ORAL ARGUMENT NOT YET SCHEDULED

No. 09-1322 (Lead) and Consolidated Cases (COMPLEX)

IN THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

COALITION FOR RESPONSIBLE REGULATION, et al.,

Petitioners,

٧.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY AND LISA P. JACKSON, ADMINISTRATOR,

Respondents.

ON PETITIONS FOR REVIEW OF 74 FED. REG. 66,496 (Dec. 15, 2009) & 75 FED. REG. 49,556 (Aug. 13, 2010) (CONSOLIDATED)

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SUMMARY OF ARGUMENT

EPA does not dispute that its suite of greenhouse gas ("GHG") regulations embodies the most significant, far-reaching regulatory program ever devised by an agency. Nor does it dispute that the new rules will impose massive burdens on a struggling economy, or that its program of vehicle standards will affect global mean temperatures by no more than 0.01 degree Celsius by 2100. RTC# 10-12. It is thus unsurprising that EPA deploys a series of merits-dodging tactics in hopes of avoiding a straight-up judicial assessment of Petitioners' objections.

Petitioners' opening brief explains that the Endangerment Rule is invalid because EPA recognizes its GHG rules lead to "absurd" results and because, having conceded the absurdity of its statutory construction, EPA makes a bad construction worse by attempting to rewrite the Act. EPA offers no meaningful rejoinder except to suggest (incorrectly) that its attempted statutory amendments are justified by Massachusetts v. EPA, 549 U.S. 497 (2007). (Section I.A., below.).

Furthermore, EPA persists in arguing that it need not supply a reasoned justification that connects the health and welfare risks it identifies to the particular motor vehicle standards it promulgates. This argument is inconsistent with the plain language of Clean Air Act ("CAA" or "Act") Section 202(a) and flouts basic requirements of reasoned agency decisionmaking. (Section I.B., below.)

Likewise, although EPA has treated multiple compounds as a single pollutant elsewhere, EPA does not meaningfully address Petitioners' point that various

substances may not be amalgamated into a single pollutant where the resulting amalgamation evades statutory requirements. (Section I.C., below.) Moreover, although EPA contends it exercised independent judgment when making scientific findings on which its rule is purportedly based, EPA told its Inspector General the opposite, confirming that EPA declined to exercise independent judgment and instead delegated its judgment to external organizations. (Section I.D., below.)

Next, although EPA contends it had no obligation to consider adaptation and mitigation, plainly there can be no reasonable basis for saying GHGs will "endanger" if EPA fails to account for the ways in which humans will adjust to climate change as they have done throughout history. (Section II.A., below.) EPA similarly contends it had no obligation to consider GHG emission reductions already legally slated to be achieved under another statute administered by the Department of Transportation ("DOT") — a contention contrary to the Supreme Court's recognition in Massachusetts that EPA and DOT should work together to avoid adopting inconsistent programs. (Section II.B., below.)

Even more fundamentally, the Endangerment Rule is invalid because EPA professes to be 90–99% certain that anthropogenic emissions are mostly responsible for "unusually high current planetary temperatures," but the record does not remotely support this level of certainty. (Sections III.A.-B., below.) EPA can reach such erroneous conclusions because it also violated the law by not consulting its Science Advisory Board. (Section III.C., below). Finally, EPA acted arbitrarily by offering

only post hoc rationalizations for EPA's failure to distinguish health from welfare effects while premising a finding of current endangerment on future effects to those currently alive. (Section IV., below.)

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ARGUMENT¹

Ι. EPA PROVIDES NO CONVINCING REBUTTALS TO DEFEND ITS DISTORTIONS OF THE CAA AND MASSACHUSETTS v. EPA.

EPA embraces an absurd statutory construction, misreading Massachusetts and unlawfully sidestepping its basic obligation to connect its risk assessments and policy choices.

Α. EPA's Responses Cannot Justify Its Absurd Statutory Construction.

EPA omits Petitioners' lead argument on absurdity from its Statement of Issues, EPA.Br.5-7, and buries its response on page 108 of its 121-page brief. When it does respond, EPA argues the source of the recognized absurdity is not CAA Section 202(a)(1), but CAA Section 169(1). EPA.Br.108-09. In the Tailoring Rule cases (Nos. 10-1073, et al.), however, EPA argues Petitioners lack standing to litigate their objections to EPA's application of the absurdity canon to Section 169(1). EPATailoringBr.2. EPA's "response" thus leads to the untenable conclusion that this Court lacks any authority to review EPA's use of a conceded statutory absurdity to enact the most far-reaching regulatory program in history. Petitioners warned long

¹ See Pet.Br.i, ¶ 2 (Certificate as to Parties, Rulings, and Related Cases) (describing Petitioners' and Intervenors' presentation of a collective set of arguments).

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ago that, having divided its GHG rules into pieces, EPA would be tempted to deploy justiciability "shell games" to frustrate judicial review. Coord. Mot., 16-19 (Doc. 1262770); Order (Doc. 1277634) (granting motion). EPA has now succumbed to that temptation.

That EPA subdivided its mammoth program, and then purported to soften the collective blow of economy-wide GHG regulation in the final rule of its four-rule suite, does not deprive Petitioners of standing to challenge EPA's absurd statutory construction, including in the GHG rulemaking Petitioners assert is the source of the absurdity. EPA speaks as if each rule in its four-domino set were separately worked out over a long succession of years. In fact, each rule is part of a carefully choreographed plan to slip the bonds of the Act. The Endangerment Rule is the root cause of the absurdity the Tailoring Rule seeks to address, for without the Endangerment Rule, there would be no Auto Rule; and without the Auto Rule, EPA would have no basis for its claim that the PSD program has been triggered (as EPA concedes, EPA.Br.9-10); and without a triggering of PSD, EPA would have no need to seek to amend numerical thresholds fixed by Congress.

