

4-17-03

To: Jim Connaughton
Fr: Bill Wehrum



2 pages total

Jim - As discussed earlier this week, attached is a one-pager that summarizes possible grounds for denying the petition to regulate GHG emissions from motor vehicles. Feel free to call me at [redacted] if you want to discuss.

Summary CEQ 15

(b)(5)
2pg

re: EPA
copy

Possible Grounds for Denying Petition to Regulate CO2 Emissions from Motor Vehicles

1. **EPA is not authorized to regulate CO2 emissions from motor vehicles because CO2 is not an “air pollutant” under the Clean Air Act (CAA).** The CAA definition of “air pollutant” is broad, but no so expansive as to cover any and all substances emitted into the air. CO2 is not an air pollutant because the science related to climate change and the role of CO2 in climate change is not sufficiently conclusive. Therefore, regulation of CO2 under the CAA is unwarranted and unjustified.
2. **EPA is not authorized to regulate CO2 emissions from motor vehicles because the CAA limits EPA’s authority with regard to CO2 to research and other non-regulatory activities.** The CAA expressly addresses CO2 in only one provision, which is limited to nonregulatory strategies. Similarly, global warming is expressly addressed in only one provision, which requires EPA to determine the global warming potential of CFC replacements. This provision states that it “shall not be construed to be the basis of any additional regulation” under the CAA. The legislative history of the CAA reveals that, when these provisions were adopted in 1990, Congress was well aware of the uncertainties related to climate change and of the enormous societal and economic consequences of regulating CO2 emissions. Congress also understood that, if steps must be taken to address climate change, concerted international action will be required. Congress declined in 1990 to include provisions in the CAA requiring EPA to regulate CO2 emissions. Since then, the Senate unanimously denounced the Kyoto Protocol and Congress has proceeded cautiously on the issue of climate change. Taken together, it is clear that Congress has not authorized EPA to regulate CO2 emissions under the CAA.
- 3.a. **It is not appropriate for EPA to regulate CO2 emissions from motor vehicles because the science related to climate change and the role of CO2 in climate change is not sufficiently conclusive.** Even if EPA were authorized to regulate CO2 under the CAA, EPA could not do so because the available data do not support a determination that CO2 emissions from motor vehicles “cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare.”
- 3.b. **It is not appropriate for EPA to regulate CO2 emissions from motor vehicles because the only plausible action EPA could take would be to require improved fuel efficiency from motor vehicles. EPA cannot take such action because Congress granted DOT exclusive authority to regulate motor vehicle fuel efficiency.** In short, EPA does not have legal authority to establish the types of limitations that would be needed to effectively limit CO2 emissions from motor vehicles.



U. S. Department of Justice

CEQ 6

Environment and Natural Resources Division

Office of the Assistant Attorney General

Washington, D.C. 20530

CONFIRMATION NUMBER: [REDACTED]

FAX NUMBER: [REDACTED]

NO. OF PAGES: 6 (INCLUDING COVER PAGE)

DATE: 4-21-03

TO: Jim Connaughton via Bobbi

TELEPHONE NO.: [REDACTED]

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FROM:

MESSAGE:

Thanks Bobbi!

PLEASE NOTIFY SENDER IMMEDIATELY IF YOU HAVE ANY PROBLEMS RECEIVING THESE PAGES.

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U.S. Department of Justice

Environment and Natural Resources Division

CEQ 6

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To: James Connaughton,
Chair, CEQ

From: Thomas L. Sansonetti,
Assistant Attorney General
Jeffrey Bossert Clark
Deputy Assistant Attorney General

Date: April 21, 2003

Re: CO₂ Issues

Background

EPA and the Department of Justice have recommended, for reasons of law, science, policy, and litigation strategy that EPA should administratively deny the pending petition to regulate CO₂ emissions from motor vehicles, thereby mooting out the pending unreasonable delay case of International Center for Technology Assessment v. EPA, and making for a final agency decision reviewable exclusively (we would contend) in the D.C. Circuit under Section 307 of the Clean Air Act. At this point, four other cases relating or potentially relating to CO₂ are pending or anticipated to be filed soon.

Questions have arisen about the timing of judicial decisions, in either the district courts, courts of appeals or both, or other noteworthy events in the five pending or anticipated cases, especially as they relate to any new lawsuit that would likely flow from the recommended course of action. Additionally, questions as to what arguments should be made in an administrative petition denial and in resulting litigation have arisen. Below, we address the questions concerning both lawsuit timing and the grounds EPA could set forth for denying the administrative petition.

We conclude that the timing issues surrounding the lawsuits are too difficult to predict to meaningfully base any substantive decisions about CO₂ policy thereon. In addition to the inherent unpredictability of litigation, the growing number of cases, fora, and issues at play make predictions even more difficult than usual. Assuming, the legal, science, and policy analysis indicates that CO₂ should not be regulated, we suggest below that the Administration would fare best to make that decision on the merits quickly, then move to moot out the existing cases, and lastly do its best to defend a single, focused lawsuit challenging EPA's decision in the court of appeals. In such a focused lawsuit, we believe the chances for success are greatest if we make all three principal types of arguments to support EPA's decision, and that litigation risk significantly increases if we choose to assert only one

or two of those arguments.

Four basic options for approaching the questions we outlined above have emerged:

- Option 1 – Drop our procedural defenses in the existing lawsuits, such as standing, inducing the district courts to make “merits” decisions quickly. (In reality, some of the lawsuits are designed to induce EPA action on the question and thus are not about the merits of the CO₂ decision at all.) Approach here is that the merits of whether to regulate CO₂ finally get resolved in 2003 or early 2004.
- Option 2 – Do not deny the administrative petition, but continue to litigate, including by advancing procedural defenses, the existing and anticipated cases until EPA is ordered by a court to take particular regulatory action vis a vis CO₂ or to resolve an administrative petition on a particular timeline. Approach here is that a definitive resolution of the matter does not come until after 2004.
- Option 3 – Deny the administrative petition, move to moot out the existing and anticipated lawsuits, but do so only on the ground(s) that EPA lacks the authority to regulate CO₂. Do not have EPA opine about science, record-based, or administrability questions. Approach here is that: (1) the authority arguments are sufficiently strong that our likelihood of prevailing is high enough that serious prejudice would not be worked to the policy outcome selected and/or required by law; but (2) if the reviewing court of appeals were to reverse EPA’s decision that it lacked the authority to regulate CO₂ under the Clean Air Act, the damage would be confined to an opinion addressing purely legal questions. EPA would then have the opportunity to take back on remand the question of whether it should exercise its discretion to regulate CO₂, based on the state of the science and other salient facts.
- Option 4 – Deny the administrative petition, move to moot out the existing and anticipated lawsuits, and do so advancing both legal authority grounds and record- or fact-based grounds. A decision upholding or vacating EPA’s decision not to regulate could occur near the end of 2004.

Option 1

We do not believe this is a preferred option. First, there are significant standing defenses held by the government here. The motor vehicle case, International Center for Technology Assessment, is within the jurisdiction of the federal district court in D.C., and thus review of any trial court decision will lie in the D.C. Circuit, which is generally the best circuit in which to advance standing defenses. Dropping our standing defenses jettisons a strong argument that is useful for shielding from review any decision not to regulate CO₂. Also, the Justice Department believes it has a constitutional obligation to make some standing arguments and thus believes it lacks discretion in many instances to refuse to advance colorable arguments of this nature.

Second, there is little possibility that adopting this option gives any realistic chance that the controversy of regulating CO₂ will be over before 2003. From the time an appeal is filed in the D.C. Circuit until the time it is decided is about 12-14 months at the low end. An unreasonable delay case like this would probably come in at this low-end estimate (though not necessarily). But, even if procedural defenses in International Technology Center were discarded, some discovery would likely be granted (3-6 months minimum), followed by an exchange of summary judgment briefs (taking approximately 3 months), oral argument (approximately 1 month to hold), and then decision by the district court (adding approximately 1-4 months minimum). Hence at the low end (3+3+1 months

plus 12 months to complete an appeal), a final decision might come out at the end of 2004.

Option 2

If EPA and Justice were simply to litigate all of the anticipated and threatened cases, there is a reasonable possibility that one or more judicial decisions would be handed down as early as in mid- to late-2004. Take the International Center case. As noted above, litigating this case would almost certainly lead to some discovery being authorized. Pushing the timing estimates to the higher end on this case (instead of to the lower end, as in the analysis of Option 1), yields the following results: 4-6 months of discovery, 3-4 months exchange of summary judgment briefs, 1-2 months until oral argument held, and time to decision 3-7 months. That means a district court decision could easily be issued anywhere as early as March 2004 to, of course, anytime thereafter. Also, consider that if the government lost that case, it might want to appeal. The United States typically takes at least the 2 months provided for in the Federal Rules of Appellate Procedure to make the decision whether to appeal because doing so requires extensive internal analysis, including consideration by and the authorization of the Solicitor General.

Option 3

Option 3 basically involves attempting to put a cork in the bottle of litigation by mooting out all of the pending and threatened cases in favor of a single case, probably in the D.C. Circuit, but doing so only on the basis of some subset of the three arguments that the Justice Department and EPA deem to provide a reasonable-to-good ultimate likelihood of success. The three basic species of arguments available are: (1) CO₂ is not a "pollutant" within the meaning of the Act, or is not regulable "ambient air pollution"; (2) Congress decided that CO₂ should be regulated only on a non-regulatory basis, instead designing data and study programs for CO₂, not command-and-control regulatory programs detailing the conduct of private industry or citizens; and (3) the record necessary to regulate CO₂ under a command-and-control regime is simply not available, and/or for administrability reasons EPA would not exercise any discretion it has to choose to regulate CO₂. The most prominent of the sub-options suggested under Option 3 has been for EPA to deny the administrative petition without stating any grounds falling into category (3). Another variant or sub-option under Option 3 would be to avoid making arguments in categories (1) and (3). We provide our views of all variants of Option 3 below.

As we understand it, the main reason why Option 3 may be advisable is that the Administration has not yet taken a definitive position that there is **no** CO₂-related global warming problem of any kind or to any degree. Indeed, the Administration has taken some affirmative steps to address any problem that might exist, such as proposals relating to carbon intensity targets. Arguably, Option 4 (which is essentially Option 3 supported by all three categories of arguments) is inconsistent with that approach. We assess the pros for Option 4 below. But even on its own terms, we question this asserted pro of Option 3. Arguing that CO₂ is not a "pollutant" and/or that the science is not there yet to regulate CO₂ under the CAA does not mean that CO₂ should not be regulated. For instance, the Administration could, even under Option 4, recommend expanding the non-regulatory programs of the Act or even devising new, more-tailored command-and-control programs for CO₂ regulation. The only import that making arguments in categories (1) and (3) has is to put off limits command-and-control regulation **under the precise forms currently available under the Act** (i.e., designating CO₂ to be a National Ambient Air Quality Standard (triggering an entire state planning process enforceable against the States by cutting off their highway funding) or designating CO₂ to be a hazardous air pollutant and bringing into play that regulatory scheme). In other words, arguing that CO₂ is not a pollutant or that the science is in its nascent stages fends off the aims of the actual and would-be litigants in this area, but it does not open up the downsides of committing the Administration to complete inaction or complacency on the subject of CO₂ regulation.

in any fashion. We also note that the President has publicly stated that CO₂ is not a pollutant within the meaning of the Act, and hence we are already committed to making the no-pollutant authority argument.

Another potential pro of Option 3 is that by one view it avoids the most controversial aspects of the global warming debate and what some might see as a general morass of arguing over what the complex science does or does not show. By this view, the legal arguments are cleaner and easier to express as compelling executive action or inaction in one direction or another. We believe, however, that this advantage of Option 3 is limited because the question of whether EPA has the authority to regulate CO₂ or not is just as controversial as question related to the state of the science. The proponents of the litigation against the government understand the stakes if they lose on the authority question and thus (in their view) are forced to seek explicit new command-and-control authority from Congress. Moreover, to the general public, whether CO₂ is not to be regulated because of intricate provisions of law or because of technical data concerns would seem to be equally impenetrable explanations for a choice not to regulate.

The next potential pro of Option 3 we analyze is that it gives the Administration two bites at the apple. The easier piece to swallow gets bitten off first (EPA lacks the legal authority to regulate CO₂ in particular ways), and then, only if necessary, does the harder piece come (taking a position on the science-related and administrability questions). In other words, the advantage of this approach is that if the D.C. Circuit accepts the position that EPA lacks regulatory authority over CO₂ under the current state of the Act, then the science and administrability issues can be avoided. The obvious downside to this approach is that it is risky. The record-based case the Agency could mount is substantial, and as we explain below in connection with Option 4, we believe it is inextricably tied in at various levels to the authority argument(s). By dropping arguments in category (3) (or in category (1)), the likelihood we will prevail in defending EPA's petition denial diminish by a not insignificant margin.

Option 4

We believe that if the legal and policy decision is made that CO₂ should not be regulated under the command-and-control programs currently existing under the Clean Air Act, then we best position ourselves for success in the litigation by advancing all three categories of grounds for decision analyzed above. This is true for a number of reasons.

First, timing (as shown above) is not a pivot variable in this context. There are three separate balls of litigation already in the air. Predicting when district court and court of appeals decisions will come down vis a vis the transition from 2004 to 2005 is not something we can do with sufficient confidence to make timing an important factor for decision. The amount of uncertainty bracketing each of these cases means the decisions could easily drop at any time during this period. The fact that two threatened litigation balls will likely soon be in the air only reinforces the conclusion that no decisions should turn on predictions of litigation timing.

Second, unless EPA actually takes a position on the ultimate question of how CO₂ is to be regulated under the Act, the likelihood full-scale discovery breaks out concerning all of EPA staff's internal memos, documents, and e-mails is very high – a virtual certainty. The downside consequences of that discovery are significant, and can be avoided by deciding on the administrative petition soon.

Third, we have a stronger chance of prevailing if we advance all three categories of arguments. Judges will sometimes reason backwards. If it looks like EPA has all of its ducks in a row, the D.C. Circuit is much more likely to accept, as a practical matter, the no-authority

argument(s) if it can peek ahead at a substantial, science-filled record indicating that the alternative of regulating under the current Act's structure is insufficiently justified as a matter of scientific data, and in any event would pose administrability difficulties for the Agency. Conversely, if we adopted Option 3 and made no science-based arguments, the D.C. Circuit may conclude that we are trying to pass off the hard policy choices to them. Courts do not react well to that kind of tactic and the Judges on the D.C. Circuit have seen it used in other important controversies. EPA has already put out the science issues for public comment and collected data. To ignore those issues begs to be peppered by the D.C. Circuit at a public oral argument with questions about why EPA did not apply its expertise to that data and instead tee-ed up only the legal questions on which the D.C. Circuit is actually more expert.

Fourth, existing or threatened litigation puts the government at risk of defending against CO₂ suits in district courts in the First, Second, and/or Ninth Circuits. The Ninth Circuit is not a preferred circuit in which to litigate environmental issues. The Administration is best served, if it decides on a policy course of not regulating CO₂ under the Act, to take advantage of the favorable venue/jurisdictional provisions of the Clean Air Act by making a merits decision and calling for exclusive review in the D.C. Circuit, the most expert circuit for securing review of such a decision. Also, under the judicial review provisions of the Clean Air Act the EPA decision recommended here goes for review immediately to the court of appeals – district courts (which can be more attracted to delving into the facts instead of accepting legal justifications at face value) are bypassed entirely.

Fifth, we think that the Administration's flexibility is actually maximally preserved if it advances defenses in all three categories sketched above. That is because doing so gives the Administration the best chance for avoiding the restrictions that a number of the existing lawsuits could place us in – i.e., the far-reaching NAAQS program or the detailed hazardous air pollutants program. Thus, if the Administration decides it wants to take some actions to address alleged global warming, whatever the nature of those actions and whatever their similarity or dissimilarity to existing Clean Air Act command-and-control regulation, it has the option to do so and is not constrained to apply only the existing programs extant under the Act.

CEQ 12



U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF THE GENERAL COUNSEL

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- Jeff Clark - J00J
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FAX TRANSMITTAL SHEET

DATE: 05/19/03

TO: Tim Connaughton

OFFICE#: _____ FAX#: [REDACTED]

FROM: Lisa Jaeger

PAGES (INCLUDING COVER): 12

COMMENTS: _____

MEMORANDUM

SUBJECT: EPA's Authority to Impose Mandatory Controls to Address Climate Change under the Clean Air Act

FROM: Robert E. Fabricant
General Counsel

TO: Christine Todd Whitman
Administrator

I. Introduction and Background

As you know, EPA has been petitioned by the International Center for Technology Assessment (ICTA) and a number of other groups to issue motor vehicle emission standards under the Clean Air Act (CAA or Act) for carbon dioxide (CO₂) and other greenhouse gases (GHGs) associated with climate change. Relevant to the Agency's consideration of this petition is an April 10, 1998 memorandum regarding "EPA's Authority to Regulate Pollutants Emitted by Electric Power Generation Sources" from General Counsel Jonathan Z. Cannon to Administrator Carol M. Browner. In that memorandum, Mr. Cannon concludes that CO₂ is an "air pollutant" under the CAA and thus subject to regulation under the CAA to the extent the criteria of any of the Act's regulatory provisions are met.

I have reviewed Mr. Cannon's memorandum and the text and history of the CAA in the context of other congressional actions specifically addressing climate change. Based on my review, I have concluded that for a substance to be an "air pollutant" under the CAA, available scientific evidence must indicate that it causes or contributes to air pollution. In view of the scientific uncertainties regarding the causes, extent, timing and effects of climate change and the relative contribution of anthropogenic emissions of CO₂ and other GHGs to any climate change, I have also concluded that CO₂ and other GHGs, as such, are not "air pollutants" under the CAA.¹ In addition, I have determined that, even if CO₂ and other GHGs were "air pollutants" under the CAA, the Act does not authorize EPA to regulate for climate change purposes. This

¹A GHG may be an "air pollutant" for other effects it has on air quality. For example, hydrofluorocarbons are GHGs that also deplete stratospheric ozone. They are regulated for their effect on stratospheric ozone under title VI of the Act.

memorandum explains the reasons for my conclusions and formally withdraws Mr. Cannon's April 10, 1998 memorandum as no longer representing the views of EPA's General Counsel.²

II. The Cannon Memorandum

Mr. Cannon's memorandum (hereinafter "the Cannon memorandum") was prepared in response to a request from Congressman DeLay to Administrator Browner. At a Fiscal Year 1999 House Appropriations Committee hearing, Congressman DeLay questioned the Administrator about an EPA document stating, in part, that EPA currently has authority under the CAA to establish pollution control requirements for four pollutants of concern from electric power generation: nitrogen oxides, sulfur dioxide, CO₂ and mercury. He asked Administrator Browner whether she agreed with the statement, and in particular, whether she thought the CAA allows EPA to regulate emissions of CO₂. Administrator Browner agreed with the statement that the CAA grants EPA broad authority to address certain pollutants, including those listed, and agreed to Congressman DeLay's request for a legal opinion on that point. The Cannon memorandum was prepared in response to that request, and Administrator Browner forwarded it to Congressman DeLay on [check].

The Cannon memorandum states that the CAA "provides that EPA may regulate a substance if it is (a) an 'air pollutant,' and (b) the Administrator makes certain findings regarding such pollutant (usually related to danger to public health, welfare, or the environment) under one or more of the Act's regulatory provisions." The memorandum further states that the CAA section 302(g) definition of "air pollutant" is "broad" and expressly "includes any physical, chemical, biological, or radioactive substance or matter that is emitted into or otherwise enters the ambient air." The memorandum notes that a substance can be an air pollutant even though it is naturally present in the air in some quantities, and that many pollutants already regulated by EPA are emitted from natural as well as anthropogenic sources (e.g., sulfur dioxide, particulate matter, and volatile organic compounds). It then concludes that the four pollutants of concern from electric power generation, including CO₂, "are each a 'physical [and] chemical . . . substance which is emitted into . . . the ambient air,' and hence, . . . an air pollutant within the meaning of the Clean Air Act" (quoting from a portion of the statutory definition of air pollutant). As further support for its conclusion, the memorandum cites CAA section 103(g), which refers to CO₂ along with a number of already regulated substances as "air pollutants."

Turning to EPA's authority under the CAA, the Cannon memorandum states that "EPA's regulatory authority extends to air pollutants, which, as discussed above, are defined broadly under the Act . . ." The memorandum notes, however, that "a general statement of authority is distinct from an EPA determination that a particular air pollutant meets the specific criteria for EPA action under a particular provision of the Act." According to the memorandum, several CAA provisions potentially applicable to the four emissions of concern from utilities require "a

²Gary S. Guzy, EPA's General Counsel following Mr. Cannon, also addressed EPA's authority to regulate CO₂. This memorandum will review and address his statements, as well.

determination by the Administrator regarding the air pollutants' actual or potential harmful effects on public health, welfare or the environment." The memorandum explains that EPA already regulates nitrogen oxides, sulfur dioxide and mercury based on determinations by EPA or Congress that those substances have negative effects on public health, welfare, or the environment. With respect to CO₂, the memorandum states that "[w]hile CO₂ emissions are within the scope of EPA's authority to regulate, the Administrator has made no determination to date to exercise that authority under the specific criteria provided under any provision of the Act."

III. Other Previous EPA General Counsel Statements

Gary S. Guzy succeeded Mr. Cannon as EPA's General Counsel and also addressed the issue of whether EPA may regulate CO₂ under the CAA. In congressional testimony and subsequent correspondence, Mr. Guzy agreed with his predecessor's conclusion that the CAA definition of "air pollutant" is broad and encompasses CO₂ even though it has natural as well as man-made sources [cites].

Mr. Guzy also agreed that CO₂, as an air pollutant, may be regulated under the CAA to the extent the criteria of any of the Act's regulatory provisions are met. In Mr. Guzy's view, "Given the clarity of the statutory provisions defining 'air pollutant' and providing authority to regulate air pollutants, there is no statutory ambiguity" regarding whether EPA may regulate CO₂ under the CAA [cite]. He also stated that the absence of a CAA provision explicitly authorizing climate change regulation does not mean that EPA cannot regulate CO₂ under CAA provisions authorizing regulation of air pollutants generally, provided the applicable criteria for regulation are met: "Explicit mention of a pollutant in a statutory provision is not a necessary prerequisite to regulation under many CAA statutory provisions" [cite].

IV. Clean Air Act Authority to Address Climate Change

As part of the Agency's consideration of the petition and related public comments, I have reviewed the Cannon memorandum and Guzy statements regarding whether CO₂ is an "air pollutant" under the CAA and whether the CAA authorizes CO₂ regulation.³ I have considered the statutory definition of "air pollutant" and whether CO₂ and other GHGs, as such, fall within that definition. I have also considered the broader issue of whether it is reasonable to interpret the CAA's general regulatory authorities as available to address climate change in view of the unusually large economic and societal significance such regulation may have. Based on the analysis set forth below, I have reached two conclusions. First, CO₂ and other GHGs, as such, are not "air pollutants" under the CAA considering currently available scientific evidence. As a result, the CAA's provisions authorizing regulation of any "air pollutant" are not available to

³This memorandum uses the term "regulation" to refer to legally binding requirements promulgated by an agency under statutory authority. It does not include voluntary measures that emission sources may or may not undertake at their discretion.

regulate CO2 and other GHGs. Second, even if GHGs were "air pollutants" under the Act, the Act does not authorize EPA to issue regulations or impose any type of binding requirement to address concerns about their role in climate change. Although the Act specifically authorizes research, policy development, and "non-regulatory" measures to address climate change, there is no indication that Congress intended to grant EPA regulatory authority in this area. Moreover, in light of the Supreme Court's recent decision in *Brown v. Williamson*, it is clear that a fundamental issue such as climate change must be addressed in the first instance by Congress, not by a regulatory agency trying to find new authority in an existing statute that was not designed or enacted to deal with that issue.

A. Definition of "Air Pollutant"

CAA section 302(g) defines "air pollutant" as "any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters ambient air. Such term includes any precursors to the formation of any air pollutant . . ." The CAA does not define "air pollution agent" or "air pollution."

The Cannon memorandum interprets the definition of "air pollutant" as meaning "any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters ambient air." It fails to address, and effectively reads out, the root of the definition, "any air pollution agent or combination of such agents." The result is an interpretation seemingly cut loose from the term being defined – an "air pollutant" is virtually anything that enters the air regardless of whether it pollutes the air. Common sense and the evolution of the "air pollutant" definition suggest a different interpretation that comports with the ordinary meaning of "air pollutant"⁴ and gives meaning to all the words of the definition – an "air pollutant" is something that causes or contributes to air pollution, takes one of several forms (physical, chemical, biological or radioactive), and enters the ambient air; it also includes precursors to air pollutants.

The CAA's legislative history confirms that causation is integral to the meaning of "air pollutant." As originally drafted, the CAA did not include a definition of "air pollutant," presumably because Congress thought a definition unnecessary. When the Act was amended in 1970, a definition was added stating that "'air pollutant' means an air pollutant agent or combination of such agents," the core of the definition in effect today. Congress gave no explanation for adding the definition or of the definition itself. In 1977 when Congress sought to address air pollution stemming from radioactive materials, the phrase "including any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters ambient air" was appended to the definition. Congress again gave no explanation, but the

⁴"Pollutant" is defined by Webster's Ninth New Collegiate Dictionary (1990) as "something that pollutes," so the ordinary meaning of "air pollutant" would be something that pollutes the air.

likely reason for the change was to make clear that virtually any type of substance, including radioactive substances, could be an air pollutant agent. If Congress had instead intended to establish that an air pollutant is any physical, biological, chemical, or radioactive substance entering the air, it presumably would have dropped the causation language from the definition as moot. In 1990 the last sentence of the definition was added, stating that precursors of air pollutants are themselves air pollutants. Congress once again gave no explanation, but adding the sentence would have been unnecessary had the definition already encompassed everything physical, chemical, biological or radioactive that enters the air. In all, the legislative evolution of the "air pollutant" definition demonstrates that Congress never wavered in its view that an air pollutant is something that causes or contributes to air pollution.

Interpreting the definition of "air pollutant" to preserve the notion of causation fits well with the CAA's use of the term in articulating the statutory test for regulation. The CAA provisions authorizing regulation of any "air pollutant" generally call for a determination that the air pollutant causes or contributes to air pollution which may reasonably be anticipated to endanger public health or welfare (e.g., sections 111, 112, and 202). The provisions reflect the definition of "air pollutant" as a substance that causes or contributes to air pollution and require a further showing that the resulting air pollution is likely to endanger public health or welfare.

Considering the text, history and structure of the CAA, I conclude that the Act's definition of "air pollutant" includes a causation test: for a substance to be an air pollutant, it must cause or contribute to air pollution (or be a precursor of a substance that causes or contribute to air pollution). Meeting that test obviously requires consideration of available scientific evidence regarding the effect of a substance on air quality. To the extent available information establishes that a substance (or its precursor) causes or contributes to air pollution and is a physical, chemical, biological or radioactive substance emitted into or otherwise entering the air, it may properly be considered an "air pollutant" under the CAA.

B. Status of CO₂ and Other GHGs under the CAA

Whether CO₂ and other GHGs, as such, are "air pollutants" under the CAA depends on whether anthropogenic emissions⁵ of those substances meet the criteria of the statutory definition discussed above: (1) do such emissions cause or contribute to air pollution directly or as precursors to other substances that have such an effect, (2) do they take the form of a physical,

⁵Air pollution is generally understood as the result of human activities, such as manufacturing, energy generation, mining, farming and transportation. While air pollution may also occur as a result of natural events, such as volcanic activity, the CAA is concerned with the control of anthropogenic sources of air pollution. For example, provisions authorizing regulation are generally applicable to "stationary sources" or motor vehicles. "Stationary source" is defined by section 111(a) of the Act as "any building, structure, facility or installation which emits or may emit any air pollutant." Motor vehicles need no definition to make the point that CAA provisions concerning their emissions target human-caused pollution.

Text

chemical, biological, or radioactive substance, and (3) are they emitted or do they otherwise enter ambient air?⁶

For CO2 and other GHGs, the first criterion of the "air pollutant" definition – do they cause or contribute to air pollution – is decisive. By definition they are "greenhouse gases" in that they trap heat in the earth's atmosphere and thereby have the potential to raise atmospheric temperatures. However, the legal question is whether *anthropogenic* emissions of these gases cause or contribute to air pollution. The science of climate change is extraordinarily complex and still evolving. Many critical questions remain regarding the causes, extent, timing, and effects of climate change. The Assistant Administrator for Air and Radiation [or someone else at EPA or in the government that can be considered an expert on climate science] has determined, based on a comprehensive review of currently available scientific information, that there is an insufficient basis for finding that anthropogenic emissions of GHGs are causing or creating air pollution. On that basis, I conclude that anthropogenic GHGs may not be considered "air pollutants" under the CAA at this time. [Note to reviewers: Obviously, making the "GHGs are not air pollutants" argument raises the science issue squarely. I don't think it would be appropriate (or possible) for the General Counsel to rule on the sufficiency of the science alone. Someone with subject matter expertise would need to make a scientific finding on which the GC's legal conclusion would be based. That finding, in turn, would have to be substantiated by a comprehensive analysis of the available science, which presumably would be set forth in another document that would be referenced by this memo.]

As the Cannon memorandum pointed out, CAA section 103(g) itself refers to CO2 as an "air pollutant." But as the memorandum's relegation of that point to a footnote suggests, that reference alone is not sufficient to establish CO2 as meeting the Act's "air pollutant" definition. The purpose of section 103(g) is clearly not to enshrine any particular emission as an air pollutant. In calling on EPA to improve "nonregulatory" strategies and technologies for preventing or reducing "multiple" air pollutants, section 103(g)(1) lists a number of emissions to be addressed. That provision also specifies that EPA's program focus on emissions from fossil fuel power plants and the potential for fuel conservation and fuel switching to reduce emissions. Since either reduction strategy would also have the effect of reducing CO2, section 103(g)(1)'s reference to CO2 can be seen as no more than a recognition of that fact.⁷ Section 103(g) thus

⁷Since section 103(g) specifically references CO2, it provides authority for the development and improvement of "nonregulatory" strategies and technologies to reduce CO2 emissions, whether or not CO2 is an "air pollutant." EPA has exercised this authority to establish voluntary programs, including Climate Leaders, for the reduction of CO2 and other GHG emissions. These programs are part of the President's climate change policy and encourage voluntary reductions in GHG emissions while additional scientific research is undertaken to reduce uncertainties regarding climate change and man's contribution to it (cite to WH climate change website).

does not dictate a particular conclusion regarding whether CO2 is an "air pollutant" under the CAA. The statutory definition of "air pollutant" determines what may be considered an air pollutant, and for the reasons given above, I have concluded that CO2 and other GHGs do not meet the definition.

B. CAA Authority for Climate Change Regulation

The Cannon memorandum assumed that if CO2 were an "air pollutant" under the CAA, EPA would have authority to regulate it under the CAA to the extent the Act's criteria for regulation were met. That assumption was based on the fact that some CAA provisions authorize regulation of any "air pollutant" if the Administrator finds, among other things, that the pollutant causes or contributes to air pollution that may reasonably be anticipated to harm "public health or welfare" or the environment. CAA section 302(h) specifies that the statute's references to "welfare" include "effects on . . . climate."

Since I have concluded that CO2 and other GHGs, as such, are not "air pollutants" under the CAA, it follows that EPA does not have authority to regulate these gases under CAA provisions authorizing regulation of any "air pollutant." As instructed by the Supreme Court's opinion in *Food and Drug Administration v. Brown&Williamson*, 120 S.Ct. 1291 (2000) (hereinafter *Brown&Williamson*), I have reviewed the CAA's facially broad grants of authority in the context of the statute's purpose, structure and history and other relevant congressional actions to determine whether such grants reach the climate change issue. Based on my review, I have concluded that the CAA does not authorize climate change regulation.

Three codified and uncodified provisions of the CAA expressly touch on matters related to climate change. Specifically, uncodified section 821 of the CAA Amendments of 1990 requires measurement of CO2 emissions from utilities subject to permitting under title V of the Act. CAA section 602 of the CAA directs EPA to determine the "global warming potential" of substances that deplete stratospheric ozone. CAA section 103(g) calls on EPA to develop "nonregulatory" measures for the prevention of multiple "air pollutants" and lists several air pollutants and CO2 for that purpose. None of these provisions authorize regulation, and two of them expressly preclude their use for authorizing regulation (CAA sections 103(g) and 602).

All three provisions were enacted in 1990, when the CAA was last amended. By that time, climate change had become a prominent national and international issue. During the 1980s, scientific evidence about the possibility of climate change led to growing public concern both in the U.S. and abroad. In response, the U.S. and other nations developed the United Nations Framework Convention on Climate Change (FCCC) beginning late in that decade [check]. President George H. W. Bush signed, and the U.S. Senate approved, the FCCC in 1992 [check], and the FCCC took effect the following year [check].

The FCCC established the "ultimate objective" of "stabiliz[ing] greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic

interference with the climate system" (Article 2 of the FCCC). Developed nations that joined the FCCC also agreed to the nonbinding "aim" of returning individually or jointly to their 1990 levels of anthropogenic CO2 and other GHG emissions (Article 4, Commitment 2). All parties to the FCCC agreed on the need for further research to determine the level at which GHG concentrations should be stabilized, acknowledging that "there are many uncertainties in predictions of climate change, particularly with regard to the timing, magnitude and regional patterns thereof"(findings section of FCCC).

A central issue for the FCCC – whether binding emission reduction requirements should be set – was also considered in the context of amending the CAA. A Senate committee included in its CAA amendment bill a provision requiring EPA to set CO2 emission standards for motor vehicles. However, the bill on which the full Senate voted did not include that provision, and the bill eventually enacted was silent with regard to motor vehicle CO2 emission standards. Instead, Congress enacted the three provisions described above, calling on EPA to conduct research and collect information related to climate change and develop "nonregulatory" strategies for reducing CO2 emissions.

Only the research and development provision of the CAA – section 103 – specifically mentions CO2, and the legislative history of that section indicates Congress sought a sound scientific basis on which to make future decisions on climate change. Representatives Roe and Smith, two of the principal authors of section 103 as amended, explained that EPA's "science mandate" needed updating to deal with new, more complex issues, including "global warming." Committee on Environment and Public Works, U.S. Senate, *A Legislative History of the Clean Air Act Amendments of 1990*, S. Rep. 103-38, Vol. II at 2776 and 2778 (1993). They expressed concern that EPA's research budget had been too heavily focused on supporting existing regulatory actions when the Agency also needed to conduct long-term research to "enhance EPA's ability to predict the need for future action." *Id.* at 2777. As Mr. Roe explained:

"[W]e have learned over the last 20 years that air pollution problems are complex and that easy answers are not readily forthcoming. . . [T]his amendment is premised on the belief that without a sound scientific foundation, even our most well intentioned efforts to improve air quality are doomed to failure." *Id.*

In providing EPA with expanded research and development authority, Congress expressly negated any implication of commensurate regulatory authority. In section 103(g), Congress directed EPA to establish a "basic engineering research and technology program to develop, evaluate and demonstrate" strategies and technologies related to air emissions and specifically called for improvements in such measures for preventing CO2 as well as several specified air pollutants. But it expressly provided that nothing in the subsection "shall be construed to authorize the imposition on any person of air pollution control requirements." As if to drive home the point, section 103(g) was revised in conference to include the term "nonregulatory" to describe the "strategies and technologies" the subsection was intended to promote, and this point was underscored in the conference report. H.R. Conf. Rep. No. 101-952, at 349 (1990). In its

treatment of the climate change issue in the CAA Amendment, Congress strongly indicated that it awaited further information before making decisions on the need for mandatory regulation.

Other congressional actions strengthen that indication. Starting in 1978, Congress passed several pieces of legislation specifically addressing climate change. With the Global Climate Protection Act of 1978, 15 U.S.C. 2901 et seq., Congress established a "national climate program." It directed the Secretary of State to coordinate U.S. negotiations concerning climate change, and EPA to develop and propose to Congress a coordinated national policy on the issue. Twelve years later, Congress passed the Global Change Research Act of 1990 establishing a Committee on Earth and Environmental Sciences to coordinate a 10-year research program (cite). The Global Change Research Act was enacted on the same day as the CAA Amendments of 1990. Also in 1990, Congress passed Title XXIV of the Food and Agriculture Act, creating a Global Climate Change Program to research global climate agricultural issues (cite).

With all three statutes Congress sought to develop a foundation for future policymaking on climate change. From federal agencies, it sought recommendations for national policy and further advances in scientific understanding and possible technological responses. It did not, however, authorize any federal agency to take any regulatory action in response to those recommendations and advances. [While Congress did not expressly preclude agencies from taking action under other statutes] it manifested its intent to leave for itself future decisions about regulatory action, to be made with the benefit of the information the statutes were intended to develop.

Since 1990, Congress has taken other actions consistent with the view that climate change regulation awaits further congressional action. Following ratification of the FCCC, nations party to the Convention negotiated the Kyoto Protocol calling for mandatory reductions in developed nations' GHG emissions. President Clinton signed the Protocol but did not submit it to the Senate for ratification. In 1997 the Senate adopted the Byrd-Hagel Resolution stating that the Senate would not ratify any climate change protocol that mandated U.S. GHG emission reductions without the participation of developing country parties or that would result in serious harm to the U.S. economy. Congress also passed riders to appropriations bills that until recently barred EPA from implementing the Kyoto Protocol without Senate ratification (see, e.g., [cite]). Moreover, bills to amend the CAA to establish CO2 emission controls on stationary sources all failed to win passage. See, e.g., H.R. 5966, 101st Cong. 2d Sess., 136 Cong. Rec. 37088 (1990) and H.R. 2663, 102d Cong., 1st Sess. 137 Cong. Rec. H4611 (daily ed. 1991) (congressional rejection of the mandatory provisions of the so-called Cooper-Synar bills). [check]

As noted above, the Supreme Court has ruled that facially broad grants of authority must be interpreted in the context of the statute's purpose, structure and history and other relevant congressional actions. In *Brown & Williamson*, the Court reviewed an FDA assertion of authority to regulate tobacco products under the Food, Drug and Cosmetic Act (FDCA). That statute contains a broadly worded grant of authority for FDA to regulate "drugs" and "devices," terms which the statute also broadly defines. However, the FDCA does not specifically address tobacco products while other federal laws expressly govern the marketing of those products. Prior to asserting jurisdiction, FDA had long held and represented to Congress that the FDCA

Stipulation

*Other climate authorities.
1605(b) etc...*

does not authorize regulation of tobacco products.

