IS CO₂ A POLLUTANT AND DOES EPA HAVE THE POWER TO REGULATE IT?

JOINT HEARING

BEFORE THE

SUBCOMMITTEE ON NATIONAL ECONOMIC GROWTH, NATURAL RESOURCES, AND REGULATORY AFFAIRS

COMMITTEE ON GOVERNMENT REFORM

AND THE

SUBCOMMITTEE ON ENERGY AND EVIRONMENT

COMMITTEE ON SCIENCE HOUSE OF REPRESENTATIVES

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IS CO₂ A POLLUTANT AND DOES EPA HAVE THE POWER TO REGULATE IT?

WEDNESDAY, OCTOBER 6, 1999

HOUSE OF REPRESENTATIVES, SUBBCOMMITTEE ON NATIONAL ECONOMIC GROWTH, NATURAL RESOURCES, AND REGULATORY AFFAIRS, COMMITTEE ON GOVERNMENT REFORM, JOINT WITH THE SUBCOMMITTEE ON ENERGY AND ENVIRONMENT, COMMITTEE ON SCIENCE,

Washington, DC.

The subcommittees met, pursuant to notice, at 2:39 p.m., in room 2247, Rayburn House Office Building, Hon. David M. McIntosh (chairman of the Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs) presiding.

Present from the Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs: Representatives McIntosh, Barr, and Kucinich.

Present from the Subcommittee on Energy and Environment:

Representatives Calvert, Costello, and Ehlers.

Staff present from the Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs: Marlo Lewis, Jr., staff director; Barbara F. Kahlow and Joel Bucher, professional staff members; Jason Hopfer, counsel; Gabriel Neil Rubin, clerk; Elizabeth Mundinger, minority counsel; and Earley Green, minority staff assistant.

Staff present from the Subcommittee on Energy and Environment: Harlan Watson, staff director; Rob Hood and Jean Fruci, professional staff members; Jeff Donald, staff assistant; and Marty

Ralston, minority staff assistant.

Mr. McIntosh. The subcommittees shall come to order.

First, let me say thank you to my colleague from California for co-chairing today's hearing. This should be a thought-provoking and indepth hearing, since we will be examining questions that go to the heart of the debate about the Kyoto Protocol and the administration's climate change policies. These questions are: Is carbon dioxide a pollutant, and does EPA have the power to regulate it?

The central premise of both the Kyoto Protocol and the administration's policies is the theory of catastrophic global warming. According to this theory, the buildup of greenhouse gases—principally CO₂ from fossil fuel combustion—will enhance the greenhouse effect, warm the Earth's atmosphere, and, thus, potentially, or even probably, increase the frequency and severity of extenses. events, accelerate sea level rise, and spread tropical diseases.

More simply put, Kyoto proponents contend that CO2-a clear, odorless gas and the fundamental nutrient of the planetary food chain—is, in fact, a pollutant. Administration officials, for example, often say their policies are needed to combat "greenhouse pollution."

The hypothesis that CO_2 emissions constitute greenhouse pollution draws it strongest support from mathematical simulations of the global climate system, known as the general circulation models. Now, although impressive in their complexity, the models repeatedly fail to replicate current and past climate; and as computing power and modeling techniques have improved, the amount of projected global warming has declined. The empirical side of the issue is much clearer. Hundreds of laboratory and field experiments show that nearly all trees, crops, and other plants raised in CO_2 -enriched environments grow faster, stronger, and with greater resistance to temperature and pollution stress.

So, to borrow a well-known phrase from the UN's Intergovernmental Panel on Climate Change, today's hearing will consider where the "balance of evidence" lies. Does the balance of scientific evidence suggest that CO_2 emissions are endangering public

health, welfare, and the environment?

The subcommittee will also examine whether EPA has the power under the Clean Air Act to regulate CO₂. EPA claims that it does have such authority, most notably in former EPA General Counsel Jonathan Cannon's April 10, 1998 memorandum, entitled, "EPA's Authority to Regulate Pollutants from Electric Power Generation Sources."

The Cannon memorandum was, and remains, controversial. In his appearance before our subcommittee, he reasserted that power to regulate CO_2 . Regulating CO_2 to curb greenhouse pollution is the sum and substance of the Kyoto Protocol. So, the Cannon memorandum implies that EPA already has the power to implement Kyoto-style emission reduction targets and timetables, as if Congress, when it enacted and amended the Clean Air Act, tacitly

ratified the Kyoto Protocol in advance.

Several questions spring to mind, which I trust we will explore today. First, does the Clean Air Act expressly confer on EPA the power to regulate CO_2 ? On an issue of longstanding controversy like global warming, is it even conceivable that Congress would have delegated to EPA the power to launch a vast new regulatory program, a program potentially costing hundreds of billions of dollars, without ever saying so in the text of the statute? The Clean Air Act mentions CO_2 and global warming only in the context of non-regulatory activities such as research and technology development. How then can EPA claim that the act clearly and unambiguously provides the authority to regulate CO_2 ?

Second, does CO₂ fit into any of the regulatory programs already established under the Clean Air Act? The Cannon memorandum suggests, for example, that EPA may regulate CO₂ emissions under the National Ambient Air Quality Standards [NAAQS] program. But that program was designed to address local air quality problems, not a global phenomenon like the greenhouse effect. If EPA were to set a NAAQS for CO₂, for example, that is below the current atmospheric level, the entire United States would be out of attainment. Every community within the United States would be out of attainment if that NAAQS standard were adopted. Even if every

factory and power plant were to shut down, this would continue to

be the case because it is a global phenomenon.

Conversely, if EPA were to set a NAAQS standard that is above the current level, the entire country would be in attainment, even if CO₂ emissions suddenly doubled in many of our communities. So NAAQS is not a tool well-crafted to attack the problem of global warming. The attempt to regulate CO₂ through the NAAQS program would appear to be an absurd and futile exercise. This suggests that Congress, when it enacted the program, never intended EPA to regulate CO_2 .

The third question that I have, does the legislative history of the Clean Air Act Amendments of 1990 expressly support or, in fact, contradict EPA's claim of authority to regulate CO₂? Some may argue that Congress' deliberate rejection of greenhouse gas regulatory provisions in the 1990 amendments is irrelevant, because declining to mandate such regulation is not the same as prohibiting it. But this is tantamount to saying that EPA has whatever authority Congress does not expressly withhold. That is simply turning the entire principle of administrative law on its head. Under our system of government, agencies only have the powers that Congress specifically delegates to them.