EPA's brief provides no meaningful response to the point that EPA cannot legitimately avoid the absurdity it acknowledges by rewriting statutory PSD thresholds, either permanently or temporarily. Mova Pharm. Corp. v. Shalala, 140 F.3d 1060, 1067-68 (D.C. Cir. 1998). As Petitioners' Opening Brief explained, the absurdity doctrine has but one lawful purpose — to avoid absurdity by narrowly construing an

appropriate statutory term. Pet.Br.21. Here, instead of implementing a narrowing construction, EPA unlawfully legislates the first step in a planned PSD phase-in.

EPA contends Petitioners offer a "blunt 'solution'" to the identified absurdity that would "indefinitely" prevent GHG regulation. EPA.Br.109. But there is no need to go that far. For present purposes, it suffices that EPA's proposed solution to the absurdity cannot stand. Having identified an absurd outcome — application of PSD requirements to substances emitted in above-statutory-threshold amounts by small and non-industrial sources — it is up to EPA to identify a solution to that absurdity comporting with the statute and the canon's lawful uses. EPA has not done so, and cannot even say it seriously weighed the options for avoiding absurdity proposed in Tailoring Rule comments.

EPA's remaining responses are equally unsound. EPA proffers in a footnote non sequitur that discussing absurdity is "one facet" of the Tailoring Rule. EPA.Br.108 n.60. But nothing turns on how little or much of the Tailoring Rule is attributable to EPA's absurd statutory construction. All that matters is that EPA has conceded the absurdity of its core statutory interpretation, while declining to resolve it via a lawful narrowing construction.

EPA also argues that "stationary source issues are nowhere ... mentioned in Section 202(a)(1)." EPA.Br.26. True, but irrelevant. Construing statutes as a whole and according to their structure is a basic element of Chevron step one. ETSI Pipeline Project v. Missouri, 484 U.S. 495, 517 (1988). Indeed, the heart of EPA's position in

these coordinated cases is that PSD regulation of stationary-source GHG emissions is the ineluctable consequence of regulating vehicle GHG emissions under Section 202(a)(1), even though that provision does not mention stationary sources.

Finally, EPA urges that Massachusetts somehow excuses its misuse of the absurdity canon. EPA.Br. 29. But Massachusetts decided only whether GHGs are "air pollutants" within the Act's general definition. Massachusetts did not remotely suggest that all hurdles to GHG regulation of mobile and stationary source emissions had been considered and cleared. EPA.Br.18. Indeed, EPA's reading ignores Massachusetts's key instruction that EPA's "reasons for action or inaction must conform to the authorizing statute." 549 U.S. at 533; see also Pet.Auto.Br. 3, 8-9, 11-15. Nothing in Massachusetts limits EPA to record-based or purely science-based — as opposed to legally-based — reasons for declining to regulate.

B. EPA Misconstrues, and So Fails to Make, the Endangerment Judgment Required by CAA Section 202(a)(1).

Any EPA endangerment judgment must rest on Section 202(a)(1), which provides:

[1] 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 ..., which [2] in [her] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.

This language expressly links any prescribed regulations with the endangerment judgment informing them.

Nonetheless, EPA sees the judgment described in Section 202(a)(1)'s second clause as entirely "separate[]" from — and legally irrelevant to — the emission standards contemplated by Section 202(a)(1)'s first clause. EPA.Br.91. According to EPA, any "finding" of endangerment as to an "air pollutant" compels adoption of technology-based vehicle emission standards for that pollutant without the need to link the standards' stringency with the degree of endangerment, or for an explanation of how the new emission standards will meaningfully redress the endangerment EPA has identified. EPA.Br.91.

This is error because it improperly frees EPA from any obligation to explain the reasonableness of its regulatory response, leading to emission limits uninformed and unexplained by the finding that allegedly compels them. Disconnecting the risks investigated (overall levels of GHGs in the atmosphere and their effects) from the risks regulated (vehicle GHG emissions) is fundamentally irrational. Motor Vehicle Mfrs.' Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983) ("agency must examine the relevant data and articulate ... a 'rational connection between the facts found and the choice made.'").

EPA acknowledges it must set "appropriate" auto emission limits. EPA.Br.92. But "appropriate" to what? "Appropriate" to achieve some desired global atmospheric GHG level? Some "appropriate" global temperature? An "appropriate" level of total GHG emissions? EPA does not say. And because EPA does not say, it frees itself to adopt any regulation whatsoever, regardless of expense, futility, or

absurd collateral consequence. This cannot be what Congress intended. Public Citizen v. Young, 831 F.2d 1108, 1112 (D.C. Cir. 1987) ("[i]mposition of pointless burdens on regulated entities is obviously to be avoided if possible"); Indus. Union Dep't v. API, 448 U.S. 607, 645 (1980) (plurality) (rejecting statutory construction that "would give OSHA power to impose enormous costs that might produce little, if any, discernible benefit").

EPA contends that Petitioners are quibbling about its use of separate, sequenced proceedings for finding endangerment. And EPA protests that its approach to setting GHG auto standards differs only "slightly" from past practice. EPA.Br.27. But Petitioners made clear that the problem with EPA's nearly unprecedented separation of endangerment and emission-control rulemakings is that the necessary explanation of how EPA's Endangerment Rule informed its Auto Rule is found nowhere in either proceeding. Pet.Br.13-14.

EPA violates Ethyl when it quarantines Section 202(a)(1)'s first and second clauses both from each other and from the rest of the Act. Ethyl Corp. v. EPA, 541 F.2d 1, 29 (D.C. Cir. 1976) (the term "endanger" is informed and constrained by the relationship of that term to the rest of the CAA); FDA v. Brown & Williamson, 529 U.S. 120, 133 (2000) (statutes must be construed as "'an harmonious whole'"). Section 202(a)(1) directs the Administrator to "prescribe" standards where she makes an endangerment judgment. But any standard so prescribed is made subject to judicial review by Section 307(b)(1). See CAA § 307(d)(9). To test whether Section

202(a) standards are "arbitrary or capricious" or "an abuse of discretion," as Section 307(b)(1) requires, this Court compares EPA's risk assessment to its regulatory response and determines whether it adequately articulated a "rational connection between the facts found and the choice made." State Farm, 463 U.S. at 43. Here, the Court cannot meaningfully fulfill its review function, because EPA declined to provide the necessary policy rationale.