Notwithstanding the FDCA's facially broad grant of authority, the Supreme Court explained that "there may be reason to hesitate before concluding that Congress has intended such an implicit delegation." *Brown&Williamson*, 120 S.Ct. at 1314. The Court noted that FDA was "assert[ing] jurisdiction to regulate an industry constituting a significant portion of the American economy," despite the fact that "tobacco has its own unique political history" that had led Congress to create a distinct regulatory scheme for tobacco products. *Id.* at 1315. The Court concluded that FDA's assertion of authority to regulate tobacco was "hardly an ordinary case." *Id.* The Court analyzed FDA's authority in light of the language, structure and history of the FDCA and other federal legislation and congressional action specifically addressing tobacco regulation. Based on that analysis, it determined that Congress did not "intend[] to delegate a decision of such economic and political significance . . . in so cryptic a fashion." *Id.*

Climate change is also an issue of unusual significance. Depending on the causes, timing, magnitude and effects of climate change, many parts of the United States and the world may be affected in one or more ways. Since there are many sources of anthropogenic GHG emissions, many industries and consumers could be implicated by any decision to require reductions in those emissions. Moreover, since climate change is a global phenomenon, virtually all the nations of the world would need to be part of any meaningful solution requiring control of man-made sources of GHGs. Under our constitutional system, a fundamental public policy issue such as climate change must be addressed in the first instance by Congress, not by a regulatory agency searching for authority in an existing statute that was not designed or enacted to deal with that issue. I therefore conclude the CAA cannot be interpreted as authorizing such regulation.

Lack of authority under the CAA to impose climate change regulation does not leave the federal government powerless to address the issue. As explained above, the CAA and other federal statutes provide the federal government with ample authority to conduct the research necessary to better understand the nature, extent and effects of any human-induced climate change and to develop technologies that will help achieve GHG emission reductions to the extent they prove necessary. The CAA also authorizes, and EPA has established, voluntary climate change programs that provide an effective and appropriate means of reducing GHG emissions as a precaution while scientific uncertainties are addressed. Congress, of course, is empowered to decide that further efforts are necessary and pass specific legislation to that effect.

Much
Congress
List

IV. Conclusion

Based on the analysis above, I conclude that CO2 and other GHGs are not "air pollutants" under the CAA in light of the scientific uncertainty that exists regarding the contribution that anthropogenic emissions of these gases make to any climate change that occurs. In addition, I conclude that the CAA does not authorize climate change regulation. In view of consistent congressional action to learn more about climate change, the absence of express authority to regulate climate change, no indication whatsoever of congressional intent to provide such

authority, and the far reaching implications of climate change regulation, I believe the EPA cannot assert jurisdiction to regulate in an area. The Cannon memorandum and the statements by Mr. Guzy concerning this matter no longer represent the views of EPA's General Counsel.

Jim, 6/20/03
this is the latest
draft of the petition
denial.
I suggest we
send in the indicated
edits. Do you have
more to add? or change?
- Ken P.

ENVIRONMENTAL PROTECTION AGENCY

[FRL]

Control of Emissions from New Highway Vehicles and Engines

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of denial of petition for rulemaking.

SUMMARY: A group of ~~technology and environmental~~ organizations petitioned EPA to set motor vehicle emission standards under the Clean Air Act for carbon dioxide and other greenhouse gases ~~associated with global climate change~~. For the reasons provided below, EPA is denying the petition.

EFFECTIVE DATE: [Upon publication.]

ADDRESSES: Information relevant to this action is contained in Docket No. A-2000-04 at the EPA Docket Center, Public Reading Room, Room B102, EPA West Building, 1301 Constitution Avenue, N.W., Washington, D.C. Dockets may be inspected at this location from 8:30 a.m. to 4:30 p.m., Monday through Friday, except on government holidays. You can reach the Air Docket by telephone at (202) 566-1742 and by facsimile at (202) 566-1741. You may be charged a reasonable fee for photocopying docket materials, as provided in 40 CFR Part 2.

FOR FURTHER INFORMATION CONTACT: John Hall, Office of Transportation and Air Quality, Transportation and Regional Programs Division, (202) 564-7424.

SUPPLEMENTAL INFORMATION

I. Background

On October 20, 1999, the International Center for Technology Assessment (CTA) and a number of other groups¹ petitioned EPA to regulate certain greenhouse gas (GHG) emissions

¹Solar Energy Association, Oregon Environmental Council, Public Citizen, Solar Energy Industries Association, the SUN DAY Campaign, Alliance for Sustainable Communities, Applied Power Technologies, Bio Fuels America, California Solar Energy Industries, Clements Environmental Corporation, Environmental Advocates, Environmental and Energy Study Institute, Friends of the Earth, Full Circle Energy Project, Inc., Green Party of Rhode Island, Greenpeace U.S.A., Network for Environmental and Economic Responsibility of the United Church of Christ, New Jersey

from new motor vehicles and engines under section 202(a)(1) of the Clean Air Act (CAA). Specifically, petitioners seek EPA regulation of carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and hydrofluorocarbon (HFCs) emissions from new motor vehicles and engines. Petitioners believeclaim these emissions are significantly contributing to global climate change ~~which may have serious adverse consequences for public health and welfare.~~

~~EPA regulates pollution.~~

EPA is authorized to regulate air pollutants from motor vehicles under title II of the Clean Air Act (CAA). In particular, section 202(a)(1) provides that “the Administrator [of EPA] shall by regulation prescribe . . . in accordance with the provisions of [section 202], standards applicable to the emission of any air pollutant from any class or classes of new motor vehicle . . . , which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.”

II. Summary of the Petition

Petitioners contend the test for regulating motor vehicle emissions under CAA section 202(a)(1) has been met for CO₂, CH₄, N₂O and HFCs. They claim statements made on EPA’s website and in other documents constitute an Agency finding that the four GHGs may reasonably be anticipated to endanger public health or welfare. They also assert that motor vehicle emissions of the GHGs could be significantly reduced by increasing the fuel economy of vehicles, eliminating tailpipe emissions altogether or using other current and developing technologies. -Based on their analysis, they argue EPA has a mandatory duty under section 202(a)(1) to regulate emissions of GHGs from motor vehicles.

Petitioners present their case for why EPA should, and even must, regulate motor vehicle GHG emissions under section 202(a)(1) in four parts. First, they assert that anthropogenic emissions of CO₂, CH₄, N₂O, and HFCs meet the CAA section 302(g) definition of “air pollutant,” which is “any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters ambient air. Such term includes any precursors to the formation of any air pollutant . . .” Citing international and national reports, petitioners contend that anthropogenic emissions of CO₂, CH₄, N₂O, and HFCs are accelerating global warming and motor vehicle emissions of these GHGs, particularly CO₂, significantly contribute to the U.S. GHG inventory. ~~Given the breadth of the “air pollutant” definition, p~~ Petitioners argue that the contribution of

Environmental Watch, New Mexico

motor vehicle GHG emissions to climate change qualify them as “air pollutants” under the CAA.

Petitioners also claim EPA has already determined CO₂ to be an air pollutant. They cite an April 10, 1998 memorandum from Jonathan Z. Cannon, then General Counsel of EPA, to Carol Browner, then Administrator of EPA, entitled “EPA’s Authority to Regulate Pollutants Emitted by Electric Power Generation Sources” (hereinafter “Cannon Memorandum”). The memorandum states that sulfur dioxide, nitrogen oxides, mercury, and CO₂ emitted from electric power generating units fall within the definition of “air pollutant” under CAA section 302(g). According to petitioners, it follows from the memorandum that the other three GHGs meet the CAA definition of “air pollutant,” too.

Second, petitioners argue that GHG emissions contribute to pollution that “may reasonably be anticipated to endanger public health or welfare,” a key criterion for regulation under section 202(a)(1). Petitioners state that the CAA does not require proof of actual harm, but allows the Administrator to make a precautionary decision to regulate an pollutant if it “may reasonably be anticipated” to endanger public health or welfare. The petitioners point to statements made by the United Nations Intergovernmental Panel on Climate Change (IPCC), EPA and others about the potential effects of climate change on public health and welfare as establishing that climate change “may reasonably be anticipated to endanger public health and welfare.” Based on these statements, the petitioners ~~list as allege numerous~~ threats to public health ~~an increased occurrence of infectious, vector borne and water borne diseases; heat stress; and increased incidence of skin cancer, cataracts and immune system suppression. They list the threats to public and welfare as harm to water resources, rangelands, forests, wetlands, fisheries, and bird populations; reduced food production (in part due to increased pest populations); extreme weather; rising sea levels; reduced fresh water quality and quantity; and increased air pollution and allergens.~~

Third, petitioners argue that it is technically feasible to reduce GHG emissions from new motor vehicles and engines. Focusing on CO₂, they explain that CO₂ emissions can be reduced by increasing the fuel economy of passenger cars and light trucks. They note that a number of currently available gasoline-powered cars get significantly better fuel economy than the 27.5 mpg corporate average fuel economy (CAFÉ) standard currently applicable to cars under federal law. They also point to a congressional report identifying other technologies for further improving the fuel economy of gasoline-powered cars that have yet to be fully employed. In addition, petitioners note that several foreign and domestic car manufacturers are already marketing or developing hybrid-electric vehicles that get significantly better fuel mileage than the most fuel-efficient gasoline-powered car. Looking ahead to the next generation of vehicle technology, petitioners describe the potential for electric and hydrogen-celled vehicles to eliminate tailpipe emissions altogether. Petitioners recommend that EPA set a “corporate average fuel-economy based standard” under CAA section 202 that would result in the rapid market introduction of more fuel-efficient and zero-emission vehicles.

Petitioners suggest other potential ways of reducing CO₂ emissions such as setting a

declining fleet average NOx emission standard that would require manufacturers to add zero-emission vehicles to their fleets. They also note the availability of tire efficiency standards. Petitioners do not, however, address the potential for reducing motor vehicle emissions of the other three GHGs.

Finally, petitioners maintain the Administrator has a mandatory duty to regulate motor vehicle GHG emissions under CAA section 202(a)(1). They contend EPA has “already made formal findings” that motor vehicle GHG emissions “pose[] actual or potential harmful effects [on] the public health and welfare.” Noting that section 202(a)(1) provides the Administrator “shall” prescribe motor vehicle standards, petitioners argue that the use of “shall” creates a mandatory duty to promulgate standards when the requisite findings are made. They accordingly claim the Administrator must establish motor vehicle standards for the four GHGs.

Petitioners further argue that “the precautionary purpose of the CAA supports” regulating these gases even if the Agency believes there is some scientific uncertainty regarding the actual impacts of climate change. Petitioners cite several court cases recognizing the Administrator’s authority to err on the side of caution in making decisions in areas of scientific uncertainty. They also assert that scientific uncertainty does not excuse a mandatory duty to regulate.

III. Request for Comment

On January 23, 2001, EPA requested public comment on the petition (see 66 FR 7486). The public comment period ended May 23, 2001.

EPA requested comment on all the issues raised in CTA’s petition. In particular, EPA requested comment on any scientific, technical, legal, economic or other aspect of these issues that may be relevant to EPA’s consideration of the petition.

IV. Summary of Public Comments

EPA received almost 50,000 comments on the petition. Most comments were virtually identical expressions of support for the petition, sent ~~from individual citizens~~ by electronic mail. EPA also heard from a number of business and environmental groups. Most of the comments focused exclusively on CO2. This section describes the significant points and arguments made in the public comments.

Several commenters addressed the issue of whether the four GHGs – CO2, CH4, N2O and HFCs – are “air pollutants” under the CAA and thus potentially subject to regulation under the Act. Some of the commenters agreed with the petitioners that GHGs are air pollutants under the Act. Like the petitioners, they noted that the definition of “air pollutant” in CAA 302(g) is very broad and that the CAA itself refers to CO2 as an “air pollutant” (see CAA section 103(g)). These commenters also cited to and agreed with the Cannon Memorandum stating that CO2 falls within the CAA definition of air pollutant.

Other commenters argued that EPA has never formally determined that any GHGs are air pollutants and the Cannon Memorandum is not such a finding. Some commenters also argued that CO₂ is not an air pollutant because it is a naturally-occurring substance in Earth's atmosphere and is critical to sustaining life. Other commenters pointed out that EPA already regulates as air pollutants substances that have natural as well as anthropogenic sources where human activities have increased the quantities present in the air to levels harmful to public health, welfare or the environment (e.g., sulfur dioxide, volatile organic compounds, particulate matter).

Another issue of concern to commenters was whether EPA has authority to regulate motor vehicle emissions of GHGs even if they meet the CAA definition of "air pollutant." Commenters supportive of the petition noted the broad authority conferred by section 202(a)(1) to regulate motor vehicle emissions that cause or contribute to air pollution that may reasonably be anticipated to endanger public health and welfare. These commenters also noted CAA section 302(h) defines "welfare" to include effects on weather and climate, as well as other aspects of the environment that may be affected by climate change (e.g., soils, water, crops, vegetation, animals, visibility).

Other commenters argued the CAA does not authorize regulations to address climate change, including motor vehicle GHG emission standards. They noted that no CAA provision specifically authorizes climate change regulations, a Senate committee's proposal for mandatory CO₂ standards for motor vehicles did not survive Senate consideration, and other contemporaneous legislative proposals for mandatory GHG emission reductions failed to pass. They also pointed out that the only CAA provision that specifically mentions CO₂ authorizes only "nonregulatory" measures and expressly precludes its use as authority for imposing mandatory requirements. They cited another CAA provision that calls on EPA to determine the "global warming potential" of certain pollutants but expressly precludes regulation on that basis as further indication that Congress did not intend EPA to regulate GHGs under the CAA.

Looking at the CAA more broadly, several commenters argued that the key statutory mechanism for controlling pervasive "air pollutants" – establishing and implementing national ambient air quality standards under sections 108, 109 and 110 – was unworkable for addressing an issue whose causes and effects are global in nature. Several commenters also pointed out that Congress addressed another global airatmospheric issue, depletion of stratospheric ozone by man-made substances, explicitly and in discrete portions of the Act, specifically part B of title 1 prior to the CAA Amendments of 1990 and title VI following the 1990 amendments. Moreover, both incarnations of CAA stratospheric ozone authority included recognition of the international nature of the problem and provisions to facilitate and augment international cooperation in achieving a solution. These commenters argued that if Congress had intended EPA to address global climate change under the CAA, it would have made that clear by including analogous provisions.

Placing the CAA in a larger context, the commenters noted several other federal statutes

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to be
memo }

that specifically address climate change and authorize only research and policy development, not regulation. Commenters also pointed out that Congress has expressed dissatisfaction with the Kyoto Protocol, negotiated under the auspices of the United Nations Framework Convention on Climate Change and requiring parties to the Protocol to reduce their GHG emissions by a specific amount. They further cited congressional actions taken since the 1990 CAA amendments to prevent EPA from implementing the Kyoto Protocol (see., e.g., [cite to Knollenberg amendments]). According to the commenters, these actions clearly signal that Congress awaits further scientific information and other technological and international developments before authorizing any climate change regulation.

Finally, several commenters also pointed to the Supreme Court's decision in *Food and Drug Administration v. Brown & Williamson Tobacco Corp.*, 120 S.Ct. 1291 (2000), finding the FDA lacks authority to regulate tobacco products despite a facially broad grant of authority. These commenters warned that a reviewing court would closely scrutinize and likely strike down an EPA assertion of CAA authority to regulate for climate change purposes when Congress specifically addressed the issue of climate change, not in the CAA, but in other federal statutes that do not authorize regulation.

~~In response~~ By contrast, several commenters pointed to, and agreed with, a letter from then EPA General Counsel Gary Guzy to a congressional committee explaining his view that explicit mention of a pollutant is not a necessary prerequisite to regulation under a statutory provision granting broad authority to regulate pollutants, provided that the statutory criteria for regulation are met. These commenters also echoed Mr. Guzy's view that a congressional decision not to require standards does not affect pre-existing discretionary authority to set standards where the applicable criteria are met.

Many commenters considered the issue of whether GHG emissions contribute to air pollution that may reasonably be anticipated to endanger public health or welfare. Several commenters pointed out, as petitioners did, that EPA's climate website and other national and international reports describe hazards to human health and welfare that may result from climate change. Other commenters claimed there is no basis at this time for EPA to conclude that GHG emissions from U.S. motor vehicles endanger public health or welfare. Some commenters questioned whether global warming was occurring or whether humans' impact on any global warming was significant. These commenters also suggested that global warming, if real, would have beneficial impacts (e.g., helping prevent another ice age, increasing agricultural production) that could outweigh any adverse effects. Several commenters argued that since the causes and effects of climate change are global in nature, regulation of only U.S. motor vehicles would be neither effective nor fair.

Commenters also addressed whether it is technologically feasible to reduce GHG emissions from new motor vehicles. Some commenters described categories of technologies that can substantially reduce CO2 emissions from gasoline-powered passenger cars and light trucks, including vehicle load reduction, engine improvements, improved transmissions, integrated

starter generators, and hybrid-electric drive trains. Vehicle load reduction strategies include reduced vehicle mass, reduced aerodynamic drag, reduced tire rolling resistance, and reduced accessory loads. Engine improvement strategies include improved specific power and gasoline direct injection. Improved transmission strategies include 5- and 6-speed automatic transmissions, 5-speed motorized manual gearshifts, and continuously variable transmissions. Other commenters asserted that EPA may not regulate motor vehicle GHG emissions by setting fuel economy standards, since Congress entrusted fuel economy standard-setting to the Department of Transportation (DOT) under the Energy Policy and Conservation Act (EPCA).

Finally, commenters considered whether EPA has a mandatory duty to regulate motor vehicle GHG emissions. Some commenters agreed with petitioners that the Cannon Memorandum and EPA's website statements triggered an obligation under CAA section 202(a)(1) to set CO₂ standards. Other commenters countered that the Cannon Memorandum and EPA website statements are not formal EPA findings for the purposes of exercising statutory authority. They asserted that for findings to provide a sufficient legal basis for exercising authority under section 202(a)(1), they must be established through a public notice-and-comment process.

V. EPA Response

~~EPA agrees with the petitioners' fundamental point that climate change is a serious issue that requires an effective response. EPA disagrees, however, with the petitioners' suggested response that EPA~~
After careful consideration of Petitioners' arguments, EPA disagrees that it has the authority to and should regulate GHG emissions from U.S. motor vehicles under the CAA. Based on a careful review of the CAA, its legislative history, other congressional action and Supreme Court precedent, EPA believes that the CAA does not authorize regulation to address climate change and that CO₂ and other GHGs are not air pollutants under the CAA for regulatory purposes. Even if CO₂ were an air pollutant generally subject to regulation under the CAA, Congress has not authorized the Agency to regulate CO₂ emissions from motor vehicles to the extent such standards would effectively regulate fuel economy, which is governed by a comprehensive statute administered by the Department of Transportation.

Even if the CAA authorized climate change requirements, EPA believes that setting GHG emission standards for motor vehicles is not appropriate at this time. President Bush has established a comprehensive climate change policy designed to (1) answer questions about the causes, extent, timing and effects of climate change that are critical to the formulation of an effective, efficient long-term policy, (2) encourage the development of advanced technologies that will enable dramatic reductions in GHG emissions, if needed, in the future, and (3) take sensible steps in the interim to reduce the risk of climate change. The global nature of climate change also has implications for foreign policy, which the President directs. In view of EPA's lack of CAA authority for climate change regulation, the President's policy, the potential foreign policy implications, and DOT's authority to regulate fuel economy, EPA declines the petitioners'

request to regulate GHG emissions from motor vehicles.

A. EPA's Legal Authority under the CAA

As summarized above, many commenters on the petition raised important legal issues regarding EPA's authority to issue climate change regulations² under the CAA. Two EPA General Counsels previously addressed the issue of EPA's authority to impose CO₂ emission control requirements. Both found that CO₂ meets the CAA definition of "air pollutant" and could therefore be subject to regulation under one or more of the CAA's regulatory provisions if the applicable statutory criteria for regulation were met. Both also noted, however, that the Agency had not made the requisite findings under any CAA provision for mandatory regulation of CO₂ emission. ~~Significantly, the statements by past general counsels were also made prior to the Supreme Court's decision in *Brown & Williamson*, which warns regulatory agencies against making policy decisions of substantial economic and political importance unless Congress has given them clear authority to do so.~~

Because the petition seeks motor vehicle GHG emission standards to reduce the risk of climate change, EPA has examined the fundamental issue of whether the CAA authorizes the imposition of control requirements for that purpose. As part of that examination, EPA's General Counsel reviewed his predecessors' memorandum and statements, as well as the public comments raising legal authority issues. The General Counsel considered the text and history of the CAA in the context of other congressional actions specifically addressing climate change and in light of the Supreme Court's admonition in *Brown & Williamson* to "be guided to a degree by common sense as to the manner in which Congress is likely to delegate a policy decision of such . . . magnitude to an administrative agency." In a memorandum to the Administrator dated June ____, the General Counsel concluded that the CAA does not authorize EPA to regulate for climate change purposes, and he withdrew the Cannon memorandum as no longer expressing the views of EPA's General Counsel.End Of Moved Text

~~The General Counsel has determined that a key threshold question is whether anthropomorphic emissions of GHGs cause or contribute to air pollution. There remain key uncertainties in our understanding of the factors that may affect future climate change. Predicting future climate change necessarily involves a complex web of economic and physical factors including: our ability to predict future anthropogenic emissions of GHGs and aerosols; the fate of these emissions once they enter the atmosphere (e.g., what percentage are absorbed by vegetation or are taken up by the oceans); the impact of these emissions that remain in the~~

²"Regulation" as used in this notice refers to legally binding requirements promulgated by an agency under statutory authority. It does not include voluntary measures that emission sources may or may not undertake at their discretion.

atmosphere on the radiative properties of the atmosphere; changes in critically important climate feedbacks (e.g., changes in cloud cover and ocean circulation); changes in temperature characteristics (e.g., average temperatures, shifts in daytime and evening temperatures); changes in other climatic parameters (e.g., shifts in precipitation, storms); and ultimately the impact of such changes on human health and welfare (e.g., increases or decreases in agricultural productivity, human health impacts). Substantial scientific uncertainties limit our ability to assess each of these factors and to separate out those factors resulting from natural variability from those that are directly the result of increases in anthropogenic GHGs. Thus, the General Counsel concluded that CO₂ and other GHGs are not “air pollutants” as that term is used in the regulatory provisions of the Act.

Commenters The General Counsel’s opinion is adopted as the position of the Agency for purposes of deciding this petition and for all other relevant regulatory purposes under the CAA.

With respect to EPA’s legal authority, commenters supporting the petition rightly point out that section 202 of the CAA provides EPA with broad authority to set motor vehicle emission standards for air pollutants that cause or contribute to air pollution that is reasonably anticipated to endanger public health or the environment. Other CAA regulatory provisions are similarly broad (see, e.g., sections 108, 112). At the same time, other commenters are also right to correctly note that (1) no CAA provision specifically authorizes mandatory climate change regulation, (2) the only CAA provision specifically mentioning CO₂ authorizes only “nonregulatory” measures, (3) the codified CAA provisions related to climate change expressly preclude the use of those provisions to authorize regulation, (4) the Senate CAA authorizing committee considered but failed to pass a proposal~~s~~ authorizing EPA to regulate CO₂ emissions under the CAA, (5) federal statutes expressly addressing climate change do not authorize regulation, and (6) numerous congressional actions suggest that Congress has yet to decide that such regulation is warranted. These indicia of congressional intent raise the issue of whether the CAA is properly interpreted to authorize mandatory climate change regulation.

Congress was well aware of the climate change issue when it last amended the CAA in 1990. During the 1980s, scientific evidence about the possibility of climate change led to ~~growing~~ public concern both in the U.S. and abroad. In response, the U.S. and other nations developed the United Nations Framework Convention on Climate Change (UNFCCC). President George H. W. Bush signed, and the U.S. Senate approved, the UNFCCC in 1992, and the UNFCCC took effect in 1994.

The UNFCCC established the “ultimate objective” of “stabiliz[ing] greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system” (Article 2 of the UNFCCC). Developed nations that joined the UNFCCC ~~also agreed to~~ hoped they could achieve the nonbinding “aim” of returning individually or jointly to their 1990 levels of anthropogenic CO₂ and other GHG emissions (Article 4, ~~Commitment 2(b)~~).- All parties to the UNFCCC agreed on the need for further research to determine the level at which GHG concentrations should be stabilized,

acknowledging that “there are many uncertainties in predictions of climate change, particularly with regard to the timing, magnitude and regional patterns thereof”(findings section of UNFCCC).

Shortly before the UNFCCC was ~~negotiated~~ adopted in May 1992, Congress developed ~~the 1990~~ the 1990 CAA amendments. A central issue for the UNFCCC – whether binding emission reduction requirements should be set – was also considered in the context of the CAA amendments. As several commenters noted, a Senate committee included in its bill to amend the CAA a provision requiring EPA to set CO2 emission standards for motor vehicles. However, that provision was removed from the bill on which the full Senate voted ~~did not include that provision~~, and the bill eventually enacted was silent with regard to motor vehicle CO2 emission standards. During this same time period, other legislative proposals were made to control GHG emissions, some in the context of national energy policy, but none were passed (see, e.g., [cites to Wirth, Cooper-Synar bills]).

In the CAA Amendments of 1990 as enacted, Congress called on EPA to develop information concerning climate change and “nonregulatory” strategies for reducing CO2 emissions. Specifically, uncodified section 821 of the CAA Amendments requires measurement of CO2 emissions from utilities subject to permitting under title V of the CAA. New section 602 of the CAA directs EPA to determine the “global warming potential” of substances that deplete stratospheric ozone. And new section 103(g) calls on EPA to develop “nonregulatory” measures for the prevention of multiple air pollutants and lists several air pollutants and CO2 for that purpose.

Notably, none of these provisions authorize the imposition of mandatory requirements, and two of them expressly preclude their use for regulatory purposes (sections 103(g) and 602). Only the research and development provision of the CAA – section 103 – specifically mentions CO2, and the legislative history of that section indicates Congress sought a sound scientific basis on which to make future decisions on climate change, not regulation under the CAA as it was being amended. Representatives Roe and Smith, two of the principal authors of section 103 as amended, explained that EPA’s “science mandate” needed updating to deal with new, more complex issues, including “global warming” (A Legislative History of the Clean Air Act Amendments of 1990, 103 Cong., 1st Sess., S. Prt. 103-38, Vol. 2, pp. 2776 and 2778). They expressed concern that EPA’s research budget had been too heavily focused on supporting existing regulatory actions when the Agency also needed to conduct “long-term air pollution research” to “enhance EPA’s ability to predict the need for future action” (id., p. 2777). As Mr. Roe explained:

“[W]e have learned over the last 20 years that air pollution problems are complex and that easy answers are not readily forthcoming. . . [T]his amendment is premised on the belief that without a sound scientific foundation, even our most well intentioned efforts to improve air quality are doomed to failure.” Id.

In providing EPA with expanded research and development authority, however, Congress did not provide commensurate regulatory authority. In section 103(g), Congress directed EPA to establish a "basic engineering research and technology program to develop, evaluate and demonstrate" strategies and technologies for air pollution prevention and specifically called for improvements in such measures for preventing CO2 as well as several specified air pollutants. But it expressly provided that nothing in the subsection "shall be construed to authorize the imposition on any person of air pollution control requirements." As if to drive home the point, section 103(g) was revised in conference to include the term "nonregulatory" to describe the "strategies and technologies" the subsection was intended to promote. In its treatment of the climate change issue in the CAA amendments, Congress strongly implied that it awaited further information before making decisions on the need for regulation. *indicated*

Beyond Congress' specific CAA references to CO2 and global warming, other aspects of the Act caution against ~~reading its facially broad provisions to authorize climate change regulation~~ construing it as authorizing regulation of emissions that may contribute to climate change. *who?* As several commenters noted, the principal CAA mechanism for addressing emissions from numerous or diverse sources – establishment and implementation of national ambient air quality standards (NAAQS) – is poorly suited to addressing the global nature of climate change. CO2 and other key GHGs are emitted by anthropogenic sources all over the world, ~~and, as particularly long-lived gases, they spread throughout the earth's atmosphere.~~ Any climate forcing they ~~cause~~ *cause* would occur at a global level, ~~and would have global consequences, although the consequences would vary by region.~~ Given the global ~~causes and effects of any climate change,~~ no single U.S. state could reasonably be expected to attain or maintain compliance with a NAAQS for one of these GHGs, nor would it necessarily benefit from of any compliance it might achieve. ~~While EPA has not fully considered the feasibility and implications of setting NAAQS for GHGs,~~ it is clear that use of the NAAQS regime to address climate change would raise extremely difficult issues of science and domestic and foreign policy. *and are particularly long lived*

contribute to atmospheric dimension
The CAA provisions addressing stratospheric ozone depletion demonstrate that Congress itself has understood the need for specially tailored solutions to global ~~air~~ atmospheric issues, and has expressly granted regulatory authority when it has concluded that controls may be needed as part of those solutions. Like climate change, the causes and effects of stratospheric ozone depletion are global in nature. Anthropogenic substances that deplete stratospheric ozone are emitted around the world and are very long-lived; their depleting effects and the consequences of those effects occur on a global scale. In the CAA prior to its amendment in 1990, Congress specifically addressed the problem in a separate portion of the statute (part B of title I) that recognized the global nature of the problem and called for negotiation of international agreements to ensure world-wide participation in research and any control of stratospheric ozone-depleting substances. In the 1990 CAA amendments, Congress again addressed the issue in a discrete portion of the statute (title VI) that similarly provides for coordination with the international community. Moreover, both incarnations of the CAA's stratospheric ozone provisions contain express authorization for EPA to regulate as scientific information warrants. In light of this CAA treatment of stratospheric ozone depletion, it would be anomalous to

conclude that Congress intended EPA to address climate change under the CAA's general regulatory provisions, with no provision recognizing the international dimension of the issue and any solution and no express authorization to regulate.

In fact, other congressional actions confirm that it would be unreasonable to conclude that Congress intended to authorize CAA climate change regulation. Starting in 1978, Congress passed several pieces of legislation specifically addressing climate change that recognized the international dimension of the issue, directed the federal government to begin building a foundation for future congressional decision-making, and – unlike the CAA stratospheric ozone provisions – did not authorize regulation. With the Global Climate Protection Act of 1978, 15 U.S.C. 2901 et seq., Congress established a “national climate program.” It directed the Secretary of State to coordinate U.S. negotiations concerning climate change and EPA to develop and propose to Congress a coordinated national policy on the issue. Twelve years later, Congress passed the Global Change Research Act of 1990, establishing a Committee on Earth and Environmental Sciences to coordinate a 10-year research program. The Global Change Research Act was enacted on the same day as the CAA Amendments of 1990. Also in 1990, Congress passed Title XXIV of the Food and Agriculture act, creating a Global Climate Change Program to research global climate agricultural issues.

With all three statutes, Congress sought to develop a foundation for considering whether future legislative action on climate change was warranted. From federal agencies, it sought recommendations for national policy and further advances in scientific understanding and possible technological responses. It did not authorize any federal agency to take any regulatory action in response to those recommendations and advances. In fact, Congress declined to adopt other legislative proposals, contemporaneous with the bills to amend the CAA in 1989 and 1990, to require GHG emissions reductions from stationary and mobile sources (see, e.g., [cite to Byran and Cooper-Synar bills]). While Congress did not expressly preclude agencies from taking regulatory action under other statutes, its actions rejection on climate change specific specific proposals to regulate GHGs for climate change reasons strongly indicates that Congress awaited further information before deciding *itself* whether climate change regulation was warranted.

Since 1990, Congress has taken other actions consistent with the view that mandatory Congress has not authorized regulation of emissions for climate change regulation must await further congressional action purposes. Following ratification of the UNFCCC, nations party to the Convention negotiated the Kyoto Protocol calling for mandatory reductions in developed nations' GHG emissions. President The Clinton Administration signed the Protocol but did not submit it to the Senate for ratification out of concern that the Senate would reject the treaty. Indeed, in 1997 the Senate adopted, by a vote of 95-0, the Byrd-Hagel Resolution stating that the Senate would not ratify any climate change protocol that mandated U.S. GHG emission reductions without the participation of developing country parties or that would result in serious harm to the U.S. economy. *the same mandate is on*

Against this backdrop of congressional action to learn more about climate change before

opposition to

specifically authorizing any climate change regulation, it is unreasonable to interpret the CAA as authorizing such regulation in the absence of any direct or even indirect indication of congressional intent to provide such authority. EPA is urged on in this view by the Supreme Court's decision in *Brown & Williamson*, which struck down FDA's assertion of authority to regulate tobacco products under the Food, Drug and Cosmetic Act (FDCA). That statute contains a broadly worded grant of authority for FDA to regulate "drugs" and "devices," terms which the statute also broadly defines. However, the FDCA does not specifically address tobacco products while other federal laws expressly govern the marketing of those products.

Notwithstanding the FDCA's facially broad grant of authority, the Supreme Court explained that "[i]n extraordinary cases, . . . there may be reason to hesitate before concluding that Congress has intended such an implicit delegation." The Court noted that FDA was "assert[ing] jurisdiction to regulate an industry constituting a significant portion of the American economy," despite the fact that "tobacco has its own unique political history" that had led Congress to create a distinct regulatory scheme for tobacco products. The Court concluded that FDA's assertion of authority to regulate tobacco was "hardly an ordinary case." The Court analyzed FDA's authority in light of the language, structure and history of the FDCA and other federal legislation and congressional action specifically addressing tobacco regulation. Based on that analysis, it determined that Congress did not "intend[] to delegate a decision of such economic and political significance . . . in so cryptic a fashion."

It is hard to imagine any environmental issue that has greater "economic and political significance" than global climate change. Virtually every sector of the U.S. economy is either directly or indirectly a source of GHG emissions, and the major countries of the world are involved in scientific, technical, and political-level discussions about climate change. We believe, in fact, that an effort to impose controls on U.S. GHG emissions would have far greater economic and political implications than FDA's attempt to regulate tobacco.

By far the most abundant anthropogenic GHG is CO₂, which is emitted whenever fossil fuels such as coal, oil, and natural gas isare used to produce energy. The U.S. economy is dependent on those fuels to a very large degree. Approximately 75 percent ~~{eheck}~~ of the electric power used in this country is generated from fossil fuel, and the U.S. transportation sector is almost entirely dependent on oil. At present, there are only three options for reducing CO₂ emissions: Proposals to reduce CO₂ emissions from these sectors have focused on four major approaches: (1) improve fuel efficiency; (2) capture and sequester CO₂; or (3) switch to alternative non-fossil fuel sources; and (4) reduce vehicle usage by switching to alternative forms of transportation. Although some improvements in fuel efficiency may be possible without imposing a significant impact on the economy, Congress has specifically chosen to address the issue of energy efficiency through other statutes – not the CAA. For example, Congress has authorized DOT to set fuel economy standards for motor vehicles and the Department of Energy to set efficiency standards for products such as air conditioners and appliances that consume electricity.

~~The other two options approaches for reducing CO2 emissions —sequestration and alternative fuels—both~~ have substantial economic implications. It appears that it may eventually be possible to capture and sequester CO2 emissions from power plants, but such an approach would require a new generation of power plants and would be very costly – even if implemented over many years. As for the use of alternative fuels, governments and private companies around the world are investing billions of dollars to explore the possibility of using non-fossil fuels in many different applications. ~~For the most part, however, these options are not considered to be economically feasible for power generation and transportation. Any widespread effort to employ these fuels at this time, however, would have a substantial impact on our economy. As for alternative modes of transportation, Congress and many states have already adopted measures to encourage such things as public transportation, car pooling, bike usage, and land-use planning designed to minimize commuting distances. EPA supports these measures and believes that they provide many environmental benefits, but we also recognize that they have significant economic and practical implications.~~

The issue of global climate change also has enormous political significance. It has been discussed extensively during the last three Presidential campaigns; it is the subject of debate and negotiation in several international bodies; and numerous bills have been introduced in Congress over the last 15 years to address the issue of climate change. In light of Congress' attention to the issue of climate change, and the absence of any direct or even indirect indication that Congress intended to authorize ~~CAA climate change regulation~~ EPA to regulate GHG emissions under the CAA, it is unreasonable to conclude that the CAA provides the Agency with such authority. Under our constitutional system, an administrative agency properly awaits congressional direction before addressing a fundamental policy issue such as climate change, instead of searching for authority in an existing statute that was not designed or enacted to deal with the issue.

~~Even if CO2 were an air pollutant generally subject to regulation under the CAA, Congress has not authorized the Agency to regulate CO2 emissions from motor vehicles to the extent such standards would effectively regulate fuel economy. Unlike other emissions, there is no technology that can capture and destroy or reduce emissions of CO2. The only way to reduce tailpipe~~ Thus, we simply do not believe that the CAA authorizes EPA to issue regulations to address concerns about climate change.

~~Even if EPA had authority under the CAA to consider the development of climate change regulations, the Agency would first need to decide whether anthropogenic emissions of CO2 and other GHGs meet the statute's definition of "air pollutant." As discussed in the General Counsel's legal memorandum, the question of whether anthropogenic emissions of CO2 and other GHGs, as such, are "air pollutants" under the CAA depends on whether those emissions meet three criteria: (1) do such emissions cause or contribute to air pollution directly or as precursors to other substances that have such an effect, (2) do they take the form of a physical, chemical, biological, or radioactive substance, and (3) are they emitted or do they otherwise enter ambient air?~~

For anthropogenic emissions of CO₂ and other GHGs, the first criterion of the “air pollutant” definition – do they cause or contribute to air pollution – is decisive. By definition they are “greenhouse gases” in that they trap heat in the earth’s atmosphere. It is clear that concentrations of greenhouse gases in the Earth’s atmosphere are increasing as the result of human activities. It also appears that global mean surface air temperature and subsurface ocean temperature have increased during the period in which atmospheric concentrations of GHGs have been increasing. As the National Research Council recently concluded, however, “[t]he changes observed over the last several decades are likely mostly due to human activities, but we cannot rule out that some significant part of these changes is also a reflection of natural variability.” National Research Council, “Climate Change Science: An Analysis of Some Key Questions,” 2001, p 1.

