Legal Consequences of EPA's Endangerment Finding for New Motor Vehicle Greenhouse Gas Emissions

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Summary

On December 15, 2009, the Environmental Protection Agency (EPA) took its most important action to date related to climate change. EPA published its final determination that the combined greenhouse gas (GHG) emissions from new motor vehicles in the United States contribute to an "endangerment" from climate change. More precisely, EPA found that such emissions, in the words of Clean Air Act (CAA) section 202(a), "cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare." Under section 202(a), this finding requires that EPA promulgate "standards" to control such emissions—as the agency proposed to do for light-duty motor vehicles in advance of its endangerment determination.

Some groups have objected to the endangerment determination and the emission standards to follow, arguing they will trigger a "cascade" of unacceptable regulatory consequences under *other* CAA provisions. These regulatory consequences, they say, would impose unattainable GHG-concentration goals on EPA and the states, and/or economically and administratively unreasonable burdens. This report examines the CAA provisions that have figured in this debate to see whether this alleged cascade of legal consequences likely would occur.

First, the report examines CAA sections that, like section 202(a), are triggered by endangerment findings. Of these, the one most likely to require EPA regulatory action after the 202(a) endangerment finding is section 111, authorizing new source performance standards—but only as to stationary source categories emitting the largest amounts of GHGs. Section 111, however, affords EPA wide discretion in setting new source performance standards. Two other sections that arguably might be triggered are 108, requiring national ambient air quality standards, and 115, which requires states to revise their implementation plans to prevent or eliminate the endangerment of public health or welfare in a foreign country. As to these sections, however, the arguable infeasibility of the regulatory goals—even if GHG emissions in the United States are significantly reduced, atmospheric concentrations would decline little—will give EPA room to argue that regulatory action is not mandatory. Other endangerment-triggered sections of the CAA can be distinguished from section 202(a) by their explicit terms, and thus would likely not be triggered by the 202(a) endangerment finding.

Second, the report looks at CAA provisions having no endangerment trigger. Of these, EPA has conceded that two require the agency to act after it promulgates the required emission standards following the 202(a) endangerment finding. One provision would require EPA to impose "best available control technology" (BACT) on GHG emissions from any major emitting facility proposed to be constructed in a Prevention of Significant Deterioration area. The other, Title V, creates an operating permit program for stationary sources of emissions, and would require stationary sources subject to BACT under the first provision to also apply for Title V permits. As to each of these requirements, EPA has proposed a "tailoring rule" setting emission thresholds far higher than in the CAA, at least for a few years. EPA justifies the departure from statutory language under the case law doctrines of "absurd results" and "administrative necessity."

A caveat: the issue analyzed in this report is important primarily if Congress does not enact climate change legislation that puts regulation of GHGs beyond the reach of some of the CAA provisions discussed here. In particular, the House-passed climate change bill, H.R. 2454 (the American Clean Energy and Security Act of 2009), states that three of the CAA sections treated in this report, and one CAA title, may not be used to address air pollutants based on their climate change impacts.

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Part One: Introduction

On December 15, 2009, the Environmental Protection Agency (EPA) published its most important action to date related to climate change. It found that the combined greenhouse gas (GHG) emissions from new motor vehicles in the United States contribute to an "endangerment" from climate change.[1] More precisely, EPA found that such emissions, in the words of Clean Air Act (CAA) section 202(a),[2] "cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare."[3] Under section 202(a), this final determination requires that EPA promulgate "standards" to control such emissions from new motor vehicles.

It is not, however, the likelihood of standards for *new motor vehicle* GHG emissions that has sparked controversy. Indeed, EPA's proposed standards for emissions of carbon dioxide (CO_2, the principal GHG) from new light-duty vehicles were set so as to align with the Department of Transportation's simultaneously proposed fuel economy standards, and are reported to be achievable with presently available technology.[4] Rather, objection has been raised to the section 202 endangerment finding for GHGs and the upcoming motor vehicle GHG emission standards because of the argument they will trigger a cascade of unacceptable regulatory consequences under *other* CAA provisions. These regulatory consequences, objectors say, would impose unattainable air quality goals on EPA and the states, and/or economically and administratively unreasonable burdens on both EPA and regulated entities.

This report examines the CAA provisions that have figured in this debate to assess whether this alleged "cascade" of legal consequences would likely occur as the result of EPA's endangerment finding under 202(a) and resulting emission standards. Looked at another way, the report assesses the legal leeway EPA has should it wish to limit its expansion of GHG regulation beyond new motor vehicles under section 202(a).[5] The reader also may wish to consult EPA's own analysis of this issue in an Advance Notice of Proposed Rulemaking (ANPR) issued in 2008,[6] and the analyses submitted to EPA in response to the ANPR. The *policy* pros and cons of using CAA provisions other than 202(a) to address GHGs are treated in CRS Report R40585, *Climate Change: Potential Regulation of Stationary Greenhouse Gas Sources Under the Clean Air Act*, by (name redacted) and (name redacted).

[1] 74 Fed. Reg. 66,496 (December 15, 2009). EPA announced its determination and posted it on its website a week earlier, on December 7, 2009, but it is publication in the Federal Register that starts the 30-day period before the determination takes effect.

[2] 42 U.S.C. § 7521(a).

[3] The term "welfare" is defined by the CAA to include, but not be limited to, effects on "soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate, damage to or deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being…." 42 U.S.C. § 7602(h). In the preamble to the endangerment finding, EPA clarifies that its focus was on "public health and welfare" in the United States. 74 Fed. Reg. at 66,497.

[4] *See* Proposed Rulemaking to Establish Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 74 Fed. Reg. 49,454 (September 28, 2009) (proposed jointly by EPA and the Department of Transportation's National Highway Traffic Safety Administration).

[5] *See, e.g., EPA chief signals opposition to Clean Air Act curbs on GHGs*, in GREENWIRE (December 8, 2009). (reporting the EPA Administrator's position that the agency opposes the use of national ambient air quality standards to reduce atmospheric concentrations of GHGs).

[6] 73 Fed. Reg. 44,354 (July 30, 2008). EPA concludes in the ANPR that "[a]n endangerment finding for GHGs under one provision of the Act could thus have ramifications under other sections of the Act." *Id.* at 44,418.

A caveat: the issue analyzed here is important primarily if Congress does not enact climate change legislation that puts regulation of emissions based on their climate change impacts beyond the reach of some of the CAA provisions discussed here. In particular, the House-passed climate change bill, H.R. 2454, states that sections 108 (national ambient air quality standards) and 115 (international air pollution) may not be used to address air pollutants based on their climate change impacts. The bill also would prohibit the use of section 165 (requiring preconstruction "new source review" in Prevention of Significant Deterioration areas) to regulate GHG emissions, and specifies that no stationary source of GHGs could be required to obtain a permit under Title V of the CAA solely because of its GHG emissions.

Part Two of this report offers some history as to how EPA came to issue its endangerment determination for new motor vehicle GHGs on December 15, 2009. Part Three assesses EPA's leeway, following its endangerment determination, in deciding whether to regulate GHG emissions from other sources—where those sources are covered by CAA provisions that, like section 202(a), have an "endangerment" finding as the trigger. Part Four gauges the effect of the same endangerment determination, or more accurately the standards that must follow, under CAA provisions that lack an endangerment determination trigger. Part Five offers a summary and comment.

Part Two: The Path to Now

The events leading up to EPA's endangerment finding for new motor vehicle GHGs in 2009 began a decade earlier. In 1999, 19 organizations and 13 states petitioned EPA to regulate the four GHGs emitted by new motor vehicles (carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons). Petitioners invoked CAA section 202(a):

> The [EPA] Administrator shall by regulation prescribe … standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles … which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.

Petitioners argued that GHGs are "air pollutants" under the term's definition in CAA section 302(g),[7] and that GHGs "endanger public health and welfare" because of their impact on global climate. Thus, petitioners concluded, EPA must regulate such emissions through standards under section 202(a).