The Clean Air Act is a carefully structured statute with specific

titles that create specific regulatory programs to accomplish specific objectives. It is not a regulatory blank check. EPA contends that CO₂ falls within the Clean Air Act's formal or technical definition of "pollutant" as a substance that is "emitted into or otherwise enters the ambient air." But this hardly suffices to settle the question of whether Congress designed and intended any of the Clean Air

Act's regulatory programs to encompass CO₂.

Before I turn over the proceedings to Chairman Calvert, I would like to welcome our witnesses. Representing the Clinton administration on the question of EPA's legal authority is EPA General Counsel Gary Guzy. Welcome, Mr. Guzy. I appreciate your willingness to step up to the plate and address these tough questions. Mr. Peter Glaser, of the law firm of Shook, Hardy, and Bacon; Professor James Huffman, who is Dean of the Lewis and Clark Law School; and Professor Jeffrey Miller of Pace University School of Law will also speak to the question of EPA's legal authority. Thank you,

gentlemen, for participating in this forum.

I would also like to welcome the members of the scientific panel:

Dr. Patrick Michaels, professor of Environmental Sciences at the University of Virginia and senior fellow in Environmental Studies at Cato Institute; Dr. Keith Idso, vice president of the Center for the Study of Carbon Dioxide and Global Change; and Dr. Chris

Field, who is a staff scientist at the Carnegie Institution.

With that, let me turn over the opening statement to Mr. Calvert. Welcome. I really appreciate your effort to make this a joint hearing.

[The prepared statement of Hon. David M. McIntosh follows:]

Mr. McIntosh. Thank you. Let the record show that each of the members of the first panel answered in the affirmative.

Mr. Guzy, welcome. Thank you for coming today. Please share

with us your testimony.

STATEMENTS OF GARY S. GUZY, GENERAL COUNSEL, U.S. EN-VIRONMENTAL PROTECTION AGENCY; JAMES HUFFMAN, DEAN, LEWIS AND CLARK LAW SCHOOL; PETER GLASER, ESQ., SHOOK, HARDY, AND BACON; AND JEFFREY G. MILLER, PROFESSOR OF LAW, PACE UNIVERSITY SCHOOL OF LAW

Mr. Guzy. Thank you, Chairman McIntosh, Chairman Calvert, and members of the subcommittee, for the invitation to appear here today. I am pleased to have the opportunity to explain the U.S. Environmental Protection Agency's views as to the legal authority provided by the Clean Air Act to regulate emissions of carbon dioxide.

Before I do, however, I would like again to stress, as has been noted, that the administration has no intention of implementing the Kyoto Protocol to the United Nations Framework Convention on Climate Change prior to its ratification with the advice and consent of the Senate.

Some brief background information may be helpful to understand the context for the question of legal authority posed by the subcommittee in this hearing. In the course of generating electricity by burning fossil fuels, electric power plants emit into the air multiple substances that pose environmental concerns. Some of these are already subjected to some degree of regulation. EPA has worked with a broad array of interested parties to evaluate multiple pollutant control strategies for this industry, and has also conducted an analysis of the scope of Clean Air Act authority to accomplish these. These have arisen in a series of forums dating back to the Clean Air Power Initiative in the mid-1990's, and in developing the administration's electric utility industry restructuring proposals.

On March 11, 1998, during hearings on EPA's fiscal year 1999 appropriations, Representative DeLay asked Administrator Browner about reports that EPA claimed it had authority to regulate emissions of pollutants of concern from electric utilities, including carbon dioxide. The Administrator replied that the Clean Air Act provides such authority, and agreed to supply to Representative DeLay a legal opinion on that point. Therefore, my predecessor, Jon Cannon, prepared a legal opinion for the Administrator on the question of EPA's legal authority to regulate several pollutants. The legal opinion, which I endorse, requested by Representative DeLay, was completed in April 1998, and it addressed EPA's Clean Air Act authority to regulate emissions of four pollutants of concern from electric power generation—nitrogen oxides, sulfur dioxide, mercury, and carbon dioxide. I will summarize the conclusions only as they relate to carbon dioxide. But let me emphasize that this analysis is largely theoretical. EPA currently has no plans to regulate carbon dioxide as an air pollutant, and, despite statement by others to the contrary, we have not proposed to regulate CO₂.

The Clean Air Act includes a definition of the term "air pollutant" which is the touchstone of EPA's regulatory authority over emissions. Section 302(g) defines air pollutant as "any air pollution

agent, or combination of agents, including any physical, chemical, biological, radioactive "substance or matter which is emitted into or otherwise enters the ambient air." The opinion noted that CO₂ thus would be an air pollutant within the Clean Air Act's definition. Perhaps most telling to me, Congress explicitly recognized emissions of CO_2 from stationary sources, such as fossil fuel power plants, as an "air pollutant" in section 103(g) of the act. That section authorizes EPA to conduct a basic research and technology program to include, among other things, "improvements in non-regulatory strategies and technologies for preventing or reducing mul-

tiple air pollutants, including sulfur dioxides, nitrogen oxides, and carbon dioxide," among others.

The opinion explains further that the status of CO₂ as an air pollutant is not changed by the fact that it is found in the natural atmosphere. Congress specified regulation in the Clean Air Act of a number of naturally occurring substances as air pollutants because human activities have increased the quantities present in the air to levels that are harmful to public health, welfare, or the environment. For example, sulfur dioxide is emitted from geothermal sources; volatile organic compounds, which are precursors to harmful ground-level ozone, are emitted by vegetation; and some substances specified by Congress as hazardous air pollutants are actually necessary in trace quantities for human life but are toxic or harmful at levels higher than found ordinarily or through other routes of exposure. Phosphorus, manganese, and selenium, these are examples of such pollutants.

While carbon dioxide as an air pollutant is within the scope of regulatory authority provided by the Clean Air Act, this by itself does not lead to regulation. Before EPA can actually issue regulations through a rulemaking process governing a pollutant, the Administrator first must make a formal finding that the pollutant in question meets specific criteria laid out in the act. Many of these provisions share a common feature, in that the exercise of EPA's authority to regulate air pollutants is linked to a determination by the Administrator regarding the air pollutant's actual or potential harmful effects on public health, welfare, or the environment. This is true for authority under section 109 of the act to establish Na-

tional Ambient Air Quality Standards.

