit because

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351. See *Abrams*, *supra* note 3, at 370 ("[T]he notion of fault is the least functional . . . when balancing the interests of the property holder against the interests of the state in the exercise of its police power, because the beneficiary is not an individual but the community."); James A. Sevinsky, *Public Nuisance: A Common-Law Remedy Among the Statutes*, NAT. RESOURCES & ENV'T, Summer 1990, at 29, 29 ("Fault is simply not a basis for public nuisance liability to a state, and fault-based care and causation defenses are not appropriate elements of the basic claim . . .")

352. See *id.* at 369.

353. See Merrill, *supra* note 332, at 938-39 ("Within the American federal system, the appropriate remedy is mandatory relief in the form of an administrative order forcing the offending facilities in the source state to abate their pollution in order to eliminate the illegal transboundary effect.")

354. See, e.g., *Stockdale v. Agrico Chem. Co.*, 340 F. Supp. 244, 252-53 (N.D. Iowa 1972) (finding that a balancing of the equities should be applied to determine both liability and remedy as a matter of Iowa law).

355. *Abrams*, *supra* note 3, at 378.

356. See, e.g., *Georgia v. Tenn. Copper Co.*, 206 U.S. 230, 237 (2000) (holding that each state has "an interest independent of and behind the titles of its citizens, in all the earth and air within its domain. It has the last word as to whether its mountains shall be stripped of their forests and its inhabitants shall breathe pure air.").

“the restrictive nature of public nuisance doctrines does not allow such a remedy, at least on the facts presented.”<sup>357</sup>

#### CONCLUSION

Much scholarship has explored how the common law tort system served as the wellspring of modern environmental law.<sup>358</sup> Indeed, “[t]he legal roots of air pollution control are found in common-law tort remedies,” including public nuisance.<sup>359</sup> But the fact that federal legislation developed to deal with the failings of the common law has also created skepticism about relying on the common law to address contemporary pollution problems.<sup>360</sup> This Note has explored and embraced the validity of the counter-notion that when the federal regulatory regime fails to mitigate interstate air pollution problems,<sup>361</sup> state common law public nuisance doctrines may play a crucial, gap-filling role as an “alternative litigation response.”<sup>362</sup>

There is no doubt that the CAA has generated programs to address interstate air pollution problems that the courts would have been unable to develop through the common law. However, the CAA’s express preservation of state common law actions,<sup>363</sup> such as North Carolina’s public nuisance suit, demonstrates that Congress saw fit to allow the courts to provide injunctive

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357. *TVA III*, 593 F. Supp. 2d 812, 817 (W.D.N.C. 2009).

358. *See, e.g.*, WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW § 3:1 (West 2010) (“Legislative mimicry of the common law produces not exact replicas but close approximations: the decision in the Clean Air Act to pay attention to sensitive individuals anticipated changes in the common law rules for abnormally sensitive plaintiffs. The ‘best technology’ accommodations of nuisance law have become elaborate technology-forcing mechanisms under the regulatory scheme approved by Congress. A student sensitive to the significance of the character of the neighborhood would be able only dimly to anticipate the nuances of no significant deterioration. But the absolutism of the common law’s commitment to health protection is discernible in the ambient air standards and again on the subject of hazardous emissions.”) (citations omitted); *see also* Czarnecki & Thomsen, *supra* note 318, at 6; BRUCE YANDLE, COMMON SENSE AND COMMON LAW FOR THE ENVIRONMENT: CREATING WEALTH IN HUMMINGBIRD ECONOMIES 108 (1997).

359. REITZE, *supra* note 87, at 3.

360. *See, e.g.*, Butler, *supra* note 310, at 707 (“Many commentators do not take [the] proposal [for increased reliance on the common law] seriously because of their belief that it was the failure of state common law that necessitated federal legislation.”); Drabick, *supra* note 166, at 503 (“Law students learn early on in their environmental law curriculum that common law remedies have taken a backseat over the past thirty years to the complex statutory environmental law framework.”).

361. *See, e.g.*, HUBBARD BROOK RESEARCH FOUND., ACID RAIN REVISITED: ADVANCES IN SCIENTIFIC UNDERSTANDING SINCE THE PASSAGE OF THE 1970 AND 1990 CLEAN AIR ACT AMENDMENTS 4 (2001) (“[W]hile the Clean Air Acts of 1970 and 1990 have improved air quality somewhat, the emissions reductions mandated in 1990 are not likely to bring about full ecosystem recovery in sensitive areas of the Northeast.”).

362. Czarnecki & Thomsen, *supra* note 318, at 2; *see also* Klass, *supra* note 340, at 552 (“[T]he common law remain[s] necessary ‘to fill the gaps in legislation, to develop the principles introduced by legislation, and to interpret them.’” (citation omitted)).

363. *See* 42 U.S.C. § 7604(e) (2006).

relief when the requisite levels of causation and proof are shown.<sup>364</sup> While neither common law nor statutory law is sufficient to manage complex interstate air pollution problems, both are necessary. In *North Carolina v. TVA (TVA IV)*, the Fourth Circuit missed an important opportunity to use source state public nuisance law as a gap-filler to provide relief to North Carolina, which would have furthered the purpose of the CAA. In so doing, it would have brought a new coherence to the field of nuisance, allowing nuisance to move a little farther away from its legal “garbage can” status, and into its rightful, complementary role.

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364. See *Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 497 (1987) (interpreting an identical saving clause in the CWA to preserve a public nuisance claim brought under the common law of the state where a pollution source is located).

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