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The Honorable Carol M. Browner
Administrator
U.S. Environmental Protection Agency
Mail Code 1101A
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

- RE: 1. Petition to Modify EPA's Global Warming Website to Correct the Misleading or Factually Incorrect Presentation of Certain Information to the Public; and**
- 2. EPA Must Deny and Dismiss the Pending Petition for Rulemaking Submitted by the International Center for Technology Assessment**

Dear Administrator Browner:

Introduction

The Center for Regulatory Effectiveness (CRE)¹ has a continuing interest in improving the quality of information that Federal agencies disseminate to the public, including through the Internet. CRE also believes that EPA needs to establish a sound and transparent substantive and procedural

¹ The CRE was established in 1996, after the passage of the Congressional Review Act, to provide Congress with independent analyses of Federal agency regulations. From this initial organizing concept, CRE has grown into a nationally recognized clearinghouse to improve the Federal regulatory process. One such improvement in the Federal regulatory process is to assure that Federal agencies make decisions based on sound science. CRE has no members, but it receives, from time to time, financial support, services in kind, and work product from trade associations and private firms. The CRE Advisory Board consists of former career officials from OMB's Office of Information and Regulatory Affairs.

basis for determining whether data and information upon which EPA bases its regulatory decisions are of high quality.

I. CRE Petition to Modify EPA's Global Warming Website to Correct the Misleading Presentation of Certain Information to the Public

A. The Pending CTA Petition for Rulemaking

CRE understands that a petition for rulemaking, filed by the International Center for Technology Assessment (CTA), is currently pending at EPA seeking rulemaking to limit emissions of "greenhouse gases" (GHGs) from new motor vehicles pursuant to § 202(a)(1) of the Clean Air Act (CAA). The CTA petition alleges that certain statements found on EPA's Global Warming Website constitute "formal findings" by EPA that compel the Administrator to issue the regulations requested by CTA. (See, Attachment # 1; exhibits to the CTA petition are omitted here.)

In CRE's view, the CTA petition misinterprets or mischaracterizes certain statements on EPA's Global Warming Website as fact or as a "formal finding" that a projected or potential environmental impact is "reasonably anticipated to endanger the public health or welfare" within the meaning of § 202(a)(1) of the CAA. CRE's detailed comments in opposition to the CTA petition are set forth below, beginning at page 7.

The CTA petition is the catalyst for CRE filing this petition to modify the EPA Global Warming Website. The CTA petition and especially its reliance upon statements on EPA's Global Warming Website illustrate why the CRE is, and has been, concerned that the public is likely to misunderstand much of the information that EPA presents on that Website.² CRE believes that much of that information is of poor quality, largely in that it is misleading to the public because the information is not presented in appropriate scientific context.

B. OMB Circular A-130

CRE believes strongly that EPA can, and pursuant to Office of Management and Budget (OMB) Circular A-130 must, significantly improve the quality of EPA's presentation of climate change-related information to the public.

² CRE previously publicly questioned the quality of data and information on the EPA Global Warming Website. See, *How OMB Data Quality Regulations Will Help Resolve Disputes Over Global Warming*, Center for Regulatory Effectiveness, April 1999, also available on the CRE Website, <<http://www.TheCRE.com>>. A summary of that CRE paper is set forth in Attachment # 2 to this letter.

OMB Circular A-130, *Management of Federal Information Resources* (February 8, 1996), implements parts of the Paperwork Reduction Act of 1995 (44 U.S.C. § 3501 *et seq.*).

OMB Circular A-130 contains numerous policy directives that address the need for development, maintenance, dissemination, and modification of agency public information products and for senior-level management oversight to assure that agencies establish and maintain high quality information systems. Circular A-130 also establishes as Administration policy that agencies need a complaint resolution process and a designated senior official who is responsible for upholding the policies of the Circular and who has authority to correct data errors and to remedy poor data quality. See, Circular A-130, notably § 9(a)(10).

On April 18, 2000, John T. Spotila, the Administrator of the Office of Information and Regulatory Affairs at the Office of Management and Budget, wrote to Congresswoman Jo Ann Emerson in reply to a letter from her concerning the quality of information that Federal agencies disseminate to the public. Mr. Spotila wrote:

OMB Circular A-130 [. . .] establishes complaint resolution procedures for perceived violations of data quality and other requirements in the Circular. Section 9(a)10 of the Circular contains a requirement that each agency CIO [Chief Information Officer] must:

“monitor agency compliance with the policies, procedures, and guidance in this Circular. Acting as an ombudsman, the [CIO] shall consider alleged instances of agency failure to comply with this Circular and recommend or take corrective action as appropriate.”