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In defense of its position, EPA cites CAA provisions concerning establishment of national ambient air quality standards ("NAAQS"). EPA.Br.91, 103. But in the NAAQS context, an endangerment "finding" does not compel adoption of specific control standards by EPA; rather, it leads to EPA's establishment of NAAQS levels that may be achieved by a nearly infinite array of control options selected by States. CAA § 110(a)(2); North Carolina v. EPA, 531 F.3d 896, 901-02 (D.C. Cir. 2008). By contrast, in formulating Section 202(a) auto standards, EPA itself must select the standards governing private conduct, requiring the Agency to explain how it integrated science and policy factors in making its regulatory choices. Moreover, even when setting NAAQS — just as in setting the leaded-gasoline standards in Ethyl, 541 F.2d at 38-39, 55-65 — EPA must define and then address the perceived health or welfare risks by (1) examining the relationship between certain levels of a pollutant and certain health effects, (2) determining the maximum tolerable health impact or risk(s), and (3) identifying a specific pollutant level that will ameliorate the identified risk(s). Coalition of Battery Recyclers Ass'n v. EPA, 604 F.3d 613, 616-19 (D.C. Cir. 2010);

Am. Trucking Ass'ns, Inc. v. EPA, 283 F.3d 355, 365-68 & 375-77 (D.C. Cir. 2002). This Court has remanded NAAQS where EPA failed to lay bare this required analysis. Am. Farm Bureau Fed'n v. EPA, 559 F.3d 512, 524, 526 (D.C. Cir. 2009).

EPA further argues that to ask that Section 202(a)(1) be read as a whole is to insist on a formalistic quantification of risks. EPA.Br.83-87. Petitioners make no such demand. Instead, Petitioners more modestly insist that, as in Ethyl, 541 F.2d at 38, the inevitable, complex policy choices that collectively represent the Administrator's ultimate judgment on "endangerment" must be articulated in a manner that explains and justifies those choices. While that does not require EPA to promulgate precise risk quantifications, it does prohibit EPA from using its professed inability to quantify risks as a license to make generalized, hand-waving findings of "endangerment" unconnected with the resulting regulatory program.

EPA refuses to answer even the most basic inquiries:

- When does CO₂, necessary for life, become "harmful"?
- If warming is the risk, how much warming endangers? Why?
- What are the indicators of a safe level of CO₂ or warming?
- Will regulation of GHG emissions from new motor vehicles meaningfully address the warming that EPA says endangers? If so, how?

By construing the Act to make these key inquiries irrelevant, EPA has unlawfully proceeded under an improperly narrow view of its authority, Prill v. NLRB, 755 F.2d 941, 947-48 (D.C. Cir. 1985), rendering the Endangerment Rule — and EPA's follow-

on regulatory response — arbitrary. Small Refiner Lead Phase-Down Task Force v. EPA, 705 F.2d 506, 525 (D.C. Cir. 1983).

EPA tries to distinguish Small Refiner as having considered only the appropriateness of the regulatory response and not the issue of endangerment itself. EPA.Br.92-93. But this rejoinder misses the crucial point that the fundamental problem in Small Refiner was that EPA had failed to connect the emissions standards with the identified risk. 705 F.2d at 525 (EPA had "the duty to explain why 1.10 gplg is an appropriate standard" for both large and small refiners and, in doing so, had to "explain why small refiners contribute to the health problems created by lead emissions"). EPA committed the same error here.

EPA is thus compelled, once again, to rely almost wholly on its (mis)reading of Massachusetts — specifically, that Massachusetts requires EPA to consider only "science" and not policy factors in making an endangerment judgment. EPA.Br.28-30. But Massachusetts issued no such mandate. Rather, it rejected EPA's prior "policy-only" approach, leaving open other options for EPA to "exercise discretion within defined statutory limits" for choosing not to regulate. 549 U.S. at 532-34; id. at 533 ("EPA can avoid taking further action only if it determines that greenhouse gases 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.") (emphasis added). Contrary to EPA's assertions, nothing in Massachusetts holds that there should be no legal relevance

given to whether Section 202(a) standards "fruitfully attack" the endangerment that justifies an imposition of standards. Ethyl, 541 F.2d at 31 & n.62.

C. EPA's Defense of Its Six-Gas Amalgam Fails.

EPA's argument that ample precedent supports its classification of six gases as a single GHG "air pollutant" for regulatory purposes misses the mark. EPA.Br.80-81. EPA has properly used Section 302(g) to classify a "combination" of air pollution "agents" as a single pollutant only where the "agents" cause the same impacts in the same amounts, which is the case for both PM_{2.5} and VOCs. Doing so facilitates and simplifies application of the CAA by allowing for application of common regulatory thresholds and standards to different chemical compositions. For example, all forms of PM_{2.5} may be made subject to the same PSD 100/250-ton statutory thresholds and other regulatory mechanisms, because 100/250 tons of any kind of PM_{2.5} produces the same effect. 75 Fed. Reg. 64,864 (Oct. 20, 2010) (EPA's PM_{2.5} PSD regulations).

EPA's regulatory approach to GHGs, however, is entirely different. EPA implements GHG regulation through the "CO₂e" metric, which recognizes that the six substances EPA seeks to regulate do not produce the same effects to the same degrees. This is unprecedented: there is, for instance, no "PM_{2.5}e" or "VOCe." Likewise, in another example, EPA could not (and thus has not ever tried to) deploy some time of equivalence metric to regulate nitrogen oxides and sulfur dioxide as a single pollutant, even though both substances cause acid rain and form fine particles. Common properties are thus not enough to combine air pollutants under Section

302(g). Rather, the commonality must be of a kind that allows regulation of the combined "agents" in a fashion consonant with the statute construed as a whole. Davis v. Michigan Dep't of the Treasury, 489 U.S. 803, 809 (1989).