EPA rejected the petition in 2003, concluding that GHGs are not "air pollutants" under the CAA so the agency lacked authority to regulate GHG emissions from new motor vehicles based on their climate change effects.[8] Moreover, said EPA, even if it did have the authority, it would be imprudent for the agency to exercise it at that time because of political opposition in Congress and various Bush Administration policies opposing mandatory controls on GHGs. EPA's rejection

[7] The term "air pollutant" means any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material, and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term "air pollutant" is used. CAA § 302(g); 42 U.S.C. § 7602(g).

[8] 68 Fed. Reg. 52,922 (September 8, 2003).

of the petition was appealed to the federal appeals court in Washington, DC, which upheld the agency's decision 2-1.[9]

In 2007, the Supreme Court in *Massachusetts v. EPA* reversed the appeals court 5-4, finding for Massachusetts.[10] The Court held that for CAA purposes, GHGs are "air pollutants" and hence that EPA has the power under the act to regulate GHG emissions from new motor vehicles. Moreover, said the Court, the phrase "in his judgment" in section 202(a) does not permit EPA to avoid regulation of air pollutants such as GHGs based on policy considerations. That is, an EPA decision not to grant a section 202 petition must relate not to administration policy, but to whether an air pollutant causes, or contributes to, air pollution which may reasonably be anticipated to endanger public health or welfare.[11] That being so, the EPA can avoid regulating GHGs under 202(a) only if it finds that GHGs "do not contribute to climate change or if it provides some reasonable explanation as to why it cannot or will not exercise its discretion to determine whether they do."[12] The Supreme Court decision did not order EPA to make a positive endangerment finding, only to resolve the petition asking it to regulate vehicle GHGs on a correct understanding of the CAA.

In response to *Massachusetts v. EPA*, the EPA under the Bush Administration moved toward an endangerment determination in 2007 but ultimately backed off. On April 24, 2009, under the newly arrived Obama Administration, EPA issued a proposed positive endangerment determination for GHGs from new motor vehicles.[13] In response, it received 380,000 comments. On September 28, 2009, EPA also proposed the aforementioned *emission standards* for GHGs from new light-duty motor vehicles—the standards required by CAA section 202(a) and referred to in this report's title.[14] (September 2009 was a busy month for EPA on the climate change front. Besides proposing vehicle emission standards, the agency went final with its GHG monitoring rule for large stationary sources,[15] and proposed a "tailoring rule" discussed in Part Four of this report.) Most recently, EPA published its final endangerment determination for GHGs from new motor vehicles on December 15, 2009.

Actually, EPA's endangerment determination consists of *two* findings, one addressing each component of the section 202(a) endangerment provision. First, EPA found that current atmospheric levels of the six major GHGs—from all emission sources—constitute in combination "air pollution which may reasonably be anticipated to endanger public health and welfare." This is a generic determination, not tied to any particular source category. Second, EPA found that emissions of GHGs by new motor vehicles (comprising four of the aforementioned six GHGs) will in combination "cause or contribute to" those atmospheric levels. In contrast to the generic determination, this finding is plainly linked to one source category. This bifurcation of the 202(a) endangerment language is important in Part Three of this report. In Part Three, a reference to a CAA endangerment provision being satisfied or simply to a "positive endangerment finding"

[9] 415 F.3d 50 (D.C. Cir. 2005).

[10] 549 U.S. 497 (2007).

[11] *Id.* at 532-533 (quotations marks and brackets omitted).

[12] *Id.* at 533.

[13] 74 Fed. Reg. 18,886 (April 24, 2009).

[14] 74 Fed. Reg. 49,454 (September 28, 2009).

[15] Though announced on September 22, 2009, this rule was not published until many weeks later: 74 Fed. Reg. 56,260 (October 30, 2009).

means that *both* the "may reasonably be anticipated to endanger" component finding and the "contributes to" component finding are satisfied.

Part Three: CAA Sections with Endangerment Triggers Other Than Section 202(a)

To what extent will the endangerment finding under section 202(a) narrow EPA's discretion to deal, or not deal, with GHGs under other CAA provisions with endangerment preconditions? The CAA contains about a dozen such "endangerment" preconditions. Each one, like section 202(a), establishes a precondition for EPA action against an air pollutant: EPA first must find that emissions of that air pollutant (or group of pollutants) from a particular source category "cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare." Some endangerment provisions, not section 202(a), add the qualifier "significantly" after "contribute," and there are slight variations in singular/plural and punctuation; otherwise the quoted language repeats throughout the statute. Depending on the CAA section, if EPA finds an endangerment, it is required or at least authorized, usually without other preconditions, to take action addressing the endangerment by the source category.

At the outset, an administrative law question arises. Since this report's topic is whether EPA might be forced to regulate GHG emissions under CAA provisions outside 202(a), one must ask: Does EPA have to respond *at all* to petitions it receives for endangerment findings and standard setting under those provisions? (At least 10 such petitions seeking EPA control of GHG emissions from this or that source category have been filed with the agency since *Massachusetts v. EPA*.[16]) Can the agency simply ignore requests to regulate GHG emissions, or inform a petitioner that EPA is studying the matter without ever reaching a decision? None of the CAA endangerment provisions expressly authorizes petitions to the agency, in contrast with other provisions in the CAA and elsewhere that do establish petition mechanisms with agency deadlines for response.[17]

[16] A summary of seven of these petitions is in the ANPR mentioned on page 1 of this report. 73 Fed. Reg. at 44,458-44,462. Of the seven petitions, three address GHGs from ocean-going vessels, two from aircraft, and two from nonroad engines and vehicles. On July 29, 2009, the Institute for Policy Integrity at the New York University School of Law submitted a petition addressing fuels used in motor and nonroad vehicles and engines, and aircraft. On September 21, 2009, a coalition of environmental, animal welfare, and environmental justice groups submitted a petition requesting EPA to promulgate new source performance standards for several air pollutants, including greenhouse gases, from new concentrated animal feeding operations. Finally, on December 2, 2009, the Center for Biological Diversity and 350.org submitted a petition requesting EPA to issue national ambient air quality standards for seven GHGs.

Each of these petitions asks EPA to make the requisite endangerment finding under the appropriate CAA section—section 108, 111, 211, 213, or 231. These provisions are discussed further on in this part of the report. To date, EPA has not responded to any of the petitions. Finally, EPA has received petitions under section 115, dealing with endangerments in Canada owing to emissions in the United States. Because EPA does not recognize a petition process under section 115, it has characterized these self-described petitions as "submittals." The petitions/submittals under section 115 of which CRS is aware have been rejected.

[17] *See, e.g.*, CAA § 126(b), 42 U.S.C. § 7426(b). The text paragraph restates a point made by Justice Scalia in his four-justice dissent in *Massachusetts*. As he put it: "Where does the CAA say that the EPA Administrator is required to [make a 'judgment' under 202(a)] whenever a rulemaking petition is filed? The Court points to no such provision because none exists." 549 U.S. at 550. The majority does not address the question, probably because EPA did in fact render a formal decision on the petition in *Massachusetts*, denying it.

The answer is that while courts afford federal agencies wide discretion as to whether to initiate a rulemaking,[18] the discretion is not without limit. The Administrative Procedure Act is the touchstone: under section 553(e), each agency must give interested persons "the right to petition for the issuance … of a rule,"[19] which petition is subject to section 555(b)'s command that an agency "within a reasonable time … proceed to conclude a matter presented to it."[20] If an agency fails to heed these directives, section 706(1) empowers courts to "compel agency action unlawfully withheld or unreasonably delayed."[21] The Supreme Court recently explained that an APA section 706(1) claim can proceed only when an agency failed to take a discrete agency action that it is required to take[22]—but petitions seeking EPA regulation of GHG emissions would presumably argue that this is exactly what they are alleging. Moreover, these APA provisions have been applied not only where an agency responds to a rulemaking petition by denying it, but to instances such as those hypothesized here, where the agency refuses to respond at all.[23] In sum, a reviewing court likely would require EPA to respond—up or down—to a well-supported petition for GHG regulation within a generous, but finite, period of time.