The Circular also contains a specific requirement for agencies to report to OMB any alleged violations and their resolution:

“The [CIO] shall report annually, not later than February 1st of each year, to the Director [of OMB] those instances of alleged failure to comply with this Circular and their resolution.” [Letter from John T. Spotila, April 18, 2000.]

Accordingly, as described in more specific detail below, CRE requests EPA to:

1. Include on each relevant page on the Global Warming Website:

- A reminder to users that much of the information presented on the EPA Global Warming Website must be understood or considered in the context of scientific uncertainties and limitations; and
 - Convenient hyperlink access to two specific pages on EPA’s Global Warming Website that discuss those uncertainties and limitations;
2. Establish an “archive” file that will allow readers to view the “before” and “after” versions of future changes to the Website; and
 3. Revise a statement on the Website because it is factually incorrect.

C. Specifics of CRE’s Petition to Modify EPA’s Global Warming Website

CRE believes that a compelling public interest exists to minimize, expeditiously, the potential for public misunderstanding concerning the scientific reliability of certain information on the EPA Global Warming Website. That Website is among the most visible and controversial of all of EPA’s public information products and thus is an ideal candidate for a “test case” to assert the EPA’s commitment to implement information management “best practices” as set forth in OMB Circular A-130.

By taking the simple actions requested in this petition, EPA will at once:

- Improve the overall quality, more specifically the scientific context, of the information presented to the public on the EPA Global Warming Website;
- Reduce the likelihood that the public will misunderstand the information presented; and
- Demonstrate the agency’s willingness to correct demonstrated mis-statements of fact in information disseminated to the public.

(1) Address Scientific Uncertainties and Limitations on All Relevant Pages

CRE petitions you to direct the EPA Chief Information Officer to consider this CRE petition to modify the EPA Global Warming Website³, to include – on the Home Page and on each page that

³ Mr. Spotila’s April 18, 2000 letter to Congresswoman Emerson (quoted above) indicates clearly that the EPA Chief Information Officer (CIO), as the EPA senior management official who is accountable for implementing the complaint resolution and Data Quality provisions of OMB Circular A-130, including § 9(a)(10), has authority to consider this petition to modify the EPA Global Warming Website. CRE requests that you direct the CIO to do so.

describes projections of potential future climate change or potential environmental (including human health) impacts – a “box” or “sidebar” or similar type of prominent note containing the following statement:

“Please read the “Uncertainties” page and the “Future Climate - U.S. Climate - Climate Models” page of this Website, which explain (for example) the scientific limitations of the global climate computer models that are the basis for projections of potential climate change and environmental and health-related impacts.”

CRE further petitions you to direct that each such statement include a “clickable” hyperlink to the “Uncertainties” page⁴ and to the “Future Climate - U.S. Climate - Climate Models” page⁵ of the EPA Global Warming Website.

EPA acknowledges in reasonably clear fashion on those two Website pages that, in part because of the limitations of current global circulation computer models, significant uncertainties and limitations exist concerning:

- Our present knowledge of the causes of global climate change;
- The extent to which climate change may occur in the future; and
- The nature and extent of potential impacts on the environment, human health and welfare, etc.

Others interested in global climate change might have written the pages on “Uncertainties” and “Future Climate - U. S. Climate” a bit differently than EPA did, but CRE believes that EPA’s presentation on those pages is generally “in the ballpark” of appropriate scientific explanation.

(2) Provide Archive of “Before” and “After” Text of Changes to Website

CRE further petitions you to direct that EPA include, on the Home Page of the Global Warming Website, a clickable “box”/hyperlink labeled “Archives” or similarly that will allow users to identify, and to view the “before” and “after” versions of, any future changes to each page that describe projections of potential future climate change or potential environmental (including human health)

⁴ The current URL address for the “Uncertainties” page is <http://www.epa.gov/globalwarming/uncertainties.html>. See, Attachment # 3.