In contrast, here the purpose and effect of combining six substances that produce allegedly common effects, but to sharply different degrees, is to unlawfully evade requirements codified in the Clean Air Act. EPA's justifications notwithstanding, EPA's six-as-one definition indisputably results in EPA making a "cause or contribute" finding for motor-vehicle emissions of CH₄ even though such emissions from Section 202(a) sources represent less than 0.01% of total GHG emissions. 74 Fed. Reg. 18,886, 18,908 (Apr. 24, 2009). And SF₆ emitters have become subject to PSD regulation even though vehicles emit no SF₆ at all. Indeed, by employing its six-gas definition, EPA effectively avoided having to make a "cause or contribute finding" for five of the six GHGs, because the overwhelming amount (94%) of vehicles' GHG emissions is CO₂. Id.

D. EPA Must Now Concede It Made No Independent Judgment.

Responding to Petitioners' contention that EPA abdicated its statutory responsibilities by relying exclusively on what it calls third-party "assessment literature," Pet.Br.33-34, EPA assures the Court that it did exercise its own judgment. According to EPA, "[a]Ithough the scientific assessments reviewed by EPA provided the principal source materials for the Endangerment Finding, the Administrator exercised her own judgment in making that Finding." EPA.Br.37 (emphasis added).

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But EPA told a much different story to its own Inspector General ("IG"). When the IG inquired whether EPA had met peer-review standards, EPA insisted to the IG, not only that its Technical Support Document ("TSD") was not a highly influential scientific assessment ("HISA"), but that the TSD was not a "scientific assessment" at all. According to EPA, the TSD merely compiled third-party reports:

No weighing of information, data and studies occurred in the TSD. . . . The TSD is not a scientific assessment, but rather summarized in a straightforward manner the key findings of the NRC [National Research Council], the USGCRP [United States Global Change Research Program] and IPCC [Intergovernmental Panel on Climate Change].

Doc. 1332845, Ex. A at 54; id. at 23. The Court will rarely be confronted with such a frank admission by an agency that it failed to meet a statutory obligation. As Petitioners argued, Pet.Br.42-43, EPA's admitted failure to exercise independent judgment violates Section 202(a) and renders the Endangerment Rule arbitrary.

Furthermore, according to the IG, the TSD was not simply a collecting point for information; it was an active information filter: "TSD was a highly influential scientific assessment because EPA weighed the strength of the available science by its choices of information, data, studies, and conclusions included in and excluded from the TSD." IG Report at cover page (emphasis added). This finding provides an important further basis for reversal because it means there was an undisclosed mystery step breaking the path of reasoning between EPA's compilation of the TSD (where EPA says no scientific weighing occurred) and the Administrator's purportedly separate exercise of judgment in the rule, taking the TSD as a given, see, e.g., 74 Fed.

Reg. 66,496, 66,510 (Dec. 15, 2009) (TSD is part of "The Science on Which the Decisions Are Based"). See American Radio Relay League, Inc. v. FCC, 524 F.3d 227, 241 (D.C. Cir. 2008) (agency failed to trace "discernable path to which the court may defer").

On September 30, 2011, Petitioners moved this Court to take judicial notice of the IG Report. EPA responds that its Endangerment Rule rests almost entirely on the IPCC, NRC, and USGCRP reports. Doc. 1335480, at 2, 12. But both the NRC and USGCRP reports are rooted in the IPCC report, which has been questioned in the wake of a release of documents to the public raising a host of questions about whether that report rests on a quicksand foundation of massaged data.

EPA is thus engaged — remarkably — in a separate, scientific-analysis version of the judicial review shell games described above. When asked about allegations that IPCC relied on dodgy data, EPA says not to worry because it conducted its own independent scientific analysis. 75 Fed. Reg. 49,556, 49,581 (Aug. 13, 2010) ("EPA did not passively and uncritically accept a scientific judgment and finding of endangerment supplied to it by outsiders....EPA properly and carefully exercised its own judgment in all matters related to the Endangerment Finding.") (emphasis added).

But when asked by its IG why it did not conduct independent peer review of its TSD, EPA says not to worry because it did not conduct any scientific analysis at all. Rather, EPA insists, the TSD "merely summarized" the "key findings" of IPCC

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and certain derivative NRC and USGCRP reports. No wonder the IG called foul. IG Report at 22 ("the endangerment finding TSD is a highly influential scientific assessment that should have been peer reviewed").

EPA in the end is unable to say in clear, articulate tones exactly whose reading of what science it relied on and why. That inability alone is more than adequate grounds for reversal.

II. EPA OFFERS NO PERSUASIVE REASONS FOR REFUSING TO CONSIDER RELEVANT FACTORS.

EPA's justifications for selectively declining to consider (i) adaptation and mitigation and (ii) emission reductions that would occur even without its Auto Rule are unsound.

Adaptation and Mitigation. EPA continues to argue it can ignore adaptation and mitigation, EPA.Br. 113-16, which is akin to assuming the populace will suffer heat stroke while declining to use air conditioning or decline to irrigate dry fields. Ordinary human experience is to the contrary.

First, EPA contends that considering adaptation/mitigation is beyond its authority because human reaction occurs after temperature increases have occurred. EPA.Br.113. This ignores the distinction between real-world dynamic and artificial static analysis. Dynamic analysis proceeds realistically, recognizing that humans react to changing conditions and respond in ways that avert danger. Potential dangers easily averted should not be counted in any real-world analysis of endangerment. West

Va. v. EPA, 362 F.3d 861, 866-67 (D.C. Cir. 2004) ("model assumptions must have a 'rational relationship' to the real world").

Second, EPA claims it did consider adaptation/mitigation to the extent the UN and other third-party assessment reports EPA itself chose to rely upon happened to address the issue. EPA.Br.113-14. But that is either review by happenstance or highly selective and one-sided consideration — irredeemably arbitrary either way.

Third, EPA contends that considering adaptation/mitigation would take it far afield from its simpler congressional mandate. Id. at 114. But all of EPA's citations supporting this contention are to its own Federal Register notice; none are to the Act or case law interpreting it or applying administrative law.