Given that EPA responds to the petition (or acts without petition), one issue that arises under every non-202(a) endangerment provision is the effect of the *generic* component of the agency's 202(a) finding. Recall that the generic component declared that GHGs already in the atmosphere from all sources may, in combination, reasonably be anticipated to endanger public health or welfare. Because non-202(a) endangerment provisions use identical language, arguably at least the generic component of those provisions also must be deemed satisfied. This is an important preliminary step in understanding the legal relevance of EPA's 202(a) endangerment finding to other endangerment-triggered sections of the CAA—but it is only a preliminary step. Beyond this, as the following discussion shows, there are differences in the language surrounding the endangerment provisions, and lower levels of GHG emissions from most non-section-202 source categories. These differences, it would appear, generally give EPA leeway in deciding whether to regulate GHGs from sources other than new motor vehicles, notwithstanding the 202(a) finding.

Following are the CAA endangerment provisions being debated as possibly authorizing, or even mandating, EPA regulation of GHG emissions now that EPA has issued its 202(a) endangerment determination.

Fuels and Fuel Additives

CAA section 211(c)(1)[24] empowers EPA to regulate the manufacture, sale, or offering for sale, of fuels and fuel additives for use in motor vehicles or nonroad engines or vehicles. The authority comes into being when, in EPA's judgment, any emission product of such fuel or fuel additive triggers an endangerment provision identical to that in 202(a). Unlike section 202, which

[18] As a leading commentator observes: "… courts have traditionally applied a highly deferential standard of review in reviewing cases of agency inaction." Jeffrey S. Lubbers, A GUIDE TO FEDERAL AGENCY RULEMAKING 542 (4th ed. 2006).

[19] 5 U.S.C. § 553(e).

[20] *Id.* at § 555(b).

[21] *Id.* at § 706(1).

[22] Norton v. Southern Utah Wilderness Alliance, 542 U.S. 55, 63 (2004).

[23] *See, e.g.*, In re: American Rivers and Idaho Rivers United, 372 F.3d 413, 418 (D.C. Cir. 2004).

[24] 42 U.S.C. § 7545(c)(1).

authorizes standards for emissions, section 211 speaks of standards for the composition of the fuel that produces the emissions. Presumably because section 202 specifies only a final result, rather than dictating how manufacturers are to achieve that result, it is "the preferred—although not the mandatory—alternative under the statutory scheme."[25]

Section 211(c)(1) arguably allows EPA to implement low-carbon fuel standards.[26] However, section 211(c)(1) states only that EPA "may" regulate if an endangerment finding is made—unlike section 202(a), which directs that EPA "shall" regulate on such a finding.[27] Assuming that "may" is used in the traditional sense of allowing full discretion, a 211(c)(1) endangerment finding would not compel agency action against fuels and fuel additives. That being so, it is unnecessary to address whether a "contributes to" component finding under 211(c)(1) would be compelled by a comparable finding under 202(a).

National Ambient Air Quality Standards

CAA section 108(a)(1)[28] contains endangerment language identical to that of 202(a) and might provide a basis for regulating stationary sources of GHGs through national ambient air quality standards (NAAQSs).

By way of background, NAAQSs are nationwide standards set by EPA that fix the maximum concentration of a pollutant (or group of pollutants) allowed in ambient air.[29] There are two types of NAAQSs: primary NAAQSs to protect public health, and secondary NAAQSs to protect public welfare.[30] Under the CAA, the path to establishing primary and secondary NAAQSs for an air pollutant consists of three steps: (1) listing of the pollutant by EPA, which requires (2) issuance by the agency of "air quality criteria" (documents summarizing the scientific information about a pollutant's effects—not, as "criteria" implies, standards), which, in turn, requires (3) promulgation of the NAAQSs. States then are required to submit "implementation plans" to EPA within three years to achieve and/or maintain the NAAQSs. [31] As a practical matter, any concern that EPA may be forced by the 202(a) endangerment finding to promulgate NAAQSs arises chiefly from primary, not secondary, NAAQSs. The reason: areas designated nonattainment for a primary NAAQS must attain the NAAQS within five years from such designation; in contrast, no fixed deadline is set for attainment of secondary NAAQSs.[32]

[25] Ethyl Corp. v. EPA, 541 F.2d 1, 11 (D.C. Cir. 1976) (en banc).

[26] Jameel Alsalam, Ctr. For Clean Air Policy, *A Pragmatic Approach to Regulating Greenhouse Gases Under the Clean Air Act* 14 (2009), http://www.ccap.org/docs/resources/614/Clean%20Air%20Act%20and%20GHGs_CCAP_March%202009.pdf.

[27] Generally, unless the context indicates otherwise, the words "shall" and "may" in statutes are to be read in their everyday sense of mandatory and permissive, respectively. *See, e.g.*, Rastelli v. Warden, Metro. Correctional Center, 782 F.2d 17, 23 (2d Cir. 1986) ("The use of a permissive verb—'may review' instead of 'shall review'—suggests a discretionary rather than mandatory review process.").

[28] 42 U.S.C. § 7408(a)(1).

[29] *Id.* at § 7409(a). "Ambient air" is "that portion of the atmosphere external to buildings, to which the general public has access." 40 C.F.R. § 50.1(e).

[30] *See* footnote 3 *supra*.

[31] 42 U.S.C. § 7410(a)(1).

[32] *Id.* at § 7502(a)(2)(A)-(B).

As the above shows, listing the pollutant is the critical first step—listing compels criteria, which compel NAAQSs. So when is listing required? Section 108(a)(1) states that "for the purpose of establishing NAAQSs," the EPA Administrator "shall" publish a list of air pollutants (A) which "cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare"; (B) which are emitted from "numerous or diverse mobile *or stationary* sources"; *and* (C) "for which air quality criteria had not been issued before the date of enactment of the Clean Air amendments of 1970, but for which he plans to issue air quality criteria under this section."[33] The endangerment finding under section 202(a) arguably forces EPA at some point to find condition (A) satisfied—the precise phrase "cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare" is found in both 108(a)(1) and 202(a), and 108(a)(1)'s reference to "contribute to air pollution" presumably includes the same new motor vehicle emissions EPA just found to do so under 202(a). As for condition (B), that CO_2 is emitted by "numerous and diverse mobile or stationary sources" seems hard to deny. But based on the literal language, EPA could be expected to argue that condition (C) gives it discretion whether to "plan[] to issue air quality criteria"—hence discretion not to promulgate a NAAQS.[34]

There is contrary authority denying such discretion, however. In *NRDC v. Train*,[35] the Second Circuit held that EPA could *not* use condition (C) to avoid setting a NAAQS for lead, once the agency had recognized lead as satisfying conditions (A) and (B). To hold otherwise, said the court, would render the 108(a)(1) language that EPA "shall" publish a list "mere surplusage," and allow EPA to bypass the rigid CAA deadlines for attaining air quality standards.[36] Moreover, said the court, "it is to the initial list alone [the one required to be published soon after enactment of the 1970 CAA amendments] that the phrase 'but for which he plans to issue air quality criteria' is directed."[37] Plainly, *Train* might be invoked by any party seeking to compel EPA to set NAAQSs for GHGs following a positive endangerment finding for GHGs under section 202(a).

But *Train* does not settle the matter. Most significantly, the consequences of listing GHGs under section 108(a), leading to NAAQSs for GHGs, are so awkward—some would say absurd—that an argument arises that Congress could not have intended this result (assuming NAAQSs for GHGs were set below current atmospheric concentrations[38]). For one thing, the state implementation plans (SIPs) that would be required to achieve these NAAQSs would have an impossible goal, since even a substantial reduction of GHG emissions in an air quality control region likely would have little effect on ambient concentrations of GHGs. For this reason, a court might well take seriously an argument that an endangerment finding under section 202(a) does not force EPA to promulgate NAAQSs for GHGs. Courts tend to resist interpretations of statutes that lead to impractical or absurd results.[39]

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[33] Emphasis added.

[34] *See* ANPR, 73 Fed. Reg. at 44, 477.

[35] 545 F.2d 320 (2d Cir. 1976).

[36] *Id.* at 325.

[37] *Id.* at 325.