⁵ The current URL address for the “Future Climate - U.S. Climate - Climate Models” page is <http://www.epa.gov/globalwarming/climate/future/usclimate.html>. See, Attachment 4.

impacts.

(3) ***Correct Incorrect Statement Concerning Historical Concentrations of CO₂ in the Atmosphere***

CRE further petitions you to direct that EPA correct the following statement on the “Climate - An Introduction” page on the EPA Global Warming Website:

Plant respiration and the decomposition of organic matter release more than 10 times the CO₂ [*sic*] released by human activities; but these releases have always been in balance with the carbon dioxide absorbed by plant photosynthesis. What has changed in the last few hundred years is the additional release of carbon dioxide by human activities. [See, Attachment # 5, <<http://www.epa.gov/globalwarming/climate/index.html>>.]

That statement is incorrect in two major ways. First, the statement that CO₂ “releases have always been in balance with the carbon dioxide absorbed by plant photosynthesis” (emphasis added) implies to the reader that atmospheric CO₂ levels have been stable historically until anthropogenic releases increased, *e.g.*, in the Industrial Revolution. However, atmospheric CO₂ concentrations have not “always been in balance” (stable). Ice core and paleo-climate data, notably the Vostok Antarctica ice core record, shows that atmospheric CO₂ concentrations have fluctuated dramatically, rapidly, and repeatedly over centuries, long before any conceivable human influence. (See, Attachment # 18, from the Website of the Carbon Dioxide Information Analysis Center at Oak Ridge National Laboratory.)

Second, the statement’s implication that CO₂ is removed from the atmosphere solely by photosynthesis is incorrect. At another Web page under “Climate”, EPA says:

Approximately half the CO₂ that is released [to the atmosphere] is soon absorbed by the oceans or by increased plant photosynthesis. [See, Attachment # 6, excerpt from <<http://www.epa.gov/globalwarming/climate/atmospheric/past.html>>.]

CRE believes that this second statement’s reference to the oceans, as well as photosynthesis, as a sink for atmospheric CO₂ is a substantially more accurate statement of the natural mechanisms that remove CO₂ from the atmosphere. However, in the context of the first statement above, the “sink” issue is not a crucial element, thus in our proposed revision below we omit the reference to photosynthesis.

CRE suggests that EPA revise the first statement above to read:

Plant respiration and the decomposition of organic matter release more than 10 times the CO₂ released by human activities. Over the last several hundred thousand years, long before any human influence, atmospheric concentrations of CO₂ have fluctuated up and down dramatically. Much more scientific research will be needed to identify and explain the underlying natural reasons for those fluctuations. Although the full reasons for the recent increase in atmospheric CO₂ are not currently known, one change in the last few hundred years is the additional release of carbon dioxide by human activities.

Accordingly, CRE requests EPA, in the person of the CIO, to consider, promptly, this petition to modify the EPA Global Warming Website, based on the CIO's authority pursuant to § 9(a)(10) of OMB Circular A-130. I recognize that, in the absence of specific rules/procedures to govern such petitions pursuant to OMB Circular A-130, EPA may need to establish an *ad hoc* process to allow opportunity for public comment prior to determining whether to grant this petition to modify EPA's Global Warming Website.

II. EPA Must Deny and Dismiss the Pending Petition for Rulemaking Submitted by the International Center for Technology Assessment

A. Introduction: CTA Petition's Reliance on Statements on EPA Global Warming Website Is Misplaced

In CRE's view, the CTA petition misinterprets or mischaracterizes certain statements on EPA's Global Warming Website as fact and/or as a legal determination⁶ that a projected or potential environmental impact is "reasonably anticipated to endanger the public health or welfare" within the meaning of § 202(a)(1) of the CAA.

As is set forth in more detail below, CRE opposes the CTA petition because we believe that the statements of potential environmental impacts set forth on EPA's Global Warming Website and referenced by the CTA petition cannot be accepted as fact or as reasonably anticipated future scenarios, largely because the computerized global climate change models that underlie those statements are, according to EPA: (1) unreliable; (2) unable to predict impacts at regional scales; and even (3) contradictory.

⁶ The CTA petition refers to EPA "findings", "determinations", and "formal findings" with respect to alleged environmental impacts that allegedly trigger a duty to regulate pursuant to § 202(a)(1) of the CAA. See, Attachment # 1, CTA petition, at pages 9, 15, 22, 28, and 33. CRE will use the CTA term "formal finding(s)" to describe CTA-alleged legal determinations by EPA.