Finally, EPA argues that considering adaptation/mitigation would contradict the fact that after Congress in 1977 codified Ethyl, CAA endangerment findings are to be made prophylactically. Id. at 115-16. But taking account of adaptation measures that occur gradually as a matter of behavioral responses to climate changes over decades or centuries is perfectly consistent with conducting endangerment analysis in a protective manner.

Energy Independence and Security Act ("EISA") Emission Reductions. EPA also argues it may not take account of EISA-mandated emission reductions. EPA.Br.96-97. Yet again, EPA seeks shelter in Massachusetts, quoting the Court's statement that DOT's authority to "set[] mileage standards in no way licenses EPA to shirk its environmental responsibilities." 549 U.S. at 532.

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But Petitioners do not claim the existence of fuel-economy standards precludes the Endangerment Rule. Rather, in assessing any endangerment and its magnitude, EPA must consider and subtract out all endangerment that will be averted in any event by other federal statutes — such as EISA, which mandates vehicle GHG reductions even absent EPA's Endangerment Rule. Massachusetts supports this conclusion, instructing as it does that "there is no reason to think the two agencies [DOT and EPA] cannot both administer their obligations and yet avoid inconsistency." Id. To avoid inconsistency, each agency inevitably must take account of what the other is doing.

EPA argues its Auto Rule achieves greater emissions reductions than DOT fuel-economy standards. EPA.Br.97 n.54. But that assertion is beside the point. In finding endangerment, EPA failed to consider that EISA will eliminate most of the emissions tons that EPA's Section 202(a) rules would eliminate, and thus avert most of the endangerment on which those rules are predicated.² The Endangerment Rule completely and impermissibly fails to take into account that any additional emission reductions from EPA's standards yield no further environmental benefit, according to EPA's own projections. Compare 75 Fed. Reg. 25,324 25,637 (Table IV.G.2-.3) (May 7, 2010) with id. at 25,495 (Table III.F.3-1). Had EPA properly taken EISA fuel-

² See, e.g., 75 Fed. Reg. 25,324, 25,327 (May 7, 2010) ("CAFE standards address most, but not all, of the real world CO₂ emissions because ... of ... 1975 passenger car test procedures under which vehicle air conditioners are not turned on during fuel economy testing."); id. at 25,431-32.

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economy standards into account, it would have propounded a very different Endangerment Rule, or very likely no rule at all.

III. EPA'S CONCLUSIONS CONFLICT WITH THE RECORD DATA.

EPA devotes the lion's share of its brief to defending a science record borrowed uncritically from other bodies. Explaining every flaw in EPA's contentions would require more space than is available, but EPA's most egregious flaws are described below.

A. EPA Fails to Support Its Extreme Claim of 90-99% Certainty of Significant Human-Induced Climate Change.

EPA mischaracterizes Petitioners' argument as contending that EPA claims 90-99% certainty about every component of its Rule. EPA.Br.41. Rather, Petitioners focus on EPA's claim of 90-99% certainty that observed warming in the latter half of the twentieth century was caused by human-emitted GHGs, a finding EPA admits making. Id. at 15.

EPA argues its Endangerment Rule rests upon three lines of evidence, but the most important of these is its claim, with asserted 90-99% certainty, that temperatures in the second half of the twentieth century were "unusual[ly]" high because of anthropogenic GHGs. 74 Fed. Reg. 66,518. EPA's other two "lines of evidence" (computer models and asserted "physical understanding" of GHG effects on the global climate system) are more theoretical. Hence, if recent temperatures are not

unusually high or were not primarily caused by anthropogenic GHGs, the Endangerment Rule becomes considerably more speculative.

First, while EPA claims it relied on a 50-year warming trend during the second half of the twentieth century, EPA.Br. 50, the data reflect that this includes a 31-year cooling trend from 1946 to 1977, followed by a 21-year warming trend from 1977 to 1998, after which warming ceased. Pet.Br.52-54. Over the last 65 years, temperatures have mostly been steady or declining, while CO₂ levels have steadily increased. EPA asserts it did not rely on a mere 21-year warming trend, EPA.Br.50, but the actual data refute that assertion.

Second, EPA refers to warming in the first half of the century as evidence that warming in the second half was "unusual," suggesting that "most" of the warming in the second half resulted from anthropogenic emissions. EPA.Br.50. But doing so proves just the opposite. Until its response brief, EPA ascribed little, if any, of the warming in the first half of the century to anthropogenic emissions and "most" of the warming in the second half to such emissions. Pet.Br. 8-9. But, as shown below, the 1930s warming proves that the more recent warming was not unusual. EPA cannot escape the conclusion that it mischaracterized a period of over 30 years of cooling followed by 21 of warming as a 50-year warming trend to justify a claim of warming so unusual humans must have caused it.

Third, actual temperature data do not support EPA's assertions of "certainty" regarding recent anthropogenic warming. Satellite-based data since 1979 — which are

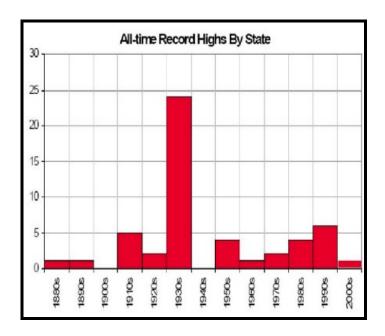
free of the controversies affecting surface data, Dkt. Nos. 11696.1; 11715.1 — do not show an air-temperature increase across the globe. Indeed, the assertion of global warming is an artifact of averaging profound regional differences. Some of the globe has not warmed at all, and some parts, like Antarctica, have cooled. It is only by averaging in modest Northern Hemisphere warming that EPA can try to sustain any form of argument that the entire "globe" is warming. In fact, no statistically significant temperature trend exists in the tropics, and the entire Southern Hemisphere shows very little warming. Dkt. 3432.1 at 3; 0004 CCSP SAP 1.1, fig. 3.5, temperature trends by latitude, at 64; Table 3.5, at 68; fig. 3.7. Even in the Northern Hemisphere, Figure 1 below shows recent peak Arctic temperatures were no higher than in the late 1930s:

Figure 1

Dkt. 3729.8, Fig. 3, at 3.