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~~The General Counsel has determined that a key threshold question science of climate change is whether anthropomorphic emissions of GHGs cause or contribute extraordinarily complex and still evolving. Although there have been substantial advances in climate change science, there continue to air pollution. There remain key be important uncertainties in our understanding of the factors that may affect future climate change and how it should be addressed. Predicting future climate change necessarily involves a complex web of economic and physical factors including: our ability to predict future global anthropogenic emissions of GHGs and aerosols; the fate of these emissions once they enter the atmosphere (e.g., what percentage are absorbed by vegetation or are taken up by the oceans); the impact of those emissions that remain in the atmosphere on the radiative properties of the atmosphere; changes in critically important climate feedbacks (e.g., changes in cloud cover and ocean circulation); changes in temperature characteristics (e.g., average temperatures, shifts in daytime and evening temperatures); changes in other climatic parameters (e.g., shifts in precipitation, storms); and ultimately the impact of such changes on human health and welfare (e.g., increases or decreases in agricultural productivity, human health impacts). Substantial scientific uncertainties limit our ability to assess each of these factors and to separate out those factors changes resulting from natural variability from those that are directly the result of increases in anthropogenic GHGs. Thus, the General Counsel concluded that CO₂ and other GHGs are not “air pollutants” as that term is used in the regulatory provisions of the Act.~~

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Reducing the wide range of uncertainty inherent in current model predictions will require major advances in understanding and modeling of the factors that determine atmospheric concentrations of greenhouse gases and aerosols, and the processes that determine the sensitivity of the climate system. Specifically, this will involve reducing uncertainty regarding:

- the future global use of fossil fuels and future global emissions of methane,
- the fraction of fossil fuel carbon that will remain in the atmosphere and contribute to

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radiative forcing versus exchange with the oceans or with the land biosphere,

- the impacts (either positive or negative) of climate change on regional and local systems,
- the nature and causes of the natural variability of climate and its interactions with human-induced changes, and
- the direct and indirect effects of the changing distribution of aerosols.

Knowledge of the climate system and of projections about the future climate is derived from fundamental physics, chemistry and observations. Data are then incorporated in global circulation models. However, model projections are limited by the paucity of data available to evaluate the ability of coupled models to simulate important aspects of climate. The U.S. and other countries are attempting to overcome these limitations by developing a more comprehensive long-term observation system, by making more extensive regional measurements of greenhouse gases, and by increasing the computing power required to handle these expanded data sets.

At present, the best scientific information indicates that if atmospheric greenhouse gas concentrations continue to increase, changes are likely to occur. It is difficult to predict, however, what these changes will be. In particular, we are not able to predict with any confidence the timing, magnitude, or regional distribution of climate change. We note that the U.S. National Research Council has specifically cautioned that, "because there is considerable uncertainty in current understanding of how the climate system varies naturally and reacts to emissions of greenhouse gases and aerosols, current estimates of the magnitude of future warming should be regarded as tentative and subject to future adjustments (either upward or downward)." In light of these uncertainties, the Agency has concluded that CO2 and other GHGs are not "air pollutants" as that term is used in the regulatory provisions of the CAA.

Even if CO2 were an air pollutant generally subject to regulation under the CAA, Congress has not authorized the Agency to regulate CO2 emissions from motor vehicles to the extent such standards would effectively regulate fuel economy. Unlike other emissions from motor vehicle tailpipes, there is no technology that can capture and destroy or reduce emissions of CO2. The only way to reduce tailpipe emissions of CO2 from motor vehicles is to improve fuel economy. Congress has already created a detailed set of mandatory standards governing fuel economy and has authorized DOT – not EPA – to implement those standards. The only way for EPA to proceed with CO2 emissions standards without upsetting this statutory scheme would be to set a standard less stringent than CAFE. But such an approach would be meaningless in terms of reducing GHG emissions.

Congress' care in designing the CAFE program makes clear that EPCA is the only legislativestatutory vehicle for regulating fuel economy. Under EPCA, DOT may set only "corporate average" standards that automakers meet on a fleetwide basis. Automakers thus have

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flexibility to design different car models having different fuel economy so long as the average of the cars sold by the automaker in a given model year meets the CAFE standard for that year. In fact, EPCA offers automakers additional flexibility by allowing them to meet the CAFE standard for a given model year by “carrying back” or “carrying forward” the excess fuel economy performance of their fleets for the three years before or after the applicable model year.

EPCA also builds in an opportunity for congressional oversight of CAFE standard-setting that reinforce the notion that Congress intended fuel economy to be governed by EPCA alone. The statute specifies a CAFE standard of 27.5 miles per gallon for passenger automobiles in model years 1984 and beyond (49 U.S.C. section 32902(b)), but authorizes DOT to amend the standard to the “maximum feasible average fuel economy level” for the relevant model year. However, to the extent DOT raises or lowers the standards beyond specified levels, EPCA provides an automatic opportunity for Congress to disapprove and effectively void the amended standard (49 U.S.C. section 32902(c)). [Check with DOT OGC whether this aspect of EPCA is still in effect.] Given that motor vehicle tailpipe CO2 emissions can only be reduced by improving fuel economy, CAA emission standards for CO2 that required greater improvements in fuel economy than applicable CAFE standards required would abrogate EPCA’s regime.

B. Other Considerations

In light of the language, history, structure and context of the CAA and Congress’ decision to give DOT authority to regulate fuel economy under EPCA, EPA does not believe it has ~~authority~~ authority to regulate motor vehicle emissions of CO2 and other GHGs under the CAA. In any event, ~~Section 202(a)(1) does not impose a mandatory duty on EPA~~ Section 202(a)(1) does not impose a mandatory duty on EPA the Administrator to regulate GHG emissions from motor vehicles exercise her judgment. That provision provides EPA with discretionary authority to address pollutants in addition to those addressed by other section 202 provisions (see, e.g., sections 202(a)(3) and (b)). While section 202(a)(1) uses the word “shall,” it does not require the Administrator to act by a specified deadline and it conditions authority to act on a discretionary exercise of the Administrator’s judgment.

The website statements, legal memorandum and other documents cited by petitioners and commenters in support of the petition are not sufficient to trigger a mandatory duty under section 202(a)(1). Any exercise of section 202(a)(1) authority turns on ~~findings~~ the judgment made by the *Administrator*, and CAA section 301 does not permit the Administrator to delegate her authority under section 202(a)(1). None of the statements petitioners claim constitute the requisite endangerment finding for GHGs under section 202(a)(1) were made, or subsequently adopted, by the Administrator. As the Cannon memorandum stated in 1998, no Administrator had made a finding under any of the CAA’s regulatory provisions that CO2 meets the applicable statutory criteria for regulation. (Notably, the website statements on which the petitioners partly rely were in existence at the time Mr. Cannon issued his memorandum [check].) That statement remains true today – no Administrator has made findings that would trigger any mandatory duty to set CO2 standards for motor vehicles or any other emission source. In any event, before such findings can take effect, they must be established through a notice-and-comment process.

EPA also disagrees with the premise of the petitioners' claim – that if the Administrator were to find that GHGs may reasonably be anticipated to endanger public health or welfare, she must necessarily regulate GHG emissions from motor vehicles.³ Depending on the particular problem, motor vehicles may contribute more or less or not at all. An important issue before the Administrator is whether, given motor vehicles' relative contribution to a problem, it makes sense to regulate them. In the case of some types of air pollution, motor vehicles may be one of many contributors, and it may make sense to control other contributors instead of or in tandem with motor vehicles. The discretionary nature of the Administrator's section 202(a)(1) authority allows her to consider these important policy issues and decide to regulate motor vehicle emissions as appropriate to the air pollution problem being addressed. Accordingly, even were the Administrator to make a formal finding regarding the potential health and welfare effects of GHGs in general, section 202(a)(1) would not require her to regulate GHG emissions from motor vehicles.

In any case, EPA disagrees with the regulatory approach urged by petitioners. EPA establishment of motor vehicle GHG standards would be neither appropriate nor effective at this time. As described in detail below, the President has laid out a comprehensive approach to climate change that calls for near-term voluntary actions and incentives along with programs aimed at reducing scientific uncertainties and encouraging technological development so that the government may effectively and efficiently address the climate change issue over the long term. As noted above, there remain key uncertainties in our understanding of the factors that may affect future climate change. Predicting future climate change necessarily involves a complex web of economic and physical factors including: our ability to predict future anthropogenic emissions of GHGs and aerosols; the fate of these emissions once they enter the atmosphere (e.g., what percentage are absorbed by vegetation or are taken up by the oceans); the impact of those emissions that remain in the atmosphere on the radiative properties of the atmosphere; changes in critically important climate feedbacks (e.g., changes in cloud cover and ocean circulation); changes in temperature characteristics (e.g., average temperatures, shifts in daytime and evening temperatures); changes in other climatic parameters (e.g., shifts in precipitation, storms); and ultimately the impact of such changes on human health and welfare (e.g., increases or decreases in agricultural productivity, human health impacts). Substantial scientific uncertainties limit our ability to assess each of these factors and to separate out those factors resulting from natural variability from those that are directly the result of increases in anthropogenic GHGs.

The most recent review of climate change science issues by the National Research

³For purposes of making a decision on this rulemaking petition, the Agency is relying on three separate and distinct grounds, each of which individually supports denial of the petition: (1) EPA does not have the authority to regulate CO₂ and other GHGs for climate change purposes under the CAA; (2) CO₂ is not an air pollutant under the CAA; and (3) EPA does not have a mandatory duty to regulate CO₂ and other GHGs under Section 202 for climate change purposes and has decided that it is not appropriate to do so.

Council summarizes the current state of knowledge:

“Because there is considerable uncertainty in current understanding of how the climate system varies naturally and reacts to emissions of [GHGs] and aerosols, current estimate of the magnitude of future warming should be regarded as tentative and subject to future adjustments (either upward or downward).

Reducing the wide range of uncertainty inherent in current model predictions of global climate change will require major advances in understanding and modeling of both 1) the factors that determine atmospheric concentrations of [GHGs] and aerosols and 2) the so-called ‘feedbacks’ that determine the sensitivity of the climate system to a prescribed increase in [GHGs].”

National Research Council, “Climate Change Science: An Analysis of Some Key Questions,” 2001, pp 23-24.

Important efforts are underway to address the key scientific uncertainties identified by the NRC. The federal government has expanded scientific research efforts through its Climate Change Research Initiative (CCRI). President Bush announced this new initiative in June 2001 and called for it “to study areas of uncertainty and identify priority areas where investments can make a difference.” The CCRI is well along in its process of developing a “Strategic Plan for the Climate Change Research Program” to ensure that scientific efforts are focused where they are most critical and that the key scientific uncertainties identified are addressed in a timely and effective manner for decision makers.

Along with stepped-up efforts to reduce scientific uncertainties, the President’s policy calls for public-private partnerships to develop break-through technologies that could dramatically reduce the economy’s reliance on fossil fuels without slowing its growth. Large-scale shifts away from traditional energy sources, however, will require not only the development of abundant, cost-effective alternative fuels, but potentially wholesale changes in the way industrial processes and consumer products use fuel. Such momentous shifts do not take place quickly. As the President has explained, “[a]ddressing global climate change will require a sustained effort, over many generations”

(www.whitehouse.gov/news/releases/2002/02/climatechange.html).

By contrast, establishing GHG emission standards for U.S. motor vehicles at this time would require EPA to make scientific and technical judgments without the benefit of the studies being developed to reduce uncertainties and advance technologies. It would also result in an inefficient, piecemeal approach to addressing the climate change issue. The U.S. motor vehicle fleet is one of many sources of GHG emissions both here and abroad, and different GHG emission sources face different technological and financial challenges in reducing emissions.⁴ A

⁴[This footnoted sentence needs to be supported by a brief discussion of the various sources of GHG emissions that exist here and abroad and the different control issues they raise.

sensible regulatory scheme would require that all significant sources and sinks of GHG emissions be considered in deciding how best to achieve any needed emission reductions.

The discussion could occur in a footnote or be included in the detailed description of the President's climate change policy (below) and referenced here.]

Complicated, indirect, and possibly troubling argument. Recommendation selected. How, what, why, think.

Unilateral EPA regulation of motor vehicle GHG emissions could also weaken U.S. efforts to persuade key developing countries to reduce the GHG intensity of their economies. Considering the large populations and growing economies of some developing countries, increases in their GHG emissions could quickly overwhelm the effects of GHG reduction measures in developed countries. Any potential benefit of EPA regulation could be lost to the extent other nations decided to let their emissions significantly increase in view of U.S. emission reductions.⁵ Unavoidably, climate change raises important foreign policy issues, and it is the President's prerogative to address them.

In light of the considerations discussed above, EPA would decline the petitioners' request to regulate motor vehicle GHG emissions even if it had authority to promulgate such regulations. Until more is understood about the causes, extent and significance of climate change and the potential options for addressing it, EPA believes it is inappropriate to regulate GHG emissions from motor vehicles.

In any event, the President's policy includes efforts to reduce motor vehicle GHG emissions in the manner petitioners themselves have urged—petroleum consumption through increases in motor vehicle fuel economy. As noted earlier, petitioners specifically suggested that EPA set a "corporate average fuel economy-based standard," but only DOT is authorized to set motor vehicle fuel economy standards. Pursuant to the President's climate change policy, DOT considered increasing fuel economy standards and recently promulgated a final rule increasing the CAFE standards for light trucks, including sports utility vehicles, by percent [OTAQ, please fill in the blank] 1.5 miles per gallon over a three-year period beginning with model year 2005. The new standards are projected to result in savings of approximately 3.6 billion gallons of gasoline over the lifetime of the affected vehicles, with the corresponding avoidance of 31 million metric tons of carbon dioxide emissions. For the longer term, the President has established a new public-private partnership with the nation's automobile manufacturers to promote the development of hydrogen as a primary fuel for cars and trucks, with the goal of building a commercially viable zero-emissions hydrogen-powered vehicle. In the near-term, the President has sought \$3 billion in tax credits over 11 years for consumers to purchase fuel cell and hybrid vehicles. [May need to update this.]

Aside from fuel economy-based standards, petitioners only other suggestions for reducing CO2 from motor vehicles are tire efficiency standards and a declining fleet-averaged NOx standard to force the introduction of zero-emitting vehicles. In the case of tire efficiency

⁵The U.S. faced a similar dilemma in its efforts to address stratospheric ozone depletion. Early U.S. controls on substances that deplete stratospheric ozone were not matched by many other countries. Over time, U.S. emission reductions were more than offset by emission increases in other countries. The U.S. did not impose additional domestic controls on stratospheric ozone-depleting substances until key developed and developing nations had committed to controlling their own emissions under the Montreal Protocol on Substances that Deplete Stratospheric Ozone. See [cite to early strat ozone rulemaking notices].

standards, it is questionable whether such standards would qualify as “standards applicable to the *emission*” of an air pollutant from a motor vehicle under section 202(a)(1), since such standards would presumably apply to the vehicle’s tires, not its CO₂ emissions (emphasis added). As for zero emission vehicles, further technological developments are needed before they are could be a practical choice for most consumers.

With respect to the other GHGs – CH₄, N₂O, and HFCs – petitioners make no suggestion as to how those emissions might be reduced from motor vehicles. ~~According to the 2002 U.S. Climate Action Report, transportation activities accounted for an almost constant 26 percent of total U.S. GHG emissions from 1990 to 1999. These emissions were~~ motor vehicles primarily consist of CO₂ from fuel combustion. In 1999, CO₂N₂O represented ~~95 percent~~, N₂O 4 percent, HFCs 1 percent, and CH₄ less than 1 percent of transportation GHG emissions. As byproducts of combustion, there is a direct proportional relationship between CO₂ emissions and fuel economy levels. EPA believes parameters other than fuel economy are more relevant to N₂O, CH₄ and HFCs formation. HFCs come from mobile air conditioners, while CH₄ and N₂O are influenced by catalytic converter design. However, N₂O, HFCs, and CH₄ represent a very small percentage of total transportation GHG emissions. For the reasons discussed previously, it would make little sense for EPA to set standards for these GHGs while scientific and technological research is under development to help determine the need for and the most effective means of reducing GHGs.

VI. Administration Climate Change Policy

Lack of authority under the CAA to impose climate change regulations does not leave the federal government powerless to take sensible measured steps to address the climate change issue. As explained above, the CAA and other federal statutes provide the federal government with ample authority to conduct the research necessary to better understand the nature, extent and effects of any human-induced climate change and to develop technologies that will help achieve GHG emission reductions to the extent they prove necessary. The CAA also authorizes, and EPA has established, non-regulatory programs that provide ~~an~~ effective and appropriate means of addressing climate change while scientific uncertainties are addressed.

In February 2002, President Bush announced a ~~new approach to~~ comprehensive strategy addressing climate change that will encourage voluntary reductions in GHG intensity ~~and pursue~~, including through fuel economy improvements. The new approach sets a national goal of reducing the GHG intensity of the U.S. economy by 18 percent over the next ten years. This strategy sets the U.S. on a path to slow the growth of GHG emissions and, as the science justifies, to stop and then reverse that growth. This policy supports vital climate change research, and lays the groundwork for future action by investing in science, technology, and institutions. In addition, the President’s policy emphasizes international cooperation and promotes working with other nations to develop an efficient and coordinated response to global climate change. In taking prudent environmental action at home and abroad, the U.S. is advancing a realistic and effective long-term approach, rather than adopting costly short-term measures that may provide

little or no benefit.

GHG intensity is the ratio of GHG emissions to economic output. The President's goal is to lower the U.S. rate of emissions from an estimated 183 metric tons per million dollars of gross domestic product (GDP) in 2002 to 151 metric tons per million dollars of GDP in 2012. Meeting this commitment will prevent GHG emissions of over 500 million metric tons of carbon equivalent (MMTCE) from entering the atmosphere cumulatively over the next ten years, and is equivalent to taking 70 million (or one out of three) cars off the road.

The Agency believes that sustained economic growth is an essential part of the solution. Economic growth will make possible the needed investment in research, development, and deployment of new, clean energy technologies. EPA is also pursuing a number of non-regulatory approaches designed to foster this type of technology development.

In February 2002, EPA Administrator Whitman launched EPA's Climate Leaders program, a new voluntary partnership program between government and industry. Through Climate Leaders, companies will work with EPA to evaluate their GHG emissions, set aggressive reduction goals, and report their progress toward meeting those goals. To date, more than 30 companies from almost all of the most energy-intensive industry sectors have joined Climate Leaders.

EPA's Energy Star program is another example of voluntary actions that have substantially reduced greenhouse gas emissions. Energy Star is a voluntary labeling program that provides critical information to businesses and consumers about the energy efficiency of the products they purchase. Over the past decade more than 750 million Energy Star products have been purchased across over 30 product categories (e.g., computers, microwaves, washing machines). Reductions in greenhouse gas emissions from Energy Star purchases would be equivalent to removing 10 million cars from the road last year. Businesses and consumers not only reduced their greenhouse gas emissions, but also saved \$5 billion last year through their use of Energy Star products.

EPA also has voluntary programs aimed at reducing methane emissions from a variety of sources. For example, the Agency has partnerships with natural gas companies to reduce emissions from leaky pipelines and distribution equipment, solid waste landfill facilities to capture and reuse emissions from landfills, and coal mining companies to capture and reuse methane escaping from mines. Together, these programs are projected to reduce methane emissions to below 1990 levels through 2010.

EPA also has extensive partnerships with industries responsible for emissions of the most potent industrial greenhouse gases (e.g., sulfur hexafluoride, per fluorocarbons and hydrofluorocarbons). Through partnerships with EPA, the aluminum sector has exceeded their goal of reducing PFC emissions by 45% from 1990 levels by 2000 and is now in discussions about a new, more aggressive goal. The semiconductor manufacturing sector has agreed to

reduce their emissions by 10% below 1995 levels by 2010. This year, a new agreement was reached with the magnesium sector under which they have agreed to completely phase-out their SF6 emissions by 2010.

The federal government's voluntary climate programs are already achieving significant emission reductions. In 2000 alone, reductions in GHG emissions totaled 66 MMTCE when compared to emissions in the absence of these programs.

Importantly, the President's initiative will improve our ability to accurately measure and verify GHG emissions through an enhanced national GHG registry system. The U.S. will improve the voluntary registry's accuracy, reliability, and verifiability, taking into account emerging domestic and international approaches. Organizations participating in the new registry will be provided with transferable credits for achieving voluntary emissions reductions. These credits will be available for use under any future incentive-based or mandatory programs. We believe the enhanced standards for the new registry will strengthen the current voluntary trading systems.

The President's 2003 budget also seeks \$4.5 billion for climate change-related programs, a \$700 million increase over 2002. [May need to update this.] This includes \$1.7 billion for science research under the Climate Change Research Initiative, and \$1.3 billion for climate change technologies under the National Climate Change Technology initiative. This commitment is unmatched in the world. The 2003 budget seeks \$555 million in clean energy incentives to spur investments in solar, wind, and biomass energy, co-generation, and landfill gas conversion.

New and expanded international policies will complement our domestic policies, including tripled funding for the "Debt-for-Nature" Tropical Forest Conservation Program, fully funding the Global Environment Facility for its third four-year replenishment, enhanced support for climate observation systems and climate technology assistance in developing countries, and sustained level funding for USAID climate programs, including technology transfer and capacity building in developing countries.

In the transportation sector, the Administration's climate change plan includes promoting the development of fuel-efficient motor vehicles and trucks, researching options for producing cleaner fuels, and implementing programs to improve energy efficiency. The plan calls for expanding federal research partnerships with industry, providing market-based incentives, and updating current regulatory programs that advance our progress in this area. This commitment includes expanding fuel cell research, in particular through the "FreedomCAR" initiative.

FreedomCAR is a new public-private partnership with the nation's automobile manufacturers. It seeks to promote the development of hydrogen as a primary fuel for cars and trucks, with the goal of building a commercially viable zero-emissions hydrogen-powered vehicle. FreedomCAR focuses on technologies to enable mass production of affordable

hydrogen-powered fuel cell vehicles and the hydrogen-supply infrastructure to support them.

Developing new technologies to improve the energy efficiency of transportation in the U.S. will be a key element in achieving future reductions in GHG emissions. The President's 2003 budget seeks more than \$3 billion in tax credits over 11 years for consumers to purchase fuel cell and hybrid vehicles. [May need to update this.] The Administration's climate change plan supports increasing automobile fuel economy and encouraging new technologies that reduce our dependence on imported oil, while protecting passenger safety and jobs.

To address greenhouse gas emissions from the electric utility sector, in February of this year, the Dept of Energy announced FutureGen, a cutting edge technology development program aimed at bringing on-line in five years an emissions-free coal-fired power generating unit. The plant would use coal as its primary fuel, to produce hydrogen that could either be combusted directly or used in a fuel cell. Carbon dioxide emissions from the facility would be captured in a form that could be permanently sequestered.

VI. Conclusion

After considering CTA's petition, public comment, EPA's legal authority, and other relevant information, CTA's petition for mobile source regulation of GHG emissions is denied for the reasons discussed above.

Dated: _____

Christine Todd Whitman, Administrator

Jim — 6/20/03

ATTORNEY CLIENT PRIVILEGED, ATTORNEY

6/20/03 10:4 p.m. Draft

This is EPA's latest draft of the "Fabricant Memo." I have added back in your original edits that they did not take, plus my own proposed edits.

Please review and add any further edits you think are needed.

- Ken P.
P.S. Attached are your original edits.

MEMORANDUM

SUBJECT: EPA's Authority to Impose Mandate the Clean Air Act

FROM: Robert E. Fabricant
General Counsel

TO: Christine Todd Whitman
Administrator

I. Introduction and Background

As you know, EPA has been petitioned by the International Center for Technology Assessment (ICTA) and a number of other groups to issue motor vehicle emission standards under the Clean Air Act (CAA or Act) for carbon dioxide (CO2) and other greenhouse gases (GHGs) associated with climate change. Relevant to the Agency's consideration of this petition is an April 10, 1998 memorandum regarding "EPA's Authority to Regulate Pollutants Emitted by Electric Power Generation Sources" from then General Counsel Jonathan Z. Cannon to then Administrator Carol M. Browner. In that memorandum, Mr. Cannon concludes that CO2 is an "air pollutant" under the CAA and thus subject to regulation under the CAA to the extent the criteria of any of the Act's regulatory provisions are met.

I have reviewed Mr. Cannon's memorandum and the text and history of the CAA in the context of other congressional actions specifically addressing climate change. Based on my review, I have determined that the CAA does not authorize EPA to regulate for climate change purposes. In addition, I have concluded that for a substance to be an "air pollutant" under the CAA, available scientific evidence must indicate that it causes or contributes to air pollution. In view of the scientific uncertainties regarding the causes, extent, timing and effects of climate change and the uncertainty regarding the relative contribution of anthropogenic emissions of CO2 and other GHGs to any climate change, I have also concluded that ~~anthropogenic~~ CO2 and other GHGs, as such, are not "air pollutants" under the CAA.¹ This memorandum explains the reasons for my conclusions and formally withdraws Mr. Cannon's April 10, 1998 memorandum

¹A GHG may be an "air pollutant" for other effects it may have that are addressed by the CAA.

*why ICTA-only reference? wouldn't it be useful to refer more broadly to cases that raise common issues on when the Administration has discretionary or mandatory authority?

002507

as no longer representing the views of EPA's General Counsel.² The legal positions set forth in this memorandum apply for purposes of deciding the ICTA petition and for all other relevant regulatory purposes under the CAA.

II. The Cannon Memorandum

Mr. Cannon's memorandum (hereinafter "the Cannon memorandum") was prepared in response to a request from Congressman DeLay to Administrator Browner. At a Fiscal Year 1999 House Appropriations Committee hearing, Congressman DeLay questioned the Administrator about an EPA document stating, in part, that EPA currently has authority under the CAA to establish control requirements for emissions of nitrogen oxides, sulfur dioxide, CO2 and mercury from electric power generation. He asked Administrator Browner whether she agreed with the statement, and in particular, whether she thought the CAA allows EPA to regulate emissions of CO2. Administrator Browner agreed with the statement that the CAA grants EPA broad authority to address certain emissions, including those listed, and agreed to Congressman DeLay's request for a legal opinion on that point. The Cannon memorandum was prepared in response to that request.

The Cannon memorandum states that the CAA "provides that EPA may regulate a substance if it is (a) an 'air pollutant,' and (b) the Administrator makes certain findings regarding such pollutant (usually related to danger to public health, welfare, or the environment) under one or more of the Act's regulatory provisions." The memorandum further states that the CAA section 302(g) definition of "air pollutant" is "broad" and expressly "includes any physical, chemical, biological, or radioactive substance or matter that is emitted into or otherwise enters the ambient air." The memorandum notes that a substance can be an air pollutant even though it is naturally present in the air in some quantities, and that many pollutants already regulated by EPA are emitted from natural as well as anthropogenic sources (e.g., sulfur dioxide, particulate matter, and volatile organic compounds). It then concludes that ~~the four emissions of concern from electric power generation, including CO2,~~ "are each a 'physical [and] chemical . . . substance which is emitted into . . . the ambient air,' and hence, . . . an air pollutant within the meaning of the Clean Air Act" (quoting from a portion of the statutory definition of air pollutant). As further support for its conclusion, the memorandum cites CAA section 103(g), which refers to CO2 along with a number of already regulated substances as "air pollutants."

Turning to EPA's authority under the CAA, the Cannon memorandum states that "EPA's regulatory authority extends to air pollutants, which, as discussed above, are defined broadly under the Act . . ." The memorandum notes, however, that "a general statement of authority is distinct from an EPA determination that a particular air pollutant meets the specific criteria for

²Gary S. Guzy, EPA's General Counsel following Mr. Cannon, also addressed EPA's authority to regulate CO2. This memorandum will review and address his statements, as well.

*NOx, SO2, mercury
+ CO2*

EPA action under a particular provision of the Act.” According to the memorandum, several CAA provisions potentially applicable to the four emissions of concern from utilities require “a determination by the Administrator regarding the air pollutants’ actual or potential harmful effects on public health, welfare or the environment.” The memorandum explains that EPA already regulates nitrogen oxides, sulfur dioxide and mercury based on determinations by EPA or Congress that those substances have negative effects on public health, welfare, or the environment. With respect to CO₂, the memorandum states that “[w]hile CO₂ emissions are within the scope of EPA’s authority to regulate, the Administrator has made no determination to date to exercise that authority under the specific criteria provided under any provision of the Act.”

III. Other Previous EPA General Counsel Statements

, which he viewed as an air pollutant,

Gary S. Guzy succeeded Mr. Cannon as EPA’s General Counsel and also addressed the issue of whether EPA may regulate CO₂ under the CAA. In congressional testimony and subsequent correspondence, Mr. Guzy agreed with his predecessor’s conclusion that the CAA definition of “air pollutant” is broad and encompasses CO₂ even though it has natural as well as man-made sources.³

Mr. Guzy also agreed that CO₂, as an air pollutant, may be regulated under the CAA to the extent the criteria of any of the Act’s regulatory provisions are met. In Mr. Guzy’s view, “[g]iven the clarity of the statutory provisions defining ‘air pollutant’ and providing authority to regulate air pollutants, there is no statutory ambiguity”⁴ regarding whether EPA may regulate

³Mr. Guzy testified before the Subcommittee on National Economic Growth, Natural Resources and Regulatory Affairs of the Committee on Government Reform, and the House Subcommittee on Energy and the Environment of the House Committee on Science on Oct. 6, 1999, and he responded to correspondence from one or both subcommittees on December 1, 1999, February 16, 2000, and July 11, 2000.

⁴Letter to the Subcommittee on National Economic Growth, Natural Resources and Regulatory Affairs of the Committee on Government Reform, and the House Subcommittee on Energy and the Environment of the House Committee on Science, December 1, 1999.

*of emissions that
might contribute*

CO2 under the CAA. He also stated that the absence of a CAA provision explicitly authorizing regulation to address climate change does not mean that EPA cannot regulate CO2 under CAA provisions authorizing regulation of air pollutants generally, provided the applicable criteria for regulation are met: "Explicit mention of a pollutant in a statutory provision is not a necessary prerequisite to regulation under many CAA statutory provisions."⁵

IV. Clean Air Act Authority to Address Climate Change

⁵Id.

As part of the Agency's consideration of the petition and related public comments, I have reviewed the Cannon memorandum and Guzy statements regarding whether CO2 is an "air pollutant" under the CAA and whether the CAA authorizes CO2 regulation.⁶ I have considered the statutory definition of "air pollutant" and whether CO2 and other GHGs, as such, fall within that definition. I have also considered the broader issue of whether it is reasonable to interpret the CAA's general regulatory authorities as available to address climate change in view of the unusually large economic and societal significance such regulation may have. Based on the analysis set forth below, I have reached two conclusions. potential

First, whether or not GHGs meet the statutory definition of "air pollutant," the CAA does not authorize EPA to issue control requirements to address concerns about their role in climate change. Although the Act specifically authorizes information development and ~~non-regulatory~~ ^{regulatory} measures related to climate change, there is no indication that Congress intended to grant EPA regulatory authority in this area. Indeed, as a matter of statutory structure, the Act is conspicuously missing a functional regulatory regime for addressing climate change such as exists for protecting stratospheric ozone. In light of the Supreme Court's recent decision in *Food and Drug Administration v. Brown & Williamson Tobacco Corp.*, 120 S.Ct 1291 (2000) (hereinafter *Brown & Williamson*), it is clear that an administrative agency properly awaits congressional direction on a fundamental policy issue such as climate change, instead of ~~trying to~~ ^{finding} ~~searching for~~ new authority in an existing statute that was not designed or enacted to deal with that issue.

Second, CO2 and other GHGs, as such, do not fall within the CAA definition of "air pollutant" considering currently available scientific evidence. As a result, even assuming CAA authority for regulation ~~to address~~ climate change, the Act's provisions authorizing regulation of any "air pollutant" are not available to regulate CO2 and other GHGs.

A. CAA Authority for Regulation to Address Climate Change

The Cannon memorandum assumed that if CO2 were an "air pollutant" under the CAA, EPA would have authority to regulate it under the CAA to the extent the Act's criteria for regulation were met. That assumption was based on the fact that various CAA provisions authorize regulation of any "air pollutant" if the Administrator finds, among other things, that the pollutant causes or contributes to air pollution that may reasonably be anticipated to endanger "public health or welfare" or the environment. CAA section 302(h) specifies that the statute's references to "welfare" include "effects on . . . climate."

⁶This memorandum uses the term "regulation" to refer to legally binding requirements promulgated by an agency under statutory authority. It does not include voluntary measures that emission sources may or may not undertake at their discretion.

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of emissions
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red emissions that
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I have examined the broader issue of whether the CAA authorizes regulation for climate change purposes. As instructed by the Supreme Court's opinion in *Brown & Williamson*, I have reviewed the CAA's, facially broad grants of authority in the context of the statute's purpose, structure and history and other relevant congressional actions to determine whether such grants reach the climate change issue. Based on my review, I have concluded that the CAA does not authorize regulation to address climate change.

Three codified and uncodified provisions of the CAA expressly touch on matters related to climate change. Specifically, uncodified section 821 of the CAA Amendments of 1990 requires measurement of CO₂ emissions from utilities subject to permitting under title V of the Act. CAA section 602 of the CAA directs EPA to determine the "global warming potential" of substances that deplete stratospheric ozone. CAA section 103(g) calls on EPA to develop "nonregulatory" measures for the prevention of multiple "air pollutants" and lists several air pollutants and CO₂ for that purpose. None of these provisions authorize regulation, and two of them expressly preclude their use for authorizing regulation (CAA sections 103(g) and 602).

All three provisions were enacted in 1990, when the CAA was last comprehensively amended. By that time, climate change had become a prominent national and international issue. During the 1980s, scientific evidence about the possibility of climate change led to growing public concern both in the U.S. and abroad. In response, the U.S. and other nations developed the United Nations Framework Convention on Climate Change (UNFCCC). President George H. W. Bush signed, and the U.S. Senate approved, the UNFCCC in 1992, and the UNFCCC took effect in 1994.

The UNFCCC established the "ultimate objective" of "stabiliz[ing] greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system" (Article 2 of the UNFCCC). Developed nations that joined the UNFCCC ~~were to work toward~~ the nonbinding "aim" of returning individually or jointly to their 1990 levels of anthropogenic CO₂ and other GHG emissions (Article 4.2(b)). All parties to the UNFCCC agreed on the need for further research to determine the level at which GHG concentrations should be stabilized, acknowledging that "there are many uncertainties in predictions of climate change, particularly with regard to the timing, magnitude and regional patterns thereof" (findings section of UNFCCC).

A central issue for the UNFCCC – whether binding emission reduction requirements should be set – was also considered in the context of amending the CAA. A Senate committee included in its CAA amendment bill a provision requiring EPA to set CO₂ emission standards for motor vehicles. However, that provision was removed from the bill on which the full Senate voted, and the bill eventually enacted was silent with regard to motor vehicle CO₂ emission standards. Instead, Congress enacted the three provisions described above, calling on EPA to conduct research and collect information related to climate change and develop "nonregulatory" strategies for reducing CO₂ emissions.

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achieve

Only the research and development provision of the CAA – section 103 – specifically mentions CO₂, and the legislative history of that section indicates Congress sought a sound scientific basis on which to make future decisions on climate change. Representatives Roe and Smith, two of the principal authors of section 103 as amended, explained that EPA’s “science mandate” needed updating to deal with new, more complex issues, including “global warming.” Committee on Environment and Public Works, U.S. Senate, *A Legislative History of the Clean Air Act Amendments of 1990*, S. Rep. 103-38, Vol. II at 2776 and 2778 (1993). They expressed concern that EPA’s research budget had been too heavily focused on supporting existing regulatory actions when the Agency also needed to conduct long-term research to “enhance EPA’s ability to predict the need for future action.” *Id.* at 2777. As Mr. Roe explained:

“[W]e have learned over the last 20 years that air pollution problems are complex and that easy answers are not readily forthcoming. . . [T]his amendment is premised on the belief that without a sound scientific foundation, even our most well intentioned efforts to improve air quality are doomed to failure.” *Id.*

In providing EPA with expanded research and development authority, Congress did not provide commensurate regulatory authority. In section 103(g), Congress directed EPA to establish a “basic engineering research and technology program to develop, evaluate and demonstrate” strategies and technologies related to air emissions and specifically called for improvements in such measures for preventing CO₂ as well as several specified air pollutants. But it expressly provided that nothing in the subsection “shall be construed to authorize the imposition on any person of air pollution control requirements.” ~~As if to drive home the point, section 103(g) was revised in conference to include the term “nonregulatory” to describe the “strategies and technologies” the subsection was intended to promote, and this point was underscored in the conference report. H.R. Conf. Rep. No. 101-952, at 349 (1990). In its treatment of the climate change issue in the CAA amendments, Congress indicated that it awaited further information before making decisions on the need for regulation.~~

Beyond Congress’ specific CAA references to CO₂ and global warming, another aspect of the Act cautions against ~~reading construing its facially broad provisions to authorize regulation to address climate change.~~ The CAA provisions addressing stratospheric ozone depletion demonstrate that Congress has understood the need for specially tailored solutions to ~~global atmospheric change~~, and has expressly granted regulatory authority when it has concluded that controls may be needed as part of those solutions. Like climate change, the causes and effects of stratospheric ozone depletion are global in nature. Anthropogenic substances that deplete stratospheric ozone are emitted around the world and are very long-lived; their depleting effects and the consequences of those effects occur on a global scale. In the CAA prior to its amendment in 1990, Congress specifically addressed the problem in a separate portion of the statute (part B of title I) that recognized the global nature of the issue and called for negotiation of international agreements to ensure world-wide participation in research and any control of stratospheric ozone-depleting substances. In the 1990 CAA amendments, Congress again addressed the issue in a discrete portion of the statute (title VI) that similarly provides for

* What is “this amendment”? If it is the amendment that added “non-regulatory” we should say so.

3 Restore excellent NAAQS text originally drafted by EPA, with CEQ edits.

coordination with the international community. Moreover, both incarnations of the CAA's stratospheric ozone provisions contain express authorization for EPA to regulate as scientific information warrants. In light of this CAA treatment of stratospheric ozone depletion, it would be anomalous to conclude that Congress intended EPA to address climate change under the CAA's general regulatory provisions, with no provision recognizing the international dimension of the issue and any solution, and no express authorization to regulate.