“Projections” based on models that are unreliable, unable to predict impacts at regional scales, and contradictory are inherently not legal determinations that the impacts are “reasonably anticipated to endanger public health or welfare”. Moreover, to the best of CRE’s knowledge, the EPA Administrator has never stated that any such statement of potential impact described on the EPA Global Warming Website constitutes a legal determination for purposes of the CAA.

The CTA petition’s reliance on the EPA Global Warming Website is misplaced. The CRE believes that EPA must deny and dismiss the CTA petition as unsubstantiated, for the reasons stated below.

1. Purpose of the CTA Petition

The legal premise of the CTA petition is:

Under § 202(a)(1) of the Clean Air Act, 42 U.S.C. § 7521(a)(1), the Administrator is directed to prescribe standards for the emission of greenhouse gases from motor vehicles if she has determined that: (1) the emission of a greenhouse gas is an “air pollutant” and is emitted from new motor vehicles; *and* (2) the emission causes or contributes to air pollution which may reasonably be anticipated to endanger public health or welfare. For the reasons contained herein, the Administrator has made such determinations for greenhouse gases, including CO₂, CH₄, N₂O, and HFCs and petitioners request the Administrator to undertake her mandatory duty to regulate these as directed by § 202(a)(1) of the CAA. [See, Attachment # 1, CTA petition, at pages 9 - 10; footnote omitted.]^{7, 8}

⁷ The Administrator shall by regulation prescribe [. . .] in accordance with the provisions of this section, standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles [. . .], which in his judgement cause, or contribute to, air pollution which may be reasonably anticipated to endanger public health or welfare. [. . .]. [CAA § 202(a)(1); 42 U.S.C. § 7521(a)(1).]

⁸ CRE takes no position at this time as to whether carbon dioxide or any other “greenhouse gas” referenced in the CTA petition is an “air pollutant” within the meaning of § 302(g) of the CAA. CRE understands that substantial legal arguments have been submitted to EPA asserting that EPA does not have legal authority to regulate GHGs pursuant to the CAA. The question of EPA’s authority is significant, but will not be resolved herein.

CRE asserts herein that even if EPA has such legal authority, the CTA petition fails to set forth any factual basis to meet the legal regulatory threshold set forth in § 202(a)(1) of the CAA.

The CTA petition says:

As enumerated below, the EPA and other federal agencies have already made numerous findings that greenhouse gas emissions from new motor vehicles are air pollutants reasonably anticipated to endanger public health and welfare. Therefore, the Administrator has the statutory obligation to regulate the emissions of air pollutants from new motor vehicles under § 202(a)(1) [of the Clean Air Act] in order to prevent future harm. [See, Attachment # 1, CTA petition, at pages 14 - 15.]

2. CTA's Allegations of Supposed EPA "Formal Findings" Concerning Impacts of Climate Change

The CTA petition contains numerous citations to statements (alleged "formal findings") by Federal agencies or other parties concerning climate change and potential impacts of climate change on public/human health, welfare, and the environment. CRE has reviewed CTA's compilation of alleged "formal findings", which CTA categorizes under "Public Health" and "Public Welfare". CRE's summary of CTA's claims, and CTA's attributions of those statements to EPA and to other sources, is found in Attachment # 7.

CRE believes that the CTA petition is fatally flawed in numerous ways. For example, by CRE's count, 28 of the alleged "formal findings" statements cited in the CTA petition are attributed to EPA, whereas 54 are attributed to other sources.⁹ (See, Attachment # 7 for summary.) CTA does not explain how the statements that CTA attributes to non-EPA sources could possibly constitute "formal findings" by the EPA Administrator pursuant to § 202(a)(1) of the CAA.

For illustrative purposes, we also specifically analyze the factual basis of two of CTA's alleged EPA "formal findings":

1. That global warming increases the threat of vector-borne infectious diseases in the U.S. (See, Attachment # 8.)
2. That global climate change will cause harm to U.S. water resources. (See, Attachment # 9.)

⁹ The count here is based on the CTA petition's footnotes 37 through 120. We do not count footnote 79 because it does not address a possible impact of global warming.

Most fundamentally, CTA fails to explain how EPA could make legal determinations pursuant to § 202(a)(1) of the CAA in light of the many uncertainties surrounding the global climate change debate, as discussed below.