By the way, section 302(h), a provision dating back to the 1970 version of the Clean Air Act, defines "welfare," for purposes of secondary effects, as including "effects on soil, water, crops, vegetation . . . weather, visibility, and climate," among others. So, that since 1970, the Clean Air Act has included effects on climate as a factor to be considered in the administration's decision as to whether to list an air pollutant under section 108. Analogous threshold findings are required before the Administrator may establish new source performance standards under section 111, or list and regulate a pollutant as hazardous under section 112.

Given the clarity of the statutory provisions defining air pollutants and providing authority to regulate them, there is no statutory ambiguity that could be clarified by reference to legislative history. Nevertheless, Congress' decision in the 1990 amendments not to adopt additional provisions directing EPA to regulate greenhouse gases by no means suggests an intention to limit pre-existing authority to address any air pollutant that the Administrator determines meets the statutory criteria for regulation under a specific

provision of the act.

Let me reiterate one of the central conclusions of the EPA memorandum. "While CO_2 , as an air pollutant is within EPA's scope of authority to regulate, the Administrator has not yet determined that CO_2 meets the criteria for regulation under one or more provisions of the Act." That statement remains true today. EPA has not made any of the act's threshold findings that would lead to regulation of CO_2 emissions from electric utilities, or any source. Is it well-crafted, as Chairman McIntosh asked, to this goal? I would just point out the second finding of the EPA memo, that existing authority does not easily lend itself to a cost-effective mechanism, to impose a cap and trade program, and the administration is pledged to consult with Congress on the best mechanisms for doing so.

I also wish to stress once more that while EPA will pursue efforts to address the threat of global warming through the voluntary programs authorized and funded by Congress, and will carry out other mandates of the Clean Air Act, this administration has no intention of implementing the Kyoto Protocol prior to its ratification on the advice and consent of the Senate.

This concludes my prepared remarks. I ask that my full statement be submitted for the record, and would be pleased to answer any questions that the subcommittees may have. Thank you.

[The prepared statement of Mr. Guzy follows:]

TESTIMONY OF
GARY S. GUZY
GENERAL COUNSEL
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE A JOINT HEARING OF THE
SUBCOMMITTEE ON NATIONAL ECONOMIC GROWTH,
NATURAL RESOURCES AND REGULATORY AFFAIRS
OF THE
COMMITTEE ON GOVERNMENT REFORM
AND THE
SUBCOMMITTEE ON ENERGY AND ENVIRONMENT
OF THE
COMMITTEE ON SCIENCE
U.S. HOUSE OF REPRESENTATIVES

October 6, 1999

Thank you, Chairman McIntosh, Chairman Calvert, and Members of the Subcommittees, for the invitation to appear here today. I am pleased to have this opportunity to explain the U.S. Environmental Protection Agency's (EPA) views as to the legal authority provided by the Clean Air Act (Act) to regulate emissions of carbon dioxide, or CO₂.

Before I do, however, I would like to stress, as EPA repeatedly has stated in letters to Chairman McIntosh and other Members of Congress, that the Administration has no intention of implementing the Kyoto Protocol to the United Nations Framework Convention on Climate Change prior to its ratification with the advice and consent of the Senate.¹ As I indicated in my letter of September 17, 1999 to Chairman McIntosh,

¹See, e.g., Letter from Gary S. Guzy, General Counsel, to Congressman David McIntosh, September 17, 1999; Letter from David Gardiner, Assistant Administrator for Policy, to Congressman David McIntosh, June 23, 1999; Letter from David Gardiner, Assistant Administrator for Policy, to Congressman David McIntosh, August 13, 1988.

there is a clear difference between actions that carry out authority under the Clean Air Act or other domestic law, and actions that would implement the Protocol. Thus, there is nothing inconsistent in assessing the extent of current authority under the Clean Air Act and maintaining our commitment not to implement the Protocol without ratification.

Some brief background information is helpful in understanding the context for this question of legal authority. In the course of generating electricity by burning fossil fuels, electric power plants emit into the air multiple substances that pose environmental concerns, several of which are already subject to some degree of regulation. Both industry and government share an interest in understanding how different pollution control strategies interact. These interactions are both physical (strategies for controlling emissions of one substance can affect emissions of others) and economic (strategies designed to address two or more substances together can cost substantially less than strategies for individual pollutants that are designed and implemented independently). EPA has worked with a broad array of stakeholders to evaluate multiple-pollutant control strategies for this industry in a series of forums, dating back to the Clean Air Power Initiative (CAPI) in the mid-1990s. While the CAPI process focused on SO2 and NOx, a broad range of participants, including representatives of power generators, the United Mine Workers, and environmentalists, expressed support for inclusion of CO2 emissions, along with SO2, NOx, and mercury, in subsequent analyses. One conclusion that emerged from these analytical efforts is that integrated strategies using market-based "cap-and-trade" approaches like the

program currently in place to address acid rain would be the most flexible and lowest cost means to control multiple pollutants from these sources.

On March 11, 1998, during hearings on EPA's FY 1999 appropriations,
Representative DeLay asked the Administrator whether she believed that EPA had
authority to regulate emissions of pollutants of concern from electric utilities, including
CO₂. She replied that the Clean Air Act provides such authority, and agreed to
Representative DeLay's request for a legal opinion on this point.

Therefore, my predecessor, Jonathan Z. Cannon, prepared a legal opinion for EPA Administrator Carol Browner on the question of EPA's legal authority to regulate several pollutants, including CO₂ emitted by electric power generation sources. The legal opinion requested by Rep. DeLay was completed on April 10, 1998. It addressed the Clean Air Act authority to regulate emissions of four pollutants of concern from electric power generation: nitrogen oxides (NO_{x)}, sulfur dioxide (SO₂), mercury, and CO₂. Because today's hearing is focused exclusively on CO₂, I will summarize the opinion's conclusions only as they relate to that substance.

The Clean Air Act includes a definition of the term "air pollutant," which is the touchstone of EPA's regulatory authority over emissions. Section 302(g) defines "air pollutant" as

any air pollution agent or combination of such agents, including any physical, chemical, biological, [or] 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, to the extent that the Administrator has identified such precursor or precursors for the particular purpose for which the term "air pollutant" is used.