In fact, other congressional actions confirm that it would be unreasonable to conclude that Congress intended to authorize regulation under the CAA to address climate change. Starting in 1978, Congress passed several pieces of legislation specifically addressing climate change. With the National Climate Program Act of 1978, 15 U.S.C. 2901 et seq., Congress established a "national climate program" to improve understanding of "climate processes, natural and man induced, and the social, economic, and political implications of climate change" through research, data collection, assessments, information dissemination, and international cooperation. In the Global Climate Protection Act of 1987, 22 U.S.C. 2651 note, Congress directed the Secretary of State to coordinate U.S. negotiations concerning climate change, and EPA to develop and propose to Congress a coordinated national policy on the issue. Three years later, Congress passed the Global Change Research Act of 1990, 15 U.S.C. 2931 et seq., establishing a Committee on Earth and Environmental Sciences to coordinate a 10-year research program. That statute was enacted one day after the CAA Amendments of 1990 was signed into law. Also in 1990, Congress passed Title XXIV of the Food and Agriculture Act, creating a Global Climate Change Program to research global climate agricultural issues (section 2401 of Pub.L. 101-624).

With these statutes Congress sought to develop a foundation for considering whether future legislative action was warranted. From federal agencies, it sought recommendations for national policy and further advances in scientific understanding and possible technological responses. It did not, however, authorize any federal agency to take any regulatory action in response to those recommendations and advances. In fact, Congress declined to adopt other legislative proposals, contemporaneous with the bills to amend the CAA in 1989 and 1990, to require GHG emissions reductions from stationary and mobile sources (see, e.g., S. 1224, 101st Cong. (1989); H.R. 566, 101st Cong. (1990)).⁷ While Congress did not expressly preclude agencies from taking regulatory action under other statutes, its rejection of specific proposals to regulate GHGs for climate change purposes strongly indicate that Congress was awaiting further information before deciding itself whether climate change regulation was warranted.

⁷The fact that many of these bills were considered in the context of national energy policy, not air pollution policy, is further illustration that Congress did not consider the CAA a vehicle for climate change regulation. See, e.g., S. 324, 101st Cong. (1989); H.R. 5521, 101st Cong. (1990).

of emissions that
might contribute to

Since 1990, Congress has taken other actions consistent with the view that Congress has not authorized regulation for climate change purposes. Following ratification of the UNFCCC, nations party to the Convention negotiated the Kyoto Protocol calling for mandatory reductions in developed nations' GHG emissions. The Clinton Administration signed the Protocol but did not submit it to the Senate for ratification. In 1997 the Senate adopted, by a vote of 95 - 0, the Byrd-Hagel Resolution stating that the Senate would not ratify any climate change protocol that mandated U.S. GHG emission reductions without mandates placed on developing country parties or that would result in serious harm to the U.S. economy. Congress also attached language to appropriations bills that until recently barred EPA from implementing the Kyoto Protocol without Senate ratification (see, e.g., the so-called Knollenberg amendments to FY 1999 and 2000 VA-HUD and Independent Agencies Appropriations Acts)].⁸ While I do not exhaustively survey here the history in Congress of failed legislative proposals to regulate CO2 and other GHGs, that context nevertheless informs my legal opinion. Since enactment of the 1990 CAA amendments, numerous bills to control GHGs emissions from mobile and stationary sources failed to win passage (see, e.g., H.R. 2663, 102d Cong., 1st Sess. 137 Cong. Rec. H4611 (daily ed. 1991).

As noted above, the Supreme Court has ruled that facially broad grants of authority must be interpreted in the context of the statute's purpose, structure and history and other relevant congressional actions. In *Brown & Williamson*, the Court reviewed an FDA assertion of authority to regulate tobacco products under the Food, Drug and Cosmetic Act (FDCA). That statute contains a broadly worded grant of authority for FDA to regulate "drugs" and "devices," terms which the statute also broadly defines. However, the FDCA does not specifically address tobacco products while other federal laws expressly govern the marketing of those products.

Notwithstanding the FDCA's facially broad grant of authority, the Supreme Court explained that "[i]n extraordinary cases, . . . there may be reason to hesitate before concluding that Congress has intended such an implicit delegation." *Brown & Williamson*, 120 S.Ct. at 1314. The Court noted that FDA was "assert[ing] jurisdiction to regulate an industry constituting a significant portion of the American economy," despite the fact that "tobacco has its own unique political history" that had led Congress to create a distinct regulatory scheme for tobacco products. *Id.* at 1315. The Court concluded that FDA's assertion of authority to regulate tobacco was "hardly an ordinary case." *Id.* The Court analyzed FDA's authority in light of the language, structure and history of the FDCA and other federal legislation ~~and congressional action~~ specifically addressing tobacco regulation. Based on that analysis, it determined that Congress did not "intend[] to delegate a decision of such economic and political significance . . . in so cryptic a fashion." *Id.*

⁸Since the President has made clear that the U.S. will not become a party to the Kyoto Protocol, there has been no continuing need for that restriction.

for homes, offices, and businesses,

emissions

Regulation of activities that might lead to climate change would have even greater potential significance. Regulation of GHGs would affect every sector of the US economy and could threaten the overall health of the US economy. Even everyday activities such as heating homes, going to school or work, and running hospitals, would be affected. By far the most abundant anthropogenic GHG is CO2, which is emitted whenever fossil fuels such as coal, oil, and natural gas are used to produce energy. Because the U.S. economy depends heavily on fossil fuels, industry and consumers across the country would be implicated by any decision to require reductions in CO2 emissions. In view of the unusually large implications of climate change regulation, it is unreasonable to believe that Congress intended "to delegate a decision of such . . . significance . . . in so cryptic a fashion." *Id.* Under our constitutional system, an administrative agency properly awaits congressional direction before addressing a fundamental policy issue such as climate change, instead of searching for authority in an existing statute that was not designed or enacted to deal with the issue. I therefore conclude the CAA cannot be reasonably interpreted as authorizing regulation to address climate change.

of emissions that might contribute

Even though the CAA does not authorize regulation to address climate change, the potential contribution of anthropogenic CO2 and other GHG emissions to climate change is still properly the subject of research and other activities under CAA section 103. In particular, EPA may continue to develop, evaluate, and demonstrate nonregulatory strategies and technologies for preventing CO2 and other GHG emissions under section 103(g). EPA's efforts in this regard answer Congress' consistent call for advances in our understanding of the climate change issue.

As the discussion above makes clear, lack of authority under the CAA to impose regulation to address climate change does not leave the federal government powerless to address the issue. The CAA and other federal statutes provide the federal government with ample authority to conduct the research necessary to better understand the nature, extent and effects of any human-induced climate change and to develop technologies and non-regulatory strategies that will help achieve GHG emission reductions to the extent they prove necessary. Congress, of course, is empowered to may decide that further efforts are necessary and pass specific legislation to that effect.

B. Definition of "Air Pollutant"

Even if the CAA did authorize climate change regulation, the issue would still remain whether anthropogenic emissions of CO2 and other GHGs meet the statute's definition of "air pollutant." CAA section 302(g) defines "air pollutant" as "any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters 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." The CAA does not define "air pollution agent" or "air pollution."

→ Insert # on "ambient air"
drafted by DOJ

The Cannon memorandum interprets the definition of “air pollutant” as meaning “any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters ambient air.” It fails to address, and effectively reads out, the root of the definition, “any air pollution agent or combination of such agents.” The result is an interpretation seemingly cut loose from the term being defined – an “air pollutant” is virtually anything that enters the air regardless of whether it pollutes the air. Common sense and the evolution of the “air pollutant” definition suggest a different interpretation that comports with the ordinary meaning of “air pollutant”⁹ and gives meaning to all the words of the definition – an “air pollutant” is something that causes or contributes to air pollution, takes one of several forms (physical, chemical, biological or radioactive), and enters the ambient air; it also includes precursors to air pollutants.

The CAA’s legislative history confirms that causation is integral to the meaning of “air pollutant.” As originally drafted, the CAA did not include a definition of “air pollutant,” presumably because Congress thought a definition unnecessary. When the Act was amended in 1970, a definition was added stating that “‘air pollutant’ means an air pollutant pollution agent or combination of such agents,” the core of the definition in effect today. Congress gave no explanation for adding the definition or of the definition itself.¹⁰ In 1977 when Congress sought

⁹“Pollutant” is defined by the *American Heritage Webster’s Ninth New Collegiate Dictionary* (2d college ed., 1991) at 96011, as “[s]omething that pollutes, esp. waste material that contaminates air, soil, or water.” The verb “pollute,” in turn, is defined as “[t]o make unfit for or harmful to living things, esp. by the addition of waste matter” “to make physically impure or unclean” or “to contaminate (an environment) esp[ecially] with man-made waste.” *Id.* Hence, the concept of an air “pollutant” or “polluting” the air includes the notion of harmful effects associated with releasing substances, especially wastes, into the air.

¹⁰Since the statute does not define the term “agent,” it is reasonable to interpret it in manner consistent with its ordinary meaning: “something that produces or is capable of producing an effect: an active or efficient cause” (*Webster’s Ninth New Collegiate Dictionary* (1990) at 64).

to address air pollution stemming from radioactive materials, the phrase “including any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters ambient air” was appended to the definition. Congress again gave no explanation, but the ~~likely reason for context of the change was to make clear its purpose – to establish~~ that virtually any type of substance, including radioactive substances, could be an air pollution agent. If Congress had instead intended to establish that an air pollutant is any physical, biological, chemical, or radioactive substance entering the air, it presumably would have dropped the causation language from the definition as moot. In 1990 the last sentence of the definition was added, stating that precursors of air pollutants are themselves air pollutants. Congress once again gave no explanation, but adding the sentence would have been unnecessary had the definition already encompassed everything physical, chemical, biological or radioactive that enters the air. In all, the legislative evolution of the “air pollutant” definition demonstrates that Congress never wavered in its view that an air pollutant is something that causes or contributes to air pollution.

Interpreting the definition of “air pollutant” to preserve the notion of causation fits well with the CAA’s use of the term in articulating the statutory test for regulation. The CAA provisions authorizing regulation of any “air pollutant” generally call for a determination that the air pollutant causes or contributes to air pollution which may reasonably be anticipated to endanger public health or welfare (e.g., sections 111, 112, and 202). The provisions reflect the definition of “air pollutant” as a substance that causes or contributes to air pollution and require a further showing that the resulting air pollution is likely to endanger public health or welfare.

Considering the text, history and structure of the CAA, I conclude that the Act’s definition of “air pollutant” includes a causation test: for a substance to be an air pollutant, it must cause or contribute to air pollution (or be a precursor of a substance that causes or contribute to air pollution). Meeting that test obviously requires consideration of available scientific evidence regarding the effect of a substance on air quality. To the extent available information establishes that a substance (or its precursor) causes or contributes to air pollution and is a physical, chemical, biological or radioactive substance emitted into or otherwise entering the ambient air, it may properly be considered an “air pollutant” under the CAA.

C. Status of CO₂ and Other GHGs under the CAA

Whether anthropogenic emissions of CO₂ and other GHGs, as such, are “air pollutants” under the CAA depends on whether those emissions meet the criteria of the statutory definition discussed above: (1) do such emissions cause or contribute to air pollution directly or as precursors to other substances that have such an effect, (2) do they take the form of a physical, chemical, biological, or radioactive substance, and (3) are they emitted or do they otherwise enter ambient air?

For anthropogenic emissions of CO₂ and other GHGs, the first criterion of the “air pollutant” definition – do they cause or contribute to air pollution – is decisive. By definition they are “greenhouse gases” in that they trap heat in the earth’s atmosphere and thereby have the

potential to raise atmospheric temperatures. However, the legal question is whether anthropogenic emissions of these gases cause or contribute to air pollution. The science of climate change is extraordinarily complex and still evolving. Many critical questions remain regarding the causes, extent, timing, and effects of climate change. The Agency has determined *revised?* that there remain key uncertainties in our understanding of the factors that may affect future climate change. Predicting future climate change necessarily involves a complex web of economic and physical factors including: our ability to predict future anthropogenic emissions of GHGs and aerosols; the fate of these emissions once they enter the atmosphere (e.g., what percentage are absorbed by vegetation or are taken up by the oceans); the impact of those emissions that remain in the atmosphere on the radiative properties of the atmosphere; changes in critically important climate feedbacks (e.g., changes in cloud cover and ocean circulation); changes in temperature characteristics (e.g., average temperatures, shifts in daytime and evening temperatures); changes in other climatic parameters (e.g., shifts in precipitation, storms); and ultimately the impact of such changes on human health and welfare (e.g., increases or decreases in agricultural productivity, human health impacts). Substantial scientific uncertainties limit our ability to assess each of these factors and to separate out those factors resulting from natural variability from those that are directly the result of increases in anthropogenic GHGs. Thus, CO2 and other GHGs are not "air pollutants" as that term is defined by the CAA and used in its regulatory provisions.

The Cannon memorandum pointed out that CAA section 103(g) itself refers to CO2 as an "air pollutant." But as the memorandum's relegation of that point to a footnote suggests, that reference alone is not sufficient to establish CO2 as meeting the Act's "air pollutant" definition. The purpose of section 103(g) is clearly not to enshrine any particular emission as an air pollutant. In calling on EPA to improve "nonregulatory" strategies and technologies for preventing or reducing "multiple" air pollutants, section 103(g)(1) lists a number of emissions to be addressed. That provision also specifies that EPA's program focus on emissions from fossil fuel power plants and the potential for fuel conservation and fuel switching to reduce emissions. Since either reduction strategy would also have the effect of reducing CO2, section 103(g)(1)'s reference to CO2 can be seen as no more than a recognition of that fact. Section 103(g) thus does not dictate a particular conclusion regarding whether CO2 is an "air pollutant" under the CAA. The statutory definition of "air pollutant" determines what may be considered an air pollutant, and for the reasons given above, I have concluded that CO2 and other GHGs do not meet the definition.

IV. Conclusion

*for climate related
change regulation*

*of emissions that
might contribute*

Based on the analysis above, I conclude that the CAA does not authorize regulation to ~~address~~ *address* climate change. In view of consistent congressional action to learn more about climate change, the absence of express authority to regulate climate change, no indication whatsoever of congressional intent to provide such authority, and the far-reaching implications of regulation to address climate change, I believe the EPA cannot assert jurisdiction to regulate in this area. In addition, I conclude that CO2 and other GHGs are not "air pollutants" under the CAA in light of

the scientific uncertainty that exists regarding the contribution that anthropogenic emissions of these gases make to any climate change that occurs. The Cannon memorandum and the statements by Mr. Guzy concerning this matter no longer represent the views of EPA's General Counsel.

Jim Connaughton's edits

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WordPerfect Document Compare Summary

Original document: C:\Documents and Settings\WWehrum\My Documents\revised climate petition response v2.wpd

Revised document: C:\Documents and Settings\WWehrum\My Documents\revised climate petition response v3.wpd

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6/18/03 Draft – Reordered ~~without~~with new segues AND EDITS

MEMORANDUM

SUBJECT: EPA's Authority to Impose Mandatory Controls to Address Climate Change under the Clean Air Act

FROM: Robert E. Fabricant
General Counsel

TO: Christine Todd Whitman
Administrator

1. Introduction and Background

As you know, EPA has been petitioned by the International Center for Technology Assessment (ICTA) and a number of other groups to issue motor vehicle emission standards under the Clean Air Act (CAA or Act) for carbon dioxide (CO₂) and other greenhouse gases (GHGs) associated with climate change. Relevant to the Agency's consideration of this petition is an April 10, 1998 memorandum regarding "EPA's Authority to Regulate Pollutants Emitted by Electric Power Generation Sources" from General Counsel Jonathan Z. Cannon to Administrator Carol M. Browner. In that memorandum, Mr. Cannon concludes that CO₂ is an "air pollutant" under the CAA and thus subject to regulation under the CAA to the extent the criteria of any of the Act's regulatory provisions are met.

I have reviewed Mr. Cannon's memorandum and the text and history of the CAA in the context of other congressional actions specifically addressing climate change. Based on my review, I have determined that, even if CO₂ and other GHGs were "air pollutants" under the CAA, the Act does not authorize EPA to regulate for climate change purposes. In addition, I have concluded that for a substance to be an "air pollutant" under the CAA, available scientific evidence must indicate that it causes or contributes to air pollution. In view of the scientific uncertainties regarding the causes, extent, timing and effects of climate change and the relative contribution of anthropogenic emissions of CO₂ and other GHGs to any climate change, I have also concluded that anthropogenic CO₂ and other GHGs, as such, are not "air pollutants" under the CAA.¹ This memorandum explains the reasons for my conclusions and formally withdraws

¹A GHG may be an "air pollutant" for other effects it has on air quality. For example, hydrofluorocarbons are GHGs that also deplete stratospheric ozone. They are regulated for their effect on stratospheric ozone under title VI of the Act.

Mr. Cannon's April 10, 1998 memorandum as no longer representing the views of EPA's General Counsel.²

2. The Cannon Memorandum

Mr. Cannon's memorandum (hereinafter "the Cannon memorandum") was prepared in response to a request from Congressman DeLay to Administrator Browner. At a Fiscal Year 1999 House Appropriations Committee hearing, Congressman DeLay questioned the Administrator about an EPA document stating, in part, that EPA currently has authority under the CAA to establish pollution control requirements for four pollutants of concern from electric power generation: nitrogen oxides, sulfur dioxide, CO₂ and mercury. He asked Administrator Browner whether she agreed with the statement, and in particular, whether she thought the CAA allows EPA to regulate emissions of CO₂. Administrator Browner agreed with the statement that the CAA grants EPA broad authority to address certain pollutants, including those listed, and agreed to Congressman DeLay's request for a legal opinion on that point. The Cannon memorandum was prepared in response to that request.

The Cannon memorandum states that the CAA "provides that EPA may regulate a substance if it is (a) an 'air pollutant,' and (b) the Administrator makes certain findings regarding such pollutant (usually related to danger to public health, welfare, or the environment) under one or more of the Act's regulatory provisions." The memorandum further states that the CAA section 302(g) definition of "air pollutant" is "broad" and expressly "includes any physical, chemical, biological, or radioactive substance or matter that is emitted into or otherwise enters the ambient air." The memorandum notes that a substance can be an air pollutant even though it is naturally present in the air in some quantities, and that many pollutants already regulated by EPA are emitted from natural as well as anthropogenic sources (e.g., sulfur dioxide, particulate matter and volatile organic compounds). It then concludes that the four pollutants of concern from electric power generation, including CO₂, "are each a 'physical [and] chemical . . . substance which is emitted into . . . the ambient air,' and hence, . . . an air pollutant within the meaning of the Clean Air Act" (quoting from a portion of the statutory definition of air pollutant). As further support for its conclusion, the memorandum cites CAA section 103(g), which refers to CO₂ along with a number of already regulated substances as "air pollutants."

Turning to EPA's authority under the CAA, the Cannon memorandum states that "EPA's regulatory authority extends to air pollutants, which, as discussed above, are defined broadly under the Act . . ." The memorandum notes, however, that "a general statement of authority is distinct from an EPA determination that a particular air pollutant meets the specific criteria for EPA action under a particular provision of the Act." According to the memorandum, several

²Gary S. Guzy, EPA's General Counsel following Mr. Cannon, also addressed EPA's authority to regulate CO₂. This memorandum will review and address his statements, as well.

CAA provisions potentially applicable to the four emissions of concern from utilities require “a determination by the Administrator regarding the air pollutants’ actual or potential harmful effects on public health, welfare or the environment.” The memorandum explains that EPA already regulates nitrogen oxides, sulfur dioxide and mercury based on determinations by EPA or Congress that those substances have negative effects on public health, welfare, or the environment. With respect to CO₂, the memorandum states that “[w]hile CO₂ emissions are within the scope of EPA’s authority to regulate, the Administrator has made no determination to date to exercise that authority under the specific criteria provided under any provision of the Act.”

3. Other Previous EPA General Counsel Statements

Gary S. Guzy succeeded Mr. Cannon as EPA’s General Counsel and also addressed the issue of whether EPA may regulate CO₂ under the CAA. In congressional testimony and subsequent correspondence, Mr. Guzy agreed with his predecessor’s conclusion that the CAA definition of “air pollutant” is broad and encompasses CO₂ even though it has natural as well as man-made sources.³

Mr. Guzy also agreed that CO₂, as an air pollutant, may be regulated under the CAA to the extent the criteria of any of the Act’s regulatory provisions are met. In Mr. Guzy’s view, “Given the clarity of the statutory provisions defining ‘air pollutant’ and providing authority to regulate air pollutants, there is no statutory ambiguity”⁴ regarding whether EPA may regulate CO₂ under the CAA. He also stated that the absence of a CAA provision explicitly authorizing

³Mr. Guzy testified before the Subcommittee on National Economic Growth, Natural Resources and Regulatory Affairs of the Committee on Government Reform, and the House Subcommittee on Energy and the Environment of the House Committee on Science on Oct. 6, 1999, and he responded to correspondence from one or both subcommittees on December 1, 1999, February 16, 2000, and July 11, 2000.

⁴Letter to the Subcommittee on National Economic Growth, Natural Resources and Regulatory Affairs of the Committee on Government Reform, and the House Subcommittee on Energy and the Environment of the House Committee on Science, December 1, 1999.

climate change regulation does not mean that EPA cannot regulate CO2 under CAA provisions authorizing regulation of air pollutants generally, provided the applicable criteria for regulation are met: "Explicit mention of a pollutant in a statutory provision is not a necessary prerequisite to regulation under many CAA statutory provisions."⁵

4. Clean Air Act Authority to Address Climate Change

⁵Id.

Reg. 12/1/07

As part of the Agency's consideration of the petition and related public comments, I have reviewed the Cannon memorandum and Guzy statements regarding whether CO2 is an "air pollutant" under the CAA and whether the CAA authorizes CO2 regulation.⁶ I have considered the statutory definition of "air pollutant" and whether CO2 and other GHGs, as such, fall within that definition. I have also considered the broader issue of whether it is reasonable to interpret the CAA's general regulatory authorities as available to address climate change in view of the unusually large economic and societal significance such regulation may have. Based on the analysis set forth below, I have reached two conclusions. First, even if GHGs were "air pollutants" under the Act, the Act whether or not GHGs meet the statutory definition of "air pollutant," the CAA does not authorize EPA to issue control requirements to address concerns about their role in climate change. Although the Act specifically authorizes information development and "non-regulatory" measures related to climate change, there is no indication that Congress intended to grant EPA regulatory authority in this area. Moreover, in light of the Supreme Court's recent decision in *Food and Drug Administration v. Brown & Williamson Tobacco Corp.*, 120 S.Ct 1291 (2000) (hereinafter *Brown & Williamson*), it is clear that an administrative agency properly awaits congressional direction on a fundamental policy issue such as climate change, instead of trying to find new authority in an existing statute that was not designed or enacted to deal with that issue. Second, CO2 and other GHGs, as such, are do not fall within the CAA definition of "air pollutant" considering currently available scientific evidence. As a result, even assuming CAA authority for climate change regulation, the CAA's Act's provisions authorizing regulation of any "air pollutant" are not available to regulate CO2 and other GHGs.

A. CAA Authority for Climate Change Regulation

The Cannon memorandum assumed that if CO2 were an "air pollutant" under the CAA, EPA would have authority to regulate it under the CAA to the extent the Act's criteria for regulation were met. That assumption was based on the fact that some CAA provisions authorize regulation of any "air pollutant" if the Administrator finds, among other things, that the pollutant causes or contributes to air pollution that may reasonably be anticipated to harm "public health or welfare" or the environment. CAA section 302(h) specifies that the statute's references to "welfare" include "effects on . . . climate."

~~Since I have concluded that CO2 and other GHGs, as such, are not "air pollutants" under the CAA, it follows that EPA does not have authority to regulate these gases under CAA provisions authorizing regulation of any "air pollutant."~~ I have also examined the broader issue of

⁶This memorandum uses the term "regulation" to refer to legally binding requirements promulgated by an agency under statutory authority. It does not include voluntary measures that emission sources may or may not undertake at their discretion.

whether the CAA authorizes regulation for climate change purposes. As instructed by the Supreme Court's opinion in *Brown & Williamson*, I have reviewed the CAA's facially broad grants of authority in the context of the statute's purpose, structure and history and other relevant congressional actions to determine whether such grants reach the climate change issue. Based on my review, I have concluded that the CAA does not authorize climate change regulation.

Three codified and uncodified provisions of the CAA expressly touch on matters related to climate change. Specifically, uncodified section 821 of the CAA Amendments of 1990 requires measurement of CO₂ emissions from utilities subject to permitting under title V of the Act. CAA section 602 of the CAA directs EPA to determine the "global warming potential" of substances that deplete stratospheric ozone. CAA section 103(g) calls on EPA to develop "nonregulatory" measures for the prevention of multiple "air pollutants" and lists several air pollutants and CO₂ for that purpose. None of these provisions authorize regulation, and two of them expressly preclude their use for authorizing regulation (CAA sections 103(g) and 602).

All three provisions were enacted in 1990, when the CAA was last amended. By that time, climate change had become a prominent national and international issue. During the 1980s, scientific evidence about the possibility of climate change led to growing public concern both in the U.S. and abroad. In response, the U.S. and other nations developed the United Nations Framework Convention on Climate Change (UNFCCC) beginning late in that decade. President George H. W. Bush signed, and the U.S. Senate approved, the UNFCCC in 1992, and the UNFCCC took effect in 1994.

The UNFCCC established the "ultimate objective" of "stabiliz[ing] greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system" (Article 2 of the UNFCCC). Developed nations that joined the UNFCCC also agreed to the nonbinding "aim" of returning individually or jointly to their 1990 levels of anthropogenic CO₂ and other GHG emissions (Article 4, Commitment 2). All parties to the UNFCCC agreed on the need for further research to determine the level at which GHG concentrations should be stabilized, acknowledging that "there are many uncertainties in predictions of climate change, particularly with regard to the timing, magnitude and regional patterns thereof"(findings section of UNFCCC).

A central issue for the UNFCCC – whether binding emission reduction requirements should be set – was also considered in the context of amending the CAA. A Senate committee included in its CAA amendment bill a provision requiring EPA to set CO₂ emission standards for motor vehicles. However, the bill on which the full Senate voted did not include that provision, and the bill eventually enacted was silent with regard to motor vehicle CO₂ emission standards. Instead, Congress enacted the three provisions described above, calling on EPA to conduct research and collect information related to climate change and develop "nonregulatory" strategies for reducing CO₂ emissions.

Only the research and development provision of the CAA – section 103 – specifically

mentions CO2, and the legislative history of that section indicates Congress sought a sound scientific basis on which to make future decisions on climate change. Representatives Roe and Smith, two of the principal authors of section 103 as amended, explained that EPA's "science mandate" needed updating to deal with new, more complex issues, including "global warming." Committee on Environment and Public Works, U.S. Senate, *A Legislative History of the Clean Air Act Amendments of 1990*, S. Rep. 103-38, Vol. II at 2776 and 2778 (1993). They expressed concern that EPA's research budget had been too heavily focused on supporting existing regulatory actions when the Agency also needed to conduct long-term research to "enhance EPA's ability to predict the need for future action." Id. at 2777. As Mr. Roe explained:

"[W]e have learned over the last 20 years that air pollution problems are complex and that easy answers are not readily forthcoming. . . [T]his amendment is premised on the belief that without a sound scientific foundation, even our most well intentioned efforts to improve air quality are doomed to failure." Id.

In providing EPA with expanded research and development authority, Congress did not provide commensurate regulatory authority. In section 103(g), Congress directed EPA to establish a "basic engineering research and technology program to develop, evaluate and demonstrate" strategies and technologies related to air emissions and specifically called for improvements in such measures for preventing CO2 as well as ~~several specified air pollutants~~. ^{Other} But it expressly provided that nothing in the subsection "shall be construed to authorize the imposition on any person of air pollution control requirements." ^{As if to drive home the point,} section 103(g) was revised in conference to include the term "nonregulatory" to describe the "strategies and technologies" the subsection was intended to promote, and this point was ^{has been} underscored in the conference report. H.R. Conf. Rep. No. 101-952, at 349 (1990). In its treatment of the climate change issue in the CAA Amendment, Congress strongly implied that it awaited further information before making decisions on the need for regulation. ^{been}

Beyond Congress' specific CAA references to CO2 and global warming, other aspects of the Act caution against reading its facially broad provisions to authorize regulation of activities that might contribute to climate change regulation. As several commenters noted, the principal CAA mechanism for addressing emissions from numerous or diverse sources – establishment and implementation of national ambient air quality standards (NAAQS) – seems poorly suited to addressing the global nature of climate change. CO2 and other key GHGs are emitted by anthropogenic sources all over the world, and, ~~as particularly long-lived gases,~~ they spread throughout the earth's atmosphere. Any climate forcing they ~~cause~~ would occur at a global level, ~~and would have global consequences, although the consequences would vary by region.~~ Given the global causes and effects of any climate change, no single U.S. state could reasonably be expected to attain or maintain compliance with a NAAQS for one of these GHGs, nor would it necessarily benefit from of any compliance it might achieve. While EPA has not fully considered the feasibility and implications of setting NAAQS for GHGs, it is clear that use of the NAAQS regime to address climate change would raise extremely difficult issues of science and domestic and foreign policy. ^{commenters} ^{consequences}

Effect *emission that come*

The CAA provisions addressing stratospheric ozone depletion demonstrate that Congress itself has understood the need for specially tailored solutions to global air pollution problems atmospheric change, and has expressly granted regulatory authority when it has concluded that controls may be needed as part of those solutions. Like climate change, the causes and effects of stratospheric ozone depletion are global in nature. Anthropogenic substances that deplete stratospheric ozone are emitted around the world and are very long-lived; their depleting effects and the consequences of those effects occur on a global scale. In the CAA prior to its amendment in 1990, Congress specifically addressed the problem in a separate portion of the statute (part B of title I) that recognized the global nature of the problem issue and called for negotiation of international agreements to ensure world-wide participation in research and any control of stratospheric ozone-depleting substances. In the 1990 CAA amendments, Congress again addressed the issue in a discrete portion of the statute (title VI) that similarly provides for coordination with the international community. Moreover, both incarnations of the CAA's stratospheric ozone provisions contain express authorization for EPA to regulate as scientific information warrants. In light of this CAA treatment of stratospheric ozone depletion, it would be anomalous to conclude that Congress intended EPA to address climate change under the CAA's general regulatory provisions, with no provision recognizing the international dimension of the issue and any solution and no express authorization to regulate.

In fact, other congressional actions confirm that it would be unreasonable to conclude that Congress intended to authorize CAA climate change regulation. Starting in 1978, Congress passed several pieces of legislation specifically addressing climate change. With the Global National Climate Protection Program Act of 1978, 15 U.S.C. 2901 et seq., Congress established a "national climate program." It program to improve understanding of "climate processes, natural and man induced, and the social, economic, and political implications of climate change" through research, data collection, assessments, information dissemination, and international cooperation. In the Global Climate Protection Act of 1987, 22 U.S.C. 2651 note. Congress directed the Secretary of State to coordinate U.S. negotiations concerning climate change, and EPA to develop and propose to Congress a coordinated national policy on the issue. Twelve Three years later, Congress passed the Global Change Research Act of 1990, 15 U.S.C. 2931 et seq., establishing a Committee on Earth and Environmental Sciences to coordinate a 10-year research program (cite). The Global Change Research Act was enacted on the same one day as after the CAA Amendments of 1990 was signed into law. Also in 1990, Congress passed Title XXIV of the Food and Agriculture Act, creating a Global Climate Change Program to research global climate agricultural issues (cite section 2401 of Pub.L. 101-624).

policy

With all ~~three~~ these statutes Congress sought to develop a foundation for future legislative action on climate change. From federal agencies, it sought recommendations for national policy and further advances in scientific understanding and possible technological responses. It did not, however, authorize any federal agency to take any regulatory action in response to those recommendations and advances. In fact, Congress declined to adopt other legislative proposals, contemporaneous with the bills to amend the CAA in 1989 and 1990, to require GHG emissions

specific proposals to regulate GHG from climate change sources

reductions from stationary and mobile sources (see, e.g., [cite to Byran and Cooper-Synar bills]).⁷ While Congress did not expressly preclude agencies from taking regulatory action under other statutes, its actions on climate change-specific proposals strongly indicate that Congress awaited further information before deciding itself whether climate change regulation was warranted.

Congressional Inaction

Since 1990, Congress has taken other actions consistent with the view that regulation of activities that might contribute to climate change regulation ~~awaits further congressional action~~. Following ratification of the UNFCCC, nations party to the Convention negotiated the Kyoto Protocol calling for mandatory reductions in developed nations' GHG emissions. President Clinton signed the Protocol but did not submit it to the Senate for ratification. In 1997 the Senate adopted the Byrd-Hagel Resolution stating that the Senate would not ratify by a vote of 95 - 0 expressing opposition to any climate change protocol that mandated U.S. GHG emission reductions without the participation of same mandates placed on developing country parties or that would result in serious harm to the U.S. economy. Congress also passed riders attached language to appropriations bills that until recently barred EPA from implementing the Kyoto Protocol without Senate ratification (see, e.g., [cite]). Moreover, bills to amend the CAA to establish CO2 emission controls on stationary sources failed to win passage (see, e.g., H.R. 2663, 102d Cong., 1st Sess. 137 *Cong. Rec.* H4611 (daily ed. 1991) (congressional rejection of the mandatory provisions of the so-called Cooper-Synar bills). [check]

As noted above, the Supreme Court has ruled that facially broad grants of authority must be interpreted in the context of the statute's purpose, structure and history and other relevant congressional actions. In *Brown & Williamson*, the Court reviewed an FDA assertion of authority to regulate tobacco products under the Food, Drug and Cosmetic Act (FDCA). That statute contains a broadly worded grant of authority for FDA to regulate "drugs" and "devices," terms which the statute also broadly defines. However, the FDCA does not specifically address tobacco products while other federal laws expressly govern the marketing of those products. Prior to asserting jurisdiction, FDA had long held and represented to Congress that the FDCA does not authorize regulation of tobacco products.

Notwithstanding the FDCA's facially broad grant of authority, the Supreme Court explained that "[i]n extraordinary cases, . . . there may be reason to hesitate before concluding that Congress has intended such an implicit delegation." *Brown & Williamson*, 120 S.Ct. at 1314. The Court noted that FDA was "assert[ing] jurisdiction to regulate an industry constituting a significant portion of the American economy," despite the fact that "tobacco has its own unique political history" that had led Congress to create a distinct regulatory scheme for tobacco

⁷The fact that many of these bills were considered in the context of national energy policy, not air pollution policy, is further illustration that Congress did not consider the CAA a vehicle for climate change regulation.

products. Id. at 1315. The Court concluded that FDA's assertion of authority to regulate tobacco was "hardly an ordinary case." Id. The Court analyzed FDA's authority in light of the language, structure and history of the FDCA and other federal legislation and congressional action specifically addressing tobacco regulation. Based on that analysis, it determined that Congress did not "intend[] to delegate a decision of such economic and political significance . . . in so cryptic a fashion." Id.

Regulation of activities that might lead to climate change regulation is an issue of has even greater potential significance. Regulation of CO2 would affect every sector of the US economy and could threaten the overall health of the US economy. Even everyday activities such as heating homes, going to school or work, and running hospitals, would be affected. By far the most abundant anthropogenic GHG is CO2, which is emitted whenever fossil fuels such as coal, oil, and natural gas are used to produce energy. The U.S. economy is dependent on such fuels to a very large degree. Since reliance on fossil fuels is so widespread, many industries and consumers—indeed, the health of industry and consumers across the country would be implicated by any decision to require reductions in these CO2 emissions. Potentially sensitive foreign policy issues would also be raised. For example, decisions about domestic regulation could affect decisions by other countries about whether to regulate their GHG emissions. Any potential benefit of U.S. regulation could be lost to the extent other nations decided to let their emissions significantly increase in view of U.S. emission reductions. In view of the unusually large implications of climate change regulation, it is unreasonable to believe that Congress intended "to delegate a decision of such . . . significance . . . in so cryptic a fashion." Under our constitutional system, an administrative agency properly awaits congressional direction before addressing a fundamental policy such as climate change, instead of searching for authority in an existing statute that was not designed or enacted to deal with the issue. I therefore conclude the CAA cannot be reasonably interpreted as authorizing climate change regulation.

Since Even though the CAA does not authorize climate change regulations, it follows that CO2 and other GHGs, as such, are not "air pollutants" for purposes of the regulatory provisions of the Act, even assuming they met the statutory definition of that term. The regulation of activities that might contribute to climate change, the potential contribution of anthropogenic CO2 and other GHG emissions to climate change is still properly the subject of research and other activities under CAA section 103. In particular, EPA may continue to develop, evaluate, and demonstrate nonregulatory strategies and technologies for preventing CO2 and other GHG emissions under section 103(g). EPA's efforts in this regard answer Congress' consistent call for advances in our understanding of the climate change issue.

As the discussion above makes clear, lack of authority under the CAA to impose climate change regulation does not leave the federal government powerless to address the issue. The CAA and other federal statutes provide the federal government with ample authority to conduct the research necessary to better understand the nature, extent and effects of any human-induced climate change and to develop technologies and non-regulatory strategies that will help achieve GHG emission reductions to the extent they prove necessary. Congress, of course, is empowered

~~to decide that further efforts are necessary and pass specific legislation to that effect.~~

B. Definition of "Air Pollutant"

Even if the CAA did authorize climate change regulation, the issue would still remain whether anthropogenic emissions of CO2 and other GHGs meet the statute's definition of "air pollutant." CAA section 302(g) defines "air pollutant" as "any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters ambient air. Such term includes any precursors to the formation of any air pollutant . . ." The CAA does not define "air pollution agent" or "air pollution."

The Cannon memorandum interprets the definition of "air pollutant" as meaning "any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters ambient air." It fails to address, and effectively reads out, the root of the definition, "any air pollution agent or combination of such agents." The result is an interpretation seemingly cut loose from the term being defined – an "air pollutant" is virtually anything that enters the air regardless of whether it pollutes the air. Common sense and the evolution of the "air pollutant" definition suggest a different interpretation that comports with the ordinary meaning of "air pollutant"⁸ and gives meaning to all the words of the definition – an "air pollutant" is something that causes or contributes to air pollution, takes one of several forms (physical, chemical, biological or radioactive), and enters the ambient air; it also includes precursors to air pollutants.