[38] In particular, CAA section 109(b)(2) requires the "secondary" NAAQS to be set at a level that "protect[s] the public welfare from *any* known or anticipated adverse effects." (Emphasis added.) Since current atmospheric levels of GHGs are already believed to be producing welfare effects, it would seem that the plain meaning of the CAA language requires that a secondary NAAQS for GHGs be set lower than current concentrations. Under *Whitman v. American Trucking Ass'n*, 531 U.S. 457 (2001), EPA may not consider costs of compliance in setting a NAAQS.

[39] *See, e.g.*, United States v. Turkette, 452 U.S. 576, 580 (1981) (in construing a statute, "absurd results are to be avoided"). In *Public Citizen v. U.S. Dep't of Justice*, 491 U.S. 440, 470 (1989), Justice Kennedy, writing in (continued...)

Other arguments undermining the present-day viability of *NRDC v. Train* can be conceived, though each is debatable. First, *Train* dealt specifically with lead, which the Senate committee report for the 1970 CAA explicitly expected would be the subject of a NAAQS.[40] The Second Circuit twice noted this explicit mention of lead in the Senate report. In contrast, there is no legislative history indicating a congressional expectation of a NAAQS for GHGs, suggesting that *Train* would have less force in this context.

Second, EPA notes in the ANPR that *NRDC v. Train* was decided before the Supreme Court's decision in *Chevron U.S.A. Inc. v. NRDC*.[41] *Chevron* sets out the canonical statement of a key judicial review principle: courts should defer to an agency's interpretation of a statute it is charged with administering.[42] According to *Chevron*, if the statute is ambiguous or silent on a point, a court is to ask only whether the agency's interpretation is a "permissible" construction thereof. [43] The reviewing court is not to substitute its own judgment for a permissible agency construction, even if the agency's interpretation is not the only reasonable one. EPA's argument in the ANPR, it appears, is that the Second Circuit might have deferred to EPA's we-have-discretion argument had the court written its decision post-*Chevron*. However, this argument overlooks the fact that the deference principle was well established long before *Chevron*, and certainly by the time of *NRDC v. Train*.[44]

Finally, one might ask why, if Congress always intended NAAQSs to be required once conditions (A) and (B) are met, no new NAAQSs for a new criteria pollutant have been set since the 1970s.[45]

New or Modified Stationary Sources

CAA section 111(b)(1) commands EPA to issue new source performance standards (NSPSs) for new or newly modified stationary sources of air pollution (principally, factories and power plants) once it determines that a stationary source category "causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." After EPA establishes an NSPS for a pollutant from a new-source category, section 111(d) then requires each state to submit to EPA a plan establishing standards of performance for existing sources of that pollutant within the same source category—a major air pollution program in its own right. Note,

(...continued)

concurrence for himself and two other justices, noted that "[w]here the plain language of the statute would lead to patently absurd consequences, that Congress could not *possibly* have intended, we need not apply the language in such a fashion. When used in a proper manner, this narrow exception to our normal rule of statutory construction does not intrude upon the lawmaking powers of Congress, but rather demonstrates a respect for the coequal Legislative Branch, which we assume would not act in an absurd way." (citations omitted; emphasis in original)

[40] S Rep. No. 91-1196, at 11 (1970).

[41] 467 U.S. 837 (1984). *See* ANPR, 73 Fed. Reg. at 44,477 n.229.

[42] Such deference has been held to be particularly appropriate in the case of "a statutory scheme as unwieldy and science-driven as the Clean Air Act." Appalachian Power Co. v. EPA, 135 F.3d 791, 801-802 (D.C. Cir. 1998).

[43] 467 U.S. at 843.

[44] Indeed, in the same year as *NRDC v. Train*, the Supreme Court explicitly deferred to EPA's interpretation of another one of its statutes, the Clean Water Act. *EPA v. California*, 426 U.S. 200, 227 (1976).

[45] The wording of the text sentence—"no new NAAQSs for a new criteria pollutant"—is meant to exclude revisions of existing NAAQSs (see CAA § 109(d)(1)), the replacement of the "total suspended particulates" NAAQS with a PM_{10} NAAQS in 1987, and the promulgation of the $PM_{2.5}$ NAAQS as a companion to the PM_{10} NAAQS in 1997.

however, that section 111(d) state plans are not required for pollutants listed under section 108 for eventual development of NAAQSs (see previous section).

Immediately plain is one reason why a 202(a) endangerment finding may not force EPA to promulgate a GHG NSPS for most new source categories: the term "significantly" in 111(b)(1) distinguishes that provision from 202(a). "Significantly" is not defined in the CAA, so EPA likely has broad discretion to define it to exclude many stationary source categories. But while such discretion is broad, it is not unlimited. EPA's discussion accompanying its 202(a) endangerment finding extensively documents the harm GHGs may have on the environment, and notes that even GHG source categories that appear too small to matter in fact could be very significant contributors in terms of both absolute emissions or in comparison to other similar source categories. Such statements may limit EPA's ability to define "significantly" so as to eliminate entirely any obligation to deal with GHGs through NSPSs, especially for the higher-emitting source categories. In particular, coal-fired power plants emitted 27.6% of total U.S. GHG emissions in 2008[46]—by most any measure a "significant" contribution. Thus, the generic component of EPA's 202(a) endangerment finding, in combination with a new source category that is a "significant" contributor of GHGs, would seem to trigger an EPA duty to promulgate NSPSs for that source category.

In the case of section 111, however, the bare duty to promulgate an NSPS for a new source category's GHGs is the minor part of the story. More important is the considerable discretion EPA would have as to the precise content and applicability of that NSPS. For this reason, the agency is likely to favor NSPSs for dealing with GHGs—that is, as long as it has to address GHGs under the existing CAA. The discretion inheres first in the definition of NSPS, which directs EPA to factor in the feasibility of reducing emissions with current technology, and the cost.[47] In the statute's words, NSPSs must reflect the degree of emission reduction achievable through

> the best system of emission reduction which (taking into account the costs of achieving such reduction and any nonair quality health and environmental impact and energy requirements), the [EPA] Administrator determines has been adequately demonstrated.[48]

The D.C. Circuit has interpreted this standard to mean that EPA should "identify the emission levels that are 'achievable' with 'adequately demonstrated technology'" (an undefined phrase allowing EPA broad discretion) and then use its discretion "to choose an achievable emission level which represents the best balance of economic, environmental, and energy considerations."[49] Also, section 111(b)(2) allows EPA to "distinguish among classes, types, and sizes within categories of new sources" in setting NSPSs, adding yet another layer of agency discretion. In sum, even if the 202(a) endangerment finding leads to an NSPS being required for GHGs emitted by some new source category, EPA's latitude in formulating that standard makes it unlikely the standard will be overly burdensome.

[46] U.S. Energy Information Admin. (Department of Energy), EMISSIONS OF GREENHOUSE GASES IN THE UNITED STATES 2008 (2009). The 27.6% figure in the text was calculated by CRS from 2008 figures in Table 1 of the report, showing total U.S. GHG emissions as 5,839.3 million metric tons of CO_2 equivalent, and Table 11, showing coal-fired power plant emissions as 1,945.9 million metric tons of CO_2.

[47] 42 U.S.C. §§ 7411(a)(1) and (h).

[48] *Id.* at § 7411(a)(1).

[49] Sierra Club v. Costle, 657 F.2d 298, 330 (D.C. Cir 1981).

At present, there are several active suits seeking to compel EPA promulgation of NSPSs for GHG emissions from one or another stationary source category.[50] Petitioners' prospects in such suits likely will be improved by EPA's 202(a) endangerment finding.

Non-202(a) Mobile Sources of Air Pollution

Non-road Engines and Non-road Vehicles

CAA section 213[51] applies to non-road engines and non-road vehicles, which include ocean-going vessels, construction equipment, farm tractors, forklifts, and lawn and garden equipment. Under 213(a)(4), if EPA determines that any emissions from new non-road engines or vehicles "significantly contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, the Administrator may promulgate ... such regulations as the Administrator deems appropriate ... taking into account costs, noise, safety, and energy factors." This contrasts in three ways with section 202(a), which (1) requires, rather than merely allows,[52] EPA to issue regulations for (2) emissions that merely "contribute," rather than "significantly contribute," to air pollution, and (3) lacks the discretion-enhancing phrase "as the Administrator deems appropriate." Thus EPA has great discretion in responding (or not responding) to GHG emissions from the non-road category.