Mr. Cannon noted that CO2 is a "physical [and] chemical substance which is emitted

into . . . the ambient air," and thus is an "air pollutant" within the Clean Air Act's definition. Congress explicitly recognized emissions of CO₂ from stationary sources, such as fossil fuel power plants, as an "air pollutant" in section 103(g) of the Act, which authorizes EPA to conduct a basic research and technology program to include, among other things, "[i]mprovements in nonregulatory strategies and technologies for preventing or reducing multiple <u>air pollutants, including</u> sulfur oxides, nitrogen oxides, heavy metals, PM-10 (particulate matter), carbon monoxide, <u>and carbon dioxide</u>, from stationary sources, including fossil fuel power plants." (Emphasis added.)

The opinion explains further that the status of CO₂ as an "air pollutant" is not changed by the fact that CO₂ is a constituent of the natural atmosphere. In other words, a substance can be an "air pollutant" under the Clean Air Act's definition even if it has natural sources in addition to its man-made sources. EPA regulates a number of naturally-occurring substances as air pollutants because human activities have increased the quantities present in the air to levels that are harmful to public health, welfare, or the environment. For example, SO₂ is emitted from geothermal sources; volatile organic compounds (VOCs), which are precursors to harmful ground-level ozone, are emitted by vegetation. Some substances regulated under the Act as hazardous air pollutants are actually necessary in trace quantities for human life, but are toxic at higher levels or through other routes of exposure. Manganese and selenium are two examples of such pollutants. Similarly, in the water context, phosphorus is regulated as a pollutant because although it is a critical nutrient for plants, in excessive quantities it kills aquatic life in lakes and other water bodies.

While CO₂, as an "air pollutant," is within the scope of the regulatory authority provided by the Clean Air Act, this by itself does not lead to regulation. The Clean Air Act includes a number of regulatory provisions that may potentially be applied to an air pollutant. But before EPA can actually issue regulations governing a pollutant, the Administrator must first make a formal finding that the pollutant in question meets specific criteria laid out in the Act as prerequisites for EPA regulation under its various provisions. Many of these specific Clean Air Act provisions for EPA action share a common feature in that the exercise of EPA's authority to regulate air pollutants is linked to a determination by the Administrator regarding the air pollutant's actual or potential harmful effects on public health, welfare or the environment. For example, EPA has authority under section 109 of the Act to establish National Ambient Air Quality Standards for any air pollutant for which the Administrator has established air quality criteria under section 108. Under section 108, the Administrator must first find that the air pollutant in question meets several criteria, including that:

- it causes or contributes to "air pollution which may reasonably be anticipated to endanger public health or welfare;" and
- its presence in the ambient air "results from numerous or diverse mobile or stationary sources"

Section 302(h), a provision dating back to the 1970 version of the Clean Air Act, defines "welfare" and states:

all language referring to effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants.

Thus, since 1970, the Clean Act has included effects on "climate" as a factor to be considered in the Administrator's decision as to whether to list an air pollutant under section 108.

Analogous threshold findings are required before the Administrator may establish new source performance standards for a pollutant under section 111, list and regulate the pollutant as a hazardous air pollutant under section 112, or regulate its emission from motor vehicles under Title II of the Act.

Given the clarity of the statutory provisions defining "air pollutant" and providing authority to regulate air pollutants, there is no statutory ambiguity that could be clarified by referring to the legislative history. Nevertheless, I would note that Congress' decision in the 1990 Amendments not to adopt <u>additional</u> provisions directing EPA to regulate greenhouse gases by no means suggests that Congress intended to limit <u>pre-existing</u> authority to address any air pollutant that the Administrator determines meets the statutory criteria for regulation under a specific provision of the Act.

I would like today to reiterate one of the central conclusions of the Cannon memorandum, which stated: "While CO₂, as an air pollutant, is within EPA's scope of authority to regulate, the Administrator has not yet determined that CO₂ meets the criteria for regulation under one or more provisions of the Act." That statement remains true today. EPA has not made any of the Act's threshold findings that would lead to regulation of CO₂ emissions from electric utilities or, indeed, from any source. The opinion of my predecessor simply clarifies — and I endorse this opinion — that CO₂ is in the class of compounds that could be subject to several of the Clean Air Act's regulatory approaches. Thus, I would suggest that many of the concerns raised about

the statutory authority to address CO₂ relate more to factual and scientific, rather than legal, questions regarding whether and how the criteria for regulation under the Clean Air Act could be satisfied.

I also want to note, however, EPA has strongly promoted voluntary partnerships to reduce emissions of greenhouse gases through the EnergyStar and Green Lights programs and other non-regulatory programs that Congress has consistently supported. These successful programs already have over 7,000 voluntary partners who are taking steps to reduce greenhouse gas emissions, reduce energy costs and help address local air pollution problems. These programs also help the United States meet its obligations under the United Nations Framework Convention on Climate Change, which was ratified in 1992. I would also note, as EPA has indicated in past correspondence with Chairman McIntosh and others, in the course of carrying out the mandates of the Clean Air Act, EPA has in a few instances directly limited use or emissions of certain greenhouse gases other than CO2. For example, EPA has limited the use of certain substitutes for ozone-depleting substances under Title VI of the Act, where those substitutes have very high global warming potentials. I wish to stress once more, however, that while EPA will pursue efforts to address the threat of global warming through the voluntary programs authorized and funded by Congress and will carry out the mandates of the Clean Air Act, this Administration has no intention of implementing the Kyoto Protocol prior to its ratification on the advice and consent of the Senate.

This concludes my prepared statement. I would be happy to answer any questions that you may have.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

APR 10 1998

OFFICE OF GENERAL COUNSEL

MEMORANDUM

SUBJECT: EPA's Authority to Regulate Pollutants Emitted by Electric Power Generation

Jonathan Z. Cannon Jarofton | Curren FROM:

General Counsel

Carol M. Browner TO: Administrator

I. Introduction and Background

This opinion was prepared in response to a request from Congressman DeLay to you on March 11, 1998, made in the course of a Fiscal Year 1999 House Appropriations Committee Hearing. In the Hearing, Congressman DeLay referred to an EPA document entitled "Electricity Restructuring and the Environment: What Authority Does EPA Have and What Does it Need." Congressman DeLay read several sentences from the document stating that EPA currently has Congressman Delay read several semiences from the decontrol requirements for four pollutants of concern from electric power generation: nitrogen oxides (NO₂), sulfur dioxide (SO₃), carbon dioxide (CO₃), and mercury. He also asked whether you agreed with the statement, and in particular, whether you thought that the Clean Air Act allows EPA to regulate emissions of carbon dioxide. You agreed with the statement that the Clean Air Act grants EPA broad caron dioxide. You agreed with the statement unto the Clean Air Air grants BFA 0704d authority to address certain pollutants, including those listed, and agreed to Congressman DeLay's request for a legal opinion on this point. This opinion discusses EPA's authority to address all four of the pollutants at issue in the colloquy, and in particular, CO₂, which was the subject of Congressman DeLay's specific question.