The CAA's legislative history confirms that causation is integral to the meaning of "air pollutant." As originally drafted, the CAA did not include a definition of "air pollutant," presumably because Congress thought a definition unnecessary. When the Act was amended in 1970, a definition was added stating that "air pollutant" means an air pollutant agent or combination of such agents," the core of the definition in effect today. Congress gave no explanation for adding the definition or of the definition itself. In 1977 when Congress sought to address air pollution stemming from radioactive materials, the phrase "including any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters ambient air" was appended to the definition. Congress again gave no explanation, but the likely reason for the change was to make clear that virtually any type of substance, including radioactive substances, could be an air pollution agent. If Congress had instead intended to establish that an air pollutant is any physical, biological, chemical, or radioactive substance entering the air, it presumably would have dropped the causation language from the definition as moot. In 1990 the last sentence of the definition was added, stating that precursors of air pollutants are themselves air pollutants. Congress once again gave no explanation, but adding the sentence would have

⁸"Pollutant" is defined by Webster's Ninth New Collegiate Dictionary (1990) as "something that pollutes," so the ordinary meaning of "air pollutant" would be something that pollutes the air.

been unnecessary had the definition already encompassed everything physical, chemical, biological or radioactive that enters the air. In all, the legislative evolution of the "air pollutant" definition demonstrates that Congress never wavered in its view that an air pollutant is something that causes or contributes to air pollution.

Interpreting the definition of "air pollutant" to preserve the notion of causation fits well with the CAA's use of the term in articulating the statutory test for regulation. The CAA provisions authorizing regulation of any "air pollutant" generally call for a determination that the air pollutant causes or contributes to air pollution which may reasonably be anticipated to endanger public health or welfare (e.g., sections 111, 112, and 202). The provisions reflect the definition of "air pollutant" as a substance that causes or contributes to air pollution and require a further showing that the resulting air pollution is likely to endanger public health or welfare.

Considering the text, history and structure of the CAA, I conclude that the Act's definition of "air pollutant" includes a causation test: for a substance to be an air pollutant, it must cause or contribute to air pollution (or be a precursor of a substance that causes or contribute to air pollution). Meeting that test obviously requires consideration of available scientific evidence regarding the effect of a substance on air quality. To the extent available information establishes that a substance (or its precursor) causes or contributes to air pollution and is a physical, chemical, biological or radioactive substance emitted into or otherwise entering the air, it may properly be considered an "air pollutant" under the CAA.

C. Status of CO₂ and Other GHGs under the CAA

Whether anthropogenic emissions of CO₂ and other GHGs, as such, are "air pollutants" under the CAA depends on whether those emissions meet the criteria of the statutory definition discussed above: (1) do such emissions cause or contribute to air pollution, directly or as precursors to other substances that have such an effect, (2) do they take the form of a physical, chemical, biological, or radioactive substance, and (3) are they emitted or do they otherwise enter ambient air?⁹

For anthropogenic emissions of CO₂ and other GHGs, the first criterion of the "air pollutant" definition – do they cause or contribute to air pollution – is decisive. By definition they are "greenhouse gases" in that they trap heat in the earth's atmosphere and thereby have the potential to raise atmospheric temperatures. However, the legal question is whether anthropogenic emissions of these gases cause or contribute to air pollution. The science of climate change is extraordinarily complex and still evolving. Many critical questions remain regarding the causes, extent, timing, and effects of climate change. The Assistant Administrator for Air and Radiation [or someone else at EPA or in the government that can be considered an expert on climate science] has determined, based on a comprehensive review of currently available scientific information, that there is an insufficient basis for finding that that there remain key

uncertainties in our understanding of the factors that may affect future climate change. Predicting future climate change necessarily involves a complex web of economic and physical factors including: our ability to predict future anthropogenic emissions of GHGs are causing or contributing to air pollution. On that basis, I conclude that and aerosols; the fate of these emissions once they enter the atmosphere (e.g., what percentage are absorbed by vegetation or are taken up by the oceans); the impact of those emissions that remain in the atmosphere on the radiative properties of the atmosphere; changes in critically important climate feedbacks (e.g., changes in cloud cover and ocean circulation); changes in temperature characteristics (e.g., average temperatures, shifts in daytime and evening temperatures); changes in other climatic parameters (e.g., shifts in precipitation, storms); and ultimately the impact of such changes on human health and welfare (e.g., increases or decreases in agricultural productivity, human health impacts). Substantial scientific uncertainties limit our ability to assess each of these factors and to separate out those factors resulting from natural variability from those that are directly the result of increases in anthropogenic GHG-emissions may. Thus, we now conclude that CO2 and other GHGs are not be considered "air pollutants" under the CAA at this time. [Note to reviewers: Obviously, making the "GHGs are not air pollutants" argument raises the science issue squarely. It would be inappropriate (and impossible) for the General Counsel to rule on the sufficiency of the science himself. Someone with subject matter expertise would need to make a scientific finding on which the GC's legal conclusion would be based. That finding, in turn, would have to be substantiated by a comprehensive analysis of the available science, which presumably would be set forth in another document that would be referenced by this memo.]

Asas that term is used in the regulatory provisions of the Act.

Additionally, as the Cannon memorandum pointed out, CAA section 103(g) itself refers to CO2 as an "air pollutant." But as the memorandum's relegation of that point to a footnote suggests, that reference alone is not sufficient to establish CO2 as meeting the Act's "air pollutant" definition. The purpose of section 103(g) is clearly not to enshrine any particular emission as an air pollutant. In calling on EPA to improve "nonregulatory" strategies and technologies for preventing or reducing "multiple" air pollutants, section 103(g)(1) lists a number of emissions to be addressed. That provision also specifies that EPA's program focus on emissions from fossil fuel power plants and the potential for fuel conservation and fuel switching to reduce emissions. Since either reduction strategy would also have the effect of reducing CO2, section 103(g)(1)'s reference to CO2 can be seen as no more than a recognition of that fact.¹⁰

¹⁰Since section 103(g) specifically references CO2, it provides authority for the development and improvement of "nonregulatory" strategies and technologies to reduce CO2 emissions, whether or not CO2 is an "air pollutant." EPA has exercised this authority to establish voluntary programs, including Climate Leaders, for the reduction of CO2 emissions. These programs are part of the President's climate change policy and encourage voluntary reductions in GHG emissions while additional scientific research is undertaken to reduce uncertainties regarding climate change and man's contribution to it (see,

Section 103(g) thus does not dictate a particular conclusion regarding whether CO2 is an "air pollutant" under the CAA. The statutory definition of "air pollutant" determines what may be considered an air pollutant, and for the reasons given above, I have concluded that CO2 and other GHGs do not meet the definition.

4. Conclusion

edit 5-10

Based on the analysis above, I conclude that the CAA does not authorize regulation of activities that might contribute to climate change regulation. In view of consistent congressional action to learn more about climate change, the absence of express authority to regulate climate change, no indication whatsoever of congressional intent to provide such authority, and the far-reaching implications of climate change regulation, I believe the EPA cannot assert jurisdiction to regulate in this area. In addition, I conclude that CO2 and other GHGs are not "air pollutants" under the CAA in light of the scientific uncertainty that exists regarding the contribution that anthropogenic emissions of these gases make to any climate change that occurs. The Cannon memorandum and the statements by Mr. Guzy concerning this matter no longer represent the views of EPA's General Counsel.

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Kenneth L. Peel (CN=Kenneth L. Peel/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 3-JUL-2003 16:53:32.00

SUBJECT:: 7-03-03 version of GC memo

TO:jennifer h. gibbs (CN=jennifer h. gibbs/OU=ovp/O=eop@exchange@eop [OVP])
READ:UNKNOWN

TO:allison boyd (CN=allison boyd/OU=opd/O=eop@exchange@eop [OPD])
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TO:debbie s. fiddelke (CN=debbie s. fiddelke/OU=ceq/O=eop@eop [CEQ])
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TO:jennifer h. mayfield (CN=jennifer h. mayfield/OU=ovp/O=eop@exchange@eop [OVP])
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READ:UNKNOWN

TO:philip j. perry (CN=philip j. perry/OU=omb/O=eop@eop [OMB])
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TO:joel d. kaplan (CN=joel d. kaplan/OU=who/O=eop@exchange@eop [WHO])
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TO:davidson.alan[REDACTED]@inet ([REDACTED]@epa[REDACTED]@inet [UNKNOWN])
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TO:nathan.hansen[REDACTED]@inet ([REDACTED]@doj[REDACTED]@inet [UNKNOWN])
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TO:fabricant.robert@epa[REDACTED]@inet (fabricant.robert@epa[REDACTED]@inet
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TO:wehrum.bill@epa[REDACTED]@inet (wehrum.bill@epa[REDACTED]@inet [UNKNOWN]
READ:UNKNOWN

TO:jaeger.lisa@epa[REDACTED]@inet (jaeger.lisa@epa[REDACTED]@inet [UNKNOWN])
READ:UNKNOWN

TO:daryl l. joseffer (CN=daryl l. joseffer/OU=omb/O=eop@eop [OMB])
READ:UNKNOWN

TO:roberta l. conde (CN=roberta l. conde/OU=ceq/O=eop@eop [CEQ])
READ:UNKNOWN

TO:dana m. perino (CN=dana m. perino/OU=ceq/O=eop@eop [CEQ])

003110

READ:UNKNOWN

TO:lauren j. vestewig (CN=lauren j. vestewig/OU=opd/O=eop@exchange@eop [OPD])
READ:UNKNOWN

TO:kimberly ellison (CN=kimberly ellison/OU=who/O=eop@eop [WHO])
READ:UNKNOWN

TO:sherron r. white (CN=sherron r. white/OU=omb/O=eop@eop [OMB])
READ:UNKNOWN

TO:marcus peacock (CN=marcus peacock/OU=omb/O=eop@eop [OMB])
READ:UNKNOWN

TO:charles d. mcgrath jr (CN=charles d. mcgrath jr/OU=ovp/O=eop@exchange@eop [OVP])
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TO:jeffrey.b.clark [REDACTED] @ inet ([REDACTED]doj [REDACTED] @ inet [UNKNOWN])
READ:UNKNOWN

TO:white.rhonda@epa [REDACTED] @ inet (white.rhonda@epa [REDACTED] @ inet [UNKNOWN])
READ:UNKNOWN

TO:andrew.emrich [REDACTED] @ inet ([REDACTED]doj [REDACTED] @ inet [UNKNOWN])
READ:UNKNOWN

TO:holmstead.jeff@epa [REDACTED] @ inet (holmstead.jeff@epa [REDACTED] @ inet [UNKNOWN])
READ:UNKNOWN

TO:james connaughton (CN=james connaughton/OU=ceq/O=eop@eop [CEQ])
READ:UNKNOWN

TEXT:
Group,

I am forwarding an email from EPA providing additional text on the GC memo. This incorporates text distributed on Tuesday, plus other changes indicated by Mr. Hannon. Please review carefully. I assume that the task of careful editing of the underlying text still lies before us, as I notice that no changes, whether technical or substantive, have yet been made to the base 6-20-03 1:00 pm document. For instance, I notice several continuing factual errors for which I remember several past proposed fixes.

Thank you,

Ken Peel

Kenneth L. Peel
NSC Director for International Environmental Affairs
CEQ Associate Director, Global Affairs
[REDACTED] direct
[REDACTED] mobile
[REDACTED] fax
[REDACTED]

----- Forwarded by Kenneth L. Peel/CEQ/EOP on 07/03/2003
04:18 PM -----

hannon.john@epa [REDACTED]
07/03/2003 03:27:32 PM

Record Type: Record

To: Kenneth L. Peel/CEQ/[REDACTED]
cc: Jaeger.Lisa@epa [REDACTED]
Subject: 7-03-03 version of GC memo

(1) Attached is a revised version of the 6-20-03 1:00 pm version of the GC memo. It has the following revisions:

* The text previously provided on ambient air, NAAQS, and CO2 as an air pollutant has been added to the document.

* The description of the economic and political significance of decisions on global climate change has been revised. This text would likely go in the decision document, with a shorter summary in the GC memo. For purposes of this version it has been added to the GC memo.

* Throughout, the term global has been added as a modifier to climate change.

* The footnotes involving dictionary definitions have been revised.

* A few other edits have been made in various places.

(2) The following text has been drafted for inclusion in the decision document, as a general response on the science issues raised by commenters:

As explained in Section II above, citing various sources of information, Petitioners contend that anthropogenic emissions of CO2, CH4, N2O, and HFCs are accelerating global climate change and emissions of these compounds from motor vehicles contribute to the U.S. GHG inventory problem and present threats to public health and welfare. Numerous comments were submitted supporting Petitioners and, in some cases, citing to additional information or reports as further support. See [cite to comment summary document]. In contrast, numerous other comments disagreed, citing a wide range of other information countering that in support of the petition. Id. We have reviewed the information submitted by petitioners and commenters and have concluded that all of the information was publicly and widely available at the time we solicited comments on the petition. The information submitted by petitioners and commenters does not add significantly to the body of information available to the NRC when it prepared its 2001 report on Climate Change Science. We rely in this denial on NRC's objective and independent assessment of the relevant science. The petition and comments submitted on it do not include information that causes us to question the validity of the NRC's conclusions.

(See attached file: CO2petition.GCmemo7-03-03.wpd)

- CO2petition.GCmemo7-03-03.wpd

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ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Kenneth L. Peel (CN=Kenneth L. Peel/OU=CEQ/O=EOP@Exchange [CEQ])

CREATION DATE/TIME: 26-AUG-2003 14:12:15.00

SUBJECT: RE: next revised version of legal memo

TO: Andrew.Emrich [REDACTED] ([REDACTED]@doj [REDACTED]) [U
 READ: UNKNOWN

CC: Daryl L. Joseffer (CN=Daryl L. Joseffer/OU=OMB/O=EOP@EOP [OMB])
 READ: UNKNOWN

TEXT:

Andrew, then I have a possible "oops." I talked to Daryl Joseffer, and he said the argument was necessary for a legal net. Based on that, I proposed edits, which you should have received. Can you talk this through with Daryl and come up with a unified position? I'm fine with whatever the right legal argument happens to be, as long as it doesn't seem to be arguing against our main argument. Sorry, too many "arguments," but I hope you catch my drift. Daryl can be reached at [REDACTED]

From: Andrew.Emrich [REDACTED] on 08/26/2003 10:52:42 AM
 Record Type: Record

To: Kenneth L. Peel/CEQ/[REDACTED]
 cc:
 Subject: RE: next revised version of legal memo

Ken, I did not receive a redline of the 8/25 9p draft, but as far as I can tell, the "new" language in footnote 10 re: 103(g) that we were discussing yesterday (i.e., language we received at 4:58p yesterday) is not included in footnote 10, and the first sentence (the problematic one) is compressed with the former footnote 11. I agree that the first sentence in the new fn. 10 should go. I believe it unnecessarily draws attention to the weakness of our B&W backwards argument (i.e., because EPA lacks authority under the CAA to regulate global climate change, global climate change is not "air pollution" and, in turn, CO2 and GHGs are not "air pollutants"). It seems we could keep the footnote if we eliminate the first and last sentences.

-----Original Message-----

From: Kenneth_L._Peel [REDACTED] [mailto:Kenneth_L._Peel [REDACTED]]
 Sent: Tuesday, August 26, 2003 9:11 AM
 To: Emrich, Andrew; jaeger.lisa@epa [REDACTED]
 Daryl_L._Joseffer@omb [REDACTED]; Allison_Boyd@oa [REDACTED]
 Paul_R._Noe@omb [REDACTED]
 Subject: Re: next revised version of legal memo

(See attached file: co2petition.GCmemo8-25.2CEQ.doc)

Group,

Here is a revised version of the GC memo, with a few edits agreed to last

002504

Friday
reinserted. This version apparently contains new language in footnote
10. All
text was supposed to have been closed out by COB yesterday.

Ken

Kenneth L. Peel 08/26/2003 08:19:31 AM
(Embedded image moved to file: pic01854.pcx)

Record Type: Record

To: Jaeger.Lisa@epa [REDACTED]
cc: See the distribution list at the bottom of this message
bcc: Records Management@EOP
Subject: Re: next revised version of legal memo (Document link: Kenneth
L.
Peel)

Lisa,

In doing a quick review of this, it fails to contain a number of the edits
agreed to on Friday. I will send the group the correct edited version
shortly.

Thank you, Ken

From: Jaeger.Lisa@epa [REDACTED] on 08/25/2003 08:58:48 PM

Record Type: Record

To: Kenneth L. Peel/CEQ [REDACTED]
cc: Wehrum.Bill@epa [REDACTED]
Subject: next revised version of legal memo

Revised 8-25-02.2 version for distribution
Thanks, L

(See attached file: co2petition.GCmemo8-25.2.wpd) (See attached file:
co2petition.GCmemo8-25.2.wpd)

Message Copied

To: _____

wehrum.bill@epa [REDACTED]
AEmrich [REDACTED]
Daryl L. Joseffer/OMB/[REDACTED]
Allison Boyd/OPD/[REDACTED]
Paul R. Noe/OMB/[REDACTED]

.....
ENVIRONMENTAL PROTECTION AGENCY

[FRL]

Control of Emissions from New Highway Vehicles and Engines

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of denial of petition for rulemaking.

SUMMARY: A group of organizations petitioned EPA to regulate emissions of carbon dioxide and other greenhouse gases from motor vehicles under the Clean Air Act. For the reasons provided below, EPA is denying the petition.

EFFECTIVE DATE: [Upon publication.]

ADDRESSES: Information relevant to this action is contained in Docket No. A-2000-04 at the EPA Docket Center, Public Reading Room, Room B102, EPA West Building, 1301 Constitution Avenue, N.W., Washington, D.C. Dockets may be inspected at this location from 8:30 a.m. to 4:30 p.m., Monday through Friday, except on government holidays. You can reach the Air Docket by telephone at (202) 566-1742 and by facsimile at (202) 566-1741. You may be charged a reasonable fee for photocopying docket materials, as provided in 40 CFR Part 2.

FOR FURTHER INFORMATION CONTACT: [], Office of Air and Radiation, (202) 564-[].

SUPPLEMENTAL INFORMATION

I. Background

On October 20, 1999, the International Center for Technology Assessment (ICTA) and a number of other organizations¹ petitioned EPA to regulate certain greenhouse gas (GHG)

¹Solar Energy Association, Oregon Environmental Council, Public Citizen, Solar Energy Industries Association, the SUN DAY Campaign, Alliance for Sustainable Communities, Applied Power Technologies, Bio Fuels America, California Solar Energy Industries, Clements Environmental Corporation, Environmental Advocates, Environmental and Energy Study Institute, Friends of the Earth, Full Circle Energy

emissions from new motor vehicles and engines under section 202(a)(1) of the Clean Air Act (CAA). Specifically, petitioners seek EPA regulation of carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and hydrofluorocarbon (HFCs) emissions from new motor vehicles and engines. Petitioners claim these emissions are significantly contributing to global climate change.

EPA is authorized to regulate air pollutants from motor vehicles under title II of the CAA. In particular, section 202(a)(1) provides that “the Administrator [of EPA] shall by regulation prescribe . . . in accordance with the provisions of [section 202], standards applicable to the emission of any air pollutant from any class or classes of new motor vehicle . . ., which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.”

II. Summary of the Petition

Petitioners contend the test for regulating motor vehicle emissions under CAA section 202(a)(1) has been met for CO₂, CH₄, N₂O and HFCs. They claim statements made on EPA’s website and in other documents constitute an Agency finding that the four GHGs may reasonably be anticipated to endanger public health or welfare. They also assert that motor vehicle emissions of the GHGs could be significantly reduced by increasing the fuel economy of vehicles, eliminating tailpipe emissions altogether, or using other current and developing technologies. Based on their analysis, they argue EPA has a mandatory duty under section 202(a)(1) to regulate emissions of GHGs from motor vehicles.

Petitioners present their case for why EPA should, and even must, regulate motor vehicle GHG emissions under section 202(a)(1) in four parts. First, they assert that anthropogenic emissions of CO₂, CH₄, N₂O, and HFCs meet the CAA section 302(g) definition of “air pollutant,” which is “any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or

Project, Inc., Green Party of Rhode Island, Greenpeace U.S.A., Network for Environmental and Economic Responsibility of the United Church of Christ, New Jersey Environmental Watch, New Mexico

otherwise enters ambient air. Such term includes any precursors to the formation of any air pollutant . . .” Citing international and national reports, petitioners contend that anthropogenic emissions of CO₂, CH₄, N₂O, and HFCs are accelerating global warming, and that motor vehicle emissions of these GHGs, particularly CO₂, significantly contribute to the U.S. GHG inventory. Petitioners argue that the contribution of motor vehicle GHG emissions to global climate change qualify them as “air pollutants” under the CAA.

Petitioners also claim EPA has already determined CO₂ to be an air pollutant. They cite an April 10, 1998 memorandum from Jonathan Z. Cannon, then General Counsel of EPA, to Carol Browner, then Administrator of EPA, entitled “EPA’s Authority to Regulate Pollutants Emitted by Electric Power Generation Sources” (hereinafter “Cannon Memorandum”). The memorandum states that sulfur dioxide, nitrogen oxides, mercury, and CO₂ emitted from electric power generating units fall within the definition of “air pollutant” under CAA section 302(g). According to petitioners, it follows from the memorandum that the other three GHGs meet the CAA definition of “air pollutant,” too.

Second, petitioners argue that GHG emissions contribute to pollution that “may reasonably be anticipated to endanger public health or welfare,” a key criterion for regulation under section 202(a)(1). Petitioners state that the CAA does not require proof of actual harm, but allows the Administrator to make a precautionary decision to regulate an pollutant if it “may reasonably be anticipated” to endanger public health or welfare. The petitioners point to statements made by the United Nations Intergovernmental Panel on Climate Change (IPCC), EPA and others about the potential effects of global climate change on public health and welfare as establishing that global climate change “may reasonably be anticipated to endanger public health and welfare.” Based on these statements, the petitioners allege numerous threats to public health and welfare.

Third, petitioners argue that it is technically feasible to reduce GHG emissions from new motor vehicles and engines. Focusing on CO₂, they explain that CO₂ emissions can be reduced by increasing the fuel economy of passenger cars and light trucks. They note that a number of currently available gasoline-powered cars get significantly better fuel economy than the 27.5 mpg corporate average fuel economy (CAFE) standard currently applicable to cars under federal law. They also point to a congressional report identifying other technologies for further improving the fuel economy of gasoline-powered cars that have yet to be fully employed. In addition, petitioners note that several foreign and domestic car manufacturers are already marketing or developing hybrid-electric vehicles that get significantly better fuel mileage than the most fuel-efficient gasoline-powered car. Looking ahead to the next generation of vehicle technology, petitioners describe the potential for electric and hydrogen-celled vehicles to eliminate tailpipe emissions altogether. Petitioners recommend that EPA set a “corporate average fuel-economy based standard” under CAA section 202 that would result in the rapid market introduction of more fuel-efficient and zero-emission vehicles.

Petitioners suggest other potential ways of reducing CO₂ emissions such as setting a

declining fleet average NOx emission standard that would require manufacturers to add zero-emission vehicles to their fleets. They also note the availability of tire efficiency standards. Petitioners do not, however, address the potential for reducing motor vehicle emissions of the other three GHGs.

Finally, petitioners maintain the Administrator has a mandatory duty to regulate motor vehicle GHG emissions under CAA section 202(a)(1). They contend EPA has “already made formal findings” that motor vehicle GHG emissions “pose[] actual or potential harmful effects [on] the public health and welfare.” Noting that section 202(a)(1) provides the Administrator “shall” prescribe motor vehicle standards, petitioners argue that the use of “shall” creates a mandatory duty to promulgate standards when the requisite findings are made. They accordingly claim the Administrator must establish motor vehicle standards for the four GHGs.

Petitioners further argue that “the precautionary purpose of the CAA supports” regulating these gases even if the Agency believes there is some scientific uncertainty regarding the actual impacts of global climate change. Petitioners cite several court cases recognizing the Administrator’s authority to err on the side of caution in making decisions in areas of scientific uncertainty. They also assert that scientific uncertainty does not excuse a mandatory duty to regulate.

III. Request for Comment

On January 23, 2001, EPA requested public comment on the petition (see 66 FR 7486). The public comment period ended May 23, 2001.

EPA requested comment on all the issues raised in CTA’s petition. In particular, EPA requested comment on any scientific, technical, legal, economic or other aspect of these issues that may be relevant to EPA’s consideration of the petition.

IV. Summary of Public Comments

EPA received almost 50,000 comments on the petition. Most comments were relatively brief expressions of support for the petition sent by electronic mail; many were virtually identical. EPA also heard from a number of business and environmental groups. Most of the comments focused exclusively on CO2. This section describes the significant points and arguments made in the public comments.

Several commenters addressed the issue of whether the four GHGs – CO2, CH4, N2O and HFCs – are “air pollutants” under the CAA and thus potentially subject to regulation under the Act. Some of the commenters agreed with the petitioners that GHGs are air pollutants under the CAA. Like the petitioners, they noted that the definition of “air pollutant” in CAA section 302(g) is very broad and that the CAA itself refers to CO2 as an “air pollutant” (see CAA section 103(g)). These commenters also cited to and agreed with the Cannon Memorandum and

statements by Gary Guzy, EPA's General Counsel following Mr. Cannon, that CO₂ falls within the CAA definition of air pollutant.

Other commenters argued that EPA has never formally determined that any GHGs are air pollutants and that the Cannon Memorandum is not such a finding. Some commenters also argued that CO₂ is not an air pollutant because it is a naturally-occurring substance in Earth's atmosphere and is critical to sustaining life. Other commenters pointed out that EPA already regulates as air pollutants substances that have natural as well as anthropogenic sources where human activities have increased the quantities present in the air to levels harmful to public health, welfare or the environment (e.g., sulfur dioxide, volatile organic compounds, particulate matter).

Another issue of concern to commenters was whether EPA has authority to regulate motor vehicle emissions of GHGs even if they meet the CAA definition of "air pollutant." Commenters supportive of the petition noted the broad authority conferred by section 202(a)(1) to regulate motor vehicle emissions that cause or contribute to air pollution that may reasonably be anticipated to endanger public health and welfare. These commenters also noted that CAA section 302(h) defines "welfare" to include effects on weather and climate, as well as other aspects of the environment that may be affected by global climate change (e.g., soils, water, crops, vegetation, animals, visibility).

Other commenters argued that the CAA does not authorize regulations to address global climate change, including motor vehicle GHG emission standards. They noted that no CAA provision specifically authorizes global climate change regulations, a Senate committee's proposal for mandatory CO₂ standards for motor vehicles did not survive Senate consideration, and other contemporaneous legislative proposals for mandatory GHG emission reductions failed to pass. They also pointed out that the only CAA provision that specifically mentions CO₂ authorizes only "nonregulatory" measures and expressly precludes its use as authority for imposing mandatory controls. They cited another CAA provision that calls on EPA to determine the "global warming potential" of certain pollutants but expressly precludes regulation on that basis as further indication that Congress did not intend EPA to regulate GHGs under the CAA.

Looking at the CAA more broadly, several commenters argued that the key statutory mechanism for controlling pervasive "air pollutants" – establishing and implementing national ambient air quality standards under sections 108, 109 and 110 – is unworkable for addressing an issue whose causes and effects are global in nature. Several commenters also pointed out that Congress addressed another global atmospheric issue, depletion of stratospheric ozone by man-made substances, explicitly and in discrete portions of the Act, specifically part B of title 1 prior to the CAA Amendments of 1990 and title VI following the 1990 amendments. Moreover, both incarnations of CAA stratospheric ozone authority included recognition of the international nature of the problem and provisions to facilitate and augment international cooperation in achieving a solution. These commenters argued that if Congress had intended EPA to address global climate change under the CAA, it would have made that clear by including analogous provisions.

Placing the CAA in a larger context, the commenters noted several other federal statutes that specifically address global climate change and authorize only research and policy development, not regulation. Commenters also pointed out that Congress has expressed dissatisfaction with the Kyoto Protocol, negotiated under the auspices of the United Nations Framework Convention on Climate Change and requiring parties to the Protocol to reduce their GHG emissions by a specific amount. They further cited congressional actions taken since the 1990 CAA amendments to prevent EPA from implementing the Kyoto Protocol (the so-called Knollenberg amendments to the FY 1999 and 2000 VA-HUD and Independent Agency Appropriations Acts). Finally, they noted that Congress had rejected numerous legislative proposals mandating GHG reductions (see, e.g., S. 1224, 101st Cong. (1989); H.R. 5966, 101st Cong. (1990)). According to the commenters, these actions clearly signal that Congress awaits further scientific information and other technological and international developments before authorizing any regulation to address global climate change.

Finally, several commenters pointed to the Supreme Court's decision in *Food and Drug Administration v. Brown & Williamson Tobacco Corp.*, 120 S.Ct. 1291 (2000), finding the FDA lacks authority to regulate tobacco products despite a facially broad grant of authority. These commenters warned that a reviewing court would closely scrutinize and likely strike down an EPA assertion of CAA authority to regulate for global climate change purposes when Congress specifically addressed the issue of global climate change, not in the CAA, but in other federal statutes that do not authorize regulation.

By contrast, several commenters pointed to, and agreed with, a letter from then EPA General Counsel Guzy to a congressional committee explaining that explicit mention of a pollutant is not a necessary prerequisite to regulation under a statutory provision granting broad authority to regulate pollutants, provided that the statutory criteria for regulation are met. These commenters also echoed Mr. Guzy's view that a congressional decision not to require standards does not affect pre-existing discretionary authority to set standards where the applicable criteria are met.

Many commenters considered the issue of whether anthropogenic GHG emissions contribute to air pollution that may reasonably be anticipated to endanger public health or welfare. Several commenters pointed out, as petitioners did, that EPA's climate website and other national and international reports describe hazards to human health and welfare that may result from global climate change. Other commenters claimed there is no basis at this time for EPA to conclude that GHG emissions from U.S. motor vehicles endanger public health or welfare. Some commenters questioned whether global warming was occurring or whether humans' impact on any global warming was significant. These commenters also suggested that global warming, if real, would have beneficial impacts (e.g., helping prevent another ice age, increasing agricultural production) that could outweigh any adverse effects. Several commenters argued that since the causes and effects of global climate change occur on a worldwide basis, regulation of only U.S. motor vehicles would be neither effective nor fair.

Commenters also addressed whether it is technologically feasible to reduce GHG emissions from new motor vehicles. Some commenters described categories of technologies that can substantially reduce CO2 emissions from gasoline-powered passenger cars and light trucks, including vehicle load reduction, engine improvements, improved transmissions, integrated starter generators, and hybrid-electric drive trains. Vehicle load reduction strategies include reduced vehicle mass, reduced aerodynamic drag, reduced tire rolling resistance, and reduced accessory loads. Engine improvement strategies include improved specific power and gasoline direct injection. Improved transmission strategies include 5- and 6-speed automatic transmissions, 5-speed motorized manual gearshifts, and continuously variable transmissions. Other commenters asserted that EPA may not regulate motor vehicle GHG emissions by setting fuel economy standards, since Congress entrusted fuel economy standard-setting to the Department of Transportation (DOT) under the Energy Policy and Conservation Act (EPCA).

Finally, commenters considered whether EPA has a mandatory duty to regulate motor vehicle GHG emissions. Some commenters agreed with petitioners that the Cannon Memorandum and EPA's website statements triggered an obligation under CAA section 202(a)(1) to set CO2 standards. Other commenters countered that the Cannon Memorandum and EPA website statements are not formal EPA findings for the purposes of exercising statutory authority. They asserted that for findings to provide a sufficient legal basis for exercising authority under section 202(a)(1), they must be established through a public notice-and-comment process.

V. EPA Response

After careful consideration of petitioners' arguments and the public comments, EPA concludes that it cannot and should not regulate GHG emissions from U.S. motor vehicles under the CAA. Based on a thorough review of the CAA, its legislative history, other congressional action and Supreme Court precedent, EPA believes that the CAA does not authorize regulation² to address global climate change. Moreover, even if CO2 were an air pollutant generally subject to regulation under the CAA, Congress has not authorized the Agency to regulate CO2 emissions from motor vehicles to the extent such standards would effectively regulate car and light truck fuel economy, which is governed by a comprehensive statute administered by DOT.

In any event, EPA believes that setting GHG emission standards for motor vehicles is not appropriate at this time. President Bush has established a comprehensive global climate change policy designed to (1) answer questions about the causes, extent, timing and effects of global climate change that are critical to the formulation of an effective, efficient long-term policy, (2) encourage the development of advanced technologies that will enable dramatic reductions in

²"Regulation" as used in this section of the notice refers to legally binding requirements promulgated by an agency under statutory authority. It does not include voluntary measures that emission sources may or may not undertake at their discretion.

GHG emissions, if needed, in the future, and (3) take sensible steps in the interim to reduce the risk of global climate change. The international nature of global climate change also has implications for foreign policy, which the President directs. In view of EPA's lack of CAA regulatory authority to address global climate change, DOT's authority to regulate fuel economy, the President's policy, and the potential foreign policy implications, EPA declines the petitioners' request to regulate GHG emissions from motor vehicles.

A. EPA's Legal Authority under the CAA

As summarized above, many commenters on the petition raised important legal issues regarding EPA's authority to issue global climate change regulations under the CAA. Two EPA General Counsels previously addressed the issue of EPA's authority to impose CO₂ emission control requirements. Both found that CO₂ meets the CAA definition of "air pollutant" and could therefore be subject to regulation under one or more of the CAA's regulatory provisions if the applicable statutory criteria for regulation were met. Both also noted, however, that the Agency had not made the requisite findings under any CAA provision for regulation of CO₂ emission. Significantly, the past general counsels reached their conclusions prior to the Supreme Court's decision in *Brown & Williamson*, which cautions against agencies using broadly worded statutory authority to regulate in areas raising unusually significant economic and political issues when Congress has specifically addressed those areas in other statutes.

Because the petition seeks CAA regulation of GHG emissions from motor vehicles to reduce the risk of global climate change, EPA has examined the fundamental issue of whether the CAA authorizes the imposition of control requirements for that purpose. As part of that examination, EPA's General Counsel, Robert E. Fabricant, reviewed his predecessors' memorandum and statements, as well as the public comments raising legal authority issues. The General Counsel considered the text and history of the CAA in the context of other congressional actions specifically addressing global climate change and in light of the Supreme Court's admonition in *Brown & Williamson* to "be guided to a degree by common sense as to the manner in which Congress is likely to delegate a policy decision of such . . . magnitude to an administrative agency." In a memorandum to the Acting Administrator dated August ___, 2003, the General Counsel concluded that the CAA does not authorize EPA to regulate for global climate change purposes, and accordingly that CO₂ and other GHGs cannot be considered "air pollutants" subject to the CAA's regulatory provisions for any contribution they may make to global climate change. Accordingly, he withdrew the Cannon memorandum and statements by Mr. Guzy as no longer expressing the views of EPA's General Counsel. The General Counsel's opinion is adopted as the position of the Agency for purposes of deciding this petition and for all other relevant purposes under the CAA.

As summarized above, commenters supporting the petition claim that section 202 of the CAA provides EPA with broad authority to set standards for motor vehicle emissions of CO₂ and other GHGs to the extent those emissions cause or contribute to global climate change. At

the same time, other commenters correctly note that (1) no CAA provision specifically authorizes global climate change regulation, (2) the only CAA provision specifically mentioning CO₂ authorizes only “nonregulatory” measures, (3) the codified CAA provisions related to global climate change expressly preclude the use of those provisions to authorize regulation, (4) a Senate committee proposal to include motor vehicle CO₂ standards in the 1990 CAA amendments failed, (5) federal statutes expressly addressing global climate change do not authorize regulation, and (6) numerous congressional actions suggest that Congress has yet to decide that such regulation is warranted. These indicia of congressional intent raise the issue of whether the CAA is properly interpreted to authorize regulation to address global climate change.

Congress was well aware of the global climate change issue when it last comprehensively amended the CAA in 1990. During the 1980s, scientific evidence about the possibility of global climate change led to public concern both in the U.S. and abroad. In response, the U.S. and other nations developed the United Nations Framework Convention on Climate Change (UNFCCC). President George H. W. Bush signed, and the U.S. Senate approved, the UNFCCC in 1992, and the UNFCCC took effect in 1994.

The UNFCCC established the “ultimate objective” of “stabiliz[ing] greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system” (Article 2 of the UNFCCC). Developed nations that joined the UNFCCC were to work toward the nonbinding “aim” of returning individually or jointly to their 1990 levels of anthropogenic CO₂ and other GHG emissions (Article 4.2(b)). All parties to the UNFCCC agreed on the need for further research to determine the level at which GHG concentrations should be stabilized, acknowledging that “there are many uncertainties in predictions of climate change, particularly with regard to the timing, magnitude and regional patterns thereof”(findings section of UNFCCC).

Shortly before the UNFCCC was adopted in May 1992, Congress developed the 1990 CAA amendments. [A central issue for the UNFCCC – whether binding emission limitations should be set – was also considered in the context of the CAA amendments.] As several commenters noted, a Senate committee included in its bill to amend the CAA a provision requiring EPA to set CO₂ emission standards for motor vehicles. However, that provision was removed from the bill on which the full Senate voted, and the bill eventually enacted was silent with regard to motor vehicle CO₂ emission standards. During this same time period, other legislative proposals were made to control GHG emissions, some in the context of national energy policy, but none were passed (see, e.g., S. 324, 101st Cong. (1989); S. 1224, 101st Cong. (1989); H.R. 5966, 101st Cong. (1990)).

In the CAA Amendments of 1990 as enacted, Congress called on EPA to develop information concerning global climate change and “nonregulatory” strategies for reducing CO₂ emissions. Specifically, uncodified section 821 of the CAA Amendments requires measurement of CO₂ emissions from utilities subject to permitting under title V of the CAA. New section 602 of the CAA directs EPA to determine the “global warming potential” of substances that deplete

stratospheric ozone. And new section 103(g) calls on EPA to develop “nonregulatory” measures for the prevention of multiple air pollutants and lists several air pollutants and CO₂ for that purpose.

Notably, none of these provisions authorizes the imposition of mandatory requirements, and two of them expressly preclude their use for regulatory purposes (sections 103(g) and 602). Only the research and development provision of the CAA – section 103 – specifically mentions CO₂, and the legislative history of that section indicates Congress sought a sound scientific basis on which to make future decisions on global climate change, not regulation under the CAA as it was being amended. Representatives Roe and Smith, two of the principal authors of section 103 as amended, explained that EPA’s “science mandate” needed updating to deal with new, more complex issues, including “global warming” (A Legislative History of the Clean Air Act Amendments of 1990, 103 Cong., 1st Sess., S. Prt. 103-38, Vol. 2, pp. 2776 and 2778). They expressed concern that EPA’s research budget had been too heavily focused on supporting existing regulatory actions when the Agency also needed to conduct “long-term air pollution research” to “enhance EPA’s ability to predict the need for future action” (id. at 2777). As Mr. Roe explained:

“[W]e have learned over the last 20 years that air pollution problems are complex and that easy answers are not readily forthcoming. . . [T]his amendment is premised on the belief that without a sound scientific foundation, even our most well intentioned efforts to improve air quality are doomed to failure.” Id.