In the United States, Figure 2 shows the vast majority of record high temperatures by State were set in the 1930s.

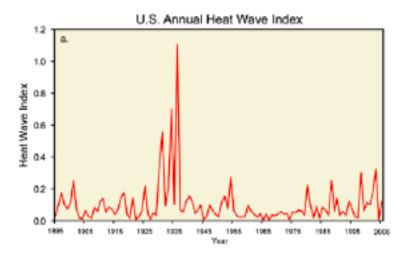
Figure 2



Dkt. 3187.3, at 4.

The U.S. Annual Heat Wave Index through 2009 (Figure 3) confirms recent temperatures are not anomalous and most high temperature records were established in the 1930s.

Figure 3

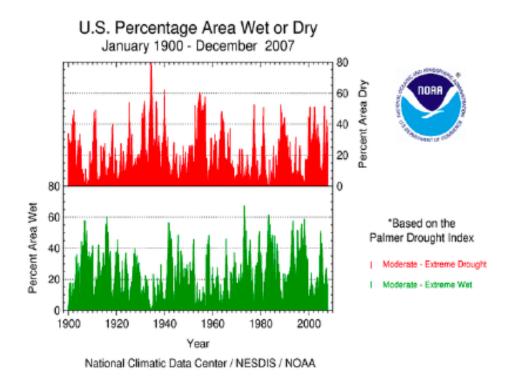


Docket 0005 CCSP 3.3, fig. 2.3(a), at 39. The record data show that "unusual" "global" warming is not demonstrated, much less with 90-99% certainty.

Having little basis for claiming "unusual warming," EPA refocuses on a claim that climate change is borne out by an analysis of extreme weather events, just as IPCC and CCSP did.³ Specifically, EPA relies heavily on predictions of increased severity and frequency of extreme weather. EPA.Br.17, 18; TSD 43-46. But the record shows no historical upward trend in such events. Figure 4. EPA further acknowledges no upward trend in land-falling hurricanes. TSD 44.

³ In responding to comments, EPA ignored evidence that IPCC and CCSP "systematically misrepresented" the science on extreme events. Compare comments 3303 and 3145.1 with RTC 1-15; see also Dkt. 11715.1, at 15-19; EPA's Response Dkt. 12243; RTP 2-7.

Figure 4



Docket 3136.1 at 63, fig. 14.

Nor can EPA make a "compelling" case, 74 Fed. Reg. 66,518, that current temperatures are "unusual" in the last millennium. EPA admits, as it must, "significant" "uncertainty" concerning temperature levels before the year 1600, EPA Br.48, because the NRC finds it no more than "plausible" that temperatures before the year 1600 were cooler than today's, Pet.Br. 54. Temperatures in the Medieval Warm Period may have been as warm as today, and the period after 1600 is the "Little Ice Age" where temperatures were below today's temperatures. Id. Despite EPA's concession that the historical record is not "compelling" evidence of "unusual" warming today, EPA.Br.51, the Endangerment Rule declared that "[t]he scientific

evidence is compelling" that anthropogenic GHGs are "the root cause of recently observed climate change," including the "unusual" temperatures of the last half of the twentieth century. 74 Fed. Reg. at 66,518. If it is no more than "plausible" that recent temperatures are higher than those during the last warm period, no basis exists for EPA to express high confidence that recent temperatures are "unusual."

B. EPA Ignores Robust Empirical Evidence Contradicting Its Climate Theories and Models.

EPA contends in its second and third lines of evidence that its "basic physical understanding" of climate, and climate models built on that understanding, support the Endangerment Rule. EPA.Br.43-48, 52-58. EPA calls Petitioners' arguments "scattershot" and "little more than mistaken or essentially irrelevant characterizations of isolated parts" of the record. EPA.Br.24. Not so. IPCC identifies the four principal factors affecting climate as: (1) the sun; (2) albedo effects, including from clouds; (3) GHGs; and (4) climatic response to external forcing. AR4, WG1, § 1.2 at 96. IPCC acknowledges a low level of understanding and lack of consensus on sun and clouds. Pet.Br.44-45. Indisputably, sun and clouds are not "irrelevant" or "isolated" components of climate science. AR4, WG1, § 1.2 at 96.

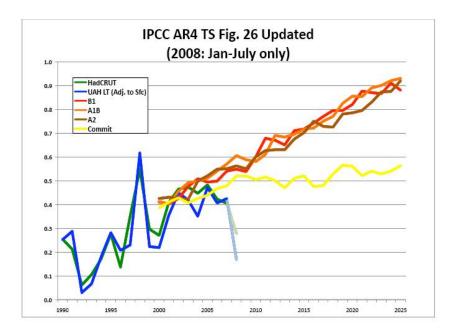
Neither EPA's asserted understanding of how GHGs affect climate nor climate models can account for the 1998-2011 period of no warming despite steadily increasing CO₂. Tellingly, EPA does not dispute that "temperatures have not risen steadily over the last 10-15 years," but claims models work well only on longer scales.

EPA.Br.54. This effectively concedes that the models do not accurately simulate climate, which they must do to be used in administrative decisionmaking. Chem. Mfrs. Ass'n v. EPA, 28 F.3d 1259, 1264-65 (D.C. Cir. 1994). Models can be an acceptable basis of regulation when validated and used properly, but not where, as here, they make predictions demonstrably at odds with reality. Id. at 1265 (vacating regulation because of "poor fit between the agency's model and ... reality").

In 2007, IPCC's four model forecast scenarios all predicted dramatic average-temperature increases that have not occurred. Figure 5 below compares these scenarios to observations showing nearly a decade of leveling in Hadley Climatic Research Centre ("HadCRUT") surface temperature data (in green), and an outright decline in University of Alabama at Huntsville ("UAH") satellite temperature data (in blue).

