

**Regulation of Motor Vehicle Greenhouse
Gas Emissions under the Clean Air Act
and the Energy Policy Conservation Act**

Background

In April 2007, the United States Supreme Court determined that greenhouse gases were “air pollutants” under the Clean Air Act, and ordered the U.S. Environmental Protection Agency (“EPA”) to determine whether to regulate greenhouse gas emissions from vehicles under Section 202 of the Clean Air Act. *Massachusetts v. EPA*, 127 S. Ct. 1438 (2007); 42 U.S.C. § 7521(a). Shortly thereafter, President Bush issued Executive Order 13432, 72 Fed. Reg. 27,717 (May 14, 2007) (“Executive Order 13432”). In Section 1 of Executive Order 13,432, the President directed EPA, the National Highway Traffic Safety Administration (“NHTSA”), and other federal agencies to use existing legal authority “to protect the environment with respect to greenhouse gas emissions” from mobile sources “in a manner consistent with sound science, analysis of benefits and costs, public safety, and economic growth.” 72 Fed. Reg. at 27,717. The President also urged the agencies to consult with each other, to coordinate their actions, and to exercise their authority “in a manner consistent with the effective exercise by the heads of the other agencies of the authority vested in them by law. . . .” 72 Fed. Reg. at 27,718.

Therefore, if EPA decides to regulate motor vehicle greenhouse gases under section 202 of the Clean Air Act, it must ensure that, to the extent possible, its standards do not conflict with the fuel economy regulations adopted and enforced by NHTSA. Joint rulemaking is the means to that end; it will maximize the agencies’ ability to make their overlapping regulatory programs consistent, and will allow them to identify any differences in approaches that might require inter-agency resolution.

This paper provides background on the need for inter-agency coordination if EPA proceeds with rulemaking to set carbon dioxide emissions standards for vehicles that are already subject to fuel economy regulation by NHTSA. The paper is divided into two parts. Part I outlines the reasons why regulatory overlap between NHTSA’s fuel economy program and EPA’s greenhouse gas rule is inevitable if EPA tries to regulate the main motor vehicle greenhouse gas of concern today, which is the carbon dioxide emitted in the exhaust of gasoline- and diesel-powered vehicles. Part II contains specific recommendations for the conduct of a joint rulemaking with NHTSA, so that any conflict between the goals and purposes of the Clean Air Act and the federal fuel economy program can be avoided.

I. Regulatory Overlap between EPCA and the CAA

Executive Order 13432 requires EPA to use its existing legal authority to regulate motor vehicle greenhouse gas emissions, if the Agency determines that such regulation is warranted to protect the environment. That authority is provided under section 202(a)(1) of the Clean Air Act:

The Administrator shall by regulation prescribe ... in accordance with the provisions of this section, standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.

42 U.S.C. § 7521(a)(1).

The Administrator's authority is further described in section 202(a)(2) of the Clean Air Act, which states as follows:

Any regulation prescribed under paragraph (1) of this subsection (and any revision thereof) 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.

42 U.S.C. § 7521(a)(2). The environmental condition of concern animating Executive Order 13432 is the risk that changes in the global climate may endanger public health or welfare, and that greenhouse gas emissions from mobile sources cause or contribute to those changes. This paper assumes EPA will find such a risk to be sufficiently concrete and significant to warrant a regulatory response. EPA's primary mission in the rulemaking process would therefore be to determine what technologies are or will be available to help abate that risk -- or in other words to define "the requisite technology" to address the potential problem of climate change -- and to determine when and how those technologies can be applied, giving appropriate consideration to cost.

The main automotive greenhouse gas is carbon dioxide, formed in the combustion of fossil fuels by spark-ignited (gasoline) and compression-ignition (diesel) engines. The technologies that can be used to reduce carbon dioxide emissions from gasoline- and diesel-powered vehicles -- and indeed the only technologies that can accomplish reductions from those types of vehicles -- are the same technologies that are used to increase fuel economy. As NHTSA stated in its most recent rulemaking to increase fuel economy standards for light trucks, "[T]here is but one pool of technologies for reducing tailpipe CO₂ emissions and increasing fuel economy available now and for the foreseeable future." *Average Fuel Economy Standards for Light Trucks -- Model Years 2008-2011*, 71 Fed. Reg. 17,655, 17,654 (Apr. 6, 2007).