The question of EPA's legal authority arose initially in the context of potential legislation addressing the restructuring of the utility industry. Electric power generation is a significant source of air pollution, including the four pollutants addressed here. On March 25, 1998, the Administration announced a Comprehensive Electricity Competition Plan (Plan) to produce lower

prices, a cleaner environment, increased innovation and government savings. This Plan includes a proposal to clarify EPA's authority regarding the establishment of a cost-effective interstate cap and trading system for NO_x reductions addressing the regional transport contributions needed to attain and maintain the primary National Ambient Air Quality Standards (NAAQS) for ozone. The Plan does not ask Congress for authority to establish a cap and trading system for emissions of carbon dioxide from utilities as part of the Administration's electricity restructuring proposal. The President has called for cap-and-trade authority for greenhouse gases to be in place by 2008, and the Plan states that the Administration will consider in consultation with Congress the legislative vehicle most appropriate for that purpose.

As this opinion discusses, the Clean Air Act provides EPA authority to address air pollution, and a number of specific provisions of the Act are potentially applicable to control these pollutants from electric power generation. However, as was made clear in the document from which Congressman DeLay quoted, these potentially applicable provisions do not easily lend themselves to establishing market-based national or regional cap-and-trade programs, which the Administration favors for addressing these kinds of pollution problems.

IL Clean Air Act Authority

The Clean Air Act 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.

A. Definition of Air Pollutant

Each of the four substances of concern as emitted from electric power generating units falls within the definition of "air pollutant" under section 302(g). Section 302(g) defines "air pollutant" as

any air pollution agent or combination of such agents, including any physical, chemical, biological, [or] 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, to the extent that the Administrator has identified such precursor or precursors for the particular purpose for which the term "air pollutant" is used.

This broad definition states that "air pollutant" includes any physical, chemical, biological, or radioactive substance or matter that is emitted into or otherwise enters the ambient air. SO₂ NO₂ CO₂ and mercury from electric power generation are each a "physical [and] chemical...

substance which is emitted into . . . the ambient air," and hence, each is an air pollutant within the meaning of the Clean Air ${\rm Act.}^1$

A substance can be an air pollutant even though it is naturally present in air in some quantities. Indeed, many of the pollutants that EPA currently regulates are naturally present in the air in some quantity and are emitted from natural as well as anthropogenic sources. For example, SQ, is emitted from goothermal sources; volatile organic compounds (precursors to ozone) are emitted by vegetation; and particulate matter and NQ, are formed from natural sources through .natural processes, such as naturally occurring forest fires. Some substances regulated under the Act as hazardous air pollutants are actually necessary in trace quantities for human life, but are toxic at higher levels or through other routes of exposure. Manganese and selenium are two examples of such pollutants. EPA regulates a number of naturally occurring substances as air pollutants, however, because human activities have increased the quantities present in the air to levels that are harmful to public health, welfare, or the environment.

B. EPA Authority to Regulate Air Pollutants

EPA's regulatory authority extends to air pollutants, which, as discussed above, are defined broadly under the Act and include SO₂, NO₂, CO₂, and mercury emitted into the ambient air. Such 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. A number of specific provisions of the Act are potentially applicable to these pollutants emitted from electric power generation. Many of these specific provisions for EPA action share a common

¹ See also section 103(g) of the Act (authorizes EPA to conduct a basic research and technology program to develop and demonstrate nonregulatory strategies and technologies for air pollution prevention, which shall include among the program elements "[i]mprovements in nonregulatory strategies and technologies for preventing or reducing multiple air pollutants, including sulfur oxides, nitrogen oxides, heavy metals, PM-10 (particulate matter), carbon monoxide, and carbon dioxide, from stationary sources, including fossil fuel power plants.").

² See. e.g., section 108 (directs Administrator to list and issue air quality criteria for each air pollution that may reasonably be anticipated to endanger public health or welfare and that is present in the ambient air due to emissions from numerous or diverse mobile or stationary sources); section 109 (directs Administrator to promulgate national primary and secondary ambient air quality standards for each air pollutant for which there are air quality criteria, to be set at levels requisite to protect the public health with an adequate margin of safety (primary standards) and to protect welfare (secondary standards); section 110 (requires states to submit state implementation plans (SIPs) to meet standards); section 111(b) (requires Administrator to list, and set federal performance standards for new sources in, categories of stationary sources that cause or contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare); section 111(d) (states must establish performance standards for existing sources for any air pollutant (except criteria

feature in that the exercise of EPA's authority to regulate air pollutants is linked to a determination by the Administrator regarding the air pollutants' actual or potential harmful effects on public health, welfare or the environment. See, e.g., sections 108, 109, 111(b), 112, and 115. See also sections 202(a), 211(c), 231, 612, and 615. The legislative history of the 1977 Clean Air Act Armendments provides extensive discussion of Congress' purposes in adopting the language used throughout the Act referencing a reasonable anticipation that a substance endangers public health or welfare. One of these purposes was "[1]0 emphasize the preventative or precautionary nature of the act, i.e., to assure that regulatory action can effectively prevent harm before it occurs; to emphasize the predominant value of protection of public health." H.R. Rep. No. 95-294, 95th Cong., 1st Sess., at 49 (Report of the Committee on Interstate and Foreign Commerce). Another purpose was "[1]0 assure that the health of susceptible individuals, as well as healthy adults, will be encompassed in the term 'public health,' " Id, at 50. "Welfare" is defined in section 302(h) of the Act, which states:

[a]Il language referring to effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants.¹