Figure 5

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Dkt. 3729.1, at 12.

The models obviously conflict with reality. It is arbitrary for EPA to rely on 21 years of twentieth-century warming as near-conclusive proof of human warming but then claim that the preceding 31 years of cooling and the following 13 years of no warming prove nothing.⁴

Moreover, IPCC's models predict a distinctive pattern or "fingerprint" of warming assumed to be caused by increasing atmospheric CO₂. Docket 0004, CCSP SAP 1.1, at 18-19; IPCC AR4 WG1 § 9.2.2.1, at 674; TSD 50. The models predict the

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⁴ To counter modeler Kevin Trenberth's admission, Pet.Br.49, EPA cites a "clarifying" Trenberth statement that he still believes in the models' validity. EPA.Br.54-55 n.30. Trenberth may still have faith in models producing output contrary to real-world data, but his later remarks do not contradict his concession that "we cannot account for what is happening in the climate system." Dkt. 11696.1 at ES-25.

tropical upper troposphere will warm more quickly than the surface as atmospheric CO₂ increases. Docket 0004 CCSP SAP 1.1 at 25, fig. 1.3(F); IPCC AR4 WG1, § 9.2.2.1 at 674, fig. 9.1(f). However, empirical data from independently derived temperature records show the pattern demanded by this theory and predicted by models does not exist. Multiple robust, consistent, independently derived empirical datasets all show no statistically significant positive trend and no difference in trend by altitude, thus directly refuting EPA's theory and models. Dkt. 0004 CCSP SAP 1.1 at 62, fig. 3.4(b) (depicting eight datasets showing no statistically significant trends from surface to upper troposphere in tropics); see also id. at 111, fig. 5.4. EPA's claim that observations validate the models, EPA.Br.57-58, is decisively refuted. EPA acknowledges the data conflict with its theory but prefers the theory over the data. RTC# 3-7.

EPA responds to Petitioners' point that uncertainties regarding feedbacks undermine EPA's claim to understand GHGs' effects on the climate system, Pet.Br.44-48, by suggesting negative feedbacks may do no more than cancel out positive feedbacks. EPA.Br.47. EPA fails to address the point that all the truly serious predicted consequences of climate change come from an assumption that positive feedbacks will strongly magnify any warming caused by GHGs' direct radiative effects, which are minor. Pet.Br.9. Moreover, relying only on GHGs' direct radiative warming as a basis to regulate is unjustifiable because it is merely one input, not the net climate result. The net result depends on all other forcings and feedbacks,

about which there is crippling ignorance. Pet.Br. 44-48; IPCC AR4 WG1 §8.6.3.2.2, at 637. In any event, this was not the basis on which EPA rested its "judgment."

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Finally, the models' logic is inherently circular, Pet.Br.50-51, which EPA defends by claiming the models are otherwise validated and the argument was waived. EPA.Br.55 n.32. In fact, the CCSP Reports on which EPA relies flagged the circular-reasoning problem, Dkt. 0006 CCSP SAP 1.3 at 20, 30-31, as did 2009 Report of the NIPCC, Climate Change Reconsidered, § 2.8.1, at 48 (Docket 11651 at 118). EPA's sole substantive response is that use of modeled rather than actual data is acceptable because modeled data are products of "basic laws of physics and scientific knowledge about the climate." EPA.Br.56. But EPA's claim of "scientific knowledge about the climate" is exactly what is in dispute here. EPA cannot logically cite models as confirming EPA's understanding of the climate, and then cite EPA's understanding of the climate as evidence that the models are validated. That is the very definition of circular reasoning. Public Citizen v. FMCSA, 374 F.3d 1209, 1219 (D.C. Cir. 2004) (invalidating circular agency logic).

C. EPA's Error in Refusing to Consult With the SAB Is Unlawful and Compounded by the Recent Revelations of EPA's IG.

EPA concedes it "did not submit the proposed Endangerment Finding" to the Science Advisory Board ("SAB"), EPA.Br. 117, yet provides no legitimate justification.

First, EPA argues the Endangerment Rule is not a "criteria document, standard,

limitation or regulation" within the meaning of 42 U.S.C. § 4365(c)(1). This argument would not have been even remotely tenable had EPA issued a traditional, unified endangerment finding setting auto emission standards under Section 202(a). Moreover, EPA's argument is wrong, as the Endangerment Rule is plainly a "legislative rule." Thomas v. New York, 802 F.2d 1443, 1445-47 (D.C. Cir. 1986) (CAA Section 115 endangerment finding made in an EPA letter would have had the force of law, making it a legislative rule, if only it had undergone notice-and-comment rulemaking). As a regulation "designed to ... prescribe law or policy," the Endangerment Rule clearly should have been submitted to SAB. Id.; see Massachusetts, 549 U.S. at 533 ("If EPA makes a finding of endangerment, the Clean Air Act requires the Agency to regulate emissions ... from new motor vehicles.").

Second, EPA wrongly asserts that the SAB arguments have been waived. In fact, the SAB submittal requirement was raised in comments. Dkt. 3722, Comment No. 3722, at 10 n.4 (June 22, 2009) ("EPA also failed to make available to the Science Advisory Board for review and comment the Endangerment Finding"). Moreover, Section 307(d)(7)(B)'s requirement that procedural issues be raised during the comment period does not apply to procedures mandated by statutes other than the CAA. Small Refiner, 705 F.2d at 519-24 (detailing Section 307(d)'s legislative history as focused on CAA procedures alone). The congressional mandate requiring SAB submittals is found in the separate SAB statute. 42 U.S.C. § 4365(c)(1), and there is no basis for reading that independent statute to be constrained by a CAA provision

addressing CAA procedural challenges. Furthermore, EPA's citation to American Petroleum Institute fails, because whether Section 307(d)(7)(B) applies to SAB submittals was not argued there. United States v. L.A. Tucker Truck Lines, Inc., 344 U.S. 33, 38 (1952) (decisions not precedent for unraised issues).