In providing EPA with expanded research and development authority, however, Congress did not provide commensurate regulatory authority. In section 103(g), Congress directed EPA to establish a “basic engineering research and technology program to develop, evaluate and demonstrate” strategies and technologies for air pollution prevention and specifically called for improvements in such measures for preventing CO₂ as well as several specified air pollutants. But it expressly provided that nothing in the subsection “shall be construed to authorize the imposition on any person of air pollution control requirements.” As if to drive home the point, section 103(g) was revised in conference to include the term “nonregulatory” to describe the “strategies and technologies” the subsection was intended to promote. In its treatment of the global climate change issue in the CAA amendments, Congress indicated that it awaited further information before making decisions on the need for regulation.

Beyond Congress’ specific CAA references to CO₂ and global warming, another aspect of the Act cautions against construing its provisions to authorize regulation of emissions that may contribute to global climate change. The CAA provisions addressing stratospheric ozone depletion demonstrate that Congress has understood the need for specially tailored solutions to global atmospheric issues, and has expressly granted regulatory authority when it has concluded that controls may be needed as part of those solutions. Like global climate change, the causes and effects of stratospheric ozone depletion are global in nature. Anthropogenic substances that deplete stratospheric ozone are emitted around the world and are very long-lived; their depleting

effects and the consequences of those effects occur on a global scale. In the CAA prior to its amendment in 1990, Congress specifically addressed the problem in a separate portion of the statute (part B of title I) that recognized the global nature of the problem and called for negotiation of international agreements to ensure world-wide participation in research and any control of stratospheric ozone-depleting substances. In the 1990 CAA amendments, Congress again addressed the issue in a discrete portion of the statute (title VI) that similarly provides for coordination with the international community. Moreover, both incarnations of the CAA's stratospheric ozone provisions contain express authorization for EPA to regulate as scientific information warrants. In light of this CAA treatment of stratospheric ozone depletion, it would be anomalous to conclude that Congress intended EPA to address global climate change under the CAA's general regulatory provisions, with no provision recognizing the international dimension of the issue and any solution, and no express authorization to regulate.

EPA's prior use of the CAA's general regulatory provisions provides an important context in which to glean the Agency's understanding of what authority Congress intended to confer on EPA in Section 202(a)(1). Since the inception of the Act, EPA has used these provisions to address air pollution problems which occur primarily at ground level or near the surface of the earth. For example, national ambient air quality standards (NAAQS) established under CAA section 109 address concentrations of substances in the ambient air and the related public health and welfare problems. This has meant setting NAAQS for concentrations of ozone, carbon monoxide, particulate matter and other substances in the air near the surface of the earth, not higher in the atmosphere. Concentrations of these substances generally vary from place to place as a result of differences in local or regional emissions and other factors (e.g., topography), although long range transport may also contribute to local concentrations in some cases. CO₂, by contrast, is fairly consistent in concentration throughout the *world's* atmosphere up to approximately the lower stratosphere. Problems associated with atmospheric concentrations of CO₂ are much more like the kind of global problem Congress addressed through adoption of the specific provisions of Title VI.

In assessing the availability of CAA authority to address global climate change, it is also useful to consider whether the NAAQS system – a key CAA regulatory mechanism – could be used to effectively address the issue. Unique and basic aspects of the presence of key GHGs in the atmosphere make the NAAQS system fundamentally ill-suited to addressing these gases in relation to global climate change. Many GHGs reside in the earth's atmosphere for very long periods of time. CO₂, by far the most pervasive of anthropogenic GHGs, has a residence time of roughly 50-200 years. This long lifetime along with atmospheric dynamics means that CO₂ is well mixed throughout the atmosphere, up to approximately the lower stratosphere. The result is a vast global atmospheric pool of CO₂ that is fairly consistent in concentration, everywhere along the surface of the earth and vertically throughout this area of mixing.

At the same time that atmospheric concentrations of CO₂ are fairly consistent globally, the potential for either adverse or beneficial effects in the U.S. from these concentrations depends on complicated interactions of many variables, occurring around the world and over long periods

of time. Characterization and assessment of such effects and the relation of such effects to atmospheric concentration of CO₂ in the U.S. would present scientific issues of unprecedented complexity in the NAAQS context. The long lived nature of the CO₂ global pool would also make it extremely difficult to evaluate the extent over time to which effects in the U.S. would be related to anthropogenic emissions in the U.S.. Finally, the nature of that pool would mean that any CO₂ standard set would in effect be a worldwide ambient air quality standard, not a national standard – the entire world would be either in compliance or out of compliance.

There is nothing in the history of the general regulatory provisions of the Act that suggests Congress intended Section 202(a)(1) to confer regulatory authority on EPA to address global climate change.

Such a situation would be inconsistent with a basic underlying premise of the CAA regime for implementation of a NAAQS – that actions taken by individual states and by EPA can generally bring all areas of the U.S. into attainment of a NAAQS. The statutory NAAQS implementation regime is fundamentally inadequate when it comes to a substance like CO₂, which is emitted globally and has relatively homogenous concentrations around the world. A NAAQS for CO₂, unlike any pollutant for which a NAAQS has been established, could not be attained by any area of the U.S. until such a standard were attained by the entire world as a result of emission controls implemented in countries around the world. The limited flexibility provided in the Act to address the impacts of foreign pollution transported to the U.S. was not designed to address the challenges presented by long lived global atmospheric pools such as exists for CO₂. The globally-pervasive nature of CO₂ emissions and atmospheric concentrations presents a unique problem that fundamentally differs from the kind of environmental problem that the NAAQS system was intended to address and is capable of solving.

Other congressional actions confirm that Congress did not authorize regulation under the CAA to address global climate change. Starting in 1978, Congress passed several pieces of legislation specifically addressing global climate change. With the National Climate Program Act of 1978, 15 U.S.C. 2901 et seq., Congress established a “national climate program” to improve understanding of “climate processes, natural and man induced, and the social, economic, and political implications of global climate change” through research, data collection, assessments, information dissemination, and international cooperation. In the Global Climate Protection Act of 1987, 22 U.S.C. 2651 note, Congress directed the Secretary of State to coordinate U.S. negotiations concerning global climate change, and EPA to develop and propose to Congress a coordinated national policy on the issue. Three years later, Congress passed the Global Change Research Act of 1990, 15 U.S.C. 2931 et seq., establishing a Committee on Earth and Environmental Sciences to coordinate a 10-year research program. That statute was enacted one day after the CAA Amendments of 1990 was signed into law. Also in 1990, Congress passed Title XXIV of the Food and Agriculture Act, creating a Global Climate Change Program to research global climate agricultural issues (section 2401 of Pub.L. 101-624).

With these statutes, Congress sought to develop a foundation for considering whether

future legislative action on global climate change was warranted and, if so, what that action should be. From federal agencies, it sought recommendations for national policy and further advances in scientific understanding and possible technological responses. It did not authorize any federal agency to take any regulatory action in response to those recommendations and advances. In fact, Congress declined to adopt other legislative proposals, contemporaneous with the bills to amend the CAA in 1989 and 1990, to require GHG emissions reductions from stationary and mobile sources (see, e.g., S. 1224, 101st Cong. (1989); H.R. 5966, 101st Cong. (1990)). While Congress did not expressly preclude agencies from taking regulatory action under other statutes, its actions strongly indicate that when Congress was amending the CAA in 1990, it was awaiting further information before deciding *itself* whether regulation to address global climate change is warranted and, if so, what form it should take.

Since 1990, Congress has taken other actions consistent with the view that Congress did not authorize CAA regulation for global climate change purposes. In the 1992 Energy Policy Act, Congress called on the Secretary of Energy to assess various GHG control options and report back to Congress, and to establish a registry for reporting *voluntary* GHG emissions. Following ratification of the UNFCCC, nations party to the Convention negotiated the Kyoto Protocol calling for mandatory reductions in developed nations' GHG emissions. While the Kyoto Protocol was being negotiated, the Senate in 1997 adopted by a 95-0 vote the Byrd-Hagel Resolution, which stated that the U.S. should not be a signatory to any protocol that would result in serious harm to the economy of the U.S. or that would mandate new commitments to limit or reduce U.S. GHG emissions unless the Protocol also mandated specific, scheduled commitments to limit or reduce GHG emissions for developing country Parties within in the same compliance period. Although the Clinton Administration signed the Kyoto Protocol, it did not submit it to the Senate for ratification out of concern that the Senate would reject the treaty.

Against this backdrop of consistent congressional action to learn more about the global climate change issue before specifically authorizing regulation to address it, the CAA cannot be interpreted to authorize such regulation in the absence of any direct or even indirect indication of congressional intent to provide such authority. EPA is urged on in this view by the Supreme Court's decision in *Brown & Williamson*, which struck down FDA's assertion of authority to regulate tobacco products under the Food, Drug and Cosmetic Act (FDCA). That statute contains a broadly worded grant of authority for FDA to regulate "drugs" and "devices," terms which the statute also broadly defines. However, the FDCA does not specifically address tobacco products while other federal laws expressly govern the marketing of those products.

Notwithstanding the FDCA's facially broad grant of authority, the Supreme Court explained that "[i]n extraordinary cases, . . . there may be reason to hesitate before concluding that Congress has intended such an implicit delegation." The Court noted that FDA was "assert[ing] jurisdiction to regulate an industry constituting a significant portion of the American economy," despite the fact that "tobacco has its own unique political history" that had led Congress to create a distinct regulatory scheme for tobacco products. The Court concluded that FDA's assertion of authority to regulate tobacco was "hardly an ordinary case." The Court

analyzed FDA's authority in light of the language, structure and history of the FDCA and other federal legislation and congressional action specifically addressing tobacco regulation, including failed legislative attempts to confer authority of the type FDA was asserting. Based on that analysis, it determined that Congress did not "intend[] to delegate a decision of such economic and political significance . . . in so cryptic a fashion."

It is hard to imagine any issue in the environmental area having greater "economic and political significance" than regulation of activities that might lead to global climate change. Virtually every sector of the U.S. economy is either directly or indirectly a source of GHG emissions, and the major countries of the world are involved in scientific, technical, and political-level discussions about climate change. We believe, in fact, that an effort to impose controls on U.S. GHG emissions would have far greater economic and political implications than FDA's attempt to regulate tobacco.

The most abundant anthropogenic GHG, CO₂ is emitted whenever fossil fuels such as coal, oil, and natural gas are used to produce energy. The production and use of fossil fuel-based energy undergirds almost every aspect of the U.S. economy. For example, approximately 70 percent of the electric energy used in this country is generated from fossil fuel, and the U.S. transportation sector is almost entirely dependent on oil.

Proposals to reduce CO₂ emissions from these sectors have focused on four major approaches: (1) improve fuel efficiency; (2) capture and sequester CO₂; (3) switch to alternative non-fossil fuel sources; and (4) reduce vehicle usage by switching to alternative forms of transportation. With respect to the first proposal, ~~some improvements in fuel efficiency may be possible without imposing a significant impact on the economy, but [Isn't that for NHTSA to decide? And would this statement have implications for NHTSA? There's no need to say anything here that could affect NHTSA.]~~ Congress has specifically chosen to address the issue of energy efficiency through other statutes – not the CAA. For example, Congress has authorized DOT to set fuel economy standards for motor vehicles and the Department of Energy to set efficiency standards for products such as air conditioners and appliances that consume electricity.

The other approaches for reducing CO₂ emissions all have substantial economic implications. While it may eventually be possible to achieve widespread capture and sequester CO₂ emissions from power plants, such an approach would require a new generation of power plants and would be very costly, even if implemented over many years. As for the use of alternative fuels, governments and private companies around the world are investing billions of dollars to explore the possibility of using non-fossil fuels for power generation and transportation. Any widespread effort to comprehensively switch over to these fuels would likewise require a wholesale transformation of this industry. As for alternative modes of transportation, Congress and many states have already adopted measures to encourage public transportation, car pooling, bike usage, and land-use planning designed to minimize commuting distances. EPA supports these measures and believes that they provide many environmental

benefits. However, widespread substitution of alternative forms of transportation for transportation based on fossil fuel energy would also require a wholesale remaking of this sector. It is hard to overstate the economic significance of making these kinds of fundamental and widespread changes in basic methods of producing and using energy.

The issue of global climate change also has enormous political significance. It has been discussed extensively during the last three Presidential campaigns; it is the subject of debate and negotiation in several international bodies; and numerous bills have been introduced in Congress over the last 15 years to address the issue.

In light of Congress' attention to the issue of global climate change, and the absence of any direct or even indirect indication that Congress intended to authorize regulation under the CAA to address global climate change, it is unreasonable to conclude that the CAA provides the Agency with such authority. Under our constitutional system, an administrative agency properly awaits congressional direction before addressing a fundamental policy issue such as global climate change, instead of searching for authority in an existing statute that was not designed or enacted to deal with the issue. We thus conclude that the CAA does not authorize regulation to address concerns about global climate change.

NEEDS CHANGE RELATING TO "PUBLIC HEALTH AND WELFARE" - It follows from this conclusion, that GHGs, as such, are not "air pollutants" for purposes of the regulatory provisions of the Act. (A GHG may be an "air pollutant" for other effects it may have that are addressed by the CAA.) Authorization to regulate under the CAA is generally based on a finding that an air pollutant causes or contributes to air pollution that may reasonably be anticipated to endanger public health or welfare. EPA's lack of CAA regulatory authority to address global climate change means that the terms "air pollution" and "public health and welfare," as used in the Act's regulatory provisions (**including sections 108, 112, and 202**) [**this enumeration will help DOJ defend the various lawsuits**], cannot be reasonably interpreted to encompass global climate change and its effects. As a result, for all CAA regulatory purposes, the term "air pollutant" cannot be reasonably interpreted to include CO₂ and other GHGs. We reserve judgment on whether GHGs would meet the CAA definition of "air pollutant" were they subject to regulation under the CAA for global climate change purposes.³ [**this paragraph may also be affected by edits to the GC opinion on Monday**]

B. Interference with Fuel Economy Standards

Even if GHGs were air pollutants generally subject to regulation under the CAA, Congress has not authorized the Agency to regulate CO₂ emissions from motor vehicles to the

³As General Counsel Fabricant explains in his memorandum, a substance does not meet the CAA definition of "air pollutant" simply because it is a "physical, chemical, biological, radioactive . . . substance of matter which is emitted into or otherwise enters the ambient air." It must also be an "air pollution agent," meaning it must cause or contribute to air pollution.

extent such standards would effectively regulate the fuel economy of passenger cars and light duty trucks. No technology currently exists or is under development that can capture and destroy or reduce emissions of CO₂, unlike other emissions from motor vehicle tailpipes. The only way to reduce tailpipe emissions of CO₂ is to improve fuel economy [Is this true? How about substituting natural gas on buses and cars? Use “most feasible”? Natural gas supply problems?]. Congress has already created a detailed set of mandatory standards governing the fuel economy of cars and light duty trucks, and has authorized DOT – not EPA – to implement those standards. The only way for EPA to proceed with CO₂ emissions standards without upsetting this statutory scheme would be to set a standard less stringent than CAFE for cars and light duty trucks. But such an approach would be meaningless in terms of reducing GHG emissions from the U.S. motor vehicle fleet.⁴

Congress' care in designing the CAFE program makes clear that EPCA is the only statutory vehicle for regulating the fuel economy of cars and light duty trucks. Under EPCA, DOT may set only “corporate average” standards that automakers meet on a fleetwide basis. Automakers thus have flexibility to design different vehicle models having different fuel economy so long as the average of the vehicles sold by the automaker in a given model year and class meets the CAFE standard for that year. In fact, EPCA offers automakers additional flexibility by allowing them to meet the CAFE standard for a given model year by “carrying back” or “carrying forward” the excess fuel economy performance of their fleets for the three years before or after the applicable model year.

EPCA also builds in an opportunity for congressional oversight of CAFE standard-setting that reinforces the notion that Congress intended fuel economy to be governed by EPCA alone. The statute specifies a CAFE standard of 27.5 miles per gallon for passenger cars in model years 1984 and beyond (49 U.S.C. section 32902(b)), but authorizes DOT to amend the standard to the

⁴Although the ICTA petition focuses on passenger cars and light duty trucks, it seeks regulation of GHG emissions generally from motor vehicles and engines, which include heavy duty engines and trucks. Passenger cars and light duty trucks are subject to CAFE standards; heavy duty trucks are not. The contribution of heavy duty trucks to the U.S. motor vehicle GHG inventory is relatively small, about 16 percent. EPA believes it would be ineffective, inefficient and unreasonable to set CO₂ emission standards for these vehicles in the absence of a more comprehensive program for seeking CO₂ and other GHG reductions from the many types of sources of these emissions.

“maximum feasible average fuel economy level” for the relevant model year. However, to the extent DOT raises or lowers the standards beyond specified levels, EPCA provides an automatic opportunity for Congress to disapprove and effectively void the amended standard (49 U.S.C. section 32902(c)). [Given that motor vehicle tailpipe CO2 emissions can only be reduced by improving fuel economy]???, “most feasible”???, CAA emission standards for CO2 that required greater improvements in fuel economy than applicable CAFE standards required would abrogate EPCA’s regime.

C. No Mandatory Duty

As explained above, the language, history, structure and context of the CAA and Congress’ decision to give DOT authority to regulate fuel economy under EPCA make clear that EPA does not have authority to regulate motor vehicle emissions of CO2 and other GHGs under the CAA. In any event, the CAA provision authorizing regulation of motor vehicle emissions does not impose a mandatory duty on the Administrator to exercise her judgment. Instead, section 202(a)(1) provides the Administrator with discretionary authority to address emissions in addition to those addressed by other section 202 provisions (see, e.g., sections 202(a)(3) and (b)). While section 202(a)(1) uses the word “shall,” it does not require the Administrator to act by a specified deadline and it conditions authority to act on a discretionary exercise of the Administrator’s judgment regarding whether motor vehicle emissions cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare.

The website statements, legal memorandum and other documents cited by petitioners and commenters in support of the petition are not sufficient to satisfy the criteria for setting standards under section 202(a)(1). Exercise of section 202(a)(1) authority turns on the judgment made by the *Administrator*, and CAA section 301 does not permit the Administrator to delegate her standard-setting authority under section 202(a)(1). None of the statements petitioners claim constitute the requisite endangerment finding for GHGs under section 202(a)(1) were made, or subsequently adopted, by the Administrator. As the Cannon memorandum stated in 1998, no Administrator had made a finding under any of the CAA’s regulatory provisions that CO2 meets the applicable statutory criteria for regulation. (Notably, the website statements on which the petitioners partly rely were in existence at the time Mr. Cannon issued his memorandum.) That statement remains true today – no Administrator has made findings that satisfy the criteria for setting CO2 standards for motor vehicles or any other emission source. In any event, for such findings to suffice for standard-setting purposes, they must be established through a notice-and-comment process.

EPA also disagrees with the premise of the petitioners’ claim – that if the Administrator were to find that GHGs, in general, may reasonably be anticipated to endanger public health or welfare, she must necessarily regulate GHG emissions from motor vehicles. Depending on the particular problem, motor vehicles may contribute more or less or not at all. An important issue

before the Administrator is whether, given motor vehicles' relative contribution to a problem, it makes sense to regulate them. In the case of some types of air pollution, motor vehicles may be one of many contributors, and it may make sense to control other contributors instead of, or in tandem with, motor vehicles. The discretionary nature of the Administrator's section 202(a)(1) authority allows her to consider these important policy issues and decide to regulate motor vehicle emissions as appropriate to the air pollution problem being addressed. Accordingly, even were the Administrator to make a formal finding regarding the potential health and welfare effects of GHGs in general, section 202(a)(1) would not require her to regulate GHG emissions from motor vehicles.

D. ~~Different Policy Approach~~

~~Beyond issues of authority and interference with fuel economy standards, EPA disagrees with the regulatory approach urged by petitioners. [Isn't this just a continuation of the mandatory-duty argument? I found the way you broke this into two sections to be confusing.]~~ EPA establishment of motor vehicle GHG standards would be neither appropriate nor effective at this time. As described in detail below, the President has laid out a comprehensive approach to climate change that calls for near-term voluntary actions and incentives along with programs aimed at reducing scientific uncertainties and encouraging technological development so that the government may effectively and efficiently address the climate change issue over the long term.

Petitioners and many commenters cited various international and national studies as support for their claim that global climate change endangers public health and welfare in this country and around the world. As the National Research Council (NRC) stated in its 2001 report, *Climate Change Science: An Analysis of Some Key Questions*,⁵ GHGs "are accumulating in the Earth's atmosphere as the result of human activities, causing global mean surface air temperature and subsurface ocean temperature to rise" (p. 1). It further stated that while "[t]he changes

⁵Petitioners cited numerous studies and other sources of information in contending that anthropogenic emissions of CO₂, CH₄, N₂O, and HFCs are accelerating global climate change and emission of these compounds from motor vehicles contribute to the problem. Numerous commenters agreed with petitioners and a few cited additional information or studies as further support. See "Summary of Climate Petition Comments on Science" in the docket for this action. Other commenters disagreed with petitioners' contentions, citing different data and studies or in some cases interpreting the same data and studies differently or emphasizing different aspects of the information provided. *Id.* We reviewed the information submitted by petitioners and commenters and concluded that all of the information was widely available and in the public domain at the time we solicited comments on the petition. The information submitted does not add significantly to the body of information available to the NRC when it prepared its 2001 report. We rely in this decision on NRC's objective and independent assessment of the relevant science. The comments submitted to the record do not include information that causes us to question the validity of the NRC's conclusions.

observed over the last several decades are likely mostly due to human activities,” it could “not rule out that some significant part of these changes is also a reflection of natural variability.” Id. The NRC observed that “there is considerable uncertainty in current understanding of how the climate system varies naturally and reacts to emissions of [GHGs] and aerosols.” Id. As a result of that uncertainty, the NRC cautioned that “current estimate of the magnitude of future warming should be regarded as tentative and subject to future adjustments (either upward or downward).” Id. It further advised that “[r]educing the wide range of uncertainty inherent in current model predictions of global climate change will require major advances in understanding and modeling of both 1) the factors that determine atmospheric concentrations of [GHGs] and aerosols and 2) the so-called ‘feedbacks’ that determine the sensitivity of the climate system to a prescribed increase in [GHGs].” Id. **[I did not read this paragraph as persuasively supporting EPA’s position, especially the first two sentences on the NRC report. You might want to quote from the body of the report itself, which is more balanced than the Executive Summary, or just move on more quickly to your point that key uncertainties prevent EPA from fashioning an effective regulatory strategy.]**

The science of climate change is extraordinarily complex and still evolving. Although there have been substantial advances in climate change science, there continue to be important uncertainties in our understanding of the factors that may affect future climate change and how it should be addressed. As the NRC explained in its 2001 report, predicting future climate change necessarily involves a complex web of economic and physical factors including: our ability to predict future global anthropogenic emissions of GHGs and aerosols; the fate of these emissions once they enter the atmosphere (e.g., what percentage are absorbed by vegetation or are taken up by the oceans); the impact of those emissions that remain in the atmosphere on the radiative properties of the atmosphere; changes in critically important climate feedbacks (e.g., changes in cloud cover and ocean circulation); changes in temperature characteristics (e.g., average temperatures, shifts in daytime and evening temperatures); changes in other climatic parameters (e.g., shifts in precipitation, storms); and ultimately the impact of such changes on human health and welfare (e.g., increases or decreases in agricultural productivity, human health impacts). Substantial scientific uncertainties limit our ability to assess each of these factors and to separate out those changes resulting from natural variability from those that are directly the result of increases in anthropogenic GHGs.

Reducing the wide range of uncertainty inherent in current model predictions will require major advances in understanding and modeling of the factors that determine atmospheric concentrations of greenhouse gases and aerosols, and the processes that determine the sensitivity of the climate system. Specifically, this will involve reducing uncertainty regarding:

- the future global use of fossil fuels and future global emissions of methane,
- the fraction of fossil fuel carbon that will remain in the atmosphere and contribute to radiative forcing versus exchange with the oceans or with the land biosphere,

- the impacts (either positive or negative) of climate change on regional and local systems,
- the nature and causes of the natural variability of climate and its interactions with human-induced changes, and
- the direct and indirect effects of the changing distribution of aerosols.

Knowledge of the climate system and of projections about the future climate is derived from fundamental physics, chemistry and observations. Data are then incorporated in global circulation models. However, model projections are limited by the paucity of data available to evaluate the ability of coupled models to simulate important aspects of climate. The U.S. and other countries are attempting to overcome these limitations by developing a more comprehensive long-term observation system, by making more extensive regional measurements of greenhouse gases, and by increasing the computing power required to handle these expanded data sets.

At present, the best scientific information indicates that if atmospheric greenhouse gas concentrations continue to increase, changes are likely to occur. **[As with above, this strong statement does not support EPA's position and will be quoted back at you as currently drafted.]** It is difficult to predict, however, what these changes will be. In particular, we are not able to predict with any confidence the timing, magnitude, or regional distribution of climate change.

A central component of the President's policy is to reduce key uncertainties that exist in our understanding of global climate change. Important efforts are underway to address these uncertainties. In particular, the federal government has expanded scientific research efforts through its Climate Change Research Initiative (CCRI). President Bush announced this new initiative in June 2001 and called for it "to study areas of uncertainty and identify priority areas where investments can make a difference." The CCRI recently issued its final "Strategic Plan for the Climate Change Research Program" to ensure that scientific efforts are focused where they are most critical and that the key scientific uncertainties identified are addressed in a timely and effective manner for decision makers.

Along with stepped-up efforts to reduce scientific uncertainties, the President's policy calls for public-private partnerships to develop break-through technologies that could dramatically reduce the economy's reliance on fossil fuels without slowing its growth. Large-scale shifts away from traditional energy sources, however, will require not only the development of abundant, cost-effective alternative fuels, but potentially wholesale changes in the way industrial processes and consumer products use fuel. Such momentous shifts do not take place quickly. As the President has explained, "[a]ddressing global climate change will require a sustained effort, over many generations" (www.whitehouse.gov/news/releases/2002/02/climatechange.html).

By contrast, establishing GHG emission standards for U.S. motor vehicles at this time would require EPA to make scientific and technical judgments without the benefit of the studies being developed to reduce uncertainties and advance technologies. It would also result in an inefficient, piecemeal approach to addressing the climate change issue. The U.S. motor vehicle fleet is one of many sources of GHG emissions both here and abroad, and different GHG emission sources face different technological and financial challenges in reducing emissions. A sensible regulatory scheme would require that all significant sources and sinks of GHG emissions be considered in deciding how best to achieve any needed emission reductions.

Unilateral EPA regulation of motor vehicle GHG emissions could also weaken U.S. efforts to persuade key developing countries to reduce the GHG intensity of their economies. Considering the large populations and growing economies of some developing countries, increases in their GHG emissions could quickly overwhelm the effects of GHG reduction measures in developed countries. Any potential benefit of EPA regulation could be lost to the extent other nations decided to let their emissions significantly increase in view of U.S. emission reductions.⁶ Unavoidably, climate change raises important foreign policy issues, and it is the President's prerogative to address them.

In light of the considerations discussed above, EPA would decline the petitioners' request to regulate motor vehicle GHG emissions even if it had authority to promulgate such regulations. Until more is understood about the causes, extent and significance of climate change and the potential options for addressing it, EPA believes it is inappropriate to regulate GHG emissions from motor vehicles.

In any event, the President's policy includes efforts to reduce motor vehicle petroleum consumption through increases in motor vehicle fuel economy. As noted previously, petitioners specifically suggested that EPA set a "corporate average fuel economy-based standard," but only DOT is authorized to set motor vehicle fuel economy standards. DOT considered increasing fuel

⁶The U.S. faced a similar dilemma in its efforts to address stratospheric ozone depletion. Early U.S. controls on substances that deplete stratospheric ozone were not matched by many other countries. Over time, U.S. emission reductions were more than offset by emission increases in other countries. The U.S. did not impose additional domestic controls on stratospheric ozone-depleting substances until key developed and developing nations had committed to controlling their own emissions under the Montreal Protocol on Substances that Deplete Stratospheric Ozone.

economy standards and recently promulgated a final rule increasing the CAFE standards for light trucks, including sports utility vehicles, by 1.5 miles per gallon over a three-year period beginning with model year 2005. The new standards are projected to result in savings of approximately 3.6 billion gallons of gasoline over the lifetime of the affected vehicles, with the corresponding avoidance of 31 million metric tons of carbon dioxide emissions. For the longer term, the President has established a new public-private partnership with the nation's automobile manufacturers to promote the development of hydrogen as a primary fuel for cars and trucks, with the goal of building a commercially viable zero-emissions hydrogen-powered vehicle. In the near-term, the President has sought \$3 billion in tax credits over 11 years for consumers to purchase fuel cell and hybrid vehicles.

Aside from fuel economy-based standards, petitioners only other suggestions for reducing CO₂ from motor vehicles are tire efficiency standards and a declining fleet-averaged NO_x standard to force the introduction of zero-emitting vehicles. In the case of tire efficiency standards, it is questionable whether such standards would qualify as "standards applicable to the *emission*" of an air pollutant from a motor vehicle under section 202(a)(1), since such standards would presumably apply to the vehicle's tires, not its CO₂ emissions (emphasis added). As for zero emission vehicles, further technological developments are needed before they could be a practical choice for most consumers.

With respect to the other GHGs – CH₄, N₂O, and HFCs – petitioners make no suggestion as to how those emissions might be reduced from motor vehicles. GHG emissions from motor vehicles primarily consist of CO₂ from fuel combustion. In 1999, N₂O represented 4 percent, HFCs 1 percent, and CH₄ less than 1 percent of transportation GHG emissions. As byproducts of combustion, there is a direct proportional relationship between CO₂ emissions and fuel economy levels. EPA believes parameters other than fuel economy are more relevant to N₂O, CH₄ and HFCs formation. HFCs come from mobile air conditioners, while CH₄ and N₂O are influenced by catalytic converter design. But as noted above, N₂O, HFCs, and CH₄ represent a very small percentage of total U.S. transportation GHG emissions. As such, they would not be effective or inefficient targets for regulation in the absence of regulation of CO₂ emissions

VI. Administration Global Climate Change Policy

Lack of CAA authority to impose GHG control requirements does not leave the federal government powerless to take sensible measured steps to address the global climate change issue. As described in this notice, the President has laid out a comprehensive approach to global climate change that calls for near-term voluntary actions and incentives along with programs aimed at reducing scientific uncertainties and encouraging technological development so that the government may effectively and efficiently address the global climate change issue over the long term. The CAA and other federal statutes provide the federal government with ample authority to conduct the research necessary to better understand the nature, extent and effects of any human-induced global climate change and to develop technologies that will help achieve GHG emission reductions to the extent they prove necessary. The CAA and other statutes also

authorize, and EPA and other agencies have established, nonregulatory programs that provide effective and appropriate means of addressing global climate change while scientific uncertainties are addressed.

As part of that effort, the President in February 2002 called for voluntary reductions in GHG intensity, including through fuel economy improvements. GHG intensity is the ratio of GHG emissions to economic output. The President's goal is to lower the U.S. rate of emissions from an estimated 183 metric tons per million dollars of gross domestic product (GDP) in 2002 to 151 metric tons per million dollars of GDP in 2012. Meeting this commitment will prevent GHG emissions of over 500 million metric tons of carbon equivalent (MMTCE) from entering the atmosphere cumulatively over the next ten years, and is equivalent to taking 70 million (or one out of three) cars off the road.

The "Climate VISION" (Voluntary Innovative Sector Initiatives: Opportunities Now) program, a Presidential initiative launched by the Department of Energy (DOE) in February 2003, is a voluntary public-private partnership designed to pursue cost-effective strategies to reduce the growth of GHG emissions, especially by energy-intensive industries. Working with trade associations and other groups, the program assists industry in its efforts to accelerate the transition to energy technologies and manufacturing processes that are cleaner, more efficient, and capable of capturing or sequestering GHGs. Climate VISION links these objectives with technology development and deployment activities primarily at DOE, but also at other participating agencies. Since Climate VISION was launched, 14 industry groups have become program partners with DOE.

EPA is also pursuing a number of nonregulatory approaches to reducing GHG emissions. designed to foster technology development. In February 2002, EPA launched EPA's Climate Leaders program, a new voluntary partnership program between government and industry. Through Climate Leaders, companies will work with EPA to evaluate their GHG emissions, set aggressive reduction goals, and report their progress toward meeting those goals. To date, more than 40 companies from almost all of the most energy-intensive industry sectors have joined Climate Leaders.

EPA's Energy Star program is another example of voluntary actions that have substantially reduced GHG emissions. Energy Star is a voluntary labeling program that provides critical information to businesses and consumers about the energy efficiency of the products they purchase. Over the past decade more than 750 million Energy Star products have been purchased across more than 30 product categories (e.g., computers, microwaves, washing machines). Reductions in GHG emissions from Energy Star purchases were equivalent to removing 10 million cars from the road last year. Businesses and consumers not only reduced their GHG emissions, but also saved \$5 billion last year through their use of Energy Star products.

EPA also has voluntary programs aimed at reducing methane emissions from a variety of sources. For example, the Agency has partnerships with natural gas companies to reduce

emissions from leaky pipelines and distribution equipment, solid waste landfill facilities to capture and reuse emissions from landfills, and coal mining companies to capture and reuse methane escaping from mines. Together, these programs are projected to reduce methane emissions to below 1990 levels through 2010.

In addition, EPA has extensive partnerships with industries responsible for emissions of the most potent industrial GHG (e.g., sulfur hexafluoride, per fluorocarbons and HFCs). Through partnerships with EPA, the aluminum sector has exceeded their goal of reducing PFC emissions by 45% from 1990 levels by 2000 and is now in discussions about a new, more aggressive goal. The semiconductor manufacturing sector has agreed to reduce their emissions by 10% below 1995 levels by 2010. This year, a new agreement was reached with the magnesium sector under which they have agreed to completely phase-out their SF6 emissions by 2010.

The federal government's voluntary climate programs are already achieving significant emission reductions. In 2000 alone, reductions in GHG emissions totaled 66 MMTCE when compared to emissions in the absence of these programs.

Importantly, the President's initiative will improve our ability to accurately measure and verify GHG emissions through an enhanced national GHG registry system. The U.S. will improve the voluntary registry's accuracy, reliability, and verifiability, taking into account emerging domestic and international approaches. Organizations participating in the new registry will be provided with transferable credits for achieving voluntary emissions reductions. These credits will be available for use under any future incentive-based or mandatory programs. We believe the enhanced standards for the new registry will strengthen the current voluntary trading systems.

The President's 2003 budget also seeks \$4.5 billion for global climate change-related programs, a \$700 million increase over 2002. This includes \$1.7 billion for science research under the Climate Change Research Initiative, and \$1.3 billion for climate change technologies under the National Climate Change Technology initiative. This commitment is unmatched in the world. The 2003 budget seeks \$555 million in clean energy incentives to spur investments in solar, wind, and biomass energy, co-generation, and landfill gas conversion.

New and expanded international policies will complement our domestic policies, including tripled funding for the "Debt-for-Nature" Tropical Forest Conservation Program, fully funding the Global Environment Facility for its third four-year replenishment, enhanced support for climate observation systems and climate technology assistance in developing countries, and sustained level funding for USAID climate programs, including technology transfer and capacity building in developing countries.

In the transportation sector, the Administration's global climate change plan includes promoting the development of fuel-efficient motor vehicles and trucks, researching options for

producing cleaner fuels, and implementing programs to improve energy efficiency. The plan calls for expanding federal research partnerships with industry, providing market-based incentives, and updating current regulatory programs that advance our progress in this area. This commitment includes expanding fuel cell research, in particular through the "FreedomCAR" initiative.

FreedomCAR is a new public-private partnership with the nation's automobile manufacturers. It seeks to promote the development of hydrogen as a primary fuel for cars and trucks, with the goal of building a commercially viable zero-emissions hydrogen-powered vehicle. FreedomCAR focuses on technologies to enable mass production of affordable hydrogen-powered fuel cell vehicles and the hydrogen-supply infrastructure to support them.

Developing new technologies to improve the energy efficiency of transportation in the U.S. will be a key element in achieving future reductions in GHG emissions. The President's 2003 budget seeks more than \$3 billion in tax credits over 11 years for consumers to purchase fuel cell and hybrid vehicles. The Administration's global climate change plan supports increasing automobile fuel economy and encouraging new technologies that reduce our dependence on imported oil, while protecting passenger safety and jobs.

To address GHG emissions from the electric utility sector, DOE in February of this year announced FutureGen, a \$1 billion government/industry partnership to design, build and operate a nearly emission-free, coal-fired electric and hydrogen production plant. The 275-megawatt prototype plant will serve as a large scale engineering laboratory for testing new clean power, carbon capture, and coal-to-hydrogen technologies. It will be the cleanest fossil fuel-fired power plant in the world. The project is a direct response to the President's Climate Change and Hydrogen Fuels Initiatives.

In all, the President's global climate change policy sets the U.S. on a path to slow the growth of GHG emissions and, as the science justifies, to stop and then reverse that growth. This policy supports vital global climate change research and lays the groundwork for future action by investing in science, technology, and institutions. In addition, the President's policy emphasizes international cooperation and promotes working with other nations to develop an efficient and coordinated response to global climate change. In taking prudent environmental action at home and abroad, the U.S. is advancing a realistic and effective long-term approach to the global climate change issue.

VI. Conclusion

After considering ICTA's petition, public comment, EPA's legal authority, and other relevant information, ICTA's petition for mobile source regulation of GHG emissions is denied for the reasons discussed above.

Dated: _____

[Signature]

.....
ENVIRONMENTAL PROTECTION AGENCY

[FRL]

Control of Emissions from New Highway Vehicles and Engines

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of denial of petition for rulemaking.

SUMMARY: A group of organizations petitioned EPA to regulate emissions of carbon dioxide and other greenhouse gases from motor vehicles under the Clean Air Act. For the reasons provided below, EPA is denying the petition.