The same "pool of technologies" considered by NHTSA in setting fuel economy standards under the Energy Policy & Conservation Act of 1975 ("EPCA" or "the 1975 Act") would have to be used by EPA in setting tailpipe carbon dioxide emissions standards under the Clean Air Act. Thus, overlap is inevitable if EPA tries to regulate carbon dioxide emissions already subject to NHTSA's fuel economy standards.

Regulatory overlap is therefore unavoidable if EPA tries to regulate tailpipe carbon dioxide emissions. The challenge is to avoid regulatory conflict, which would occur if standards set by EPA under the Clean Air Act interfere with NHTSA's efforts to achieve the objectives established by Congress in EPCA. It is therefore important to consider what Congress sought to achieve in EPCA and how those objectives should shape EPA's action under the Clean Air Act.

EPCA requires NHTSA to set fleet average fuel economy standards for cars and trucks at the "maximum feasible" level, for any given model year. Congress set the fleet average passenger car fuel economy standard at 27.5 miles per gallon ("mpg"). NHTSA has the power to revise the standard upward to the "maximum feasible" level. 49 U.S.C. § 32902(c). The statute separately directs NHTSA to set average fuel economy standards for trucks at levels that achieve "maximum feasible" fuel economy. *Id.* § 32902(a).

The term "maximum feasible" in EPCA does not mean the highest level of fuel economy that can be achieved by a single vehicle, or even by a fleet of vehicles, through the application of all available technologies. From the beginning of the work on EPCA, Congress was concerned about the impact of fuel economy regulation on the resources of the automobile industry. In the debate on the 1975 Act, Rep. Phil Sharp, one of the sponsors of the House fuel economy provisions, made clear that preserving the health of the industry was one of "several goals" of the CAFE legislation:

It is a problem all of us have struggled with ... as to how far we can go without damaging the industry, because we have several goals we are trying to achieve. The first goal is energy savings. At the same time, we recognize that we have serious unemployment in the American auto industry and we want to preserve this important segment of the economy.

121 Cong. Rec. 18675 (June 12, 1975).

Accordingly, section 32902(f) of the 1975 Act directs NHTSA to balance a number of factors in setting or revising fuel economy standards, including not only "technological feasibility" and the need of the nation to conserve energy, but also "economic practicability." 49 U.S.C. § 32092(f). Congress sought significant fuel economy increases through "a series of graduated mileage requirements" that would "ensure wide consumer choice by leaving maximum flexibility to the manufacturer" in deciding how to meet the specified CAFE levels.¹ The authors of the 1975 Act emphasized that CAFE standards had to "be carefully drafted" in order to improve fuel economy without "unduly limiting consumer choice." H.R. Rep. No. 94-340, at 87 (1975). As NHTSA has explained:

Congress had a variety of interrelated goals in enacting EPCA and has charged NHTSA with balancing and achieving them. Among them was the overarching one of improving motor vehicle fuel economy. ... Other congressional objectives underlying EPCA include avoiding serious adverse economic effects on manufacturers and maintaining a reasonable amount of consumer choice among a broad variety of vehicles. Congress was explicitly concerned that the CAFE program be carefully drafted so as to require levels of average fuel economy that do not have the effect of either imposing impossible burdens or unduly limiting consumer choice as to capacity and performance of motor vehicles.

71 Fed. Reg. at 17,657 (citations and footnotes omitted).

Compliance with fuel economy standards has frequently imposed different burdens and costs on different manufacturers, and this has required NHTSA to make a number of adjustments in the stringency of the standards to ensure that costs for the industry as a whole and the other economic impacts of the fuel economy standards were reasonable. As one report by the National

¹ *Center for Auto Safety v. Thomas*, 847 F.2d 843, 863-64 (D.C. Cir.) (separate opinion of Buckley, J.), *vacated on unrelated grounds*, 856 F.2d 1557 (1988) (quoting S. Rep. No. 179, 94th Cong., 1st Sess. (1975)) (internal quotation marks omitted).

