The Honorable Lisa P. Jackson, Administrator
Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

October 7, 2009

Dear Administrator Jackson:

We congratulate you on your appointment to EPA Administrator and commend you for your commitment to "science-based policies and programs, adherence to the rule of law, and overwhelming transparency." We write today because the United States finds itself at a crossroads where these values are sure to be tested.

Recently, the U.S. Chamber of Commerce submitted a petition for an on-the-record hearing under the Clean Air Act before the EPA proceeds with its proposed rulemaking on the regulation of greenhouse gases, *Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, Proposed Rule*, 74 Fed. Reg. 18,886 (Apr. 24, 2009) (hereinafter "Endangerment Finding").

The Chamber requested a hearing based on 5 U.S.C. §§ 556-57 where: all proceedings would be conducted on the record; the decision-maker would be the Administrator, Deputy Administrator, or an Administrative Law Judge; the decision-maker would have the benefit of the full Clean Air Scientific Advisory Committee; parties could submit supporting documents, data, and presentations; and agencies other than the EPA designated in Executive Order No. 13,432 could designate a single official to observe and participate in the proceedings.

In light of the monumental importance of the EPA's proposed rulemaking, we urge the adoption of the Chamber's request. Additionally, we urge the EPA to address four critical questions, which, in addition to the issues enumerated in the Chamber's Petition, are central to the EPA's proposed rulemaking. Indeed, these questions require careful analysis before intelligent public policy can be promulgated. They are:

1. Is the Earth's climate changing in an unusual or anomalous fashion?
2. Does the science permit rejection of the hypothesis that CO_2 is only a minor player in the Earth's climate system?
3. Can climate models that assume CO_2 is a key determinant of climate change provide forecasts of future conditions that are adequate for policy analysis?
4. Can we reject the hypothesis that the primary drivers of the Earth's climate system will continue to be natural (non-anthropogenic) forces and internal climate variability?

The fundamental issue facing the EPA is whether or not human-caused CO_2 emissions have already led to, or can be expected in the future, to lead to significant adverse changes in the Earth's climate system. That is, in order to justify the current proposed Endangerment Finding, a very critical theory or assumption that must stand up to rigorous scientific analysis is that higher

atmospheric CO_2 levels will, with some appropriate level of confidence, lead to measurably higher surface temperatures.

This theory can only be tested or validated by testing the so-called null hypothesis that CO_2 is a minor player in the Earth's climate system. If this null hypothesis cannot be rejected, there is no basis for regulating CO_2, particularly given the enormously negative implications of such regulation on the Nation's Energy, Economic and National Security.

Is the Earth's climate changing in an unusual or anomalous fashion?

Atmospheric CO_2 levels have increased by more than 20% over the last 50 years. If atmospheric CO_2 levels, in fact, have more than a minor impact on the Earth's climate system, one would expect to see the impact in the relevant climate data. So, to answer the question, "Is the Earth's climate changing in an unusual or anomalous fashion?" it is necessary to rigorously seek answers to at least the following five questions:

- Is the Earth's air temperature change unusual?
- Are droughts becoming longer and more intense due to increasing CO_2?
- Are floods and heavy rainfall events increasing due to increasing CO_2?
- Are hurricanes and tropical storms becoming stronger and more intense?
- Are sea levels rising dramatically due to increasing CO_2?

The scientific evidence and empirical data strongly suggest there are respected scientists who would answer "no" to each of these five questions. Thus, despite the over 20% rise in CO_2 over the last 50 years, there is little credible evidence that any of these dimensions of the Earth's climate system have shown anomalous behavior.

Does the science permit rejection of the hypothesis that CO_2 is only a minor player in the Earth's climate system?

Whether or not the EPA, at this point, concurs with "no" answers to all of these questions, correlation does not imply causation. For example, the fact that CO_2 concentration and surface temperature both rose over the period 1975 to, say, 1998 does not imply that rising CO_2 was the primary cause, which is clearly indicated by the fact that while CO_2 concentration continued to rise, temperatures have recently been falling. Therefore, we feel that it is critical that the EPA utilize a rigorous process to address the question: "Does the science permit rejection of the hypothesis that CO_2 is a minor player in the Earth's climate system?" To properly answer this question, one must address each of the following issues:

- Is carbon dioxide (CO_2) the most important of the greenhouse gases in the atmosphere?
- Does a "tipping point" exist where more CO_2 will ultimately lead to "run away" warming?
- In the past, did increases in CO_2 cause increases in the Earth's temperature?
- Since CO_2 concentrations have recently risen dramatically, is the warming consistent with a "Greenhouse Gas fingerprint"?