EPA has already regulated SO_b, NO_a and mercury based on determinations by EPA or Congress that these substances have negative effects on public health, welfare, or the environment. While CO_b as an air pollutant, is within EPA's scope of authority to regulate, the Administrator has not yet determined that CO_b meets the criteria for regulation under one or more

pollutants or hazardous air pollutants) that would be subject to a performance standard if the source were a new source); section 112(b) (lists 188 hazardous air pollutants and authorizes Administrator to add pollutants to the list that may present a threat of adverse human health effects or adverse environmental effects); section 112(d) (requires Administrator to set emissions standards for each category or subcategory of major and area sources that the Administrator has listed pursuant to section 112(c)); section 112(n)(1)(A) (requires Administrator to study and report to Congress on the public health hazards reasonably anticipated from emissions of listed hazardous air pollutants from electric utility steam generating units, and requires regulation if appropriate and necessary); section 115 (Administrator may require state action to control certain air pollution if, on the basis of certain reports, she has reason to believe that any air pollutant emitted in the United States causes or contributes to air pollution that may be reasonably anticipated to endanger public health or welfare in a foreign country that has given the United States reciprocal rights regarding air pollution control); Title IV (establishes cap-and-trade system for control of SO₂ from electric power generation facilities and provides for certain controls on

³ The language in section 302(h) listing specific potential effects on welfare, including the references to weather and climate, dates back to the 1970 version of the Clean Air Act.

provisions of the Act. Specific regulatory criteria under various provisions of the Act could be met if the Administrator determined under one or more of those provisions that CO₂ emissions are reasonably anticipated to cause or contribute to adverse effects on public health, welfare, or the environment.

C. EPA Authority to Implement an Emissions Cap-and-Trade Approach

The specific provisions of the Clean Air Act that are potentially applicable to control emissions of the pollutants discussed here can largely be categorized as provisions relating to either state programs for pollution control under Title I (e.g., sections 107, 108, 109, 110, 115, 126, and Part D of Title I), or national regulation of stationary sources through technology-based standards (e.g., sections 111 and 112). None of these provisions easily lends itself to establishing market-based national or regional emissions cap-and-trade programs.

The Clean Air Act provisions relating to state programs do not authorize EPA to require states to control air pollution through economically efficient cap-and-trade programs and do not provide full authority for EPA itself to impose such programs. Under certain provisions in Title I, such as section 110, EPA may facilitate regional approaches to pollution control and encourage states to cooperate in a regional, cost-effective emissions cap-and-trade approach (see Notice of Proposed Rulemaking; Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone, 62 F.R. 60318 (Nov. 7, 1997)). EPA does not have authority under Title I to require states to use such measures, however, because the courts have held that EPA cannot mandate specific emission control measures for states to use in meeting the general provisions for attaining amblent air quality standards. See Commonwealth of Vinginia v. EPA, 108 F.3d 1397 (D.C. Cir. 1997). Under certain limited circumstances where states fail to carry out their responsibilities under Title I of the Clean Air Act, EPA has authority to take certain actions, which might include establishing a cap-and-trade program. Yet EPA's ability to invoke these provisions for federal action depends on the actions or inactions of the states.

Technology-based standards under the Act directed to stationary sources have been interpreted by EPA not to allow compliance through intersource cap-and-trade approaches. The

 $^{^4}$ Title IV of the Act provides explicit authority for a cap and trade program for SO $_2$ emissions from electric power generating sources.

¹For example, section 110(c) requires EPA to promulgate a Federal implementation plan where EPA finds that a state has failed to make a required submission of a SIP or that the SIP or SIP revision does not satisfy certain minimum criteria, or EPA disapproves the SIP submission in whole or in part. In addition, section 126 provides that a State or political subdivision may petition the Administrator for certain findings regarding emissions from certain stationary sources in another state. If the Administrator grants the petition, she may establish control requirements applicable to sources that were the subject of the petition.

Clean Air Act provisions for national technology-based standards under sections 111 and 112 require EPA to promulgate regulations to control emissions of air pollutants from stationary sources. To maximize the opportunity for trading of emissions within a source, EPA has defined the term "stationary source" expansively, such that a large facility can be considered a "source." Yet EPA has never gone so far as to define as a source a group of facilities that are not geographically connected, and EPA has long held the view that trading across plant boundaries is impermissible under sections 111 and 112. See, e.g., National Emission Standards for Hazardous Air Pollutants for Source Categories; Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry, 59 Fed. Reg. 19402 at 19425-26 (April 22, 1994).

III. Conclusion

EPA's regulatory authority under the Clean Air Act extends to air pollutants, which, as discussed above, are defined broadly under the Act and include SO₂, NO₂, CO₂, and mercury emitted into the ambient air. EPA has in fact already regulated each of these substances under the Act, with the exception of CO₂. While 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.

With the exception of the SO₂ provisions focused on acid rain, the authorities potentially available for controlling these pollutants from electric power generating sources do not easily lend themselves to establishing market-based national or regional cap-and-trade programs, which the Administration favors for addressing these kinds of pollution problems. Under certain limited circumstances, where states fail to carry out their responsibilities under Title I of the Act, EPA has authority to take certain actions, which might include establishing a cap-and-trade program. However, such authority depends on the actions or inactions of the states.

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U.S. House of Representatives Committee on Commerce Room 2123, Rayburn House Office Building Washington, DC 20315-6115

October 5, 1999

JAMESE, DERDERIAN, CHIEF OF STAFF

The Honorable David M. McIntosh Chairman Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs Committee on Government Reform Room B-377 Rayburn House Office Building Washington, D.C. 20515

Dear Mr. Chairman:

I understand that you have asked, based on discussions between our staffs, about the disposition by the House-Senate conferees of the amendments in 1990 to the Clean Air Act (CAA) regarding greenhouse gases such as methane and carbon dioxide. In making this inquiry, you call my attention to an April 10, 1998 Environmental Protection Agency (EPA) memorandum entitled "EPA's Authority to Regulate Pollutants Emitted by Electric Power Generation Sources" and an October 12, 1998 memorandum entitled "The Authority of EPA to Regulate Carbon Dioxide Under the Clean Air Act" prepared for the National Mining Association. The latter memorandum discusses the legislative history of the 1990 amendments.

First, the House-passed bill (H.R. 3030) never included any provision regarding the regulation of any greenhouse gas, such as methane or carbon dioxide, nor did the bill address global climate change. The House, however, did include provisions aimed at implementing the Montreal Protocol on Substances that Deplete the Ozone Layer.

Second, as to the Senate version (S.1630) of the proposed amendments, the October 12, 1998 memorandum correctly points out that the Senate did address greenhouse gas matters and global warming, along with provisions implementing the Montreal Protocol. Nevertheless, only Montreal Protocol related provisions were agreed to by the House-Senate conferees (see Conf. Rept. 101-952, Oct. 26, 1990).