EFFECTIVE DATE: [Upon publication.]

ADDRESSES: Information relevant to this action is contained in Docket No. A-2000-04 at the EPA Docket Center, Public Reading Room, Room B102, EPA West Building, 1301 Constitution Avenue, N.W., Washington, D.C. Dockets may be inspected at this location from 8:30 a.m. to 4:30 p.m., Monday through Friday, except on government holidays. You can reach the Air Docket by telephone at (202) 566-1742 and by facsimile at (202) 566-1741. You may be charged a reasonable fee for photocopying docket materials, as provided in 40 CFR Part 2.

FOR FURTHER INFORMATION CONTACT: [], Office of Air and Radiation, (202) 564-[].

SUPPLEMENTAL INFORMATION

I. Background

On October 20, 1999, the International Center for Technology Assessment (ICTA) and a number of other organizations¹ petitioned EPA to regulate certain greenhouse gas (GHG)

¹Solar Energy Association, Oregon Environmental Council, Public Citizen, Solar Energy Industries Association, the SUN DAY Campaign, Alliance for Sustainable Communities, Applied Power Technologies, Bio Fuels America, California Solar Energy Industries, Clements Environmental Corporation, Environmental Advocates, Environmental and Energy Study Institute, Friends of the Earth, Full Circle Energy

emissions from new motor vehicles and engines under section 202(a)(1) of the Clean Air Act (CAA). Specifically, petitioners seek EPA regulation of carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and hydrofluorocarbon (HFCs) emissions from new motor vehicles and engines. Petitioners claim these emissions are significantly contributing to global climate change.

EPA is authorized to regulate air pollutants from motor vehicles under title II of the CAA. In particular, section 202(a)(1) provides that “the Administrator [of EPA] shall by regulation prescribe . . . in accordance with the provisions of [section 202], standards applicable to the emission of any air pollutant from any class or classes of new motor vehicle . . ., which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.”

II. Summary of the Petition

Petitioners contend the test for regulating motor vehicle emissions under CAA section 202(a)(1) has been met for CO₂, CH₄, N₂O and HFCs. They claim statements made on EPA’s website and in other documents constitute an Agency finding that the four GHGs may reasonably be anticipated to endanger public health or welfare. They also assert that motor vehicle emissions of the GHGs could be significantly reduced by increasing the fuel economy of vehicles, eliminating tailpipe emissions altogether, or using other current and developing technologies. Based on their analysis, they argue EPA has a mandatory duty under section 202(a)(1) to regulate emissions of GHGs from motor vehicles.

Petitioners present their case for why EPA should, and even must, regulate motor vehicle GHG emissions under section 202(a)(1) in four parts. First, they assert that anthropogenic emissions of CO₂, CH₄, N₂O, and HFCs meet the CAA section 302(g) definition of “air pollutant,” which is “any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or

Project, Inc., Green Party of Rhode Island, Greenpeace U.S.A., Network for Environmental and Economic Responsibility of the United Church of Christ, New Jersey Environmental Watch, New Mexico

otherwise enters ambient air. Such term includes any precursors to the formation of any air pollutant . . .” Citing international and national reports, petitioners contend that anthropogenic emissions of CO₂, CH₄, N₂O, and HFCs are accelerating global warming, and that motor vehicle emissions of these GHGs, particularly CO₂, significantly contribute to the U.S. GHG inventory. Petitioners argue that the contribution of motor vehicle GHG emissions to global climate change qualify them as “air pollutants” under the CAA.

Petitioners also claim EPA has already determined CO₂ to be an air pollutant. They cite an April 10, 1998 memorandum from Jonathan Z. Cannon, then General Counsel of EPA, to Carol Browner, then Administrator of EPA, entitled “EPA’s Authority to Regulate Pollutants Emitted by Electric Power Generation Sources” (hereinafter “Cannon Memorandum”). The memorandum states that sulfur dioxide, nitrogen oxides, mercury, and CO₂ emitted from electric power generating units fall within the definition of “air pollutant” under CAA section 302(g). According to petitioners, it follows from the memorandum that the other three GHGs meet the CAA definition of “air pollutant,” too.

Second, petitioners argue that GHG emissions contribute to pollution that “may reasonably be anticipated to endanger public health or welfare,” a key criterion for regulation under section 202(a)(1). Petitioners state that the CAA does not require proof of actual harm, but allows the Administrator to make a precautionary decision to regulate an pollutant if it “may reasonably be anticipated” to endanger public health or welfare. The petitioners point to statements made by the United Nations Intergovernmental Panel on Climate Change (IPCC), EPA and others about the potential effects of global climate change on public health and welfare as establishing that global climate change “may reasonably be anticipated to endanger public health and welfare.” Based on these statements, the petitioners allege numerous threats to public health and welfare.

Third, petitioners argue that it is technically feasible to reduce GHG emissions from new motor vehicles and engines. Focusing on CO₂, they explain that CO₂ emissions can be reduced by increasing the fuel economy of passenger cars and light trucks. They note that a number of currently available gasoline-powered cars get significantly better fuel economy than the 27.5 mpg corporate average fuel economy (CAFE) standard currently applicable to cars under federal law. They also point to a congressional report identifying other technologies for further improving the fuel economy of gasoline-powered cars that have yet to be fully employed. In addition, petitioners note that several foreign and domestic car manufacturers are already marketing or developing hybrid-electric vehicles that get significantly better fuel mileage than the most fuel-efficient gasoline-powered car. Looking ahead to the next generation of vehicle technology, petitioners describe the potential for electric and hydrogen-celled vehicles to eliminate tailpipe emissions altogether. Petitioners recommend that EPA set a “corporate average fuel-economy based standard” under CAA section 202 that would result in the rapid market introduction of more fuel-efficient and zero-emission vehicles.

Petitioners suggest other potential ways of reducing CO₂ emissions such as setting a

declining fleet average NOx emission standard that would require manufacturers to add zero-emission vehicles to their fleets. They also note the availability of tire efficiency standards. Petitioners do not, however, address the potential for reducing motor vehicle emissions of the other three GHGs.

Finally, petitioners maintain the Administrator has a mandatory duty to regulate motor vehicle GHG emissions under CAA section 202(a)(1). They contend EPA has “already made formal findings” that motor vehicle GHG emissions “pose[] actual or potential harmful effects [on] the public health and welfare.” Noting that section 202(a)(1) provides the Administrator “shall” prescribe motor vehicle standards, petitioners argue that the use of “shall” creates a mandatory duty to promulgate standards when the requisite findings are made. They accordingly claim the Administrator must establish motor vehicle standards for the four GHGs.

Petitioners further argue that “the precautionary purpose of the CAA supports” regulating these gases even if the Agency believes there is some scientific uncertainty regarding the actual impacts of global climate change. Petitioners cite several court cases recognizing the Administrator’s authority to err on the side of caution in making decisions in areas of scientific uncertainty. They also assert that scientific uncertainty does not excuse a mandatory duty to regulate.

III. Request for Comment

On January 23, 2001, EPA requested public comment on the petition (see 66 FR 7486). The public comment period ended May 23, 2001.

EPA requested comment on all the issues raised in CTA’s petition. In particular, EPA requested comment on any scientific, technical, legal, economic or other aspect of these issues that may be relevant to EPA’s consideration of the petition.

IV. Summary of Public Comments

EPA received almost 50,000 comments on the petition. Most comments were relatively brief expressions of support for the petition sent by electronic mail; many were virtually identical. EPA also heard from a number of business and environmental groups. Most of the comments focused exclusively on CO₂. This section describes the significant points and arguments made in the public comments.

Several commenters addressed the issue of whether the four GHGs –CO₂, CH₄, N₂O and HFCs – are “air pollutants” under the CAA and thus potentially subject to regulation under the Act. Some of the commenters agreed with the petitioners that GHGs are air pollutants under the CAA. Like the petitioners, they noted that the definition of “air pollutant” in CAA section 302(g) is very broad and that the CAA itself refers to CO₂ as an “air pollutant” (see CAA section 103(g)). These commenters also cited to and agreed with the Cannon Memorandum and

statements by Gary Guzy, EPA's General Counsel following Mr. Cannon, that CO₂ falls within the CAA definition of air pollutant.

Other commenters argued that EPA has never formally determined that any GHGs are air pollutants and that the Cannon Memorandum is not such a finding. Some commenters also argued that CO₂ is not an air pollutant because it is a naturally-occurring substance in Earth's atmosphere and is critical to sustaining life. Other commenters pointed out that EPA already regulates as air pollutants substances that have natural as well as anthropogenic sources where human activities have increased the quantities present in the air to levels harmful to public health, welfare or the environment (e.g., sulfur dioxide, volatile organic compounds, particulate matter).

Another issue of concern to commenters was whether EPA has authority to regulate motor vehicle emissions of GHGs even if they meet the CAA definition of "air pollutant." Commenters supportive of the petition noted the broad authority conferred by section 202(a)(1) to regulate motor vehicle emissions that cause or contribute to air pollution that may reasonably be anticipated to endanger public health and welfare. These commenters also noted that CAA section 302(h) defines "welfare" to include effects on weather and climate, as well as other aspects of the environment that may be affected by global climate change (e.g., soils, water, crops, vegetation, animals, visibility).

Other commenters argued that the CAA does not authorize regulations to address global climate change, including motor vehicle GHG emission standards. They noted that no CAA provision specifically authorizes global climate change regulations, a Senate committee's proposal for mandatory CO₂ standards for motor vehicles did not survive Senate consideration, and other contemporaneous legislative proposals for mandatory GHG emission reductions failed to pass. They also pointed out that the only CAA provision that specifically mentions CO₂ authorizes only "nonregulatory" measures and expressly precludes its use as authority for imposing mandatory controls. They cited another CAA provision that calls on EPA to determine the "global warming potential" of certain pollutants but expressly precludes regulation on that basis as further indication that Congress did not intend EPA to regulate GHGs under the CAA.

Looking at the CAA more broadly, several commenters argued that the key statutory mechanism for controlling pervasive "air pollutants" – establishing and implementing national ambient air quality standards under sections 108, 109 and 110 – is unworkable for addressing an issue whose causes and effects are global in nature. Several commenters also pointed out that Congress addressed another global atmospheric issue, depletion of stratospheric ozone by man-made substances, explicitly and in discrete portions of the Act, specifically part B of title 1 prior to the CAA Amendments of 1990 and title VI following the 1990 amendments. Moreover, both incarnations of CAA stratospheric ozone authority included recognition of the international nature of the problem and provisions to facilitate and augment international cooperation in achieving a solution. These commenters argued that if Congress had intended EPA to address global climate change under the CAA, it would have made that clear by including analogous provisions.

Placing the CAA in a larger context, the commenters noted several other federal statutes that specifically address global climate change and authorize only research and policy development, not regulation. Commenters also pointed out that Congress has expressed dissatisfaction with the Kyoto Protocol, negotiated under the auspices of the United Nations Framework Convention on Climate Change and requiring parties to the Protocol to reduce their GHG emissions by a specific amount. They further cited congressional actions taken since the 1990 CAA amendments to prevent EPA from implementing the Kyoto Protocol (the so-called Knollenberg amendments to the FY 1999 and 2000 VA-HUD and Independent Agency Appropriations Acts). Finally, they noted that Congress had rejected numerous legislative proposals mandating GHG reductions (see, e.g., S. 1224, 101st Cong. (1989); H.R. 5966, 101st Cong. (1990)). According to the commenters, these actions clearly signal that Congress awaits further scientific information and other technological and international developments before authorizing any regulation to address global climate change.

Finally, several commenters pointed to the Supreme Court's decision in *Food and Drug Administration v. Brown & Williamson Tobacco Corp.*, 120 S.Ct. 1291 (2000), finding the FDA lacks authority to regulate tobacco products despite a facially broad grant of authority. These commenters warned that a reviewing court would closely scrutinize and likely strike down an EPA assertion of CAA authority to regulate for global climate change purposes when Congress specifically addressed the issue of global climate change, not in the CAA, but in other federal statutes that do not authorize regulation.

By contrast, several commenters pointed to, and agreed with, a letter from then EPA General Counsel Guzy to a congressional committee explaining that explicit mention of a pollutant is not a necessary prerequisite to regulation under a statutory provision granting broad authority to regulate pollutants, provided that the statutory criteria for regulation are met. These commenters also echoed Mr. Guzy's view that a congressional decision not to require standards does not affect pre-existing discretionary authority to set standards where the applicable criteria are met.

Many commenters considered the issue of whether anthropogenic GHG emissions contribute to air pollution that may reasonably be anticipated to endanger public health or welfare. Several commenters pointed out, as petitioners did, that EPA's climate website and other national and international reports describe hazards to human health and welfare that may result from global climate change. Other commenters claimed there is no basis at this time for EPA to conclude that GHG emissions from U.S. motor vehicles endanger public health or welfare. Some commenters questioned whether global warming was occurring or whether humans' impact on any global warming was significant. These commenters also suggested that global warming, if real, would have beneficial impacts (e.g., helping prevent another ice age, increasing agricultural production) that could outweigh any adverse effects. Several commenters argued that since the causes and effects of global climate change occur on a worldwide basis, regulation of only U.S. motor vehicles would be neither effective nor fair.

Commenters also addressed whether it is technologically feasible to reduce GHG emissions from new motor vehicles. Some commenters described categories of technologies that can substantially reduce CO₂ emissions from gasoline-powered passenger cars and light trucks, including vehicle load reduction, engine improvements, improved transmissions, integrated starter generators, and hybrid-electric drive trains. Vehicle load reduction strategies include reduced vehicle mass, reduced aerodynamic drag, reduced tire rolling resistance, and reduced accessory loads. Engine improvement strategies include improved specific power and gasoline direct injection. Improved transmission strategies include 5- and 6-speed automatic transmissions, 5-speed motorized manual gearshifts, and continuously variable transmissions. Other commenters asserted that EPA may not regulate motor vehicle GHG emissions by setting fuel economy standards, since Congress entrusted fuel economy standard-setting to the Department of Transportation (DOT) under the Energy Policy and Conservation Act (EPCA).

Finally, commenters considered whether EPA has a mandatory duty to regulate motor vehicle GHG emissions. Some commenters agreed with petitioners that the Cannon Memorandum and EPA's website statements triggered an obligation under CAA section 202(a)(1) to set CO₂ standards. Other commenters countered that the Cannon Memorandum and EPA website statements are not formal EPA findings for the purposes of exercising statutory authority. They asserted that for findings to provide a sufficient legal basis for regulating under section 202(a)(1), they must be established through a public notice-and-comment process.

V. EPA Response

After careful consideration of petitioners' arguments and the public comments, EPA concludes that it cannot and should not regulate GHG emissions from U.S. motor vehicles under the CAA. Based on a thorough review of the CAA, its legislative history, other congressional action and Supreme Court precedent, EPA believes that the CAA does not authorize regulation² to address global climate change. Moreover, even if CO₂ were an air pollutant generally subject to regulation under the CAA, Congress has not authorized the Agency to regulate CO₂ emissions from motor vehicles to the extent such standards would effectively regulate car and light truck fuel economy, which is governed by a comprehensive statute administered by DOT.

In any event, EPA believes that setting GHG emission standards for motor vehicles is not appropriate at this time. President Bush has established a comprehensive global climate change policy designed to (1) answer questions about the causes, extent, timing and effects of global climate change that are critical to the formulation of an effective, efficient long-term policy, (2) encourage the development of advanced technologies that will enable dramatic reductions in GHG emissions, if needed, in the future, and (3) take sensible steps in the interim to reduce the

²"Regulation" as used in this section of the notice refers to legally binding requirements promulgated by an agency under statutory authority. It does not include voluntary measures that emission sources may or may not undertake at their discretion.

risk of global climate change. The international nature of global climate change also has implications for foreign policy, which the President directs. In view of EPA's lack of CAA regulatory authority to address global climate change, DOT's authority to regulate fuel economy, the President's policy, and the potential foreign policy implications, EPA declines the petitioners' request to regulate GHG emissions from motor vehicles.

A. EPA's Legal Authority under the CAA

As summarized above, many commenters on the petition raised important legal issues regarding EPA's authority to issue global climate change regulations under the CAA. Two EPA General Counsels previously addressed the issue of EPA's authority to impose CO₂ emission control requirements. Both found that CO₂ meets the CAA definition of "air pollutant" and could therefore be subject to regulation under one or more of the CAA's regulatory provisions if the applicable statutory criteria for regulation were met. Both also noted, however, that the Agency had not made the requisite findings under any CAA provision for regulation of CO₂ emission. Significantly, the past general counsels reached their conclusions prior to the Supreme Court's decision in *Brown & Williamson*, which cautions against agencies using broadly worded statutory authority to regulate in areas raising unusually significant economic and political issues when Congress has specifically addressed those areas in other statutes.

Because the petition seeks CAA regulation of GHG emissions from motor vehicles to reduce the risk of global climate change, EPA has examined the fundamental issue of whether the CAA authorizes the imposition of control requirements for that purpose. As part of that examination, EPA's General Counsel, Robert E. Fabricant, reviewed his predecessors' memorandum and statements, as well as the public comments raising legal authority issues. The General Counsel considered the text and history of the CAA in the context of other congressional actions specifically addressing global climate change and in light of the Supreme Court's admonition in *Brown & Williamson* to "be guided to a degree by common sense as to the manner in which Congress is likely to delegate a policy decision of such . . . magnitude to an administrative agency." In a memorandum to the Acting Administrator dated August ____, 2003, the General Counsel concluded that the CAA does not authorize EPA to regulate for global climate change purposes, and accordingly that CO₂ and other GHGs cannot be considered "air pollutants" subject to the CAA's regulatory provisions for any contribution they may make to global climate change. Accordingly, he withdrew the Cannon memorandum and statements by Mr. Guzy as no longer expressing the views of EPA's General Counsel. The General Counsel's opinion is adopted as the position of the Agency for purposes of deciding this petition and for all other relevant purposes under the CAA.

As summarized above, commenters supporting the petition claim that section 202 of the CAA provides EPA with broad authority to set standards for motor vehicle emissions of CO₂ and other GHGs to the extent those emissions cause or contribute to global climate change. At the same time, other commenters correctly note that (1) no CAA provision specifically authorizes global climate change regulation, (2) the only CAA provision specifically mentioning CO₂

authorizes only “nonregulatory” measures, (3) the codified CAA provisions related to global climate change expressly preclude the use of those provisions to authorize regulation, (4) a Senate committee proposal to include motor vehicle CO₂ standards in the 1990 CAA amendments failed, (5) federal statutes expressly addressing global climate change do not authorize regulation, and (6) numerous congressional actions suggest that Congress has yet to decide that such regulation is warranted. These indicia of congressional intent raise the issue of whether the CAA is properly interpreted to authorize regulation to address global climate change.

Congress was well aware of the global climate change issue when it last comprehensively amended the CAA in 1990. During the 1980s, scientific discussions about the possibility of global climate change led to public concern both in the U.S. and abroad. In response, the U.S. and other nations developed the United Nations Framework Convention on Climate Change (UNFCCC). President George H. W. Bush signed, and the U.S. Senate approved, the UNFCCC in 1992, and the UNFCCC took effect in 1994.

The UNFCCC established the “ultimate objective” of “stabiliz[ing] greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system” (Article 2 of the UNFCCC). All parties to the UNFCCC agreed on the need for further research to determine the level at which GHG concentrations should be stabilized, acknowledging that “there are many uncertainties in predictions of climate change, particularly with regard to the timing, magnitude and regional patterns thereof”(findings section of UNFCCC).

Shortly before the UNFCCC was adopted in May 1992, Congress developed the 1990 CAA amendments. A central issue for the UNFCCC – whether binding emission limitations should be set – was also considered in the context of the CAA amendments. As several commenters noted, a Senate committee included in its bill to amend the CAA a provision requiring EPA to set CO₂ emission standards for motor vehicles. However, that provision was removed from the bill on which the full Senate voted, and the bill eventually enacted was silent with regard to motor vehicle CO₂ emission standards. During this same time period, other legislative proposals were made to control GHG emissions, some in the context of national energy policy, but none were passed (see, e.g., S. 324, 101st Cong. (1989); S. 1224, 101st Cong. (1989); H.R. 5966, 101st Cong. (1990)).

In the CAA Amendments of 1990 as enacted, Congress called on EPA to develop information concerning global climate change and “nonregulatory” strategies for reducing CO₂ emissions. Specifically, uncodified section 821 of the CAA Amendments requires measurement of CO₂ emissions from utilities subject to permitting under title V of the CAA. New section 602 of the CAA directs EPA to determine the “global warming potential” of substances that deplete stratospheric ozone. And new section 103(g) calls on EPA to develop “nonregulatory” measures for the prevention of multiple air pollutants and lists several air pollutants and CO₂ for that purpose.

Notably, none of these provisions authorizes the imposition of mandatory requirements, and two of them expressly preclude their use for regulatory purposes (sections 103(g) and 602). Only the research and development provision of the CAA – section 103 – specifically mentions CO₂, and the legislative history of that section indicates Congress was focused on seeking a sound scientific basis on which to make future decisions on global climate change, not regulation under the CAA as it was being amended. Representatives Roë and Smith, two of the principal authors of section 103 as amended, explained that EPA’s “science mandate” needed updating to deal with new, more complex issues, including “global warming” (A Legislative History of the Clean Air Act Amendments of 1990, 103 Cong., 1st Sess., S. Prt. 103-38, Vol. 2, pp. 2776 and 2778). They expressed concern that EPA’s research budget had been too heavily focused on supporting existing regulatory actions when the Agency also needed to conduct “long-term air pollution research” to “enhance EPA’s ability to predict the need for future action” (id. at 2777). As Mr. Roe explained:

“[W]e have learned over the last 20 years that air pollution problems are complex and that easy answers are not readily forthcoming. . . [T]his amendment is premised on the belief that without a sound scientific foundation, even our most well intentioned efforts to improve air quality are doomed to failure.” Id.

In [REDACTED] with expanded research and development authority, however, Congress did not [REDACTED] appropriate regulatory authority. In section 103(g), Congress directed EPA to establish a “basic engineering research and technology program to develop, evaluate and demonstrate” strategies and technologies for air pollution prevention and specifically called for improvements in such measures for preventing CO₂ as well as several specified air pollutants. But it expressly provided that nothing in the subsection “shall be construed to authorize the imposition on any person of air pollution control requirements.” As if to drive home the point, section 103(g) was revised in conference to include the term “nonregulatory” to describe the “strategies and technologies” the subsection was intended to promote. In its treatment of the global climate change issue in the CAA amendments, Congress made clear that it awaited further information before making decisions on the need for regulation.

Beyond Congress’ specific CAA references to CO₂ and global warming, another aspect of the Act cautions against construing its provisions to authorize regulation of emissions that may contribute to global climate change. The CAA provisions addressing stratospheric ozone depletion demonstrate that Congress has understood the need for specially tailored solutions to global atmospheric issues, and has expressly granted regulatory authority when it has concluded that controls may be needed as part of those solutions. Like global climate change, the causes and effects of stratospheric ozone depletion are global in nature. Anthropogenic substances that deplete stratospheric ozone are emitted around the world and are very long-lived; their depleting effects and the consequences of those effects occur on a global scale. In the CAA prior to its amendment in 1990, Congress specifically addressed the problem in a separate portion of the statute (part B of title I) that recognized the global nature of the problem and called for negotiation of international agreements to ensure world-wide participation in research and any

control of stratospheric ozone-depleting substances. In the 1990 CAA amendments, Congress again addressed the issue in a discrete portion of the statute (title VI) that similarly provides for coordination with the international community. Moreover, both incarnations of the CAA's stratospheric ozone provisions contain express authorization for EPA to regulate as scientific information warrants. In light of this CAA treatment of stratospheric ozone depletion, it would be anomalous to conclude that Congress intended EPA to address global climate change under the CAA's general regulatory provisions, with no provision recognizing the international dimension of the issue and any solution, and no express authorization to regulate.

[CEQ General Comment: this is a denial of a specific petition on regulation of mobile sources under Sec. 202. The NAAQS discussion makes sense in the GC memo, but here appears jarring, like we are just throwing in everything we can think of.]

EPA's prior use of the CAA's general regulatory provisions provides an important context. Since the inception of the Act, EPA has used these provisions to address air pollution problems which occur primarily at ground level or near the surface of the earth. For example, national ambient air quality standards (NAAQS) established under CAA section 109 address concentrations of substances in the ambient air and the related public health and welfare problems. This has meant setting NAAQS for concentrations of ozone, carbon monoxide, particulate matter and other substances in the air near the surface of the earth, not higher in the atmosphere. Concentrations of these substances generally vary from place to place as a result of differences in local or regional emissions and other factors (e.g., topography), although long range transport may also contribute to local concentrations in some cases. CO₂, by contrast, is fairly consistent in concentration throughout the *world's* atmosphere up to approximately the lower stratosphere. Problems associated with atmospheric concentrations of CO₂ are much more like the kind of global problem Congress addressed through adoption of the specific provisions of Title VI.

In assessing the availability of CAA authority to address global climate change, it is also useful to consider whether the NAAQS system – a key CAA regulatory mechanism – could be used to effectively address the issue. Unique and basic aspects of the presence of key GHGs in the atmosphere make the NAAQS system fundamentally ill-suited to addressing these gases in relation to global climate change. Many GHGs reside in the earth's atmosphere for very long periods of time. CO₂, by far the most pervasive of anthropogenic GHGs, has a residence time of roughly 50-200 years. This long lifetime along with atmospheric dynamics means that CO₂ is well mixed throughout the atmosphere, up to approximately the lower stratosphere. The result is a vast global atmospheric pool of CO₂ that is fairly consistent in concentration, everywhere along the surface of the earth and vertically throughout this area of mixing.

At the same time that atmospheric concentrations of CO₂ are fairly consistent globally, the potential for either adverse or beneficial effects in the U.S. from these concentrations depends on complicated interactions of many variables on the land, in the oceans, and in the atmosphere, occurring around the world and over long periods of time. Characterization and assessment of such effects and the relation of such effects to atmospheric concentration of CO₂ in the U.S.

would present scientific issues of unprecedented complexity in the NAAQS context. The long lived nature of the CO₂ global pool would also make it extremely difficult to evaluate the extent over time to which effects in the U.S. would be related to anthropogenic emissions in the U.S.. Finally, the nature of that pool would mean that any CO₂ standard set would in effect be a worldwide ambient air quality standard, not a national standard – the entire world would be either in compliance or out of compliance.

Such a situation would be inconsistent with a basic underlying premise of the CAA regime for implementation of a NAAQS – that actions taken by individual states and by EPA can generally bring all areas of the U.S. into attainment of a NAAQS. The statutory NAAQS implementation regime is fundamentally inadequate when it comes to a substance like CO₂, which is emitted globally and has relatively homogenous concentrations around the world. A NAAQS for CO₂, unlike any pollutant for which a NAAQS has been established, could not be attained by any area of the U.S. until such a standard were attained by the entire world as a result of emission controls implemented in countries around the world. The limited flexibility provided in the Act to address the impacts of foreign pollution transported to the U.S. was not designed to address the challenges presented by long lived global atmospheric pools such as exists for CO₂. The globally-pervasive nature of CO₂ emissions and atmospheric concentrations presents a unique problem that fundamentally differs from the kind of environmental problem that the NAAQS system was intended to address and is capable of solving.

Other congressional actions confirm that Congress did not authorize regulation under the CAA to address global climate change. Starting in 1978, Congress passed several pieces of legislation specifically addressing global climate change. With the National Climate Program Act of 1978, 15 U.S.C. 2901 et seq., Congress established a “national climate program” to improve understanding of “climate processes, natural and man induced, and the social, economic, and political implications of global climate change” through research, data collection, assessments, information dissemination, and international cooperation. In the Global Climate Protection Act of 1987, 22 U.S.C. 2651 note, Congress directed the Secretary of State to coordinate U.S. negotiations concerning global climate change, and EPA to develop and propose to Congress a coordinated national policy on the issue. Three years later, Congress passed the Global Change Research Act of 1990, 15 U.S.C. 2931 et seq., establishing a Committee on Earth and Environmental Sciences to coordinate a 10-year research program. That statute was enacted one day after the CAA Amendments of 1990 was signed into law. Also in 1990, Congress passed Title XXIV of the Food and Agriculture Act, creating a Global Climate Change Program to research global climate agricultural issues (section 2401 of Pub.L. 101-624).

With these statutes, Congress sought to develop a foundation for considering whether future legislative action on global climate change was warranted and, if so, what that action should be. From federal agencies, it sought recommendations for national policy and further advances in scientific understanding and possible technological responses. It did not authorize any federal agency to take any regulatory action in response to those recommendations and advances. In fact, Congress declined to adopt other legislative proposals, contemporaneous with

the bills to amend the CAA in 1989 and 1990, to require GHG emissions reductions from stationary and mobile sources (see, e.g., S. 1224, 101st Cong. (1989); H.R. 5966, 101st Cong. (1990)). While Congress did not expressly preclude agencies from taking regulatory action under other statutes, its actions strongly indicate that when Congress was amending the CAA in 1990, it was awaiting further information before deciding *itself* whether regulation to address global climate change is warranted and, if so, what form it should take.

Since 1990, Congress has taken other actions consistent with the view that Congress did not authorize CAA regulation for global climate change purposes. In the 1992 Energy Policy Act, Congress called on the Secretary of Energy to assess various GHG control options and report back to Congress, and to establish a registry for reporting *voluntary* GHG emissions. Following ratification of the UNFCCC, nations party to the Convention negotiated the Kyoto Protocol calling for mandatory reductions in developed nations' GHG emissions. While the Kyoto Protocol was being negotiated, the Senate in 1997 adopted by a 95-0 vote the Byrd-Hagel Resolution, which stated that the U.S. should not be a signatory to any protocol that would result in serious harm to the economy of the U.S. or that would mandate new commitments to limit or reduce U.S. GHG emissions unless the Protocol also mandated new, specific, scheduled commitments to limit or reduce GHG emissions for developing country Parties within in the same compliance period. Although the Clinton Administration signed the Kyoto Protocol, it did not submit it to the Senate for ratification out of concern that the Senate would reject the treaty. Congress also attached language to appropriations bills that barred EPA from implementing the Kyoto Protocol without Senate ratification (see, e.g., Knollenberg amendments to the FY 1999 and 2000 VA-HUD and Independent Agencies Appropriations Acts). Since enactment of the 1990 CAA amendments, numerous bills to control GHG emissions from mobile and stationary sources have failed to wind passage (see, e.g., H.R. 2993, 102d Cong., 1st Sess. 137 *Cong. Rec.* H4611 (daily ed. 1991)).

Against this backdrop of consistent congressional action to learn more about the global climate change issue before specifically authorizing regulation to address it, the CAA cannot be interpreted to authorize such regulation in the absence of any direct or even indirect indication of congressional intent to provide such authority. EPA is urged on in this view by the Supreme Court's decision in *Brown & Williamson*, which struck down FDA's assertion of authority to regulate tobacco products under the Food, Drug and Cosmetic Act (FDCA). That statute contains a broadly worded grant of authority for FDA to regulate "drugs" and "devices," terms which the statute also broadly defines. However, the FDCA does not specifically address tobacco products while other federal laws expressly govern the marketing of those products.

Notwithstanding the FDCA's facially broad grant of authority, the Supreme Court explained that "[i]n extraordinary cases, . . . there may be reason to hesitate before concluding that Congress has intended such an implicit delegation." The Court noted that FDA was "assert[ing] jurisdiction to regulate an industry constituting a significant portion of the American economy," despite the fact that "tobacco has its own unique political history" that had led Congress to create a distinct regulatory scheme for tobacco products. The Court concluded that

FDA's assertion of authority to regulate tobacco was "hardly an ordinary case." The Court analyzed FDA's authority in light of the language, structure and history of the FDCA and other federal legislation and congressional action specifically addressing tobacco regulation, including failed legislative attempts to confer authority of the type FDA was asserting. Based on that analysis, it determined that Congress did not "intend[] to delegate a decision of such economic and political significance . . . in so cryptic a fashion."

It is hard to imagine any issue in the environmental area having greater "economic and political significance" than regulation of activities that might lead to global climate change. Virtually every sector of the U.S. economy is either directly or indirectly a source of GHG emissions, and the major ~~countries of the world.~~ **[CEQ comment: this discussion goes way beyond just the major countries of the world.]** countries of the world are involved in scientific, technical, and political-level discussions about climate change. We believe, in fact, that an effort to impose controls on U.S. GHG emissions would have far greater economic and political implications than FDA's attempt to regulate tobacco.

The most abundant anthropogenic GHG, CO₂ is emitted whenever fossil fuels such as coal, oil, and natural gas are used to produce energy. The production and use of fossil fuel-based energy undergirds almost every aspect of the U.S. economy. For example, approximately 70 percent of the electric energy used in this country is generated from fossil fuel, and the U.S. transportation sector is almost entirely dependent on oil.

Proposals to reduce CO₂ emissions from these sectors have focused on four major approaches: (1) improve fuel efficiency; (2) capture and sequester CO₂; (3) switch to alternative non-fossil fuel sources; and (4) reduce vehicle usage by switching to alternative forms of transportation. With respect to the first proposal, ~~some improvements in fuel efficiency may be possible without imposing a significant impact on the economy, but~~ **[CEQ comment: unnecessary and harmful to our case.]** Congress has specifically chosen to address the issue of energy efficiency through other statutes – not the CAA. For example, Congress has authorized DOT to set fuel economy standards for motor vehicles and the Department of Energy to set efficiency standards for products such as air conditioners and appliances that consume electricity.

The other approaches for reducing CO₂ emissions all have substantial economic implications. ~~While it may eventually be possible to achieve widespread capture and sequester CO₂ emissions from power plants, such an approach would require a new generation of power plants and would be very costly, even if implemented over many years.~~ **[CEQ comment: why are we bringing in power plants into a discussion of regulating mobile sources?]** As for the use of alternative fuels, governments and private companies around the world are investing billions of dollars to explore the possibility of using non-fossil fuels for ~~power generation and~~ **[CEQ comment: same as above.]** transportation. Any widespread effort to comprehensively switch over to these fuels would likewise require a wholesale transformation of this industry. As for alternative modes of transportation, Congress and many states have already adopted measures to encourage public transportation, car pooling, bike usage, and land-use planning designed to

minimize commuting distances. EPA supports these measures and believes that they provide many environmental benefits. However, widespread substitution of alternative forms of transportation for transportation based on fossil fuel energy would also require a wholesale remaking of this sector. It is hard to overstate the economic significance of making these kinds of fundamental and widespread changes in basic methods of producing and using energy.

The issue of global climate change also has enormous political significance. It has been discussed extensively during the last three Presidential campaigns; it is the subject of debate and negotiation in several international bodies; and numerous bills have been introduced in Congress over the last 15 years to address the issue.

In light of Congress' attention to the issue of global climate change, and the absence of any direct or even indirect indication that Congress intended to authorize regulation under the CAA to address global climate change, it is unreasonable to conclude that the CAA provides the Agency with such authority. An administrative agency properly awaits congressional direction before addressing a fundamental policy issue such as global climate change, instead of searching for authority in an existing statute that was not designed or enacted to deal with the issue. We thus conclude that the CAA does not authorize regulation to address concerns about global climate change.

It follows from this conclusion, that GHGs, as such, are not air pollutants under the CAA's regulatory provisions, including sections 108, 111, 112 and 202. CAA authorization to regulate is generally based on a finding that an air pollutant causes or contributes to air pollution that may reasonably be anticipated to endanger public health or welfare. CAA section 302(g) defines "air pollutant" as "any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive . . . 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[.]" The root of the definition indicates that for a substance to be an "air pollutant," it must be an "agent" of "air pollution." Because EPA lacks CAA regulatory authority to address global climate change, the term "air pollution" as used in the regulatory provisions cannot be interpreted to encompass global climate change. Thus, CO₂ and other GHGs are not "agents" of air pollution and do not satisfy the CAA section 302(g) definition of "air pollutant" for purposes of those provisions. We reserve judgment on whether GHGs would meet the CAA definition of "air pollutant" for regulatory purposes were they subject to regulation under the CAA for global climate change purposes.³

³As General Counsel Fabricant explains in his memorandum, a substance does not meet the CAA definition of "air pollutant" simply because it is a "physical, chemical, biological, radioactive . . . substance of matter which is emitted into or otherwise enters the ambient air." It

B. Interference with Fuel Economy Standards

must also be an “air pollution agent.”

Even if GHGs were air pollutants generally subject to regulation under the CAA, Congress has not authorized the Agency to regulate CO₂ emissions from motor vehicles to the extent such standards would effectively regulate the fuel economy of passenger cars and light duty trucks. No technology currently exists or is under development that can capture and destroy or reduce emissions of CO₂, unlike other emissions from motor vehicle tailpipes. The only way to reduce gasoline engine tailpipe emissions of CO₂ is to improve fuel economy. **[CEO comment: fuel switching to natural gas engines for buses and taxis would reduce tailpipe emissions separate from the issue of fuel economy.]** Congress has already created a detailed set of mandatory standards governing the fuel economy of cars and light duty trucks, and has authorized DOT – not EPA – to implement those standards. The only way for EPA to proceed with CO₂ emissions standards without upsetting this statutory scheme would be to set a standard less stringent than CAFE for cars and light duty trucks. But such an approach would be meaningless in terms of reducing GHG emissions from the U.S. motor vehicle fleet.⁴

Congress' care in designing the CAFE program makes clear that EPCA is the only statutory vehicle for regulating the fuel economy of cars and light duty trucks. Under EPCA, DOT may set only "corporate average" standards that automakers meet on a fleetwide basis. Automakers thus have flexibility to design different vehicle models having different fuel economy so long as the average of the vehicles sold by the automaker in a given model year and class meets the CAFE standard for that year. In fact, EPCA offers automakers additional flexibility by allowing them to meet the CAFE standard for a given model year by "carrying back" or "carrying forward" the excess fuel economy performance of their fleets for the three years before or after the applicable model year.