- Is there evidence that rising CO_2 levels are leading to acidification of the oceans which threatens calcium carbonate-based marine life?

An unbiased, critical review of the literature by respected scientists would have many of them answering "no" to each of these five questions.

Thus, if the EPA would come to believe that the answers to the questions spelled out above were all "no", it would imply that the scientific evidence and experimental data to date suggest that the Earth's climate system has not been behaving in an anomalous fashion; and, as of today, there is no known credible reason why further increasing CO_2 levels will cause harm in the future.

Can climate models that assume CO_2 is a key determinant of climate change provide forecasts of future conditions that are adequate for policy analysis?

In our view, particularly with temperatures now falling, the argument for CO_2 regulation rests solely on the "validity" of the climate models relied upon by the IPCC and the EPA. Thus it is crucial to answer the questions, "Can climate models that assume CO_2 is a key determinant of climate change, provide a forecast quality sufficient for such critical regulatory policy decisions?" To properly address this issue, it is necessary to seek rigorously developed answers to the following questions:

- Do global climate models properly handle "feedbacks" in the Earth's climate system?
- Do global climate models perform well in simulating the climate and compare well when forecasting the impact of increased levels of CO_2?
- Have modelers followed the well-documented and validated rules set forth by academic forecasting professionals?
- Did these models forecast the recent decline in temperatures?

Evidence in the literature would strongly suggest that many respected scientists would answer "no" to each of these four questions, which may well eliminate any possible rationale for regulating CO_2. It should be noted that it should not be surprising that models that assume CO_2 is a critical player in the Earth's climate system cannot be validated for policy analysis when we can demonstrate that rising CO_2 levels have had little impact on the Earth's climate so far, and at this point, there is little theoretical reason to believe they will ever have a significant impact.

Can we reject the hypothesis that the primary drivers of the Earth's climate system will continue to be natural (non-anthropogenic) forces and internal climate variability?

Finally, since atmospheric CO_2 levels are not demonstrably relevant determinants of the Earth's climate, it is highly relevant to ask, what is really driving changes in the Earth's climate? To address this issue, climate science literature would suggest that the following question be answered: "Can we reject the hypothesis that the primary drivers of the Earth's climate system will continue to be natural (non-anthropogenic) forces and internal climate variability? More specifically, one must at least ask:

- Does the sun play a significant role in climate variations on short (multi-decadal or shorter) time scales?
- Can volcanic activity and changes in stratospheric aerosols affect climate on short (multi-decadal or shorter) time scales?
- Do oscillations in ocean temperatures and the oceanic conveyor belt have a significant effect on the Earth's climate?
- Do cloud/water vapor feedback mechanisms significantly affect the climate system on short (multi-decadal or shorter) time scales?

It is clear from the literature that many respected scientists would answer each of these four questions independently with a resounding "yes".

Recommendation

We feel strongly that the EPA must not only rigorously address all four of the additional questions outlined at the outset, but also deal with at least the 18 supporting issues. As can be clearly seen by an analysis of the different fields of knowledge and academic skills required to answer the 18 detailed questions listed above, no one scientist should feel comfortable answering each and every question. And yet, without thoughtful, fully-informed judgments on all of the questions by the scientists who are expert in the particular issue area, the EPA should not feel comfortable issuing an Endangerment Finding in support of CO_2 regulation. Because of the need to have only those highly qualified to provide answers to each of the questions outlined above, we strongly suggest that the EPA grant the U.S. Chamber of Commerce Petitions, and in particular, adopt its recommendation regarding the use of the an on-the-record hearing conducted pursuant to 5 U.S.C. §§ 556-57.

While following such an analysis process may well be more arduous than planned, the implications of ill-founded CO_2 regulation could be truly catastrophic. Hardly a day goes by without another prominent scientist joining the ranks of those who reject the conclusion of the IPCC that the primary driver of the Earth's climate system is CO_2 emissions from human use of fossil fuels rather than other natural forces.

The EPA has the authority to hold on-the-record hearings under the Clean Air Act using procedures based on 5 U.S.C. §§ 556-57. As the Administrative Conference of the United States said, such authority should be exercised whenever (a) the scientific, technical, or other data relevant to the proposed rule are complex, (b) the problem posed is so open-ended that diverse views should be heard, and (c) the costs that errors may impose are significant. *See* 1 C.F.R. § 305.76-3(1) (1993). The Chamber noted in its petition that "it is hard to imagine a situation where each part of this test is more easily met." We concur and urge the EPA to hold a formal, on-the-record hearing before proceeding with any proposed Endangerment Finding.

Thank you for your consideration.

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