However, I should point out that Public Law 101-549 of November 15, 1990, which contains the 1990 amendments to the CAA, includes some provisions, such as sections 813, 817 and 819-821, that were enacted as free-standing provisions separate from the CAA. Although

the Public Law often refers to the "Clean Air Act Amendments of 1990," the Public Law does not specify that reference as the "short title" of all of the provisions included the Public Law.

One of these free-standing provisions, section 821, entitled "Information Gathering on Greenhouse Gases Contributing to Global Climate Change" appears in the United States Code as a "note" (at 42 U.S.C. 7651k). It requires regulations by the EPA to "monitor carbon dioxide emissions" from "all affected sources subject to title V" of the CAA and specifies that the emissions are to be reported to the EPA. That section does not designate carbon dioxide as a "pollutant" for any purpose.

Finally, Title IX of the Conference Report, entitled "Clean Air Research," was primarily negotiated at the time by the House and Senate Science Committees, which had no regulatory jurisdiction under House-Senate Rules. This title amended section 103 of the CAA by adding new subsections (c) through (k). New subsection (g), entitled "Pollution Prevention and Control," calls for "non-regulatory strategies and technologies for air pollution prevention." While it refers, as noted in the EPA memorandum, to carbon dioxide as a "pollutant," House and Senate conferees never agreed to designate carbon dioxide as a pollutant for regulatory or other purposes.

Based on my review of this history and my recollection of the discussions, I would have difficulty concluding that the House-Senate conferees, who rejected the Senate regulatory provisions (with the exception of the above-referenced section 321), contemplated regulating greenhouse gas emissions or addressing global warming under the Clean Air Act. Shortly after enactment of Public Law 101-549, the United Nations General Assembly established in December 1990 the Intergovernmental Negotiating Committee that ultimately led to the Framework Convention on Climate Change, which was ratified by the United States after advice and consent by the Senate. That Convention is, of course, not self-executing, and the Congress has not enacted implementing legislation authorizing EPA or any other agency to regulate greenhouse gases.

I hope that this is responsive.

With best wishes,

e: The Honorable Dennis J. Kucinich

Ranking Minority Member, Subcommittee on National Economic Growth, Natural

JOHN D. DINGELL RANKING MEMBER

Resources and Regulatory Affairs
Committee on Government Reform

The Honorable Ken Calvert Chairman, Subcommittee on Energy and Environment Committee on Science

The Honorable Jerry F. Costello Ranking Minority Member, Subcommittee on Energy and Environment Committee on Science



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

FEB 16 2000

OFFICE OF GENERAL COUNSEL

Honorable David M. McIntosh Chairman, Subcommittee on National Economic Growth, Natural Resources and Regulatory Affairs Committee on Government Reform U.S. House of Representatives 2157 Rayburn House Office Building Washington, DC 20515-6143

Dear Mr. Chairman:

I am writing in response to your letter of December 10, 1999, regarding EPA authority with respect to climate change, which addresses certain issues from our letter of December 1, 1999, responding to your letter of October 14, 1999. Attached are our responses to your questions.

Please let me know if we can be of further assistance, or please have your staff contact Alexandra Teitz of my office at (202) 564-5594.

Gary S. Guzy General Counsel

Attachment

1. Your response to Q1 of our October 14th letter states: "Specific mention of a pollutant in a statutory provision is not a necessary prerequisite to regulation under many CAA statutory provisions." That is correct, as we acknowledge in Q3 of our October 14th letter. Because a law cannot specify in advance all the circumstances to which it may apply, and because science continually brings to light new information regarding the health and environmental effects of particular air emissions, the Clean Air Act (CAA) sensibly allows the Environmental Protection Agency (EPA) some discretion to fill in gaps and address unforeseen contingencies as they arise. However, when Congress amended the CAA in 1990, it was quite familiar with the theory that man-made emissions of carbon dioxide (CO₂) cause, or are likely to cause, global warming. Indeed, Congress had already held several hearings and debates on the subject, including some specifically intended to inform its deliberation on the CAA amendments. Thus, is not the fact that the CAA nowhere lists CO₂ as a substance to be regulated, but does list numerous other substances, evidence that Congress, in 1990, decided to reserve to itself the power to determine, at some future date, whether or not EPA should regulate CO₂?

Please see in our December 1 letter our responses to Q1 and Q3 of your October 14 letter. In those responses, we discuss the development of the CAA over time and how this history informs our views on the significance of the fact that Congress did not in the 1990 Amendments require EPA to regulate CO2. As we stated previously, specific mention of a pollutant in a statutory provision is not a necessary prerequisite to regulation under many CAA statutory provisions. Congress did not in 1990 limit the potential applicability of any of the CAA regulatory provisions to CO2. Thus, in our view, the CAA does not express a decision by Congress not to regulate CO2 unless it should determine to do so at some future date.

2. Your response to Q2 of our October 14th letter states: "Nor does the language in sections 103(g) and 602(e) limit in any way the regulatory authority provided by other provisions of the Clean Air Act." These two sections are the only CAA provisions that mention CO₂ and global warming, and, as you acknowledge, they "do not themselves provide authority to regulate." Thus, your interpretation is paradoxical, to say the least. To wit; although sections that mention CO₂ and global warming do not provide authority to regulate greenhouse gases, "other provisions" that are completely silent about CO₂ and global warming do provide such authority. We regard this interpretation as not only paradoxical but wrong, because it effectively negates the limitations on EPA's authority set forth in 103(g) and 602(e). After all, if "other provisions" already authorize EPA to regulate greenhouse gases, then the admonitions against assuming such authority in sections 103(g) and 602(e) are a practical nullity. If Congress intended to delegate to EPA the authority to regulate greenhouse gases, why did it admonish EPA not to assume such authority in the only CAA provisions dealing with CO₂ and global warming?

In section 103(g), Congress directed EPA to establish a program with the purpose of demonstrating nonregulatory strategies for pollution prevention. It makes sense that Congress did not intend for this provision to be construed to mandate or authorize a broad new regulatory

program mandating pollution prevention. Similarly, section 602(e) is specifically targeted to providing information regarding the ozone-depletion potentials and global warming potentials of a variety of substances. Again, Congress did not intend for this information provision to be construed to mandate or authorize a broad new regulatory program to regulate greenhouse gases. Neither of these provisions is structured to direct the exercise of regulatory authority. For example, neither contain criteria specifying the circumstances under which regulation is appropriate. By contrast, the regulatory provisions of the Act do specify such criteria and the structure of the regulations authorized by those provisions. Thus, it makes sense that Congress would not intend the Agency to regulate substances under authorities provided for nonregulatory activities. The language in sections 103(g) and 602(e) does not directly or indirectly limit the regulatory authorities provided to the Agency elsewhere in the Act. Nor does that language negate the fact that Congress explicitly recognized in these provisions that CO2 was an "air pollutant."