Aircraft Engines

CAA section 231[53] authorizes EPA to establish emissions standards for aircraft engines. The agency "shall, from time to time" propose such standards, once a 202(a)-identical endangerment provision is satisfied. Plainly, a "contributes to" finding for new motor vehicles under 202(a) has limited relevance to whether EPA must make a counterpart finding for a different source category, like aircraft, that emits far less GHGs. The pivotal question is whether a "contributes to" component finding may have to be made for aircraft anyway, independent of section 202(a), in that whatever the quantity of GHG emissions from aircraft, it is not insignificant. A "contributes to" component finding for aircraft GHGs combined with a "may reasonably be anticipated to endanger" component finding carried over from section 202(a) will force EPA to make an overall endangerment finding for aircraft. This argument may turn on the breadth of EPA's authority to set a de minimis threshold for the quantity of aircraft GHG emissions that is deemed to "contribute to."

What if an endangerment finding *is* made for aircraft GHG emissions? Unlike with 202(a), such a finding under 231 does not automatically require regulations. Section 231(a)(2)(B)(ii) states that EPA "shall not change the aircraft engine emissions standards" if doing so would "significantly increase noise and adversely affect safety."[54] Section 231(c) states further that no regulation shall apply if disapproved by the President following the Secretary of Transportation's finding that EPA

[50] *See generally* CRS Report RL32764, *Climate Change Litigation: A Survey*, by (name redacted).

[51] 42 U.S.C. § 7547.

[52] *See supra* footnote 27 and accompanying text.

[53] 42 U.S.C. § 7571.

[54] *Id.* at § 7571(a)(2)(B).

regulations would create a hazard to aircraft safety.[55] Also, "any regulation prescribed under [section 231] ... shall take effect after such period as the Administrator finds necessary ... to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period."[56] Finally, even should standards be compelled, section 231 is silent as to their form and stringency level (as under section 202(a)). Noting these features, the D.C. Circuit has held that EPA enjoys broad discretion under section 231 in determining appropriate regulations for aircraft emissions in light of cost, technology, and safety, and can subordinate emissions reduction to these other concerns.[57]

Air Pollutants from the Loading and Unloading of Tank Vessels

CAA section 183(f)(1)(A)[58] requires EPA to regulate "the emission of [volatile organic compounds] and any other air pollutant from the loading and unloading of tank vessels"[59] that EPA finds "causes, or contributes to, air pollution that may be reasonably anticipated to endanger public health or welfare."[60] Volatile organic compounds are not GHGs, but the phrase "any other air pollutant" presumably includes methane, which is a GHG and may be released during the loading and unloading of tank vessels. The same point made above under section 231 applies here. To reiterate, a key question is whether a "may reasonably be anticipated to endanger" component finding under 202(a) will force EPA to make an endangerment finding for loading and unloading tank vessels given the argument that, however low relative to motor vehicles the GHG emissions from such operations, they nonetheless demand a "contributes to" component finding. The answer to this question, to reiterate, may turn on EPA's discretion in setting a de minimis threshold for the loading and unloading of tank vessels. Query whether the absence of the phrase "in his judgment" in 183(f)(1)(A), if contrasted with the presence of the same phrase in section 202(a), may be read by a court to constrain the agency's discretion under 183(f)(1)(A).

Even when promulgation of standards is compelled, EPA has discretion in other regards: section 183(f)(1)(A) does not explicitly specify the form and stringency of the required standards, and the standards are to reflect broad parameters (reasonably available technology, environmental impacts, energy requirements, and safety), as to which latitude of interpretation is inevitable.

Stratospheric Ozone Protection

CAA section 615[61] chiefly seeks to protect stratospheric *ozone*, but its broad language extends to *all* threats to the stratosphere. The section is included here because there are several scenarios under which GHGs might affect the stratosphere.[62]

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[55] *Id.* at § 7571(3)(c).

[56] *Id.* at § 7571(2)(b).

[57] National Association of Clean Air Agencies v. EPA, 489 F.3d 1221, 1230 (D.C. Cir. 2007).

[58] 42 U.S.C. § 7511b(f)(1)(A).

[59] CAA section 183(f)(1)(A) incorporates the definition of "tank vessel" in 46 U.S.C. § 2101(39). A tank vessel is a vessel that carries hazardous material or oil in bulk, or is adapted to do so, and is (A) a vessel of the United States, (B) operates in U.S. waters, or (C) transfers its good in a U.S. port or any other place subject to U.S. jurisdiction.

[60] This endangerment provision lacks the "in his judgment" phrase found in CAA section 202(a).

[61] 42 U.S.C. § 7671n.

[62] *See* CRS Report R40585, *Climate Change: Potential Regulation of Stationary Greenhouse Gas Sources Under the Clean Air Act*, *supra* page 1, at 14.

The wording of section 615 is a bit different from the foregoing endangerment provisions:

> If, in the Administrator's judgment, any substance, process, practice, or activity may reasonably be anticipated to affect the stratosphere, especially ozone in the stratosphere, and such effect may reasonably be anticipated to endanger public health or welfare, the Administrator shall promptly promulgate regulations respecting the control of such substance, process, practice, or activity.

This language presents several distinctions from section 202(a), indicating that a positive endangerment finding under 202(a) would almost certainly not be found to compel EPA action under section 615. In particular, section 615 speaks of an *effect on the stratosphere* that may endanger public health or welfare, not, as does section 202(a), "air pollution" in the atmosphere generally that may do so. Thus, the generic component finding under section 202(a) does not dictate the comparable component finding here. For another thing, section 615 demands that the "substance" may *itself* be expected to affect the stratosphere in a way that endangers public health or welfare; section 202(a) sets a lower threshold, insisting only that the emissions "contribute to" existing air pollution levels that, without regard to the contributing source, may be expected to endanger. And as with some other endangerment provisions discussed in this memorandum, section 615, should it be deemed to require regulations, says nothing explicit as to their form or stringency.

Pollution in a Foreign Country Caused by Emission Sources in the United States

Under CAA section 115, "[w]henever the [EPA] Administrator, upon receipt of reports … from any duly constituted international agency 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*," it must notify the governors of the states where the emission originates.[63] The same result, EPA notification of states, is required when the U.S. Secretary of State "alleges" such an endangerment and requests EPA to so notify. The notified states must then revise their state implementation plans "to prevent or eliminate" the endangerment being caused in the foreign country, but only if EPA finds that the same rights are granted to the United States by the country affected.[64]

Unlike other CAA provisions, section 115's endangerment provision imposes no requirement that EPA determine whether the air pollutant endangers public health or welfare *in the United States*. At first blush, therefore, one might conclude that a section 202(a) endangerment finding, based on effects in the United States, has no relevance to section 115, based on foreign effects. However, given the near uniformity of worldwide atmospheric concentrations of GHGs,[65] a positive 202(a) finding for the United States, which necessarily includes a "may reasonably be anticipated to endanger" finding for the United States, seems to compel the same component finding for any foreign country. As for the "contributes to" component finding, the question arises whether such

[63] 42 U.S.C. § 7415(a) (emphasis added). A comparable provision for abatement of *water* pollution in the United States causing endangerment in a foreign country is found at Clean Water Act section 310, 33 U.S.C. § 1320.

[64] *See* Peter Tsirigotis, *Discussion of Clean Air Act Authorities and GHGs*, available at http://www.epa.gov/air/caaac/pdfs/2008_01tsirigotis.pdf (Jan. 31, 2008).

[65] With respect to the principal GHG, CO_2, see Japan Meteorological Society, *Carbon dioxide (CO_2) distribution* (updated May 20, 2009), available at http://ds.data.jma.go.jp/ghg/kanshi/info_kanshi_e.html.

finding is to be made for the United States overall, or for individual states. The former seems the better reading of section 115, given that the section speaks of pollutants emitted "in the United States" and refers to supporting studies by a "duly constituted international agency." In either event, EPA, upon making an endangerment finding and reciprocity finding respecting a foreign country, would be required to notify and demand implementation plan revisions from many, probably most, states.

As with setting NAAQSs for GHGs, the consequences of a section 115 endangerment finding (assuming reciprocity) are extremely awkward, and for the same reason. Again, the compelled EPA action would be a demand that many or even most state implementation plans be revised "to prevent or eliminate" the foreign endangerment. As discussed under the NAAQSs section of this report, such an ambitious result is likely unattainable, even assuming substantial reductions of GHG emissions in every plan-revising state, owing to the staggering number of GHG sources worldwide that contribute to the endangerment in the foreign country. Thus, with section 115 as with the CAA's NAAQS sections, EPA may search for a plausible interpretation of the statutory language that could avoid such consequences and the courts may be receptive.

Several such interpretations may be noted, though it must be stressed that they are of varying degrees of legal persuasiveness and have mostly not been tested in court. The first, noted by EPA in its ANPR, is that section 115 can only be used to require states to incorporate into their implementation plans *measures related to attainment and maintenance of NAAQSs.*[66] EPA's argument appears to be founded on section 115's statement that following an endangerment finding, EPA's notice to a state "shall be deemed to be a finding under section 110(a)(2)(H)(ii) … which requires a plan revision with respect to so much of the applicable implementation plan as is inadequate to prevent or eliminate the endangerment."[67] Implementation plans are required to be prepared by states under section 110 to achieve and maintain NAAQSs,[68] and 110(a)(2)(H)(ii) states one of the required elements in such plans. Thus, EPA apparently concludes, section 115, being dependent on 110(a)(2)(H)(ii) for effectuation, likewise must be confined to measures related to attainment and maintenance of NAAQSs. If this argument is upheld, EPA might be able to avoid using section 115 if it can avoid setting a NAAQS for GHGs under section 110.

The vulnerability of EPA's argument, however, is that contrary to EPA's position, the text of section 110(a)(2)(H)(ii) appears to reach beyond measures related to attainment and maintenance of NAAQSs. Section 110(a)(2)(H)(ii) explicitly requires that implementation plans provide for plan revision when EPA finds that "the plan is substantially inadequate to attain the [NAAQS] which it implements *or to otherwise comply with any additional requirements established under this Act.*"[69] Section 115's command that an EPA-notified state revise its plan to eliminate the endangerment would seem to be precisely such an "additional requirement[]." Moreover, that requirement applies under 115(a) to "any" air pollutant emitted in the United States, not just those that affect attainment and maintenance of NAAQSs.

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[66] 73 Fed. Reg. at 44,482-44,483. *See also* Letter from Brian J. McLean, Director of EPA Office of Atmospheric Programs, to Albert Koehl, Ecojustice Canada, dated February 29, 2008 (rejecting petition for section 115 endangerment finding based on, among other U.S.-emitted pollutants, CO_2).

[67] 42 U.S.C. § 7410(a)(2)(H)(ii). The complementary CAA provision is section 110(k)(5): "Whenever the Administrator finds that the applicable implementation plan for an area is substantially inadequate to attain or maintain the relevant [NAAQS] … *or to otherwise comply with any requirement of this Act*, the Administrator shall require the state to revise the plan as necessary to correct such inadequacies." (Emphasis added.)

[68] *Id.* at § 110(a)(1).

[69] Emphasis added.

A corollary to EPA's argument that 110(a)(2)(H)(ii) is limited to NAAQS-related measures is its stance that owing to the unavailability for GHGs of state notification and plan revision under 110(a)(2)(H)(ii), it is inappropriate for EPA to make the endangerment finding that sets that process in motion. This argument stems from the EPA view, endorsed by the D.C. Circuit, that section 115 establishes a single, unitary procedure.[70] That is, either both endangerment finding and notification/plan-revision occur, or neither does.

Still other arguments that would thwart judicial coercion of EPA action under section 115 are (1) that in contrast with the CAA section on inter*state* pollution, section 115 says nothing about allowing petitions and so they should be assumed unavailable,[71] and (2) that the text of section 115 ("Whenever" the Administrator "has reason to believe") implies a degree of discretion as to the endangerment finding.[72]

Part Four: CAA Sections Having No Endangerment Trigger

New Source Review in PSD Areas

Possibly the strongest arguments that a positive endangerment finding for new motor vehicle GHG emissions, and resulting standards, will compel EPA to act against other GHG sources is based on new source review in Prevention of Significant Deterioration (PSD) areas and on Title V permitting (discussed in the following section). EPA fully accepts this argument:

> EPA expects soon to promulgate regulations under the CAA to control GHG emissions [from new motor vehicles] and, *as a result, trigger PSD and Title V applicability requirements for GHG emissions.*[73]

As background, an area of the country is PSD for a pollutant if that area is either attaining the health-based NAAQS for that pollutant or there is insufficient information to determine whether the area is attaining that standard ("unclassifiable areas").[74] The PSD portion of the CAA seeks to ensure that air quality in such areas—air that is or may be "cleaner than clean"—not be allowed to deteriorate down to the minimum acceptable level in the NAAQSs. To ensure this does not happen, the PSD program acts preventively; it requires EPA or states with approved PSD programs to review in advance of construction any new major emitting facilities, or major modifications of existing facilities, proposed for the PSD area.[75] This is termed "new source review." As part of this review, the owner or operator of the proposed facility must show, for

[70] Her Majesty the Queen in Right of Ontario v. U.S. EPA, 912 F.2d 1525 (D.C. Cir. 1990).

[71] EPA makes this argument in the McLean letter, *supra* footnote 66, where the agency pointedly referred to the section 115 petition as a "submittal." The argument, however, seems to overlook the Administrative Procedure Act sections noted earlier in this report. *See* text accompanying notes 19-21 *supra*. Presumably EPA thinks of submittals as not triggering a duty to respond.

[72] *Ontario*, 912 F.2d at 1533.

[73] Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 74 Fed. Reg. 55,292, 55,292 (October 27, 2009) (proposed rule). Emphasis added.

[74] CAA § 161; 42 U.S.C. § 7471.

[75] CAA§ 165; 42 U.S.C.§ 7475.

example, that emissions from the facility will not cause or contribute to more than one exceedance per year of the maximum allowable increase in concentration for any pollutant.[76] "Major emitting facility" is statutorily defined as any facility on a long statutory list (including large fossil-fuel-fired power plants) that has the potential to emit 100 tons/year of any air pollutant, and any stationary source in an unlisted category with the potential to emit 250 tons/year of any air pollutant.[77]

Since the PSD program is triggered by an area's being cleaner than a NAAQS requires, one might suppose it has no relevance to any pollutant for which there is no NAAQS—such as, so far, GHGs. But the CAA's PSD provisions cast a wider net. To be sure, an area can be *designated* PSD only in connection with a NAAQS air pollutant. But once so designated, the statute stipulates that "the proposed facility is subject to the best available control technology *for each pollutant subject to regulation under this Act* emitted from … such facility."[78] The Supreme Court has held that GHGs are "air pollutants" under the CAA, but what does "subject to regulation under this act" mean? Did CO_2 become "subject to regulation" when EPA promulgated regulations in 1993 to require monitoring and reporting of CO_2 emissions,[79] as required by section 821 of the 1990 CAA amendments? Or later, in 2007, when the Supreme Court held that GHGs are "air pollutants"? Or still later, only when EPA promulgates an emission standard actually regulating CO_2 emissions from some source—such as the expected section 202 standard? In short, what event triggers the requirement of best available control technology (BACT) in PSD areas?

Much ink has been spilled over the meaning of "subject to regulation under this Act." Indeed, the phrase has been the topic of at least two EPA Environmental Appeals Board decisions and one EPA Administrator memorandum.[80] While the appeals board decisions have remanded the question to EPA regional offices for further consideration, the Administrator's memorandum adopts the narrowest possible reading of "subject to regulation." According to the memorandum, issued at the end of the Bush Administration, the phrase excludes pollutants for which EPA regulations only require monitoring and reporting, and includes only pollutants covered by an "actual control of emissions" of the pollutant under the CAA or its regulations. In 2009, EPA granted reconsideration of the Administrator's memorandum and has recently sought comment on the memorandum's interpretation and other interpretations of "subject to regulation."[81] But the dispute is likely to be moot soon, at least as to GHGs. Even under the narrow EPA interpretation, the agency's expected GHG standard for new motor vehicles in early 2010 will make certain GHGs "subject to regulation under this Act," and so trigger PSD/BACT for significant new sources of those pollutants.

A PSD/BACT requirement for CO_2 raises a problem, however, owing to the low 100/250 tons/year thresholds for applicability of the PSD program—recall the definition of "major

[76] CAA § 165(a)(3); 42 U.S.C. § 7475(a)(3).

[77] CAA§ 169(1); 42 U.S.C. § 7479(1).

[78] CAA § 165(a)(4); 42 U.S.C. § 7475(a)(4). Emphasis added. *See also* CAA § 169(3); 42 U.S.C. § 7479(3).

[79] 40 C.F.R. Part 75.

[80] Memorandum from Stephen L. Johnson, EPA Administrator, to EPA Regional Administrators, regarding "EPA's Interpretation of Regulations that [sic] Determine Pollutants Covered By Federal Prevention of Significant Deterioration (PSD) Permit Program," Dec. 18, 2008.

[81] 74 Fed. Reg. 51,535 (October 7, 2009). EPA identifies the current interpretation of "subject to regulation," from the Bush Administration, as the "current and preferred interpretation." 74 Fed. Reg. at 51,535.

emitting facility" in the second paragraph of this section. Carbon dioxide is emitted in far greater amounts than any other air pollutant, so based on the statutory 250 tons/year threshold, hospitals, churches, schools, and other relatively minor sources may be covered. Besides the considerable pollution-control costs for small entities, coverage of such a vast number of sources, with a case-by-case determination of BACT for each source,[82] also raises questions of administrative practicality for state permitting authorities. To alleviate these problems, EPA has recently proposed a "tailoring rule" to tailor the tons/year thresholds of PSD new source review to federal and state administrative realities—in particular, to raise them substantially and thereby greatly reduce the number of covered sources.[83] The rule would depart, at least temporarily, from the explicit 100 or 250 tons/year threshold in the CAA. As described by EPA—

> The first phase, which would last 6 years, would establish a temporary level for the PSD and Title V applicability thresholds at 25,000 tons per year (tpy) on a "carbon dioxide equivalent" (CO_2e) basis, and a temporary PSD significance level for GHG emissions of between 10,000 and 25,000 tpy CO_2e. EPA would also take other streamlining actions during this time. … EPA would conduct another rulemaking, to be completed by the end of the sixth year, that would promulgate, as the second phase, revised applicability and significance level thresholds and other streamlining techniques.[84]

Of course, an agency's departure from the express and unequivocal language of a statute, as EPA proposes here, is something courts do not condone lightly—though it is another question entirely whether any group would *want* to file suit against the tailoring rule, and who would have standing to sue.[85] In any event, EPA goes to some effort in the preamble to the proposed tailoring rule to provide legal justification—citing two related, but independent, lines of analysis it terms the doctrines of "absurd results" and "administrative necessity." These lines of analysis apply both to PSD/new source review and Title V permitting, and so are discussed in a separate section of this report following the upcoming section on Title V.

BACT is defined in the CAA, but in a manner that leaves the permitting authority (EPA or the state) wide latitude in applying the requirement to a specific emission source.[86] That latitude is

[82] The CAA requires that BACT for a source be determined by the permit-issuing authority (the state or EPA) on a "case-by-case basis." CAA § 169(3); 42 U.S.C. § 7479(3).

[83] Prevention of Significant Deterioration and Title V Greenhouse Tailoring Rule, 74 Fed. Reg. 55,292 (October 27, 2009).

[84] *Id.* at 55,292. The threshold of 25,000 tpy relates solely to new major emitting facilities. "PSD significance level," on the other hand, relates solely to *modifications* of existing sources. As noted, only those modifications that are "major" trigger EPA new source review. (The qualifier "major" is not in the CAA; it was added by EPA regulation—see 40 C.F.R. § 52.21(a)(2)(ii)). To be major, a modification must increase the emissions from a source by at least an EPA-defined "PSD significance level." 40 C.F.R. §§ 52.21(b)(2)(i), 52.21(b)(40), 52.21(b)(23).

[85] It is likely that the additional GHGs emitted by virtue of the temporarily raised tons/year threshold in the tailoring rule would be insufficient to constitute the "injury in fact" required for standing to sue in federal courts. Speculating, however, it may be imagined that an environmental group might claim standing by arguing that its members were injured by the *non-GHG* emissions that would not have occurred had the statutory 100/250 tons/year threshold been applied. This argument is based on the fact that BACT for GHGs will also, at many sources, reduce non-GHGs as well. A second group that might have standing are industries that emit more than the 25,000 tons/year threshold in the tailoring rule, who could conceivably argue they are at an economic disadvantage to their competitors below the 25,000 tons/year threshold in the rule.

[86] CAA § 169(3); 42 U.S.C. § 7479(3).

less, however, if EPA has an NSPS for the pollutant in question, since BACT can never result in emissions greater than allowed under an NSPS, if one exists.[87]

Title V Permitting

CAA title V, added by amendment in 1990, creates an operating permit program applicable to every "major" stationary source (existing and new), and certain other stationary sources, of air pollution.[88] However, the Title V permit program imposes no substantive requirements of its own. Rather, the purpose of a Title V permit is to consolidate in one place the requirements imposed on the source *elsewhere* in the CAA, thus simplifying the regulation of each source and the enforcement of such regulations by EPA, states, and citizen suits.

While imposing no new emission controls, Title V does impose costs on the applicant. For example, as part of the application process, covered facilities must identify all federally enforceable emission regulations (plus monitoring and recordkeeping requirements), including those in state implementation plans, and develop a compliance plan. Once the permit is received, the facility must monitor compliance and report the results to federal and state authorities at least every six months. Certain changes in facility operations require a formal Title V permit modification, at times a burdensome process. Finally, payment of permit fees is required, such fees to be not less than $25 per ton of regulated pollutant, with exceptions.[89] On the other hand, the act does seek to ameliorate these costs. For example, Title V authorizes states to issue "general permits" covering "numerous similar sources."[90] Facilities can then submit a simple application seeking coverage under the general permit.

The general threshold for coverage by Title V is that the facility directly emits, or has the potential to emit, 100 tons per year or more of any air pollutant. Such a low threshold would extend Title V permitting requirements to many stationary sources of GHGs that in addition fall under CAA emission requirements. In particular, a BACT requirement for GHG emissions in PSD areas, discussed above under New Source Review in PSD Areas, would require new major emitting facilities and major modifications in such areas to seek Title V permits.

As noted in the preceding section, the arguments made by EPA as to absurd results and administrative necessity are invoked as well by the agency for narrowing the application of Title V permitting. However, if the only CAA restrictions on stationary source GHGs are those under PSD new source review, the thresholds under that program will completely set the scope of Title V permitting.

[87] *Id.*

[88] CAA §§ 501-507; 42 U.S.C. §§ 7661-7661f.

[89] CAA § 502(b)(3)(B)(i); 42 U.S.C. § 7661a(b)(3)(B)(i). As pertinent to GHGs, "regulated pollutant" is defined to include each pollutant regulated under section 111 (NSPSs) and each pollutant for which a primary NAAQS has been promulgated.

[90] CAA § 504(d); 42 U.S.C. § 7661c(d).

"Absurd Results" and "Administrative Necessity"

EPA has sought to legally justify its departure from the tons/year thresholds stated by the CAA for PSD/new source review and Title V permitting by what it terms the "doctrines" of "absurd results" and "administrative necessity." These doctrines are discussed in detail in the preamble to the proposed tailoring rule, noted in the New Source Review in PSD Areas section of this report.[91]

The "absurd results" doctrine, supported by many court decisions, holds that even clear and explicit statutory directives may on rare occasion have to be departed from when rigid adherence would be inconsistent with other provisions of the statute or unambiguous legislative history, or produce a result so contrary to sensible policy as to permit the inference that Congress could not have intended that result. EPA asserts in the preamble to the proposed tailoring rule that adherence to the 100/250 tons/year threshold for new source review in PSD areas would have precisely this result:

> the extraordinary increases in PSD and Title V permit applications that would result from a literal application of the 100/250 tpy threshold requirements would, at least during the near term—until EPA and the permitting authorities can develop streamlining methods and ramp up resources—extensively disrupt the two permitting programs and impose undue regulatory burdens in the aggregate on the sources newly subject to PSD and Title V permit requirements.

As a concrete example, EPA asserts that during the initial period of literally applying the 100/250 tons/year threshold, permit applications would increase by 150-fold, "render[ing] it impossible for permitting authorities to meet the requirement in CAA section 165(c) to process permit applications within 12 months."[92]

From EPA's early years comes another example of courts endorsing an EPA effort to avoid a seemingly senseless consequence of a literal statutory reading. During the 1970s, EPA adopted the position that the National Environmental Policy Act (NEPA) does not require EPA to do environmental impact statements, despite the fact that the act unequivocally makes its impact-statement directive applicable to "*all* agencies of the Federal Government."[93] The courts agreed with EPA, affirming the agency's rationale that it would be senseless to do environmental impact statements per NEPA command when the decision-making processes followed by EPA under its program statutes incorporate the very same environmental considerations and public participation as NEPA.[94] This may be regarded as an early and successful use of something akin to an absurd results principle.

In sum, if courts agree with EPA that the burdens imposed by a literal reading of the PSD and Title V thresholds would be crushing, it is quite plausible they would accept an EPA "absurd results" defense in any litigation attacking the tailoring rule. This is particularly so because EPA is

[91] 74 Fed. Reg. at 53,303-53,311 (absurd results doctrine); 74 Fed. Reg. at 53,311-53,318 (administrative necessity doctrine).

[92] 42 U.S.C. § 7475(c).

[93] 42 U.S.C. § 4332(2) (emphasis added).

[94] *See, e.g.*, State of Wyoming v. Hathaway, 525 F.2d 66, 71-72 (10th Cir. 1975). The question of NEPA's application to EPA was resolved, to some extent, by amendments to the Clean Air Act and Clean Water Act expressly exempting the agency from NEPA's impact statement requirement.

not proposing a permanent exemption from the PSD and Title V thresholds, but rather a temporary phase-in period (though courts may want to revisit the EPA threshold when the agency makes its six-year adjustment in the threshold, as it promises to do). On the other hand, it must be noted that in the sheer magnitude of its consequences, the statutory departure in the proposed tailoring rule is greater than that in any of the "absurd results" cases with which CRS is familiar.[95]

The second, independent legal justification offered by EPA for its tailoring rule is the "doctrine" of "administrative necessity." This principle also has some support in the case law. As its name suggests, it authorizes an agency to depart from statutory commands when literal compliance is administratively impossible, or nearly so. To a considerable extent, administrative necessity and absurd results overlap. EPA strenuously argues in the proposed tailoring rule's preamble that the statutory PSD threshold (together with a "zero" significance level threshold for modifications to existing sources) "would result in a volume of permit applications that is so high that the PSD … program[] would become impossible for State and Federal authorities to administer." Only if EPA can convince a court of such daunting burdens will the tailoring rule survive judicial review (again, *if* review is sought).

In the leading case on administrative necessity, *Alabama Power Co. v. Costle*,[96] the D.C. Circuit was also dealing with EPA, and, by coincidence, the PSD requirements of the CAA. While rejecting EPA's expansion of a statutory exemption, the court conceded that

> limited grounds for the creation of exemptions are inherent in the administrative process, and their unavailability under a statutory scheme should not be presumed save in the face of the most unambiguous demonstration of congressional intent to foreclose them.[97]

The court stressed, unsurprisingly, that "[c]ategorical exemptions from the clear commands of a regulatory statute, though sometimes permitted, are not favored."[98] Yet, it added, "[t]his broad principle that frowns upon categorical administrative exemptions is strict, but not absolute."[99] It is possible that here, where EPA would have to apply the PSD program to a pollutant (CO_2) emitted in far larger quantities than the pollutants for which the CAA was designed, EPA may be able to meet the demanding judicial prerequisites for invoking administrative necessity.

Finally, EPA has proposed that its phased approach to reaching the statutory thresholds may be justified by case law for the proposition that agencies may proceed in an incremental fashion in implementing a statutory mandate. EPA concedes that these cases are grounded on facts that are distinguishable from the tailoring rule situation, and solicits comment as to whether the case law is truly supportive of the proposed tailoring rule.[100]

[95] Some industry groups have argued that EPA should defer promulgating section 202 GHG emissions standards so as to postpone triggering PSD/BACT for GHG emissions. This, of course, would avoid the problem of unrealistic statutory thresholds entirely.

[96] 636 F.2d 323 (D.C. Cir. 1979).

[97] *Id.* at 357.

[98] *Id.* at 358.

[99] *Id.* at 358.

[100] 74 Fed. Reg. at 55,319.

Part Five: Final Thoughts

EPA's endangerment finding for new motor vehicle GHG emissions, or the emission standards that must follow, appears to force certain regulatory actions by EPA, leave the agency free to resist certain other regulatory actions if it chooses, and leave two additional regulatory authorities in a gray area in between.

Into the first category—forced regulatory action—appears to fall new source review of major emitting facilities and major modifications of existing facilities in PSD areas. Final motor vehicle GHG standards, expected by March, 2010, will necessarily mean that GHGs from new stationary sources that emit more than some threshold amount of any pollutant (100 or 250 tons/year under the CAA; 25,000 tons/year if the proposed tailoring rule is finalized), and GHGs from major modifications of existing facilities, will be subject to BACT in such areas. BACT, however, is loosely defined, particularly if there is no NSPS for the pollutant to set a floor on BACT. Title V permitting requirements likely will be triggered as well. Further, stationary source categories that emit large quantities of GHGs may have to be regulated by NSPSs, though the CAA gives EPA wide latitude in shaping such regulations.

The second category—EPA retains discretionary latitude—appears to include almost all the endangerment-triggered action authorities under the CAA. These can be distinguished in varying degrees from section 202(a) on the grounds that, unlike section 202(a), some of them use the discretionary "may," some demand that the source category contribute "significantly" to the endangerment, and some add additional preconditions. Most of these non-202(a) CAA authorities involve source categories whose GHG emission levels are lower than from new motor vehicles, meaning that a "contribute to" finding under section 202(a) may not dictate the same finding under that other authority. Stationary source categories that do not emit large amounts of GHGs will not have to be covered by NSPSs if EPA defines "significantly" at a high tons/year level.

The third category—the gray area between EPA being forced to act and not being forced to do so—appears to comprise promulgation of NAAQSs for GHGs under section 108 and international pollution abatement under section 115. These sections can be read to force EPA action, but there would appear to be wiggle room for agency interpretation given the awkward consequences and unattainable pollution-control goals such a reading could entail. The administrative necessity and absurd results arguments presented so vigorously by EPA in connection with PSD new source review and Title V permitting may be available to the agency here as well.

Ultimately whether EPA acts against GHG emissions under CAA provisions in the second and third categories is likely to be a function of the agency's (and Administration's) political desires more than anything else. The EPA under the Obama Administration has repeatedly stated that it is willing to take on GHG emissions through CAA regulation if Congress does not soon enact comprehensive climate change legislation reducing such emissions. There are several possible motivations for the agency's saying this: CAA regulation by the agency in the near future (1) ensures that time is not lost in abating the causes of climate change while Congress debates; (2) buttresses our credibility in international climate change negotiations (such as Copenhagen) by showing that the United States is "serious" about tackling climate change; and (3) puts pressure on Congress to enact climate change legislation.

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