Third, EPA inexplicably asserts that its "conclusion that the SAB review requirement ... does not apply here" is "uncontested." EPA.Br. 120. But Petitioners devoted an entire subsection of their opening brief to the SAB issue. That is not remotely comparable to deficient attempts in briefing to preserve issues in footnotes, as in American Wildlands v. Kempthorne, 530 F.3d 991, 1001 (D.C. Cir. 2008).

Finally, EPA asserts that SAB review "would not, in fact, undermine the scientific basis for the Endangerment Finding." EPA.Br.121. But EPA has no way of knowing that. This is especially true given the recent IG report, concluding that EPA failed here to follow required peer-review procedures. IG Report 22. EPA admitted that when it "conducts peer review of a scientific assessment that is a HISA, the peer review often includes the use of independent third party panels such as the Science Advisory Board." Id. at 69 (emphasis added). Petitioners have thus raised a solid inference that the Endangerment Rule could have been affected had the SAB been consulted. Kennecott Corp. v. EPA, 684 F.2d 1007, 1017-19 (D.C. Cir. 1982) (procedural violation requires remand where substantial likelihood exists rule would have changed after compliance).

IV. EPA CANNOT RELY ON POST HOC RATIONALES OR EVADE REASONED DECISIONMAKING.

EPA's Endangerment Rule runs afoul of the basic tenet of administrative law that rulemakings be supported by adequately reasoned decisionmaking. See, e.g., Am. Farm Bureau Fed'n, 559 F.3d at 520 (under CAA, Court must examine "record to ensure the agency has considered the relevant factors and reasonably explained how it reached its conclusions"); Allentown Mack Sales & Serv., Inc. v. NLRB, 522 U.S. 359, 374 (1998) ("process by which [an agency] reaches [a] result must be logical and rational"). See also Section I.B., above (Ethyl requires identification of when emissions endanger and how underlying science informs a rational regulatory response). EPA satisfied neither of its Ethyl duties here as to its endangerment determination.

Petitioners' opening brief explained that the CAA defines welfare effects to include "climate" and "weather." Hence, those considerations cannot also be "public health effects." Pet.Br.58. EPA's brief argues that climate change will create future public health effects and that such effects need not be direct to qualify. EPA.Br.64. But neither of EPA's examples involve effects that could have been classified only as public welfare effects and therefore EPA's argument does not save its treatment of "climate" and "weather" as health effects. Id. (citing NAAQS cases allowing consideration of (i) ingestion of lead health effects or (ii) health benefits from ground-level ozone blocking cancer-causing radiation).

EPA next contends that its failure to distinguish health from welfare ultimately means nothing because Section 202(a) allows it to proceed with the Endangerment Rule based only on a finding of future welfare endangerment. Id. EPA thus says it "found all that the statute requires."

But the law requires more. Specifically, the law requires reasoned decisionmaking and that agency rules be upheld, if at all, only on the same basis the agency relied on itself at promulgation. Manin v. NTSB, 627 F.3d 1239, 1243 (D.C. Cir. 2011) ("[W]ith limited exception[s], the law does not allow us to affirm an agency decision on a ground other than that relied upon by the agency."). EPA thus may not explain its decision on one basis and then defend it on alternate grounds, as it tries to do here. Burlington Truck Lines, Inc. v. United States, 371 U.S. 156, 168–169 (1962); Am.'s Cmty. Bankers v. FDIC, 200 F.3d 822, 835 (D.C. Cir. 2000) ("Courts are not commissioned to remake administrative determinations").

And even if EPA's litigation counsel could rely on post hoc rationales, the rationales offered run afoul of the requirement for reasoned decisionmaking. There is nothing "logical" or "rational" about EPA's chosen course. Indeed, as Petitioners explained, EPA (1) abandoned any finding of endangerment at "current" atmospheric levels, Pet.Br.57-58; (2) misleadingly sought to recast future harm as current, so long as it is predicted to occur to persons presently living, 74 Fed. Reg. at 66,514 ("climate change may affect current and future generations" in "the next 10 to 20 years") (emphasis added); and (3) abandoned its original endangerment proposal, which

would have made both a current health and welfare finding, cf. 74 Fed. Reg. at 18,886 — all without acknowledging or explaining these changes in course.

EPA's violations of reasoned decisionmaking principles are not inconsequential procedural foot faults. EPA has already received a petition to promulgate GHG NAAQS. CAA Section 108(a)(1)(A) (NAAQS endangerment-finding provision). If this Court were to permit EPA to "find endangerment" under Section 202(a) without clearly articulating and justifying the form of endangerment the Administrator purports to find, subsequent rulemakings including NAAQS might well be complicated by misunderstandings as to whether EPA made a health-based finding of endangerment when it did not do so. Petitioners should not be made to participate in future proceedings against the backdrop of the Endangerment Rule's confused, unexplained, and unlawful public health findings.

CONCLUSION

The Endangerment Rule and Reconsideration Denial should be vacated and remanded.

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Respectfully submitted,

Filed: 10/17/2011

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> <u>CERTIFICATE OF COMPLIANCE</u> WITH TYPE-VOLUME LIMITATIONS

I HEREBY CERTIFY THAT that the foregoing brief complies with the type-volume limitations of Fed. R. App. P. 32(a)(7)(B) and this Court's order of March 22, 2011. See Order, Coalition for Responsible Regulation v. EPA, No. 09-1322, (Doc. 1299368) (Mar. 22, 2011) (limiting this brief to 7,500 words). As determined by the Microsoft Word software used to produce this brief, it contains 7,498 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii) and Circuit Rule 32(a)(1).

Dated: October 17, 2011

/s/ Eric Groten

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing JOINT REPLY BRIEF OF NON-STATE PETITIONERS AND SUPPORTING INTERVENORS was filed electronically with the Court by using the CM/ECF system on this 17th day of October 2011. Most participants in the case are registered CM/ECF users and will be served by the appellate CM/ECF system. The following counsel that are not CM/ECF users will be served via U.S. mail, first-class:

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