B. Scientific Uncertainties Require EPA to Deny and Dismiss the CTA Petition

The remainder of this letter addresses why the many scientific uncertainties applicable to projections about future climate change and its impacts require EPA to deny and dismiss the CTA petition.

CRE notes that CTA itself noted that: “EPA recognizes the uncertainties that exist pertaining to changing climate and migrating forests”. (See, Attachment # 1, CTA petition, at page 24, fn. 84; emphasis added.)

CTA also says: “[. . .] EPA explains that the impact on wetlands from changing climate is uncertain because it depends on the amount of rainfall received by wetlands”. (See, Attachment # 1, CTA petition, at page 23; footnote omitted; emphasis added.)

CTA also sums up its discussion of potential impacts on “environmental welfare” by saying:

Although there may be some uncertainties concerning the extent of these impacts from global warming, EPA must exercise precaution and mitigate these impacts by regulating the emissions of greenhouse gases from new motor vehicles under § 202(a)(1) of the CAA. [See, Attachment # 1, CTA petition, at page 25; emphasis added.]

Therefore, CTA concedes there are “some uncertainties concerning the extent of these impacts from global warming”.

CRE believes that the “uncertainties” that exist concern a great deal more than “the extent of these impacts from global warming”. Indeed, CRE’s principal concern with the entire EPA Global Warming Website, which is the subject of CRE’s petition today to modify the Website, is the Website’s failure adequately to inform the user that uncertainties abound concerning crucial matters such as:

- Whether observed warming is anthropogenic in origin (in whole, in part, or not at all);
- What the “direction” of certain future effects may be, such as precipitation on a localized basis (*i.e.*, will there be less rain, or more?).

C. EPA and IPCC Statements Concerning Uncertainty

The public record contains numerous express statements by EPA and by the Intergovernmental Panel on Climate Change¹⁰ concerning the several distinct types of uncertainties surrounding the issue of global climate change.

1. Uncertainty Concerning the “discernible human influence”

CRE does not wish to wade into the debate over whether any observed climate change to date is anthropogenic. We do insist, however, that if CTA is going to cite EPA and the IPCC for alleged findings of anthropogenic causation and potential adverse effects, then CTA and EPA also must acknowledge the caveats that accompany the IPCC and EPA “projections” about current science’s ability reliably to assess and/or project:

- The occurrence of global climate change;
- The cause(s) of any global climate change;
- The extent to which climate may change in the future (if at all); and
- Potential effects of any global climate change.

For example, a “downloadable” slide presentation that is on EPA’s Global Warming Website says:

Climate has Changed, and Will Continue to Change

- Climate has changed over the past century.
[. . .]

¹⁰ The IPCC is the Intergovernmental Panel on Climate Change. The IPCC was established by the United Nations Environment Programme and the World Meteorological Organization in 1988.

The IPCC issued a report in 1995 that is a key document in the debate about global warming: *Climate Change 1995: The Science of Climate Change: Contribution of Working Group I to the Second Assessment Report of the Intergovernmental Panel on Climate Change*, 1996, ed. J.T. Houghton *et al.* (Cambridge: Cambridge University Press), 572 pp. (Cited below as *IPCC 1995*.) Both CTA and EPA consider, and cite, the IPCC as an authoritative group of experts on climate change and potential effects.

- “The balance of evidence suggests a discernible human influence on global climate” (IPCC, 1995)
- Climate is expected to continue to change in the future.
[. . .]

(See Attachment # 10 for the slide quoted above.)

On that slide, and elsewhere on the EPA Website, EPA prominently reports the statement in *IPCC 1995* that: “The balance of evidence suggests a discernible human influence on global climate”.

However, the EPA Website fails in some instances to include other pertinent statements from *IPCC 1995* that are significantly less supportive of the proposition that any “discernible human influence on global climate” in fact exists.

IPCC 1995 states:

[The model results] cannot be considered as compelling evidence of a clear cause-and-effect link between anthropogenic forcing and changes in the Earth’s surface temperature. [*IPCC 1995*, Summary for Chapter 8, at p. 411. See, Attachment # 11.]

IPCC 1995 also states:

Our ability to quantify the human influence on global climate is currently limited because the expected signal is still emerging from the noise of natural variability, and because there are uncertainties in key factors. These include the magnitude and patterns of long term natural variability [. . .].

[*IPCC 1995*, Summary for Policymakers, at p. 5. See, Attachment # 11.]

2. Uncertainty Concerning Natural Climate Variability

A crucial, and perhaps the central, scientific factual issue in the “global warming” debate is whether the human effect on climate (whatever that effect may be) is, or will shortly become, significant against the background of natural climate variability. Before any human impact can be distinguished, quantitatively, from natural variability, we need to understand the inherent natural variations in climate.

Such natural variability is an important property of climate.

EPA's Website discussion of "Climate - An Introduction" acknowledges that climate variation exists:

Calculations of climate change for specific areas are much less reliable than global ones, and it is unclear whether regional climate will become more variable. [See, Attachment # 5; emphasis added.]

Other important caveats and other information from *IPCC 1995* regarding climate variability also must be considered. For example, EPA would need to consider, before making any legal determination that it needs to regulate anyone or anything pursuant to § 202(a)(1) of the CAA, the statement on page 13 above from *IPCC 1995's* Summary for Policymakers that "the expected signal [of human influence] is still emerging from the noise of natural variability".

IPCC 1995 also states, for example:

Since the 1990 *IPCC* Scientific Assessment considerable progress has been made in attempts to identify an anthropogenic effect on climate. [. . .]

The second area of progress is in better defining the background natural variability of the climate system, a crucial aspect of the detection problem [*i.e.*, efforts to detect an anthropogenic effect on climate].

"Detection of change" is the process of demonstrating that an observed change in climate is highly unusual in a statistical sense. This requires distinguishing any human effects on climate from the background "noise" of climate fluctuations that are entirely natural in origin. [. . .]

[L]arge uncertainties still apply to current estimates of the magnitude and patterns of natural climate variability, particularly on the decadal- to century-time-scales that are crucial to the detection problem. [*IPCC 1995*, at p. 411. See, Attachment # 11.]

IPCC 1995 also says:

Overall, there is no evidence that extreme weather events, or climate variability, has increased in a global sense, through the 20th century, although data and analyses are poor and not comprehensive. [*IPCC 1995*, Section 3.5.4, at p. 173. See, Attachment # 11.]

Let us take as a given that atmospheric concentrations of carbon dioxide and other greenhouse gases have increased during the 20th century, and let us accept provisionally EPA's statements that

strongly imply that those greenhouse gas increases cause or will cause global climate change. With those premises, IPCC's statement that there is "no evidence that extreme weather events, or climate variability" has increased globally through the 20th century (*i.e.*, during the time period in which the greenhouse gas concentrations have increased) appears to be highly pertinent to three important questions:

1. Have changes in extreme weather events and/or climate variability been observed by qualified scientists during the 20th century, which is the time frame for which scientists have the best data and analysis?;
2. Is the global climate in fact changing in any way during the 20th century?; and
3. Is there sound scientific evidence that global climate will or "may be reasonably anticipated" to change such that it will or would "endanger public health or welfare"?

EPA would have to make a formal determination on that third question before finally determining that EPA has authority to regulate emissions from new motor vehicles pursuant to § 202(a)(1) of the CAA. CRE believes that EPA will be unable rationally to make such a determination absent sound scientific evidence in the administrative record to support a "yes" finding on the first two questions.

3. Uncertainties and Limitations Concerning Climate Models

Before making a determination pursuant to § 202(a)(1) of the CAA, EPA must squarely address the fact that virtually all the predictions/discussions of possible climate change and consequent effects are based on highly complex computer model simulations of atmospheric behavior. These models attempt to describe, quantitatively and qualitatively, hugely complex interactions between the atmosphere, the oceans, the living biosphere, and numerous natural phenomena in addition to anthropogenic greenhouse gas emissions.

The complexity of the models and the difficulty of determining with any reasonable scientific certainty that human activity is affecting global climate are clearly acknowledged in several statements from *IPCC 1995*, quoted above at pages 13 - 14.

As discussed at pages 5 - 6 above, the "Future Climate - U.S. Climate - Climate Models" page on EPA's "Global Warming" Website does include a reasonably detailed layman's explanation of caveats pertaining to the use of these models:

- The models' complexity;
- Their limitations;

- Their limited accuracy in predicting effects on a regional basis;
- Their unreliability;
- The practice of using several different models to get a sense of what might happen (“[. . .] one’s analysis can include the entire range of scientific uncertainty”); and
- The fact that “[. . .] the several models often yield contradictory results.”

(See, Attachment # 4.)

The caveats stated in the “Future Climate - U.S. Climate - Climate Models” Website page apply generically to all the “general circulation models”; those models generally are not geographically specific to the United States.

As noted above, EPA also says at the end of its discussion of “Climate - An Introduction”:

Calculations of climate change for specific areas are much less reliable than global ones [. . .]. [See, Attachment # 5.]

The limitations of the models directly limit anyone’s ability to project likely effects of any climate change. EPA states:

“[S]cientists are unable to say whether particular regions [of the U.S.] will receive more or less rainfall; and for many regions they are unable to even state whether a wetter or drier climate is more likely.” [See, Attachment # 4.]

Any EPA “formal finding” pursuant to the CAA that any emission of GHGs is “reasonably anticipated to endanger public health or welfare” must directly overcome the fundamental uncertainty inherent in the projections of future climate change effects because all the projected effects are predicated upon projections/assumptions about future climate that such models generate.

4. The IPCC’s Basic Scientific Uncertainty About Global Climate Change

CRE believes that the degree of scientific certainty with which most pages on EPA’s Website describes (1) both global warming and global climate change as existing in fact and (2) human activity as

the cause of both those phenomena, is not an accurate representation of either the general tenor of, or specific key statements in, the IPCC scientific “consensus” report *IPCC 1995*.

EPA’s “Global Warming” site includes or formerly included “Key Findings of the Second Assessment Report of the Intergovernmental Panel on Climate Change”. (See, Attachment # 12.)

EPA’s preface to the “Key Findings” says:

The U.S. Government finds the IPCC Second Assessment Report to be an extremely useful document. It has achieved the goals of being scientifically credible and policy relevant, without being policy prescriptive. [See, Attachment # 12.]

However, the IPCC report is generally regarded as “scientifically credible” (EPA’s words, see quote immediately above) precisely because the IPCC exercised care to set forth the caveats about the considerable uncertainties underlying its analyses and findings. EPA’s presentation of the “Key Findings” on the Website effectively gives prominence to the findings that suggest that human activity is causing global climate change while systematically minimizing the import of the caveats stated by the IPCC itself.

Those “Key Findings” include reference to some of the scientific caveats from *IPCC 1995*, such as a statement (this is from the EPA summary of the IPCC findings) that:

The reliability of regional-scale predictions is still low, and the degree to which climate variability may change is uncertain. [See, Attachment # 12.]

Several other IPCC caveats are presented above.

Also, there is or formerly was one place on the EPA Website where EPA fairly summarizes, on a slide, a number of scientific uncertainties that IPCC has identified as needing additional research in order to improve the predictive capacity of the computer models, including:

- Sources and sinks of greenhouse gases and aerosols and their effects on global warming;
- The effects of clouds on global warming; and
- The effects of oceans on the timing and pattern of climate change, and others. (See, Attachment # 13, 9th page.)

EPA must recognize that any “formal finding” (legal determination) pursuant to § 202(a)(1) of the CAA that results in any attempt to regulate new motor vehicles must directly address the magnitude and significance of the numerous scientific caveats that the IPCC clearly stated regarding its own findings.

D. Conclusion from Review of CTA Petition and EPA and IPCC Statements: Scientific Uncertainties Preclude EPA From Making A Rational, Scientifically and Legally Supportable, “Formal Finding” Pursuant to § 202(a)(1) of the CAA

The CTA petition concludes from its review of potential impacts that:

Having already made formal findings that the emission of air pollutants CO₂, CH₄, N₂O, and HFCs from mobile sources poses actual or potential harmful effects of [*sic*] the public health and welfare, the Administrator must exercise her authority to regulate the emissions of CO₂, CH₄, N₂O, and HFCs, from new motor vehicles under § 202(a)(1). [See, Attachment # 1, CTA petition, at page 33.]

CRE believes that the degree and extent of uncertainty with respect to numerous crucial scientific factors in the global climate change debate preclude EPA from making a rational decision, *i.e.*, a “formal finding” (legal determination) for purposes of § 202(a)(1) of the CAA that GHGs from new motor vehicles “may reasonably be anticipated to endanger public health or welfare” on the basis that such GHGs may in any way cause or contribute to any endangerment of the public health or welfare due to their alleged global warming propensity.

Moreover, if EPA contemplated making an affirmative “formal finding” under § 202(a)(1), EPA would need to assure that its administrative record for any such “formal finding” could sustain scrutiny pursuant to judicial review pursuant to the CAA and the Administrative Procedure Act¹¹.

CRE does not trivialize the possible long-term (century-scale) consequences if global climate change occurs, but CRE observes that the contiguous U.S. currently experiences annual temperature variation of approximately 120° F. (-10° F to 110° F.)¹² The fact is that natural systems are variable,

¹¹ See, 42 U.S.C. § 7607 and 5 U.S.C. §§ 702, 704 and 706, pertaining to judicial review.

¹² Why has EPA tolerated these extreme annual temperature variations? Where is the environmental impact statement on the havoc that this annual temperature variation causes seasonally to natural systems and to the American public?

resilient, and adaptable. Given the existing annual variation, it is very difficult to conceive what evidence in an administrative record could rationally sustain a “formal finding” that GHGs from new motor vehicles “cause or contribute” to climate change that “may reasonably be anticipated to endanger public health or welfare” due to the gases’ alleged global warming propensity.

CRE submits that to make any “formal finding” (legal determination) pursuant to § 202(a)(1) of the CAA, EPA must have a scientific and factual basis that rises to the level of “reasonably anticipated” reality. The Administrator or her delegate cannot simply assert that she or he adopts as a CAA “formal finding” the EPA Website’s presentation of information regarding global warming, global climate change, whether human activity is the cause, and the nature and extent of potential effects.¹³

In closing, CRE believes that the CTA petition plainly fails to establish that EPA has made, or rationally could make, any formal finding of fact or any legal determination that a stated potential impact is in fact going to occur or is in reality “reasonably anticipated”, much less that any potential impact is “reasonably anticipated to endanger public health or welfare”. That is the legal standard set forth in § 202(a)(1) of the CAA as the prerequisite to issuing regulations to limit emissions from new motor vehicles.

For these reasons¹⁴, the CTA petition for rulemaking is unsubstantiated and EPA must deny

¹³ CRE also notes that the law does not require Federal officials to perform futile actions.

Before EPA can lawfully issue regulations, EPA must make a determination that there is a rational nexus between the alleged harm, the regulatory remedy as applied by EPA to an identified regulated community, and a substantial likelihood that the regulatory remedy will achieve the desired improvement or correction in, or protection of, environmental conditions.

In the case of the CTA petition, CTA is asking EPA to issue regulations to reduce the emissions of GHGs from motor vehicles. EPA’s jurisdiction to issue such regulations is limited to vehicles in the United States. To pass scrutiny under the Administrative Procedure Act, EPA would have to establish that substantial evidence exists in the administrative record for the rulemaking to support a causal nexus between emissions from motor vehicles in the U.S. and the projected health and environmental impacts upon which EPA would base its determination that such emissions are “reasonably anticipated to endanger public health and welfare”.

Given that such regulations under § 202(a)(1) of the CAA would address only new motor vehicles in the U.S., and would not affect GHG emissions from all other sources in the U.S. and in the entire rest of the world, it appears highly unlikely that EPA ever will be able to sustain the legal burden of demonstrating substantial evidence that the requested regulation will ever have any discernible effect on the alleged environmental harm that CTA, through EPA regulatory action, seeks to address.

¹⁴ The reasons referred to here include the reasons set forth in Attachments ## 7, 8, and 9 illustrating the deficiencies of CTA’s claims that EPA has made “formal findings” pursuant to §

and dismiss the CTA petition. Moreover, CRE believes that EPA should not solicit public comment upon the CTA petition before denying and dismissing it, because the CTA petition is unsubstantiated on its face and public comments cannot cure that fatal deficiency.

Respectfully submitted,

Sincerely,

A handwritten signature in black ink, appearing to read "Jim J. Tozzi". The signature is stylized with a large, sweeping initial "J" and "T".

Jim J. Tozzi
Member, CRE Board of Advisors

Attachments

202(a)(1) of the CAA with respect to specific public health and welfare impacts that CTA alleges would be caused by emissions of GHGs from new motor vehicles.