Research Council explained, CAFE can have disparate impacts on manufacturers that have different fleet mixes:

Some degree of differential or disparate impacts is inherent in a regulatory standard that sets the same performance measure for manufacturers regardless of the different types of vehicles they produce. ... [T]he domestic manufacturers (i.e., Chrysler, GM and Ford) had to improve the fuel economy of their vehicle fleets substantially, while foreign company fleets (e.g., Honda, Nissan and Toyota) were already above the standards. Thus, some companies were affected to a greater extent than others.

National Research Council, *Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards* (2002) at 20-21. To avoid severe adverse economic impacts on U.S. manufacturers, the U.S. supplier base and competition in the U.S. new vehicle market, NHTSA had to make numerous adjustments to the CAFE standards in the 1980s, with the approval of the D.C. Circuit.² See, e.g., *Center for Auto Safety v. NHTSA*, 793 F.2d 1322, 1340 (D.C. Cir. 1986); *Competitive Enterprise Inst. v. NHTSA*, 901 F.2d 107, 125 (D.C. Cir. 1990) (D. Ginsburg, J., concurring).

Unlike the challenges faced by NHTSA in administering EPCA, EPA has for many years been able to set standards for the control of traditional tailpipe pollutants without concern about the impact of its standards on the competitive conditions within the automobile industry or consumer choice. This has been possible because, since the advent of the catalytic converter in the 1970s, it has been possible to achieve very high levels of control for smog-forming air pollutants and other emissions that are harmful to breathe without regard to the size or horsepower of the vehicle. The costs of meeting traditional emissions standards set by EPA under the Clean Air Act have thus for many years been roughly the same for all major manufacturers. Perhaps for this reason, the key text in the Clean Air Act -- section 202(a)(2) -- has not been the subject of extensive administrative analysis or litigation.³

² See, e.g., *Passenger Automobile Average Fuel Economy Standards*, 53 Fed. Reg. 39,275 (Oct. 6, 1988); *Passenger Automobile Average Fuel Economy Standards*, 51 Fed. Reg. 35,594 (Oct. 6, 1986); *Passenger Automobile Average Fuel Economy Standards*, 50 Fed. Reg. 40,528 (Oct. 4, 1985); *Light Truck Average Fuel Economy Standards*, 49 Fed. Reg. 41,250 (Oct. 22, 1984); see also 71 Fed. Reg. at 17,750 (recounting need to relax standards in the 1980s).

³ The cases under section 202 that have dealt directly with issues of stringency have often involved diesel-powered vehicles, which have been subject to specific requirements for rulemaking under provisions other than section 202(a)(2). See, e.g., *Natural Resources Defense Council v. Thomas*, 805 F.2d 410 (D.C. Cir. 1986); *Natural Resources Defense Council v. EPA*, 655 F.2d 318 (D.C. Cir. 1981) (same for light-duty diesel powered vehicles. The concepts of "requisite technology" and the general cost and lead-time provisions of section 202(a)(2) were not directly examined in any those three cases. More relevant recent decisions are discussed at pp. xxx *supra*.

An EPA rulemaking to set carbon dioxide standards for gasoline-powered cars and trucks sold in the United States, in addition to setting what could become *de facto* fuel economy standards for those vehicles, will be the first major occasion for EPA to address that the term "requisite technology" means in the Clean Air Act, and how to give "appropriate consideration to the cost of compliance" as required in section 202(a)(2). It will also be the first time that EPA will have had to deal with the technical challenges in improving fuel economy and the very serious issues of inter-firm competition and consumer choice with which NHTSA has had to contend under EPCA. If EPA sets tailpipe carbon dioxide standards that impose significantly unequal burdens on different manufacturers, it will upset the competitive balance within the U.S. automobile industry. Significant changes in that competitive balance will result in losses in employment in the U.S. automotive economy and reductions in consumer choice among different vehicle brands -- a result completely at odds with the objectives of Congress in EPCA.

II. Recommendations

In examining EPA's current procedural options, it may be well first to address the Supreme Court's decision in *Massachusetts v. EPA*. Some have suggested that the Supreme Court intended to subordinate the goals and purposes of EPCA -- which require balance in the setting of fuel economy standards -- to the objectives of the Clean Air Act, which require the protection of public health and welfare. As explained below in section A, to the extent the Supreme Court addressed the interface between the two statutes, it presumed that any conflict between the mandates of the Clean Air Act and EPCA could be avoided. That hardly indicated that one set of statutory objectives should be given priority over another.

EPA's options in trying to meet the requirements of the Clean Air Act, while trying to achieve the inter-agency consistency that the Supreme Court assumed could be achieved, are examined in section B. As section B explains, EPA has two options. One is to abstain from attempting to set any tailpipe CO₂ standards for new motor vehicles, and instead to concentrate on the regulation of other motor vehicle greenhouse gas emissions and the promulgation of fuel composition standards that will reduce CO₂ emissions from the motor vehicle fleet as a whole. That approach will avoid any risk of regulatory conflict with EPCA. The second alternative will require a significant and detailed, coordinated joint rulemaking effort with NHTSA, which will result in tailpipe carbon dioxide standards formally set by EPA, but at a level of stringency for each of the major manufacturers that is consistent with the goals and purposes of EPCA.

A.

As an initial matter, it is important to be clear on the questions that the Supreme Court did, and did not, decide in *Massachusetts*. In *Massachusetts*, EPA had asserted that carbon dioxide was not an "air pollutant" for the purposes of the Clean Air Act. EPA placed emphasis on the fact that at the time when section 202 of the Clean Air Act was first adopted, "carbon dioxide" was not considered a pollutant. EPA also argued that subsequent Congressional action demonstrated Congressional intent that the Agency refrain from greenhouse gas controls under section 202. See *Massachusetts*, 127 S. Ct. at 1450. EPA supported its construction of section 202 by noting the existence of NHTSA's regulation of fuel economy, and suggesting that EPA regulation of greenhouse gases would overlap with NHTSA's program. *Id.* at 1450-51.

The Supreme Court had “little trouble” in rejecting EPA’s statutory construction. *Massachusetts*, 127 S. Ct. at 1459. The Court determined that the “sweeping definition of ‘air pollutant’” “foreclos[ed]” EPA’s reading of section 202. *Id.* at 1460. In light of the broad definition the Court found the “[t]he statute [to] unambiguous[ly]” include carbon dioxide. *Id.* “When the words of a statute are unambiguous ... the judicial inquiry is complete.” *Connecticut Nat. Bank v. Germain*, 503 U.S. 249, 253-254 (1992); *Coosemans Specialties, Inc. v. Dep’t of Agriculture*, 482 F.3d 560, 564 (D.C. Cir. 2007) (“If the meaning of the statute is unambiguous, we must give effect to the clear congressional intent.”).

With respect to EPA’s secondary argument based on the existence of the separate regulatory program under EPCA, Justice Stevens wrote as follows:

EPA finally argues that it cannot regulate carbon dioxide emissions from motor vehicles because doing so would require it to tighten mileage standards, a job (according to EPA) that Congress has assigned to DOT. *See* 68 Fed. Reg. 52929. But that DOT sets mileage standards in no way licenses EPA to shirk its environmental responsibilities. EPA has been charged with protecting the public’s “health” and “welfare,” 42 U.S.C. § 7521(a)(1), a statutory obligation wholly independent of DOT’s mandate to promote energy efficiency. *See* Energy Policy and Conservation Act, § 2(5), 89 Stat. 874, 42 U.S.C. § 6201(5). The two obligations may overlap, but there is no reason to think the two agencies cannot both administer their obligations and yet avoid inconsistency.

Massachusetts, 127 S. Ct. 1461-62. Justice Stevens then explained that on remand, EPA would possess “significant latitude as to the manner, timing, content and coordination of its regulations with those of other federal agencies” if it chose to proceed with regulation.⁴

The Court’s analysis in *Massachusetts* cannot properly be read to have limited the need to comply with the criteria for fuel economy regulation in EPCA. Conflicts between two federal statutory regimes are evaluated under the doctrine of “implied repeal.” Under that doctrine, an implied repeal only occurs when there is an “irreconcilable conflict” between the two laws. *See, e.g., Branch v. Smith*, 538 U.S. 254, 273 (2003). When there is a conflict, the implied repeal extends only to the “minimum extent” necessary to avoid the conflict. *See, e.g., Radzanower v. Touche Ross & Co.*, 426 U.S. 148, 155 (1976). No party in *Massachusetts v. EPA* made an implied repeal argument, or apparently thought such an argument necessary to shed light on the basic question of statutory construction for section 202 of the Clean Air Act. Because EPA had not actually promulgated a regulation for greenhouse gases under section 202, an implied repeal argument would have necessarily depended on demonstrating facial incompatibility between finding greenhouse gases to be “air pollutants” under the Clean Air Act and NHTSA’s regulation of fuel economy.

Moreover, the Supreme Court did not have before it a record demonstrating anything more than an abstract level how a conflict might arise between rulemaking under the Clean Air Act and standard-setting under EPCA. The Court did not examine to any extent the similarities

⁴ *Massachusetts*, 127 S. Ct. at 1462.

or differences between the selection of the "requisite technology" for control of carbon dioxide emissions and the concept of "maximum feasible" fuel economy standards, and did not even suggest that EPA would need to regulate carbon dioxide emissions from vehicles already subject to fuel economy regulation. The Court's expression of skepticism that conflict would be inevitable (there being "no reason to think" that conflict would occur) should hardly be taken as an instruction to the Executive Branch to grant one agency's statutory objectives priority over those of another.

B.

The Supreme Court's disposition of the issues it resolved in *Massachusetts* leaves to EPA the task of determining what would be "the requisite technology" for the control of greenhouse gases under section 202(a)(2) of the Clean Air Act, if the Agency makes an endangerment finding. EPA and the federal government at large might face a dilemma if the Agency determined that standards for the control of carbon dioxide emissions consistent with section 202(a)(2) had to be set at a level of stringency higher than the fuel economy standards that would apply under EPCA to the same vehicles. In that event, the difficult issue of regulatory "inconsistency" or conflict -- which the Supreme Court assumed not to exist in *Massachusetts* -- would come to the fore.

One solution to the problem, which is the simplest solution, is for EPA to abstain from attempting to set carbon dioxide standards from the gasoline- and diesel-powered vehicles that are already subject to the CAFE regime established by Congress in EPCA. This approach would avoid any conflict with the EPCA fuel economy program and would still permit EPA to implement a regulatory program to address an "endangerment" finding under section 202 by regulating the carbon dioxide exhaust of heavy-duty and off-road engines, as well as greenhouse gas emissions other than carbon dioxide from the fleet subject to NHTSA's rules. Those other greenhouse gases include fugitive emissions from automotive air conditioning systems, nitrous oxide and methane. The premise for this approach would be that the "maximum feasible" fuel economy standards either specified by Congress in EPCA (in the case of passenger cars) or by NHTSA (in the case of trucks) should be treated as the same as the standards that would be set under the "requisite technology" provision in section 202 of the Clean Air Act. There is certainly nothing in the text or administrative history of section 202 that would require a different level of stringency from the standards Congress deemed to be, or that NHTSA has found to be, the "maximum feasible" standards under EPCA.

The alternative approach would proceed from a different premise, which is that the federal agencies can appropriately consider whether the current passenger car fuel economy standard of 27.5 mpg contained in EPCA, and the truck fuel economy standards set by NHTSA, can and should be revised in order to achieve higher levels of control of carbon dioxide emissions without adverse impact on the balanced goals of EPCA. It may be possible, for example, to establish carbon dioxide standards for passenger cars that require fleet-wide fuel economy above 27.5 mpg without adversely affecting the competitive positions of the major manufacturers if EPA uses "attribute-based" standards for passenger cars. Such standards would take account of differences in the size, weight, horsepower, and/or other attributes of the fleets of vehicles sold by each major manufacturer.

Under the alternative approach, the upper level of stringency in the carbon dioxide standards set by EPA should be no more stringent, in terms of its impact on each of the major manufacturers, than the “maximum feasible” fuel economy standards that NHTSA would set under EPCA using the factors contained in the 1975 Act. The crucial limitation would be the requirement to ensure that any standards set by EPA would not exceed what NHTSA could properly define as “economically practicable” under EPCA. Well before the decision in *Massachusetts* or the issuance of Executive Order 13432, NHTSA had requested technical and product planning information from vehicle manufacturers for the period through the 2017 model year.⁵ NHTSA should by now therefore be in possession of the information it needs in order to determine whether fuel economy standards for gasoline- or diesel-powered cars and trucks can be increased to new, and higher, “maximum feasible” levels than those previously set, either by Congress for passenger cars or by NHTSA for trucks.

In order to draw on the expertise of both NHTSA and EPA as efficiently as possible, it is important for the rulemaking to proceed through a series of clearly defined steps, each of which involving public participation. As a first step, EPA and NHTSA should propose a range of carbon dioxide/fuel consumption standards for public comment. The proposed range should be informed by the information obtained by NHTSA earlier this year from manufacturers concerning the costs of technologies to increase fuel economy. Public comments and further confidential submissions should follow the initial publication. At that juncture, NHTSA should consider the updated information, and to apply its expertise to determine the “maximum feasible” standards under EPCA over a appropriate time period. NHTSA should take the lead at that juncture, because it is the agency in the best position to determine “maximum feasible” standards.

The second stage in the joint rulemaking process should be for EPA to determine if the “maximum feasible” standards that emerge from NHTSA’s consideration of the evidence are, with respect to carbon dioxide emissions controls from gasoline- and diesel-powered vehicles, set at an appropriate level of stringency under the Clean Air Act. The information obtained in this process is likely to demonstrate that the costs of deploying technologies to increase fuel economy are a primary constraining factor on the industry’s ability to achieve higher average fuel economy levels on a fleet-wide basis. In particular, the costs that are likely to exert a constraining effect are costs for investment in tooling, engineering research, and development. Stated another way, it is likely that NHTSA’s own standard-setting process under EPCA would result in fuel economy requirements for gasoline- and diesel-powered vehicles that would be at the upper limit of what EPA could properly determine to be the most stringent standards for carbon dioxide emissions from those vehicles that “giv[e] appropriate consideration to the cost of compliance” consistent with section 202(a)(2) of the Clean Air Act.

In this regard, it is important to note that the text of section 202(a)(2) provides that the “cost of compliance” is to be measured over the time period allowed for compliance.⁶ This

⁵ 72 Fed. Reg. 8,664 (Feb. 27, 2007).

⁶ See 42 U.S.C. § 7521(a)(2) (standards to take effect “after such period as the Administrator finds necessary” to permit compliance “giving appropriate consideration to the cost of compliance within such period.”)

permits EPA to set standards that take account of the limits on the investment capabilities and product cycles of the industry, just as NHTSA does under EPCA. If the premise stated above is correct, and the investment capabilities and product cycles of the U.S. industry define the upper limit of possible fuel economy increases, then the same factors should result in substantially the same upper limit for standards to carbon dioxide control from the same vehicles under the Clean Air Act.

Unless EPA is convinced that the industry has significant additional resources to devote to fuel economy controls that NHTSA has not identified, or that the market will accept significantly higher levels of technology than NHTSA would forecast, the standards it should set under section 202(a)(2) of the Clean Air Act should be equivalent in stringency to those that NHTSA would select under EPCA. In determining whether standards under section 202(a)(2) should substantially conform with standards concerning the same technology under EPCA, EPA should invite comments on the potential trade-offs between more stringent requirements in the near term, and investments in longer-term strategies that seek to commercialize vehicles that do not require fuels with the carbon content of current gasolines and diesel fuels. If it appears that it would be counterproductive in the long run to mandate higher *de facto* levels of fuel economy from the conventional vehicle fleet than NHTSA would mandate under EPCA, EPA should exercise its discretion under the broad language of section 202(a)(2) to decide not to require those higher standards in the nearer term. Such an approach to the problem of developing future technology has won approval in recent court decisions. See *Bluewater Network v. EPA*, 372 F.3d 404, 411-12 (D.C. Cir. 2004) (in challenge to marine engine rule, upholding EPA decision to forgo “the most stringent standards based on the most advanced control technologies” in part based on EPA determination that enforcement of the more stringent standards in the near term would “potentially handicap[]” the future success of more advanced technologies”); accord *Bluewater Network v. EPA*, 370 F.3d 1, 47-48 (D.C. Cir. 2004).

The regulatory approach outlined here is fully consistent with EPA’s actions under other provisions in section 202. In *Sierra Club v. EPA*, 325 F.3d 374 (D.C. Cir. 2003), EPA was permitted by the court of appeals to adopt standards under Clean Air Act section 202(l) that would require no new costs for the petroleum industry, based on a record demonstrating the petroleum industry was already fully engaged in attempting to comply with new standards adopted by EPA under Clean Air Act section 211. EPA was able to achieve this outcome even though section 202(l) requires “the greatest degree of emission reduction achievable through the application of technology which will be available, taking into consideration the standards established under subsection (a), the availability and costs of the technology, and noise, energy, and safety factors, and lead time.” 42 U.S.C. § 7521(l). The text of section 202(a)(2), eschewing any reference to “the greatest degree” of emissions reduction possible, certainly does not require a higher level of stringency than the text of section 202(l).

The case law under the Clean Air Act also establishes that EPA can properly decide to not adopt standards under the Clean Air Act that would require additional technology, when other expert agencies have made judgments about the appropriate levels of control and their judgments are entitled to weight. See, e.g., *National Association of Clean Air Agencies v. EPA*,

489 F.3d 1221 (D.C. Cir. 2007) (upholding EPA decision to limit controls to measures required by the U.N. International Civil Aviation Organization, in rulemaking under section 231 of the Clean Air Act); *Bluewater Network*, 372 at 411 (EPA had discretion to require, in the short term, only the use of marine control technologies already mandated by the International Marine Organization, even though EPA had not yet adopted any more stringent longer-term control measures). The judgments of NHTSA are surely entitled to at least as much weight as those of the international organizations in the case law.

A determination that EPA's carbon dioxide standards should be substantially equivalent in stringency to the fuel economy standards under EPCA for the same vehicles would still require EPA to take significant rulemaking actions. For example, EPA would still have obligations under the Clean Air Act to consider additional standards that would not significantly affect the stringency of the fuel economy standards set by NHTSA. EPA should, for example, consider establishing performance or design standards to limit greenhouse gas emissions from air conditioning systems on vehicles in the NHTSA-regulated fleet as well as exhaust emissions standards for greenhouse gas emissions from the NHTSA-regulated fleet in addition to its carbon dioxide standards (such as separate standards for nitrous oxide and methane, two greenhouse gases that contribute on a per-unit-of-mass-basis to radiative forcing at a higher level than carbon dioxide.) EPA could also establish requirements for the control of carbon dioxide and other greenhouse gas emissions from heavy-duty vehicles and engines not included in NHTSA's regulatory fleet. In conjunction with mandates for the sale of low-carbon or no-carbon fuels (such as E85 and hydrogen) in the longer term, EPA might also establish requirements for the sale of vehicles designed to operate on those fuels, if the requirements complied with section 202(a)(2).

Conclusion

If EPA decides to regulate motor vehicle greenhouse gas emissions, it will need to ensure that its action "avoid[s] inconsistency" with the longstanding and carefully developed program for the regulation of automotive fuel economy administered by NHTSA. EPA has two options. One is to abstain from setting its own standards to limit the carbon dioxide emissions from vehicles that are already subject to regulation by NHTSA. The other is to conduct a joint rulemaking with NHTSA, in which it ensures that any standards that EPA sets are no more stringent than those that NHTSA would set under EPCA. Given the breadth of EPA's authority under the Clean Air Act to fashion standards that take account of industry and market conditions, EPA can properly set standards for carbon dioxide emissions from vehicles subject to NHTSA's fuel economy standards that would be no more stringent than the fuel economy standards that NHTSA would set under EPCA.