EPCA also builds in an opportunity for congressional oversight of CAFE standard-setting that reinforces the notion that Congress intended fuel economy to be governed by EPCA alone. The statute specifies a CAFE standard of 27.5 miles per gallon for passenger cars in model years 1984 and beyond (49 U.S.C. section 32902(b)), but authorizes DOT to amend the standard to the "maximum feasible average fuel economy level" for the relevant model year. However, to the extent DOT raises or lowers the standards beyond specified levels, EPCA provides an automatic opportunity for Congress to disapprove and effectively void the amended standard (49 U.S.C. section 32902(c)). Given that gasoline engine motor vehicle tailpipe CO₂ emissions can only be reduced by improving fuel economy, CAA emission standards for CO₂ that required greater improvements in fuel economy than applicable CAFE standards required would abrogate

⁴Although the ICTA petition focuses on passenger cars and light duty trucks, it seeks regulation of GHG emissions generally from motor vehicles and engines, which include heavy duty engines and trucks. Passenger cars and light duty trucks are subject to CAFE standards; heavy duty trucks are not. The contribution of heavy duty trucks to the U.S. motor vehicle GHG inventory is relatively small, about 16 percent. EPA believes it would be ineffective, inefficient and unreasonable to set CO₂ emission standards for these vehicles in the absence of a more comprehensive program for seeking CO₂ and other GHG reductions from the many types of sources of these emissions.

EPCA's regime.

C. No Mandatory Duty

As explained above, the language, history, structure and context of the CAA and Congress' decision to give DOT authority to regulate fuel economy under EPCA make clear that EPA does not have authority to regulate motor vehicle emissions of CO₂ and other GHGs under the CAA. In any event, the CAA provision authorizing regulation of motor vehicle emissions does not impose a mandatory duty on the Administrator to exercise her judgment. Instead, section 202(a)(1) provides the Administrator with discretionary authority to address emissions in addition to those addressed by other section 202 provisions (see, e.g., sections 202(a)(3) and (b)). While section 202(a)(1) uses the word "shall," it does not require the Administrator to act by a specified deadline and it conditions authority to act on a discretionary exercise of the Administrator's judgment regarding whether motor vehicle emissions cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare.

The website statements, legal memorandum and other documents cited by petitioners and commenters in support of the petition are not sufficient to satisfy the criteria for setting standards under section 202(a)(1). Exercise of section 202(a)(1) authority turns on the judgment made by the *Administrator*, and CAA section 301 does not permit the Administrator to delegate her standard-setting authority under section 202(a)(1). None of the statements petitioners claim constitute the requisite endangerment finding for GHGs under section 202(a)(1) were made, or subsequently adopted, by the Administrator. As the Cannon memorandum stated in 1998, no Administrator had made a finding under any of the CAA's regulatory provisions that CO₂ meets the applicable statutory criteria for regulation. (Notably, the website statements on which the petitioners partly rely were in existence at the time Mr. Cannon issued his memorandum.) That statement remains true today – no Administrator has made findings that satisfy the criteria for setting CO₂ standards for motor vehicles or any other emission source. In any event, for such findings to suffice for standard-setting purposes, they must be established through a notice-and-comment process.

EPA also disagrees with the premise of the petitioners' claim – that if the Administrator were to find that GHGs, in general, may reasonably be anticipated to endanger public health or welfare, she must necessarily regulate GHG emissions from motor vehicles. Depending on the particular problem, motor vehicles may contribute more or less or not at all. An important issue before the Administrator is whether, given motor vehicles' relative contribution to a problem, it makes sense to regulate them. In the case of some types of air pollution, motor vehicles may be one of many contributors, and it may make sense to control other contributors instead of, or in tandem with, motor vehicles. The discretionary nature of the Administrator's section 202(a)(1) authority allows her to consider these important policy issues and decide to regulate motor vehicle emissions as appropriate to the air pollution problem being addressed. Accordingly, even

were the Administrator to make a formal finding regarding the potential health and welfare effects of GHGs in general, section 202(a)(1) would not require her to regulate GHG emissions from motor vehicles.

D. Different Policy Approach

Beyond issues of authority and interference with fuel economy standards, EPA disagrees with the regulatory approach urged by petitioners. EPA establishment of motor vehicle GHG standards would be neither appropriate nor effective at this time. As described in detail below, the President has laid out a comprehensive approach to climate change that calls for near-term voluntary actions and incentives along with programs aimed at reducing scientific uncertainties and encouraging technological development so that the government may effectively and efficiently address the climate change issue over the long term.

Petitioners and many commenters cited various international and national studies as support for their claim that global climate change endangers public health and welfare in this country and around the world. As the National Research Council (NRC) stated in its 2001 report, *Climate Change Science: An Analysis of Some Key Questions*,⁵ GHGs “are accumulating in the Earth’s atmosphere as the result of human activities, causing global mean surface air temperature and subsurface ocean temperature to rise” (p. 1). It further stated that while “[t]he changes observed over the last several decades are likely mostly due to human activities,” it could “not rule out that some significant part of these changes is also a reflection of natural variability.” Id. The NRC observed that CEQ/OPD/OMB/DOJ comments: the above quotes are unnecessary and extremely harmful to the legal case being made in this document. This is not a survey of the science, but a legal argument. These must come out. “[t]here is considerable uncertainty in current understanding of how the climate system varies naturally and reacts to emissions of [GHGs] and aerosols.” Id. As a result of that uncertainty, the NRC cautioned that “current estimate of the magnitude of future warming should be regarded as

⁵Petitioners cited numerous studies and other sources of information in contending that anthropogenic emissions of CO₂, CH₄, N₂O, and HFCs are accelerating global climate change and emission of these compounds from motor vehicles contribute to the problem. Numerous commenters agreed with petitioners and a few cited additional information or studies as further support. See “Summary of Climate Petition Comments on Science” in the docket for this action. Other commenters disagreed with petitioners’ contentions, citing different data and studies or in some cases interpreting the same data and studies differently or emphasizing different aspects of the information provided. Id. We reviewed the information submitted by petitioners and commenters and concluded that all of the information was widely available and in the public domain at the time we solicited comments on the petition. The information submitted does not add significantly to the body of information available to the NRC when it prepared its 2001 report. We rely in this decision on NRC’s objective and independent assessment of the relevant science. The comments submitted to the record do not include information that causes us to question the validity of the NRC’s conclusions.

tentative and subject to future adjustments (either upward or downward).” Id. It further advised that “[r]educing the wide range of uncertainty inherent in current model predictions of global climate change will require major advances in understanding and modeling of both 1) the factors that determine atmospheric concentrations of [GHGs] and aerosols and 2) the so-called ‘feedbacks’ that determine the sensitivity of the climate system to a prescribed increase in [GHGs].” Id.

The science of climate change is extraordinarily complex and still evolving. Although there have been substantial advances in climate change science, there continue to be important uncertainties in our understanding of the factors that may affect future climate change and how it should be addressed. As the NRC explained in its 2001 report, predicting future climate change necessarily involves a complex web of economic and physical factors including: our ability to predict future global anthropogenic emissions of GHGs and aerosols; the fate of these emissions once they enter the atmosphere (e.g., what percentage are absorbed by vegetation or are taken up by the oceans); the impact of those emissions that remain in the atmosphere on the radiative properties of the atmosphere; changes in critically important climate feedbacks (e.g., changes in cloud cover and ocean circulation); changes in temperature characteristics (e.g., average temperatures, shifts in daytime and evening temperatures); changes in other climatic parameters (e.g., shifts in precipitation, storms); and ultimately the impact of such changes on human health and welfare (e.g., increases or decreases in agricultural productivity, human health impacts). Substantial scientific uncertainties limit our ability to assess each of these factors and to separate out those changes resulting from natural variability from those that are directly the result of increases in anthropogenic GHGs. To the extent that changes to occur, we are not able to predict with any confidence the timing, magnitude, or regional distribution of climate change. **ICEQ/DOJ comment this is move up from next page. Earlier sentences from next page removed as unnecessary and harmful to legal argument.**

Reducing the wide range of uncertainty inherent in current model predictions will require major advances in understanding and modeling of the factors that determine atmospheric concentrations of greenhouse gases and aerosols, and the processes that determine the sensitivity of the climate system. Specifically, this will involve reducing uncertainty regarding:

- the future global use of fossil fuels and future global emissions of methane,
- the fraction of fossil fuel carbon that will remain in the atmosphere and contribute to radiative forcing versus exchange with the oceans or with the land biosphere,
- the impacts (either positive or negative) of climate change on regional and local systems,
- the nature and causes of the natural variability of climate and its interactions with human-induced changes, and

- the direct and indirect effects of the changing distribution of aerosols.

Knowledge of the climate system and of projections about the future climate is derived from fundamental physics, chemistry and observations. Data are then incorporated in global circulation models. However, model projections are limited by the paucity of data available to evaluate the ability of coupled models to simulate important aspects of climate. The U.S. and other countries are attempting to overcome these limitations by developing a more comprehensive long-term observation system, by making more extensive regional measurements of greenhouse gases, and by increasing the computing power required to handle these expanded data sets.

~~At present, the best scientific information indicates that if atmospheric greenhouse gas concentrations continue to increase, changes are likely to occur. It is difficult to predict, however, what these changes will be. In particular, we are not able to predict with any confidence the timing, magnitude, or regional distribution of climate change. [CEQ/DOJ comment: this para seems out of place. Final sentence fine, and moved to previous page.]~~

A central component of the President's policy is to reduce key uncertainties that exist in our understanding of global climate change. Important efforts are underway to address these uncertainties. In particular, the federal government has expanded scientific research efforts through its Climate Change Research Initiative (CCRI). President Bush announced this new initiative in June 2001 and called for it "to study areas of uncertainty and identify priority areas where investments can make a difference." The CCRI recently issued its final "Strategic Plan for the Climate Change Research Program" to ensure that scientific efforts are focused where they are most critical and that the key scientific uncertainties identified are addressed in a timely and effective manner for decision makers.

Along with stepped-up efforts to reduce scientific uncertainties, the President's policy calls for public-private partnerships to develop break-through technologies that could dramatically reduce the economy's reliance on fossil fuels without slowing its growth. Large-scale shifts away from traditional energy sources, however, will require not only the development of abundant, cost-effective alternative fuels, but potentially wholesale changes in the way industrial processes and consumer products use fuel. Such momentous shifts do not take place quickly. As the President has explained, "[a]ddressing global climate change will require a sustained effort, over many generations" (www.whitehouse.gov/news/releases/2002/02/climatechange.html).

By contrast, establishing GHG emission standards for U.S. motor vehicles at this time would require EPA to make scientific and technical judgments without the benefit of the studies being developed to reduce uncertainties and advance technologies. It would also result in an inefficient, piecemeal approach to addressing the climate change issue. The U.S. motor vehicle fleet is one of many sources of GHG emissions both here and abroad, and different GHG emission sources face different technological and financial challenges in reducing emissions.

A sensible regulatory scheme would require that all significant sources and sinks of GHG emissions be considered in deciding how best to achieve any needed emission reductions.

Unilateral EPA regulation of motor vehicle GHG emissions could also weaken U.S. efforts to persuade key developing countries to reduce the GHG intensity of their economies. Considering the large populations and growing economies of some developing countries, increases in their GHG emissions could quickly overwhelm the effects of GHG reduction measures in developed countries. Any potential benefit of EPA regulation could be lost to the extent other nations decided to let their emissions significantly increase in view of U.S. emission reductions.⁶ Unavoidably, climate change raises important foreign policy issues, and it is the President's prerogative to address them.

In light of the considerations discussed above, EPA would decline the petitioners' request to regulate motor vehicle GHG emissions even if it had authority to promulgate such regulations. Until more is understood about the causes, extent and significance of climate change and the potential options for addressing it, EPA believes it is inappropriate to regulate GHG emissions from motor vehicles.

In any event, the President's policy includes efforts to reduce motor vehicle petroleum consumption through increases in motor vehicle fuel economy. As noted previously, petitioners specifically suggested that EPA set a "corporate average fuel economy-based standard," but only DOT is authorized to set motor vehicle fuel economy standards. DOT considered increasing fuel economy standards and recently promulgated a final rule increasing the CAFE standards for light trucks, including sports utility vehicles, by 1.5 miles per gallon over a three-year period beginning with model year 2005. The new standards are projected to result in savings of approximately 3.6 billion gallons of gasoline over the lifetime of the affected vehicles, with the corresponding avoidance of 31 million metric tons of carbon dioxide emissions. For the longer term, the President has established a new public-private partnership with the nation's automobile

⁶The U.S. faced a similar dilemma in its efforts to address stratospheric ozone depletion. Early U.S. controls on substances that deplete stratospheric ozone were not matched by many other countries. Over time, U.S. emission reductions were more than offset by emission increases in other countries. The U.S. did not impose additional domestic controls on stratospheric ozone-depleting substances until key developed and developing nations had committed to controlling their own emissions under the Montreal Protocol on Substances that Deplete Stratospheric Ozone.

manufacturers to promote the development of hydrogen as a primary fuel for cars and trucks, with the goal of building a commercially viable zero-emissions hydrogen-powered vehicle. In the near-term, the President has sought \$3 billion in tax credits over 11 years for consumers to purchase fuel cell and hybrid vehicles.

Aside from fuel economy-based standards, petitioners only other suggestions for reducing CO₂ from motor vehicles are tire efficiency standards and a declining fleet-averaged NO_x standard to force the introduction of zero-emitting vehicles. In the case of tire efficiency standards, it is questionable whether such standards would qualify as “standards applicable to the *emission*” of an air pollutant from a motor vehicle under section 202(a)(1), since such standards would presumably apply to the vehicle’s tires, not its CO₂ emissions (emphasis added). As for zero emission vehicles, further technological developments are needed before they could be a practical choice for most consumers.

With respect to the other GHGs – CH₄, N₂O, and HFCs – petitioners make no suggestion as to how those emissions might be reduced from motor vehicles. GHG emissions from motor vehicles primarily consist of CO₂ from fuel combustion. In 1999, N₂O represented 4 percent, HFCs 1 percent, and CH₄ less than 1 percent of transportation GHG emissions. As byproducts of combustion, there is a direct proportional relationship between CO₂ emissions and fuel economy levels. EPA believes parameters other than fuel economy are more relevant to N₂O, CH₄ and HFCs formation. HFCs come from mobile air conditioners, while CH₄ and N₂O are influenced by catalytic converter design. But as noted above, N₂O, HFCs, and CH₄ represent a very small percentage of total U.S. transportation GHG emissions. As such, they would not be effective or inefficient [CEQ comment: typo] targets for regulation in the absence of regulation of CO₂ emissions

VI. Administration Global Climate Change Policy

Lack of CAA authority to impose GHG control requirements does not leave the federal government powerless to take sensible measured steps to address the global climate change issue. As described in this notice, the President has laid out a comprehensive approach to global climate change that calls for near-term voluntary actions and incentives along with programs aimed at reducing scientific uncertainties and encouraging technological development so that the government may effectively and efficiently address the global climate change issue over the long term. The CAA and other federal statutes provide the federal government with ample authority to conduct the research necessary to better understand the nature, extent and effects of any human-induced global climate change and to develop technologies that will help achieve GHG emission reductions to the extent they prove necessary. The CAA and other statutes also authorize, and EPA and other agencies have established, nonregulatory programs that provide effective and appropriate means of addressing global climate change while scientific uncertainties are addressed.

As part of that effort, the President in February 2002 called for voluntary reductions in

GHG intensity, including through fuel economy improvements. GHG intensity is the ratio of GHG emissions to economic output. The President's goal is to lower the U.S. rate of emissions from an estimated 183 metric tons per million dollars of gross domestic product (GDP) in 2002 to 151 metric tons per million dollars of GDP in 2012. Meeting this commitment will prevent GHG emissions of over 500 million metric tons of carbon equivalent (MMTCE) from entering the atmosphere cumulatively over the next ten years, and is equivalent to taking 70 million (or one out of three) cars off the road.

The "Climate VISION" (Voluntary Innovative Sector Initiatives: Opportunities Now) program, a Presidential initiative launched by the Department of Energy (DOE) in February 2003, is a voluntary public-private partnership designed to pursue cost-effective strategies to reduce the growth of GHG emissions, especially by energy-intensive industries. Working with trade associations and other groups, the program assists industry in its efforts to accelerate the transition to energy technologies and manufacturing processes that are cleaner, more efficient, and capable of capturing or sequestering GHGs. Climate VISION links these objectives with technology development and deployment activities primarily at DOE, but also at other participating agencies. Since Climate VISION was launched, 14 industry groups have become program partners with DOE.

EPA is also pursuing a number of nonregulatory approaches to reducing GHG emissions designed to foster technology development. In February 2002, EPA launched EPA's Climate Leaders program, a new voluntary partnership program between government and industry. Through Climate Leaders, companies will work with EPA to evaluate their GHG emissions, set aggressive reduction goals, and report their progress toward meeting those goals. To date, more than 40 companies from almost all of the most energy-intensive industry sectors have joined Climate Leaders.

EPA's Energy Star program is another example of voluntary actions that have substantially reduced GHG emissions. Energy Star is a voluntary labeling program that provides critical information to businesses and consumers about the energy efficiency of the products they purchase. Over the past decade more than 750 million Energy Star products have been purchased across more than 30 product categories (e.g., computers, microwaves, washing machines). Reductions in GHG emissions from Energy Star purchases were equivalent to removing 10 million cars from the road last year. Businesses and consumers not only reduced their GHG emissions, but also saved \$5 billion last year through their use of Energy Star products.

EPA also has voluntary programs aimed at reducing methane emissions from a variety of sources. For example, the Agency has partnerships with natural gas companies to reduce emissions from leaky pipelines and distribution equipment, solid waste landfill facilities to capture and reuse emissions from landfills, and coal mining companies to capture and reuse methane escaping from mines. Together, these programs are projected to reduce methane emissions to below 1990 levels through 2010.

In addition, EPA has extensive partnerships with industries responsible for emissions of the most potent industrial GHG (e.g., sulfur hexafluoride, per fluorocarbons and HFCs). Through partnerships with EPA, the aluminum sector has exceeded their goal of reducing PFC emissions by 45% from 1990 levels by 2000 and is now in discussions about a new, more aggressive goal. The semiconductor manufacturing sector has agreed to reduce their emissions by 10% below 1995 levels by 2010. This year, a new agreement was reached with the magnesium sector under which they have agreed to completely phase-out their SF6 emissions by 2010.

The federal government's voluntary climate programs are already achieving significant emission reductions. In 2000 alone, reductions in GHG emissions totaled 66 MMTCE when compared to emissions in the absence of these programs.

Importantly, the President's initiative will improve our ability to accurately measure and verify GHG emissions through an enhanced national GHG registry system. The U.S. will improve the voluntary registry's accuracy, reliability, and verifiability, taking into account emerging domestic and international approaches. Organizations participating in the new registry will be provided with transferable credits for achieving voluntary emissions reductions. These credits will be available for use under any future incentive-based or mandatory programs. We believe the enhanced standards for the new registry will strengthen the current voluntary trading systems.

The President's 2003 budget also seeks \$4.5 billion for global climate change-related programs, a \$700 million increase over 2002. This includes \$1.7 billion for science research under the Climate Change Research Initiative, and \$1.3 billion for climate change technologies under the National Climate Change Technology initiative. This commitment is unmatched in the world. The 2003 budget seeks \$555 million in clean energy incentives to spur investments in solar, wind, and biomass energy, co-generation, and landfill gas conversion.

New and expanded international policies will complement our domestic policies, including tripled funding for the "Debt-for-Nature" Tropical Forest Conservation Program, fully funding the Global Environment Facility for its third four-year replenishment, enhanced support for climate observation systems and climate technology assistance in developing countries, and sustained level funding for USAID climate programs, including technology transfer and capacity building in developing countries.

In the transportation sector, the Administration's global climate change plan includes promoting the development of fuel-efficient motor vehicles and trucks, researching options for producing cleaner fuels, and implementing programs to improve energy efficiency. The plan calls for expanding federal research partnerships with industry, providing market-based incentives, and updating current regulatory programs that advance our progress in this area. This commitment includes expanding fuel cell research, in particular through the "FreedomCAR" initiative.

FreedomCAR is a new public-private partnership with the nation's automobile manufacturers. It seeks to promote the development of hydrogen as a primary fuel for cars and trucks, with the goal of building a commercially viable zero-emissions hydrogen-powered vehicle. FreedomCAR focuses on technologies to enable mass production of affordable hydrogen-powered fuel cell vehicles and the hydrogen-supply infrastructure to support them.

Developing new technologies to improve the energy efficiency of transportation in the U.S. will be a key element in achieving future reductions in GHG emissions. The President's 2003 budget seeks more than \$3 billion in tax credits over 11 years for consumers to purchase fuel cell and hybrid vehicles. The Administration's global climate change plan supports increasing automobile fuel economy and encouraging new technologies that reduce our dependence on imported oil, while protecting passenger safety and jobs.

To address GHG emissions from the electric utility sector, DOE in February of this year announced FutureGen, a \$1 billion government/industry partnership to design, build and operate a nearly emission-free, coal-fired electric and hydrogen production plant. The 275-megawatt prototype plant will serve as a large scale engineering laboratory for testing new clean power, carbon capture, and coal-to-hydrogen technologies. It will be the cleanest fossil fuel-fired power plant in the world. The project is a direct response to the President's Climate Change and Hydrogen Fuels Initiatives.

In all, the President's global climate change policy sets the U.S. on a path to slow the growth of GHG emissions and, as the science justifies, to stop and then reverse that growth. This policy supports vital global climate change research and lays the groundwork for future action by investing in science, technology, and institutions. In addition, the President's policy emphasizes international cooperation and promotes working with other nations to develop an efficient and coordinated response to global climate change. In taking prudent environmental action at home and abroad, the U.S. is advancing a realistic and effective long-term approach to the global climate change issue.

VI. Conclusion

After considering ICTA's petition, public comment, EPA's legal authority, and other relevant information, ICTA's petition for EPA to regulate certain mobile source regulation of GHG emissions from new motor vehicles and engines under CAA section 202(a)(1) **[CEQ comment: this is a stylistic change, but a more formal treatment seems better.]** is denied for the reasons discussed above.

Dated: _____

[Signature]

Vulnerability: science

Opportunity: ambient air argument, normative definition of “air pollution” as something that is released into the local ambient air that causes acute health problems for individuals.

Page 1

ICTA only lead reference. Should refer broadly to cases, that raise common issues on when the Administration has discretionary or mandatory authority. At least in one context, my predecessor yes.

Bottom sentence is assertion. Loops back to overarching vulnerability and missed opportunity.

Page 4

Ambient air issues

Page 5

Typo

Page 6

Missing footnote?

“ambient”

Middle para, should punt this approach

Page 7

Typo at top and bottom

Page 8

Should refer to amendment

Page 9

“implied” is weak. Should say “made clear.”

“climate change regulation” (one doesn’t regulate climate change). Should say, “regulations of activities that might contribute to climate change.”

Middle para: careful. Black carbon may have local/regional impacts. Bottom line, very weak; should just say straight up that NAAQS for GHGs are not suited to solve a global problem (would be covered by ambient air argument).

Bottom para, don’t refer to “global air pollution problems.” Say, “global emissions issues.”

Page 10

Top para, same “climate change regulation” issue.

Bottom para, Byrd-Hagel references are slightly wrong. Should say, "In 1997 the Senate adopted the Byrd-Hagel Resolution by a vote of 95-0 expressing opposition to stating that the Senate would not ratify any climate change treaty or protocol that mandated U.S. GHG emissions reductions without the same mandates placed on the participation of developing countries." Also, add footnote that the reason the Knollenberg appropriations riders are no longer there is because the Administration has now made clear that it will not try to implement the Kyoto Protocol without ratification and approval of new regulatory programs by Congress.

Page 11

Top para, delete final sentence. This argument could be used against us because of the Cannon memo.

Second to last para, reference to sensitive foreign policy issues is an unexplained assertion. Drop unless fleshed out.

Page 12

Need to make clear that we have negeted existing discretionary authority. We do this through the overarching ambient air argument that needs to be made.

First full para. Fix "climate change regulation" again.

Conclusion should be clearer. Lead sentence is trouble, as it leans too much on science. Should conclude with something like, "In light of the B&W decision that we have to look at the expression of air pollution in context of statute in light of its purpose and regulatory structre/system, there is an absence of persuasive information that the Administration's regulatory authority with respect to the ambient air over the United States could do anything to affect potentially adverse affects created by greenhouse gas emissions. Therefore, there is no authority, discretionary or mandetory..."

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Samuel A. Thernstrom (CN=Samuel A. Thernstrom/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 15-JUL-2002 09:40:58.00

SUBJECT:: Re: Revised Whitman Time magazine climate change piece

TO: Gibson.Tom@epa [REDACTED] (Gibson.Tom@epa [REDACTED] [UNKNOWN])
READ: UNKNOWN

CC: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

CC: Scott McClellan (CN=Scott McClellan/OU=WHO/O=EOP@EOP [WHO])
READ: UNKNOWN

CC: James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TEXT:

Tom: This figure is taken directly from the president's 2-14 speech, and Jim Connaughton's Senate testimony last week., Using merely an abstract dollar figure may not be as compelling. In any case, if a dollar figure was used, it would have to be billions, not millions. We can discuss this point later if need be.

Gibson.Tom@epa [REDACTED]
07/15/2002 09:32:02 AM

Record Type: Record

To: Samuel A. Thernstrom/CEQ/EOP

CC:

Subject: Re: Revised Whitman Time magazine climate change piece

SAM---I can't use the five million out of work figure for Kyoto. It is based on an EIA report that assumed that no trading would be allowed to implement the KP. It also is the high end of numbers that were expressed as a range. I suggest going back to "would have cost hundreds of millions of dollars" as in the draft.

Samuel_A.
_Thernstrom [REDACTED] To: Tom
Gibson/DC/USEPA [REDACTED], watson [REDACTED] state [REDACTED],
ov
Conrad.C.Lautenbacher [REDACTED], James.R.Mahoney [REDACTED],
Robert.Card [REDACTED] doe [REDACTED]
LYNN_SCARLETT [REDACTED] DOI [REDACTED], David.Tenny [REDACTED], Tim.Adams [REDACTED] treas [REDACTED]
07/15/02 09:18 AM cc:
James_Connaughton [REDACTED], Phil_Cooney [REDACTED], Stuart_W.
Page 1

L

0216_f_vy6q8003_ceq.txt

Daniel_J._Bartlett [redacted] Bowen [redacted] eop [redacted], James_R._Wilkinson [redacted] eop [redacted]
Scott_McClellan [redacted] Joel_D._Kaplan [redacted] Subject: Revised
Whitman Time magazine climate change piece

Attached for everyone's review is a revised version of Governor Whitman's Time magazine piece on climate change, which incorporates the broad range of comments submitted through WH staffing and interagency review. Since this changed substantially during this process, I am recirculating this on an FYI basis to all of you. If anyone has any final comments, please send them to me and Tom Gibson no later than 1:30 today if possible, since this must be submitted to Time today.

(See attached file: CTW Time GCC revised.doc)

Draft Whitman Time Magazine piece on climate change

Among the many public policy issues the world faces today, few are as complex as global climate change. Countless scientific, technological, and economic issues affect our understanding of, and response to, climate change. Tremendous uncertainties exist in each of these fields, and new information is constantly added to the equation

? new climate observations, new scientific studies, new technological developments, and new partnerships and programs to control greenhouse gas emissions.

One fact, however, is indisputable: America has never had a stronger, smarter, and more practical climate change program than it does today under President Bush's leadership. Never before has a President and his Cabinet devoted as much attention to climate change policy, or provided such significant resources to our climate-change science, technology, and mitigation programs. And never before has America engaged in so many bilateral climate change partnerships with both the developed and developing world.

Last February, the President unveiled a comprehensive climate change policy with three key goals: Resolving key uncertainties in climate change science, developing and deploying new technologies, and strengthening domestic and international efforts to prevent greenhouse gas emissions. In each of

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international cooperation on climate change programs. In the past year, we've developed bilateral agreements with China, India, Japan, Australia, Canada, the European Union, and a consortium of Central American nations, creating international cooperation on scientific research and programs to prevent greenhouse gas emissions.

Supporting these efforts, the President's budget provides \$178 million for the Global Environment Facility ? which funds projects to bring clean energy and other environmental technologies to the developing world ? and \$205 million for USAID climate change programs, including \$50 million for tropical forest conservation. USAID is also spending \$25 million over the next two years on new climate observation systems in developing countries.

In the face of this unprecedented effort, partisan critics still lament the President's refusal to support the Kyoto Protocol ? forgetting that the Senate voted 95-0 against its principles in 1997. It's worth remembering why: The Kyoto Protocol would have put up to 5 million Americans out of work, for the sake of meeting unrealistic and arbitrary targets that would have a negligible effect on global emissions. In fact, the Protocol requires little or no real reductions from most of our trade competitors in the developed world ? who will simply buy credits for phantom emissions "reductions" caused largely by the collapse of the communist economies ? and requires nothing whatsoever of the developing countries that already emit a majority of the world's greenhouse gases.

Collectively, America has never been more engaged in meeting the long-term challenge of climate change with smart policies that guide both concrete actions today and a long-term vision for progress in the years ahead.

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793 words
(See attached file: CTW Time GCC revised.doc)

- CTW Time GCC revised.doc

===== ATTACHMENT 1 =====

0214_f_mk6q8003_ceq
RECORD TYPE: FEDERAL (NOTES MAIL)
CREATOR:Samuel A. Thernstrom (CN=Samuel A. Thernstrom/OU=CEQ/O=EOP [CEQ])
CREATION DATE/TIME:15-JUL-2002 09:35:16.00
SUBJECT:: Re: Revised Whitman Time magazine climate change piece
TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN
TO:James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN
TEXT:
opinion on this point? It's a rather key figure
----- Forwarded by Samuel A. Thernstrom/CEQ/EOP on
07/15/2002 09:33 AM -----

Gibson.Tom@epa [REDACTED]
07/15/2002 09:32:02 AM
Record Type: Record
To: Samuel A. Thernstrom/CEQ/EOP
CC:
Subject: Re: Revised Whitman Time magazine climate change piece

SAM---I can't use the five million out of work figure for Kyoto. It is based on an EIA report that assumed that no trading would be allowed to implement the KP. It also is the high end of numbers that were expressed as a range. I suggest going back to "would have cost hundreds of millions of dollars" as in the draft.

Samuel_A.
_Thernstrom [REDACTED] To: Tom
Gibson/DC/USEPA, [REDACTED], watson [REDACTED] state [REDACTED]
OV
Conrad.C.Lautenbacher [REDACTED], James.R.Mahoney [REDACTED],
Robert.Card [REDACTED] doe [REDACTED]
LYNN_SCARLETT [REDACTED] DOI [REDACTED], David.Tenny [REDACTED], Tim.Adams [REDACTED] treas [REDACTED]
07/15/02 09:18 AM cc:
James_Connaughton [REDACTED], Phil_Cooney [REDACTED], Stuart_W.
_Bowen [REDACTED] eop [REDACTED]
Daniel_J._Bartlett [REDACTED] eop [REDACTED], James_R._Wilkinson [REDACTED] eop [REDACTED]
Scott_McClellan [REDACTED], Joel_D._Kaplan [REDACTED]
Subject: Revised
whitman Time magazine climate change piece

0226_f_p2kq8003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Gibson.Tom@epa [REDACTED] (Gibson.Tom@epa [REDACTED] [UNKNOWN])

CREATION DATE/TIME: 15-JUL-2002 12:36:12.00

SUBJECT: Re: Revised whitman Time magazine climate change piece

TO: Samuel A. Thernstrom (CN=Samuel A. Thernstrom/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

CC: Mulvaney.Susan@epa [REDACTED] (Mulvaney.Susan@epa [REDACTED] [UNKNOWN])
READ: UNKNOWN

CC: Martyak.Joe@epa [REDACTED] (Martyak.Joe@epa [REDACTED] [UNKNOWN])
READ: UNKNOWN

CC: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

CC: MCGinnis.Eileen@epa [REDACTED] (MCGinnis.Eileen@epa [REDACTED] [UNKNOWN])
READ: UNKNOWN

CC: Scott McClellan (CN=Scott McClellan/OU=WHO/O=EOP@EOP [WHO])
READ: UNKNOWN

CC: James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TEXT:

Here are Governor Whitman's edits---

seventh para, last sentence---strike "in the long run." and replace with
"if we are truly to make a difference."

eLeventh para, second sentence---strike from "put up to 5 million . . ." through "arbitrary targets that would have a . . ." and replace with "cost American jobs while having". New sentence reads "It's worth remembering why: The Kyoto protocol would have cost American jobs while having a negligible effect on global emissions."

Tom G

Gibson/DC/USEPA/ [REDACTED] Samuel_A. Thernstrom [REDACTED] To: Tom

James_Connaughton [REDACTED] Phil_Cooney [REDACTED] cc:

Scott_McClellan [REDACTED] 07/15/02 09:40 AM
whitman Time magazine climate change piece

Subject: Re: Revised

M

0230_f_e8tq8003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Samuel A. Thernstrom (CN=Samuel A. Thernstrom/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME:15-JUL-2002 15:11:01.00

SUBJECT:: Time Magazine -- latest

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])

READ:UNKNOWN

TEXT:

Draft Whitman Time Magazine piece on climate change

Among the many public policy issues facing the world today, few are as complex as global climate change. Countless scientific, technological, and economic issues affect our understanding of, and response to, climate change. Tremendous uncertainties exist in each of these fields, and new information is constantly added to the analysis of new climate observations, new scientific studies, new technological developments, and new partnerships and programs to control greenhouse gas emissions.

One fact, however, is indisputable: Under President Bush's leadership, this Administration has crafted the strongest, smartest, and most practical climate change program America has ever had. No previous Administration has devoted as much attention to climate change policy, or provided such significant resources to our climate change science, technology, and mitigation programs. And America has never before engaged in so many bilateral climate change partnerships with both the developed and the developing world.

Last February, the President unveiled a comprehensive climate change policy with three key goals: resolving key uncertainties in climate change science, developing and deploying new technologies, and strengthening domestic and international efforts to prevent greenhouse gas emissions. In each of these areas, the President has provided the leadership and resources needed to produce new results.

Collectively, the Administration's initiatives have set America on a path to slow the projected growth of greenhouse gas emissions, while developing the scientific and technological knowledge and economic strength necessary to enable us ultimately to stabilize or reduce emissions, if science justifies such action.

For the first time, our strategy establishes a specific and realistic goal: to reduce America's greenhouse gas emissions relative to the size of our economy by eighteen percent over the next ten years. Accomplishing this goal will require a significant and sustained effort. Although American businesses continue to improve their energy efficiency and productivity, the President's goal is to accelerate that trend by another 30 percent -- the equivalent of taking 70 million cars off the road, or avoiding roughly 500 million metric tons of greenhouse gases.

In fact, meeting the President's goal will require emissions reductions comparable to what the Kyoto Protocol parties hope to attain -- but without the devastating economic consequences of the Kyoto approach.

The President's plan provides significant new resources for climate change science and technology. His 2003 budget provides \$4.5 billion for climate-related programs, a \$700 million (or 17 percent) increase in funding. This includes \$1.7 billion for basic research on climate change and \$1.2 billion for research on advanced energy generation and carbon

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sequestration technologies. The President's funding for climate change programs is unmatched in the world, and it ensures America's leadership in efforts to develop important technologies such as a pollution-free fuel cell-powered car. Real progress on developing cost-effective breakthrough technologies is an essential part of the President's policy.

The President's policy also provides new resources and opportunities to prevent greenhouse gas emissions right now. The budget provides \$4.6 billion over the next five years in tax credits for individuals and businesses that invest in renewable energy and energy efficiency projects. And the President has asked the Department of Energy to develop, for the first time, transferable credits for individuals or businesses that reduce their greenhouse gas emissions.

The President has also reinvigorated America's efforts to expand international cooperation on climate change programs. In the past year, the Administration has developed bilateral initiatives with China, India, Japan, Australia, Canada, the European Union, and a consortium of Central American nations, creating international cooperation on scientific research and programs to prevent greenhouse gas emissions.

Supporting these efforts, the President's budget provides \$178 million for the Global Environment Facility (GEF) which funds projects to bring clean energy and other environmental technologies to the developing world (G) and \$205 million for USAID climate change programs, including \$50 million for tropical forest conservation. USAID is also spending \$25 million over the next two years on new climate observation systems in developing countries.

Despite this unprecedented effort, partisan critics still lament the President's refusal to support the Kyoto Protocol (K) forgetting that the Senate voted 95-0 against its principles in 1997. It's worth remembering why: The Kyoto Protocol would have put up to 5 million Americans out of work, for the sake of meeting unrealistic targets that would have a negligible effect on global emissions. The developing world (D) which creates the majority of the world's greenhouse gas emissions (D) has no obligations at all under the Kyoto Protocol. And even the industrialized world isn't expected to make real reductions in their emissions (D) rather, they will simply buy credits for phantom emissions (E&R) caused largely by the collapse of the Eastern European economies.

America has never been more engaged in meeting the long-term challenge of climate change with smart policies that guide both concrete actions today and a long-term vision for progress in the years ahead.

####

792 words

RE Bush Administration Fact Sheet on Global Climate Change possible interview with Jim Connaughto
From: Holbrook, William F.
Sent: Wednesday, February 09, 2005 6:07 PM
To: Shankar Vedantam
Subject: RE: Bush Administration Fact Sheet on Global Climate Change / possible interview with Jim Connaughton

Actually, the fact sheet I mentioned was the one I included in my e-mail (sorry for the confusion), but I am attaching the Energy Information Administration's 1998 report on what Kyoto's impact would've been. Added all up, we would have been looking at a loss of nearly 5 million American jobs and loss of about \$400 billion in U.S. GDP due to associated higher energy costs.

Recall that the U.S. Senate back in 1997, long before President Bush took office, voted 95-0 against Kyoto's approach, citing the need to include developing countries such as China and India, and also the need to protect the U.S. economy.

I will check on Thursday afternoon, but Jim's schedule is fairly tight tomorrow.

Thanks.

- Bill

-----Original Message-----

From: Shankar Vedantam [mailto:██████████@washpost.com]
Sent: Wednesday, February 09, 2005 5:52 PM
To: Holbrook, William F.
Subject: Re: Bush Administration Fact Sheet on Global Climate Change / possible interview with Jim Connaughton

Thanks, Bill. Would it be possible to set up the interview tomorrow afternoon instead of Friday?
Also, you had said you had a fact sheet on the consequences had the US signed Kyoto - could you send that along, too?
Someone else had also suggested I get in touch with Paula Dobriansky - I will track down a number for her.
Thanks
Shankar

Shankar Vedantam
National Desk Reporter
The Washington Post
1150 15th Street N.W.
Washington, DC 20071
██████████ Ph.
██████████ fax

"Holbrook, William F."

<██████████@washpost.com>
██████████@c
eq.eop.gov>

To:

cc: