The authors of this article say Section 115 of the Clean Air Act, among the various options under the current act, may offer EPA the most effective, flexible, economically reasonable, and legally supportable means by which to regulate greenhouse gas emissions. They argue that Section 115, the section explicitly crafted to address international air pollution, has the potential to provide an appropriately flexible path forward for EPA and states to take action on climate change in a cooperative way while cognizant of an international framework. They also say Section 115 presents the possibility of avoiding the unintended regulatory consequences—such as New Source Review and Title V permitting requirements—associated with greenhouse gas regulation under other provisions of the Clean Air Act.

Regulation of Greenhouse Gases Under Section 115 of The Clean Air Act

By Roger Martella and Matthew Paulson

If you were to ask most Clean Air Act practitioners about Section 115 of the act, it is unlikely they would be able to tell you its title, let alone how it works and what it is designed to do. Considering the provision’s historic lack of exposure compared to its better known Title I counterparts, this is not all that surprising. However, in the context of regulating greenhouse gases under the Clean Air Act, this often ignored and largely unknown section of the act is worth a close look.

As the Environmental Protection Agency under the Obama administration embarks on its highly anticipated evaluation of the Clean Air Act in developing its path forward for greenhouse gas regulation, the new administration should consider the possibility that Section 115, unlike the other usual suspects in the tireless Clean Air Act greenhouse gas debate, may hold the key to a flexible, effective, legally sound, and economically reasonable approach to regulating greenhouse gas emissions under current law.
Section 115’s very name, International Air Pollution, makes its missing-in-action status in the national dialog over how to address global climate change all the more intriguing. EPA devoted thousands of pages to discussing every conceivable option for regulating global greenhouse gases under the Clean Air Act in its 2008 Advance Notice of Proposed Rulemaking on Regulating Greenhouse Gas Emissions under the Clean Air Act (ANPR)—from regulating greenhouse gases as air toxics to using the act’s provisions for regulating stratospheric ozone. Yet, the ANPR’s discussion of Section 115 is limited to a mere three paragraphs. Moreover, while stakeholders filed literally thousands of comments on the ANPR, less than a dozen appear to have included any substantive discussion of Section 115.

There are several compelling reasons to take a fresh look at one of the act’s longest standing provisions beyond the most obvious one: that in solving an international environmental challenge, the section explicitly crafted to address international air pollution should be considered and fully vetted first. Perhaps more significant, a Section 115 approach has the potential to provide an appropriately flexible path forward for EPA and states to take action on climate change in a cooperative way while cognizant of an international framework.

At the same time, and this is critical, utilizing Section 115 presents the possibility of avoiding the cascade of unintended regulatory consequences associated with greenhouse gas regulation under most other provisions of the Clean Air Act.

As the new administration charts its course to commit the United States to work with its international colleagues in developing a truly international solution to this global challenge while pledging to take action to curb emissions at home, applying the more commonly considered provisions of the Clean Air Act likely would prove more a hindrance than an effective tool in this endeavor. In contrast to other Title I and Title II provisions, however, Clean Air Act Section 115 may offer the administration a way for the federal government and states to move forward with effective greenhouse gas regulation under existing law, while providing much needed flexibility to consider international factors and avoid unintended serious economic consequences the nation can ill-afford as it collectively approaches the challenge of global climate change.

II. Background

A. Greenhouse Gases and the Clean Air Act

The domestic debate over how to develop regulatory solutions to reduce greenhouse gas emissions and address climate change has been one of the most complex and controversial in environmental law.1 There are at least two key reasons for this clamor.

First, greenhouse gases fundamentally are different than virtually all pollutants currently regulated under the act. Simply stated, greenhouse gases are global. As EPA has explained appropriately:

Unlike most traditional air pollutants, GHGs become well mixed throughout the global atmosphere so that the long-term distribution of GHG concentrations is not dependent on local emissions resources. Instead, GHG concentrations tend to be relatively uniform around the world. As a result of this global mixing, GHGs emitted anywhere in the world affect climate everywhere in the world. U.S. GHG emissions have climatic effects not only in the U.S. but in all parts of the world, and GHG emissions from other countries have climatic effects in the U.S.3

Thus, as EPA acknowledges, the impacts of greenhouse gas emissions are international, regardless of their country of origin.4 Opponents of utilizing the Clean Air Act as a tool to address greenhouse gas emissions accordingly argue that the law primarily is designed to address local and regional pollutants. These stakeholders take the view that addressing global climate change should begin with an international and diplomatic effort, which in turn should translate into domestic action once international consensus is reached.5 Even many proponents of Clean Air Act regulation acknowledge the benefits associated with first achieving international consensus, but argue that action to control greenhouse gases cannot wait for the international process to play out.

Second, even assuming the United States decides to take unilateral domestic action to address global climate change, there has been much focus on the inappropriateness of utilizing the act as a tool to regulate greenhouse gases.

As described further below, under the Clean Air Act, finding that a pollutant endangers public health or welfare ultimately makes the pollutant “subject to regulation” under the act—a legal term of art that would trigger the act’s Prevention of Significant Deterioration (PSD) program for virtually all sources that release the pollutant with little ability to prioritize or differentiate among source type and emissions intensity. Further, the command and control nature of the Clean Air Act is not well suited toward greenhouse gases such as carbon dioxide, for which there are no current commercially viable control technologies. Also, state and local governments, many of whom are eager to participate, have a very uncertain role in enacting programs to reduce greenhouse gas emissions that potentially have national impacts.

Thus, these two themes—the distinctly different global nature of greenhouse gases and the inappropriateness of the Clean Air Act as a vehicle for their regulation—are at the core of the controversy for employing most provisions of the Clean Air Act. Conversely, they also are the key to understanding the potential suitability of Section 115.

2 A thorough account of the history of the Clinton and Bush administration’s consideration of greenhouse gas regulation under the Clean Air Act is detailed in EPA’s Greenhouse Gas Proposal: A Blueprint for Federal Regulation, Martella et al. (206 DEN B-1, 10/24/08).
4 EPA goes on to indicate further challenges to greenhouse gas regulation, particularly the long life span of greenhouse gases in the atmosphere. Id.
5 See, for example, Brief of the Federal Respondent, Massachusetts v. EPA, No. 05-1120 (S. Ct) at 48-49 (discussing the international policy ramifications of greenhouse gas regulation under the Clean Air Act).

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B. Supreme Court Authorizes Action

As interest and concern in global climate change increased in the 1990s, so did the tension between wanting to take action domestically and the unsuitability of the only possible tool available, the Clean Air Act, for doing so.

In 1999, several environmental groups formally petitioned EPA to regulate greenhouse gases from new motor vehicles. By January 2001, at the close of the Clinton Administration, EPA had yet to act on the petition. Two years later, however, EPA under the Bush administration denied the petition in 2003. The agency’s then general counsel, reversing the legal opinion of his predecessor under the Clinton Administration, took the position that the Clean Air Act did not authorize EPA to regulate greenhouse gases.

In response, environmental groups and certain states, including the state of Massachusetts, challenged EPA’s denial in the U.S. Court of Appeals for the District of Columbia Circuit. They specifically sought to force regulation under Section 202(a) of the Clean Air Act, which pertains to emissions from cars and trucks. The D.C. Circuit ruled in favor of EPA’s decision not to regulate, holding that Congress did not intend the Clean Air Act to control greenhouse gases. The supporters of the petition then sought review in the U.S. Supreme Court and the court agreed to review the D.C. Circuit’s decision.

In what some have called the most significant environmental law decision in history, the U.S. Supreme Court, in a 5-4 closely divided decision, sided with Massachusetts and reversed the lower court’s decision. After concluding Massachusetts had standing by demonstrating harm from potential adverse effects on coastal property from rising sea levels, the court held the Clean Air Act’s definition of “air pollutant” was broad enough to encompass greenhouse gases.

Importantly, however, the court stopped short of ordering EPA to begin regulating greenhouse gases under the act. Instead, the court noted that Section 202 required the EPA administrator to determine whether an air pollutant endangers public health or welfare as a prerequisite to regulation. Thus, the court provided EPA with three options: (1) determine that greenhouse gases endanger public health or welfare, (2) determine that greenhouse gases do not endanger public health or welfare, or (3) offer a “reasonable explanation as to why it cannot or will not exercise its discretion to determine whether they do.”

EPA thus is required to regulate greenhouse gases only if it invokes the first option and makes a “positive endangerment finding.”

C. Bush Administration Confronts the Cascade

Shortly after the court’s decision, the Bush administration announced that in response to the remand, EPA would finalize regulations under Clean Air Act Section 202(a) for greenhouse gas emissions from cars and light-duty trucks. Following the president’s announcement, EPA staff began working on a proposed endangerment finding and proposed greenhouse gas rules for cars and trucks in coordination with the Department of Transportation.

Meanwhile, buoyed by their success, environmental groups began petitioning EPA to regulate greenhouse gases from other mobile sources such as airplanes and marine vessels, as well as arguing that stationary sources required greenhouse gas controls. Importantly, these groups argued that once EPA made an endangerment finding for greenhouse gas emissions from cars and trucks and took any action to regulate greenhouse gases from such sources, it would be required to impose controls on virtually all other source categories as well.

In December 2007, shortly before EPA was set to release its proposed rule, Congress enacted the Energy Independence and Security Act (EISA). EISA changed several of the provisions under which EPA was considering greenhouse gas controls for cars, as well as issued mandates for renewable fuels. In addition, EISA called for the Department of Transportation, in consultation with EPA, to increase fuel efficiency standards.

In response to the EISA, EPA revisited its decision to finalize separate greenhouse gas rules for cars. The administration instead concluded that given the numerous petitions to regulate greenhouse gases from a broad range of mobile and stationary sources, and the cascade effect cited by the environmental petitioners, it would be appropriate to take a broader look at how to develop a comprehensive greenhouse gas regulatory scheme.

D. EPA’s Advance Notice of Proposed Rulemaking

To that end, the administrator announced that EPA would issue an “Advance Notice of Proposed Rulemaking.” As the administrator explained to Rep. Henry A. Waxman (D.-Calif.) at the time:

Such an approach makes sense because, as the Act is structured, any regulation of greenhouse gases—even from mobile sources—could automatically result in other regulations applying to stationary sources and extend to small sources including many not previously regulated under the Clean Air Act. Consequently, any individual decision on whether and how sources and gases should be regulated may dictate future regulatory actions to address climate change.

Released July 11, 2008 and published in the Federal Register July 30, 2008, the ANPR details scores of staff proposals for how EPA could regulate greenhouse gases from virtually every sector of the economy. On the same day EPA released the ANPR, the Bush administration released a “Policy Memorandum” denouncing the ANPR and citing to the comments of four cabinet-level officials, including the secretaries of agriculture, commerce, energy and transportation, as well as senior White House officials, all criticizing the ANPR. The administration argued in the alternative that climate change should be addressed through new legislation as opposed to the Clean Air Act.

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6 Massachusetts v. EPA, 415 F.3d 50, 60 ERC 1641 (D.C. Cir. 2005).
8 Massachusetts v. EPA, 549 U.S. 497, 63 ERC 2057 (2007).
9 Massachusetts, 549 U.S. at 533 (2007).
11 Id. at Title I, Subtitle A.
15 Id.
While those who would have favored quicker action under the current act have dismissed the ANPR as irrelevant, the extensive document provides a unique window into the roadmap EPA will consult in considering options and moving forward with actual greenhouse gas regulations. For example, the ANPR devotes nearly 50 pages of the Federal Register to dissecting the options for regulating greenhouse gases from stationary sources under three Title I provisions. The ANPR also includes numerous addenda on the same topics, including an approximately 40 page technical support document for stationary sources and thousands of pages of supplemental information on regulating greenhouse gases from cars. Regarding stationary sources, the ANPR devotes additional detailed discussion to the consequences of regulating greenhouse gases under the act’s PSD and Title V programs, market-based approaches to regulating stationary source sectors, and the possibility of employing the Clean Air Act’s stratospheric ozone provisions.16

The ANPR also acknowledges the tensions arising out of regulating greenhouse gases under the Clean Air Act described above. Particularly, the ANPR offers a frank discussion of the dramatic burdens, both on regulatory authorities and industry, that would result from the application of new source review (NSR) construction permitting requirements, including the PSD and nonattainment NSR (NNSR) provisions, and Title V operating permit requirements to greenhouse gases.17

Thus, given the turn-every-stone theme to the ANPR, the lack of any substantive discussion of Section 115 is all the more interesting.

III. Trio of Unavoidable Adverse Consequences: Endangerment, the Regulatory Cascade, and PSD

Regulation of greenhouse gases under virtually any provision of the Clean Air Act will likely lead to at least three consequences: (1) a presumption of an endangerment finding under multiple provisions of the act; (2) a corresponding duty to regulate under other Clean Air Act provisions; and (3) a duty to permit greenhouse gas emissions from as many as a million or more new sources under the PSD program.

This trio of “unavoidable adverse consequences” may, in fact, be avoidable if Section 115 is invoked instead of the other oft-cited provisions.

A. The Overflow of an Endangerment Finding

Many sections of the Clean Air Act contain similar language requiring that EPA first make a positive endangerment finding prior to proceeding with regulations. While the endangerment language in each Clean Air Act section is slightly different, generally each section calls for similar analysis of the impact of the air pollution at issue—in this case greenhouse gases.18 This means a positive endangerment finding under one provision is likely to flow over into other provisions. For example, to make a positive endangerment finding under Clean Air Act Section 202, EPA must determine that new motor vehicles “cause, or contribute to, air pollution, which may reasonably be anticipated to endanger the public health or welfare.”19 A positive endangerment finding under Section 202 automatically could flow over into endangerment findings under other provisions of the act, thereby triggering regulatory obligations involving other sources.20

Similar endangerment language is present in numerous sections of the Clean Air Act, including Sections 108, 111, 112, 211, 213, 231, and 615. Thus, in the ANPR EPA acknowledges “a positive or negative endangerment finding for GHG emissions under one provision of the Act could have a significant and direct impact on decisions under other Clean Air Act sections.”21

Notably, Section 115 also on its face includes “endangerment” language, but in a different context. Importantly, and contrary to the information found in the ANPR,22 the Section 115 endangerment finding differs significantly from those found in many of the other Clean Air Act sections. As discussed below, Section 115’s endangerment finding is triggered by the receipt of a report produced by an international agency and the reasonable belief that public health or welfare in a foreign country is endangered.23 The endangerment finding under Section 115 does not involve any finding regarding the endangerment of health or welfare in the United States, and presumably would not automatically satisfy the endangerment determination in other Title I and Title II provisions.

B. The Regulatory Cascade

An endangerment finding under Section 202, or any of the other similarly worded Clean Air Act sections, is the necessary prerequisite to mandatory regulation; in most instances, once an endangerment finding is made, the act provides that EPA “shall” regulate.

This mandatory duty to regulate, combined with the likely overflow nature of a single endangerment finding, means EPA may face an overwhelming burden of needing a regulatory regime in place for all source categories at the time it starts to regulate the first source. Specifically, an endangerment finding applicable to greenhouse gases for the new vehicle mobile source category could trigger burdensome regulatory schemes under Title I, including the development of National Ambient Air Quality Standards (NAAQS), National Emissions Standards for Hazardous Air Pollutants (NE- SHAPS), and New Source Performance Standards (NSPS), as well as other Title II provisions. Once regulations mandated under these programs become effective, the act’s PSD and Title V permitting programs would be triggered.

Section 108 (NAAQS). Section 108 of the Clean Air Act authorizes EPA to list air pollutants that are emitted by numerous or diverse mobile or stationary sources and cause or contribute to air pollution problems.24 For every pollutant listed, EPA is required by the act to set NAAQS that are “requisite” to protect the public health and welfare and to designate whether areas of the country meet the standards (attainment) or fail to meet the standards (nonattainment).

17 42 U.S.C. § 7521(a).
18 73 Fed. Reg. at 44,419.
EPA staff notes in the ANPR that a positive endangerment finding for greenhouse gases under Section 202 could have “significant and direct impacts” on an endangerment determination under the NAAQS provisions of the Clean Air Act.\(^25\)

Due to the global distribution of greenhouse gases, development of a NAAQS for greenhouse gases would require EPA to assess greenhouse gas levels on a national scale, resulting in the entire country being designated as attainment or nonattainment for greenhouse gases. If EPA designates the country as nonattainment, a 10-year horizon for achieving the standards would apply. However, the 10 year standard presumably would be unachievable due to effects from global greenhouse gas emissions in the United States, and even with significant domestic effort, the United States most certainly would remain in nonattainment for an unknown period without international participation.

Failure to attain would trigger sanctions, delaying or halting many state and federal projects, and require sources to install greenhouse gas emission controls without any consideration of costs. In the ANPR, staff acknowledges the “significant technological, legal, and program design challenges” of addressing greenhouse gases through NAAQS.\(^26\)

**Section 112 (NESHAP).** Alternatively, EPA could consider regulating greenhouse gas emissions from stationary sources as “air toxics” under Section 112 of the Clean Air Act. By design, Section 112, the NESHAP program, carries the most onerous requirements for sources of any part of the act. Major sources, which are defined at extremely low thresholds, must employ the most stringent technology without consideration of costs.

As a result, an overwhelming number of small and otherwise insignificant sources would be subject to regulation if greenhouse gases were listed as hazardous air pollutants. EPA does not appear to favor this approach to regulating greenhouse gas emissions, as it is the least cost-effective program and would likely foreclose any market-based mechanisms such as emissions trading. However, it is not beyond the realm of possibility that regulators will give Section 112 further consideration, both due to its strict control requirements and the opportunity to avoid the NSR ramifications described below.

**Section 111 (NSPS).** Under Clean Air Act Section 111, EPA establishes emission performance standards, NSPS, for new sources and modifications to existing sources for categories of sources that significantly contribute to air pollution.

Regarding endangerment, unlike most other provisions of the act, under Section 111 EPA is required to determine whether a category of sources—not a specific pollutant—presents an endangerment to public health or welfare. Because EPA has made such findings for scores of source categories, some groups have argued that EPA, following the Massachusetts decision, currently is required to include greenhouse gases as part of the set of pollutants EPA regulates from listed source categories. Environmental groups have petitioned EPA to issue greenhouse gas standards for sources that already are regulated for other pollutants, including petroleum refineries and utility boilers. Last year, EPA deferred consideration of these petitions pending the outcome of the ANPR, and environmental groups have challenged that decision in court.\(^27\)

The existing source categories were not set with greenhouse gases in mind. As a result, should EPA opt to regulate greenhouse gases under Section 111, small and insignificant greenhouse gas sources could become subject to NSPS requirements, leading to significant costs without real greenhouse gas reductions.

In addition, the Clean Air Act requires EPA to propose standards within one year after listing a source category and promulgate those standards within one year after proposal. These time frames are grossly inadequate for technological development or for EPA to promulgate effectively an entire regulatory regime for greenhouse gases in coordination with other governmental stakeholders.

Despite these difficulties, the ANPR appears to display a preference for regulating greenhouse gases under the NSPS program over other Clean Air Act programs. This is based on a belief that Section 111 is inherently flexible and with some “tailoring” could support the implementation of market-based mechanisms for controlling greenhouse gas emissions.\(^28\) Yet, many questions remain unanswered, including how EPA under an NSPS approach would be able to avoid greenhouse gas regulation of categories it deems insignificant contributors of greenhouse gases and how it would reconcile the NSR impacts described below.

**Title II Mobile Sources.** Finally, the endangerment language in various Title II provisions concerning mobile sources is nearly identical. Thus, an endangerment finding under Section 202 for motor vehicles—or almost any other Clean Air Act provision—could create an instantaneous duty to regulate marine shipping vessels under Section 213, aircraft under Section 231, and hundreds of types of nonroad vehicles under Section 213.

Environmental groups already have petitioned EPA to regulate greenhouse gas emissions from each of these sources. EPA in the ANPR and supplemental materials devotes literally thousands of pages to possible frameworks to address mobile sources. However, this discussion demonstrates the complexity of the challenge, and the need to have a regulatory approach defined prior to triggering endangerment.

**C. A Broad, New Scope of New Source Review**

Finally, following an endangerment finding and final greenhouse gas regulations under almost any section of the act,\(^29\) the NSR program would encompass greenhouse gases. Under EPA’s own analysis, this would expand by “orders of magnitude”\(^30\) the scope of PSD and,


\(^{26}\) Id. at 44,485.


\(^{28}\) See Id. at 44,486 and 44,489.

\(^{29}\) Note that EPA takes the position that the mere monitoring of greenhouse gases does not make them pollutants “subject to regulation” under the Clean Air Act. Memorandum from Stephen L. Johnson, Administrator, EPA to Regional Administrators, at 2 (Dec. 18, 2008), available at http://www.epa.gov/nsr/documents/psd_interpretive_memo_121808.pdf.

\(^{30}\) 73 Fed. Reg. at 44,500.
if a NAAQS for greenhouse gases were required, NNSR provisions for construction permits. In addition, the Title V operating permit program likely would be triggered.

NSR and Title V are permitting programs that apply to stationary sources that emit above certain thresholds of any regulated air pollutant. NSR requirements apply to emissions of 250 tons per year of a regulated pollutant and, for certain listed source categories, emissions of 100 tons per year.

While these current thresholds may be appropriate for traditional air pollutants such as sulfur dioxide and nitrogen oxides, they were never intended to be applied to greenhouse gases, such as carbon dioxide, which are emitted in much larger quantities during combustion. Consequently, the thresholds could be exceeded by many otherwise minor sources that Congress could never have intended to “catch” when it wrote the Clean Air Act. In addition, even the smallest modifications at an industrial source, such as minor equipment upgrades and even energy efficiency measures arguably could trigger the acts’ burdensome permitting requirements.

In the ANPR, EPA recognizes the likely adverse consequences of this situation. EPA thus proposes streamlining measures to avoid triggering these programs. However, the legal doctrines upon which EPA relies are only rarely applied by courts, arguably contrary to existing case law, and at odds with the plain language of the Clean Air Act.

Applying NSR and Title V requirements to greenhouse gases would create immense burdens on state and federal agencies and regulated entities. According to EPA, a state agency spends 301 hours and $23,245, on average, processing a PSD permit application under the Clean Air Act. Further, one study estimates that more than one million sources in this country could become newly subject to Clean Air Act requirements based upon greenhouse gas emissions. Under that extraordinary scenario, PSD permitting alone would cost $971.70 million hours processing applications. To put this in context, PSD permitting alone would cost $971.70 million hours processing applications. To put this in an extraordinary scenario, PSD permitting alone would cost $971.70 million hours processing applications. To put this in a context that—unlike any other Clean Air Act provision—appropriately recognizes the international ramifications of climate change and the solutions that states can contribute.

A. Overview and Legislative History

Section 115 has been in the Clean Air Act in some form since 1963. It originally was designed to address interstate air pollution. Under this early version, when the Department of Health, Education and Welfare (HEW) found that air pollution from a source in one state was endangering the public health and welfare of another state, HEW could call for a conference with the respective air pollution control agencies in both states to agree on abatement measures.

The international component was added in 1967 as a new section, Section 108(d)(1)(D), to the pre-existing air pollution abatement provision. Nothing in the legislative history from the 1967 amendments mentions the international air pollution section. Congress renumbered the provisions and made conforming changes in the Clean Air Act Amendments of 1970.

In the 1977 amendments to the act, the interstate portion was removed, and Section 115 took on its current form as a standalone section on international air pollution. In addition, Congress changed the remedy for an endangerment finding under Section 115 from an abatement conference to a revision of the State Implementation Plan (SIP) in the source state. Section 115 has remained unchanged since 1977.

Based on this history, it is clear Congress intended Section 115 and the SIP mechanism to operate where international air pollution was concerned. In enacting Section 115, Congress recognized that some air pollu-

32 Id.
36 The current Section 115 previously was Section 5.
40 Id.
tion issues could be international in nature and require an international, rather than purely U.S.-focused solution.

Only two cases have been decided under Section 115, and both arose from EPA's approach to regulating the emissions allegedly responsible for acid rain prior to enactment of the Clean Air Act Amendments of 1990.42 These cases stand for the proposition that EPA has substantial discretion to determine whether there is reason to believe U.S. emissions meet the Section 115 endangerment test.

B. How Section 115 Works

The language of Section 115 mandates that the administrator take action to address international air pollution when certain requirements are met. If these requirements are met, the administrator must have reason to believe that (i) emissions of air pollutants in the United States are causing or contributing to air pollution reasonably anticipated to endanger public health or welfare in a foreign country; and (ii) there is a two-part process. If the administrator: (i) receives either a report, survey, or study from any duly constituted international agency; and (ii) has reason to believe that any air pollutant or pollutants emitted in the United States cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare in a foreign country, the Section 115 endangerment finding has been met. The second avenue requires action by the Secretary of State.44

Regarding the first avenue, EPA effectively has adopted in its consideration of climate change issues a significant international report. The Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (2007 IPCC Report) is a report prepared by the Intergovernmental Panel on Climate Change (IPCC).45 The IPCC is a scientific intergovernmental body created by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP).46 Its constituency is open to all member countries of WMO and UNEP. The IPCC is a United Nations body, and its work "aims at the promotion of the United Nations human development goals."47

It is clear the administrator has received a copy of this report as the ANPR references the report multiple times.48 Thus, EPA may consider the 2007 IPCC Report as the basis for a Section 115 endangerment finding since it was issued by a duly constituted international agency.

Importantly, such an endangerment determination under Section 115 would be distinctly different than under any other provision of Title I or Title II of the Clean Air Act given the international focus of the determination. For example, under Section 202(a), the administrator must have reason to believe that: (i) air pollution may reasonably be anticipated to endanger the health or welfare of the environment in the United States, and (ii) the emissions of air pollutants in the United States, in this case, greenhouse gas emissions, cause or contribute to such air pollution.49 Similarly, endangerment language found in other sections of the act concerns the welfare of the United States, not other countries.

Further, the "burden of proof" for a Section 115 endangerment determination also is fundamentally different from—and arguably lower than—other Clean Air Act provisions. To trigger Section 115, the administrator explicitly is authorized to rely on a foreign report such as the 2007 IPCC Report. Other Clean Air Act endangerment determinations, such as under Section 202, must be made independently by the agency and focus on impacts to domestic health and welfare. This distinction is important for two reasons. First, the unique record supporting a Section 115 finding would further wall off the risk of a Section 115 endangerment determination triggering other provisions of the act, which require an independent EPA analysis of impacts to domestic health and welfare. Second, to the extent EPA is compelled to take action sooner under the Clean Air Act, Section 115 provides a more efficient mechanism to proceed given the potential to rely on the already established 2007 IPCC Report. Thus, an endangerment finding under Section 115—which pertains to endangerment in foreign countries—is a distinct finding and should not trigger an endangerment finding under another section of the Clean Air Act. Section 115, accordingly, provides the opportunity to avoid both the consequences of an endangerment determination flowing over into other endangerment determinations and the unmitigated regulatory cascade discussed above, while at the same time,


44 See 42 U.S.C. § 7415.

45 See 42 U.S.C. § 7415(a). The requirement that the administrator receive a report from an international agency may be waivered if the Secretary of State alleges that there is pollution that may be reasonably anticipated to endanger public health or welfare in a foreign country and requests that the administrator give notice to the governor of the state where such emissions originate. Because no such allegation has been made by the Secretary of State and the requirement potentially could be met by the 2007 IPCC Report, the option of a request by the Secretary of the State is not discussed further.
as explained below, allowing for a more international approach to a global problem.

2. Reciprocity Criterion Must be Satisfied for At Least One Country

Section 115(c) adds a second requirement that must be met before the Section 115(b) SIP revision notice process is initiated. It is this last requirement that makes Section 115 particularly well-suited to address the global greenhouse gas problem.

Subsection (c) makes it clear that Section 115 applies "only to a foreign country which the Administrator determines has given the United States essentially the same rights with respect to the prevention or control of air pollution occurring in that country," as the United States provides to the country under Section 115.50

Thus, unlike other parts of the act, Section 115 includes the notion of international reciprocity. This section provides for consideration by the administrator of what other nations are doing. Before mandating that states take measures to address greenhouse gas emissions, Section 115 could allow EPA to consider measures being taken in other countries.

The reciprocity determination is fact specific. In one of the few cases to discuss Section 115 and reciprocity, the U.S. District Court for the District of Columbia discussed the administrator's determination that a Canadian statute met the reciprocity requirement as applied to acid rain.51 Although he found the reciprocity requirement was met, EPA Administrator Costle noted that reciprocity determinations are "fluid and dynamic" and, in the future, Canada could interpret or implement legislation in such a way as to not provide essentially the same rights to the United States.52 The court agreed, stating "a finding under the statute must be based on an analysis of facts and law as they exist at a particular time and that a change of either facts or law might require reexamination of the determination."53

Both Administrator Costle's and the court's remarks characterizing reciprocity requirements as fluid and dynamic support the interpretation that reciprocity requires not just the potential availability of comparable rights under a country's statutes, but an actual demonstration that the foreign country indeed is providing or will provide the United States with equivalent and comparable rights.

In the context of climate change, the reciprocity criterion allows international considerations to be taken into account in developing a regulatory approach to global climate change. Climate change is a global issue that cannot be solved by unilateral regulation in the United States. To address the issue in an equitable manner, and in a manner that will have any appreciable effect, Section 115 appropriately allows consideration of measures being taken in other countries.

Importantly, Section 115, unlike any other section of the Clean Air Act, has the potential to allow consideration of three key impacts necessary to effectively address global climate change. First, the Section 115 endangerment finding looks at the international impact of U.S.-based emissions sources. Second, addressing U.S. emissions in response to international impacts will necessarily also address domestic impacts. Finally, and most importantly, the Section 115 reciprocity requirement would allow EPA to consider the domestic impacts of international-based emissions sources.

It is this third impact—the impact of foreign-based emissions on the United States—that is so clearly lacking under any other Clean Air Act program that EPA has considered. In fact, Congress clearly intended impacts within the United States caused by foreign sources to be addressed under the act. Specifically, Section 179B of the act allows EPA to approve SIPs where attainment of the relevant NAAQS by the applicable attainment date has not been demonstrated due to the contribution of foreign emissions.54 Although not directly applicable in this context, Section 179B is strong evidence that Congress took seriously the potential for international emissions to impact the United States. Only Section 115 provides a mechanism—the reciprocity requirement—capable of addressing this important concern.

C. Discussion of Section 115 in the ANPR

Despite the apparent fit between employing Section 115 to address the challenge of global climate change, the ANPR includes a mere three paragraph discussion of Section 115.55

Although quite limited in length, this discussion raises two important issues. First, the ANPR assumes a greenhouse gas NAAQS would be required before greenhouse gases could be regulated under Section 115.56 Based on the plain language of the statute, however, this is unlikely to have been what Congress intended. Section 115 is not in any way limited to criteria pollutants. In fact, the opposite is true. It applies specifically to "any air pollutant."57 Clean Air Act Section 110(a)(2)(H)(ii) makes it clear that a SIP must provide for the revision of the plan not only when the plan is inadequate to attain a NAAQS, but also to otherwise comply with any additional requirements, such as a revision required by Section 115.58

Second, the ANPR describes the endangerment language in Section 115 as similar to the endangerment language found elsewhere in the Clean Air Act including Sections 108, 111, 112, 202, 211, 213, 231, and 615.59 However, as described above, an endangerment finding under Section 115 fundamentally is different from any other endangerment finding in that it is based upon conditions outside of the United States. This fact could allow a Section 115 endangerment finding to be made without triggering a regulatory cascade under the Clean Air Act.

V. Section 115 as Potential Path for Greenhouse Gas Regulation

At the outset, the authors share the view that there are compelling reasons to avoid employing any provi-
sion of the Clean Air Act to regulate greenhouse gases, but instead to devote energies toward both achieving international agreement on addressing global climate change and enacting new, comprehensive climate change legislation that resolves the tension between the Clean Air Act and greenhouse gases.

At the same time, the Obama administration has signaled on several occasions it intends to pursue greenhouse gas regulation under the existing Clean Air Act in the event Congress does not create new legislation. For the reasons described below, if the administration decides to implement a Clean Air Act approach, Section 115 warrants close scrutiny in the first instance. It unlocks the potential of addressing both the two tensions between most Clean Air Act provisions and greenhouse gases, while also providing a basis to arguably avoid the three otherwise unavoidable adverse consequences of greenhouse gas regulation described above.

1. Section 115 Reflects Global Nature of Climate Change

Simply stated, the most apparent reason to consider Section 115 is greenhouse gas emissions are global in nature. Climate change is the quintessential international air pollution issue. Section 115, unlike other provisions of the Clean Air Act, is intended to address international air pollution issues. Section 115 accommodates the global nature of climate change through its endangerment determination focused on international air pollution and the reciprocity requirement.

Addressing only domestic greenhouse gas emissions would not prevent the effects of global greenhouse gas emissions on the United States and, presumably, the effect would continue to occur if only U.S. sources are regulated. Even if the United States halted all anthropogenic greenhouse gas emissions nationwide—an obviously impossible task that would cripple the world economy—the threat of global climate change would continue unabated due to growing emissions from other countries. As a result, using the Clean Air Act in an effort to reduce emissions of greenhouse gases in the United States without corresponding action beyond U.S. borders would be ineffective. Unlike other regulatory alternatives under the act, action under Section 115 allows EPA to work in an international context.

Section 115 is the only provision of the act currently available that expressly addresses international air pollution and potentially could be effective to address the reduction of greenhouse gas emissions. Admittedly, to date Section 115 has not been used by EPA to regulate U.S.-based emissions that are connected to international air pollution. However, this is only because each time its use was considered previously, Congress enacted specific legislation to address the international pollution at issue.

For example, acid deposition, recognized by Congress to be an issue of national and international significance, was addressed by the addition of Title IV-A to the act. But prior to the addition of Title IV-A, the use of Section 115 was under serious consideration. As discussed above, EPA went so far as finding that Section 115’s reciprocity requirement has been met with regard to Canada. Section 115 was again considered as a way to implement the Montreal Protocol for the regulation of ozone depleting substances to protect stratospheric ozone. Congress, however, again enacted legislation, Title VI to the Clean Air Act, making Section 115’s use unnecessary.

Although Congress revised the Clean Air Act to add specific provisions to address acid deposition and ozone depleting substances, it left Section 115 intact. Thus, Congress must have intended that Section 115 continue to have a purpose, and that international air pollution issues could be best addressed by the use of the Section 115 mechanism where new legislation was not forthcoming.

2. Addresses Supreme Court Mandate in Massachusetts v. EPA

Some regulatory advocates—particularly environmental NGOs—who acknowledge the rationality of proceeding in an international framework, still believe the United States must act immediately due both to urgency and the court’s decision in Massachusetts v. EPA. The use of Section 115 to consider the regulation of greenhouse gas emissions in the United States in fact could arguably satisfy the Supreme Court’s holding in Massachusetts.

As described above, the court in Massachusetts did not require EPA to begin regulating greenhouse gases immediately, but rather to make an endangerment determination. Section 115, in turn, enables EPA to make an endangerment finding as to the effects of greenhouse gases emitted in the United States on a global basis. Yet, because the question posed under Section 115 is distinguishable from other Clean Air Act provisions—endangerment of health and welfare in other countries—the risk of flowing over automatically through numerous Clean Air Act provisions is mitigated.

At the same time, Section 115 provides a remedy, the revision of SIPs, that allows ample opportunity for regulation of emissions from a wide range of sources. By using Section 115 and the SIP revision process, EPA can take a leadership role by implementing a cohesive regulatory scheme, which can include the regulation of various categories of sources, and avoid the problems inherent in attempting to regulate multiple greenhouse gas emissions sources under several different Clean Air Act programs, none of which is designed to or even capable of addressing global climate change.

3. Avoids Clean Air Act ‘Regulatory Cascade’

The use of any section of the current Clean Air Act other than Section 115 to regulate greenhouse gas emissions would almost certainly result in the patchwork creation of an overly-complex, time-consuming, and convoluted set of new regulations. The resulting application of existing programs completely ill-suited to address global climate change would not be effective to address the global problem or any potential endangerment to the United States posed by global greenhouse gas emissions. Such an approach would ignore the great complexities intrinsic in the relationship between greenhouse gas emissions and climate change and

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63 See 73 Fed. Reg. at 44355.
cause a cascade of regulations resulting in the imposition of what has been described as an “inescapable and unreasonable economic burden on both U.S. citizens and the federal government.”

In contrast, the use of the SIP revision process under Section 115 could avoid this cascade of regulatory actions under different sections of the Clean Air Act that would overwhelm both the U.S. economy and the federal government. Regulation under Section 115 would allow EPA to address the U.S. contribution to international air pollution under the SIP mechanism. Section 115 does not direct EPA to set a NAAQS, NSPS, fuel standard, or vehicle standard, as do other sections of the act, and would not trigger the applicability of these sections the way an endangerment finding under another section of the act would. The use of the SIP revision process could potentially include broad categories of domestic sources of greenhouse gas emissions.

EPA recently confirmed that the regulation of a pollutant under a SIP alone does not make a pollutant “subject to regulation” under the Clean Air Act. In a Dec. 18, 2008, memorandum, then Administrator Stephen L. Johnson indicated “EPA does not interpret section 52.21(b)(50) of the regulations to make CO2 “subject to regulation under the Act” for the nationwide PSD program based solely on the regulation of a pollutant by a single state in a SIP approved by EPA.”

4. Avoids Potentially Serious Economic Consequences of Triggering PSD and Title V

As discussed above, the regulation of greenhouse gases under any section of the Clean Air Act other than Section 115 likely would trigger the burdensome stationary source permitting requirements under Titles I and V of the act for hundreds of thousands of previously unregulated sources.

As discussed above, PSD applies to major sources as soon as a given air pollutant becomes “subject to regulation” under the Clean Air Act. Regulation under Section 115, however, does not require federal regulation under the Clean Air Act. Instead, Section 115 requires states to amend their own state rules. State revisions of a SIP as required by Section 115 should not subject greenhouse gases to regulation under the act, as mere federal approval of state rules should not be deemed to federalize the state requirements for purposes of triggering stationary source permitting requirements.

EPA in the Johnson Memo analogized to a prior rule that allowed states to address ammonia in their SIPs without triggering ammonia as a regulated NSR pollutant in other states or nationally. While EPA indicated that ammonia would be a “regulated NSR pollutant” in the states where it was regulated under a SIP, “[i]n all other nonattainment areas in that State and nationally, ammonia would not be subject to the NSR program. In addition, the action of any State identifying ammonia emissions as a significant contributor to a nonattainment area’s PM2.5 concentrations, or our approval of a nonattainment SIP doing so, does not make ammonia a regulated NSR pollutant for the purposes of PSD in an attainment or unclassifiable areas nationally.”

5. Provides Broad Flexibility in Regulatory Structure

Section 115 requires the states to make SIP revisions, but otherwise does not impose a regulatory structure. Originally, Section 115 was implemented through an international abatement conference but this was changed in the 1977 Amendments so that now implementation of Section 115 is accomplished through SIP revisions after EPA provides notice to governors. Importantly, the Senate Report from the 1977 amendments provides that the SIP program is a more appropriate mechanism than an abatement conference for addressing international air pollution.

While designating SIPs as the implementation vehicle, Section 115 otherwise does not impose strictures on the contours and requirements of any prospective program(s) to reduce greenhouse gas emissions. The only limitation is that there be reciprocity from at least one other country. A Section 115-based program could therefore include model thresholds and source categories set by EPA, similar to the Northeast Ozone Transport.

Additionally, EPA could develop a holistic model plan to be implemented by the states. Multiple model approaches also could be presented to the states allowing each state to pick the most appropriate solution for its particular mix of greenhouse gas sources. This flexibility stands in stark contrast to the more rigid provisions of Section 108 and the implementation requirements that flow for areas determined to be in attainment or nonattainment with a NAAQS, as well as the fuels and vehicle requirements under Title II.

Additionally, Section 115 provides a mechanism to limit the scope of the program in terms of the sources affected. EPA should be able to limit the scope of the program as appropriate through limited notices to governors in light of Her Majesty the Queen in Right of Ontario v. EPA, in which the court upheld EPA’s decision that in order to provide notice to governors to revise their SIPs, the agency needed to be able to identify the specific sources that were causing the endangerment. EPA arguably could limit its notifications to governors to those sources that it had specifically identified as posing the endangerment, given the court’s finding that Section 115 is ambiguous in this respect.

6. Engages States in the Process

Section 115 provides an additional benefit of engaging the states in developing an effective, broad-based regulatory solution to climate change. This integrated involvement of regulators at the state level reflects ap
proaches already sought by numerous states and re-

gional initiatives.

Under Section 115, once the prerequisites have been met, EPA will provide notice to the states which will trigger a revision to the SIP insofar as the SIP is inade-
quate to prevent or eliminate the endangerment pre-

sented by greenhouse gases.71 This presents the states with an opportunity to craft a regulatory response most appropriate to each particular state.

The goal of effective greenhouse gas regulation still will be achieved, however, as states are not free to adopt any and all control measures they may choose. As discussed above, EPA may limit the scope of the pro-

gram when appropriate through limited notices to the states.72 In addition, EPA will retain final approval of the SIP revision. Thus, EPA can monitor SIP revisions to ensure states are not placing undue burdens on inter-

state commerce or expanding their roles in an inappro-

priate way.

7. More Easily Harmonized with Any Future Legislation or International Agreements

Regulation of greenhouse gases under Section 115 would allow for current regulation that could be easily harmonized with potential future legislation or interna-
tional agreements. A key consideration in determining how to proceed under the Clean Air Act if Congress does not enact legislation is whether future legislation or agreements will be difficult to meld with the Clean Air Act program that EPA selects for implementation. Regulation under Section 115 occurs through the revi-

sions of SIPs, which allows states to determine how they will reduce the endangerment from greenhouse gases to a foreign country that provides reciprocity.

If EPA proceeds under Section 202(a), Section 108, or Section 111, the complexities of those regulatory pro-

grams will be hard to alleviate if they are implemented prior to congressional action. With Section 115 how-

ever, states have significant flexibility in revising SIPs and could remove provisions they have incorporated prior to enactment of legislation. Section 115 provides significant flexibility in crafting programs to achieve greenhouse gas emissions reductions while also allowing for consideration of international efforts to combat this global challenge.

VI. Conclusion

Although Section 115 is one of the least known and underutilized portions of the Clean Air Act, it may offer

the most appropriate way to address greenhouse gases under the act if EPA is compelled to proceed under the act. As discussed in this article, there are numerous potential benefits to consider proceeding, at least initially, under Section 115.

Section 115 presents a regulatory platform under ex-

isting law that reconciles the two tensions of regulating greenhouse gases under most Clean Air Act provisions. First, it reflects and accounts for the global nature of the problem. As discussed above, Clean Air Act Section 115 is the only section of the act, apart from the specific programs for acid deposition and ozone depleting sub-

stances, that specifically addresses the regulation of do-

mestic sources that contribute to international air pollu-

tion and the reciprocal regulation of sources in other countries that contribute to pollution in the United States.

Second, Section 115 allows for broad flexibility in the regulation of greenhouse gases. The SIP revisions required by Section 115 could incorporate many different regulatory options and would promote the states’ in-

volvement in the decisionmaking process. This flexibil-

ity also ensures that the regulatory scheme could be easily harmonized with any future legislation or inter-

national agreements.

Finally, proceeding under Section 115 could avoid the trio of unavoidable adverse consequences associated with greenhouse gas regulation under other provi-

sions of the act. The use of Section 115 would avoid this regulatory cascade including the dramatic economic ef-

fects that would result from applying NSR and Title V permitting requirements to greenhouse gases.

As EPA considers all of the alternatives available to regulate greenhouse gases under the current Clean Air Act, at the very least, Section 115 deserves a much harder look. At best, Section 115 could provide an effec-

tive, flexible, economically reasonable, and legally sup-

portable tool for addressing international air pollution.

Roger Martella, a partner in the Environmental Prac-

tice Group at Sidley Austin LLP, is the former General Counsel of EPA, where he served as counsel of record on the Massachusetts v. EPA litigation before the U.S. Supreme Court and managed the agency’s legal efforts to analyze potential frameworks for regulat-

ing greenhouse gases following that decision.

Matthew Paulson is a partner in the Environmental Department at Baker Botts LLP. His practice focuses on environmental and health and safety compli-

ance, investigation, enforcement, litigation, and crisis response. As a member of the firm’s Climate Change Practices, he regularly tracks state and federal develop-

ments related to climate change.

The opinions expressed here do not represent those of BNA, which welcomes other points of view.

71 42 U.S.C. § 7415(b).
72 Her Majesty the Queen in Right of Ontario v. EPA, 912 F.2d 1525, 31 ERC 2112 (D.C. Cir. 1990).