3. We do not find persuasive your response to Q3 of our October 14th letter. We asked: "What is the significance of the fact that the Act nowhere expressly authorized the Administrator to list and promulgate regulations to control substances that may be reasonably anticipated to cause or contribute to global warming?" You answered that the 1977 and 1990 CAA amendments "generally left intact, and in some cases extended, EPA's general authority to identify and regulate additional air pollutants if they meet the criteria of relevant sections of the Act. Thus, the absence of specific provisions addressing a particular air pollution problem does not mean that EPA lacks authority to address that problem." This response blurs the immense practical difference between the authority to list and regulate "additional air pollutants" within an established regulatory scheme and the authority to create new regulatory schemes.

A "particular air pollution problem" may be very specific (e.g., the impact of carbon monoxide (CO) emissions from automobiles on ambient air quality) or very broad (e.g., the impact of all auto and industrial emissions on ambient air quality). Although we agree that EPA could list and control CO without a specific provision mentioning it, we do not agree that EPA could control CO without specific provisions authorizing EPA to protect ambient air quality. To put this in the language of Chevron v. NRDC, which you cite, there is a world of difference between EPA filling in a "gap left, implicitly or explicitly, by Congress" in a "congressionally created...program" and EPA's arrogating to itself the power to create new programs. Adding a chemical to the list of ambient air pollutants, or the list of hazardous air pollutants, or the list of ozone-depleting substances, is merely filling "gapa" in "congressionally created" programs. However, Congress has never created a greenhouse gas emissions control program; it has never created a regulatory global warming mitigation program. Thus, if EPA were to attempt to bootstrap such a program into existence, citing CAA sections 108, 111 112, or other provisions, this would not be an exercise in filling "gapa." It would be a usurpation of legislative power.

Therefore, please answer the following questions:

(a) Do you acknowledge that there is a vital practical distinction between filling gaps in existing programs and creating new programs?

As you use the term here, we are not certain what you would consider to constitute a distinct "program." One can identify practical differences between activities such as applying existing requirements to a new set of sources or additional pollutants, and setting up a new control regime to address a previously overlooked environmental problem from previously unregulated sources, as the latter is likely to require greater Agency resources, public education efforts, etc. As long as both types of activities are authorized by law, we do not see a general legal distinction between them, however.

(b) Do you agree that EPA may not create new programs without clear and express Congressional authorization?

EPA may not act without Congressional authorization. We do not believe that the question of whether a "new program" is authorized by Congress would be addressed any differently from the question of whether any EPA activity is authorized by Congress.

(c) Do you believe that EPA's authority to control substances based upon their global warming potential is as clear and certain and unambiguous as EPA's authority to control substances based upon their impact on ambient air quality, their toxicity, or their potential to damage the ozone layer?

Whether EPA has authority to control any air pollutant under the CAA depends upon whether EPA finds that the pollutant meets the particular criteria for regulation specified under a provision of the Act. As EPA has no current plans to propose regulations for CO2, EPA has not evaluated the strength of the technical and legal basis for such findings under any particular provision of the Act. Under section 612 of the Act, EPA has already addressed certain other substances that are substitutes for ozone-depleting substances based on their global warming potentials, and we believe we had clear authority for those steps.

4. Your response to Q4 of our October 14th letter argues that EPA could, in principle, regulate CO₂ as a hazardous air pollutant (HAP) because the class of hazardous air pollutants is "not limited to those that are highly toxic and endanger health or the environment through direct exposure." You contend that all EPA has to do to list a substance as a HAP is determine that it has an "adverse environmental effect," defined in section 112(a)(7) as "any significant and widespread adverse effect" on "wildlife," "aquatic life," "other natural resources," or "environmental quality over broad areas." We disagree. Under that interpretation, EPA could regulate all ambient air pollutants and all ozone-depleting substances as HAPs. However, in section 112(b)(2), Congress took care to preclude any such expansive interpretation of EPA's authority to list and regulate HAPs. Section 112(b)(2) limits EPA's authority with respect to substances that have adverse environmental effects, and when that limitation is taken into account, it becomes clear that

EPA cannot possibly list CO1 as a HAP.

Section 112(b)(2) does indeed direct the Administrator to add pollutants to the list of HAPs that present a "threat of...adverse environmental effects," but with two important exceptions. First, "No [ambient] air pollutant which is listed under section 7408(a) [section 108(a)] of this title may be added to the list under this section," unless the pollutant "independently meets the listing criteria of this paragraph." Second, "No substance, practice, process or activity regulated under subchapter VI [on stratospheric ozone protection] of this chapter shall be subject to regulation under this section solely due to its adverse effects of the environment." In other words, the fact that ambient air pollutants, such as CO, sulfur dioxide (SO₂), and particulate matter, or ozone-depleting substances such as Freon-12, may have a "significant and widespread adverse effect" on the environment is not sufficient warrant to [sic] classify them as HAPs. Those pollutants must also meet the independent criteria established by section 112.

Section 112 does not provide an exhaustive description of those criteria, using phrases ("including, but not limited to," "whether through ambient concentrations, bioaccumulation, deposition, or otherwise") that give EPA reasonable discretion to address unanticipated health or environmental threats. Nonetheless, section 112 mentions enough criteria to make intelligible the distinction between hazardous air pollutants, on the one hand, and either ambient air pollutants or ozone-depleting substances, on the other. Hazardous air pollutants include those that "are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, neurotoxic, which cause reproductive dysfunction, or which are acutely or chronically toxic." Furthermore, the actual listing of some 190 HAPs in the statute is strong textual evidence of what Congress meant by "hazardous." Clearly, "hazardous air pollutants" are the nastiest of the nasties -or, as we said in our October 14th letter, substances that are "highly toxic and endanger[] health or the environment through direct exposure."

Several questions emerge from the foregoing discussion:

(a) An ambient air pollutant like SO2 may not be classified as a HAP unless it "independently meets the listing criteria" of section 112(b)(2). What are the criteria for listing under section 112 that SO2 and the other ambient air pollutants do not independently meet?

Section 112(b)(2) provides: "No air pollutant which is listed under section 108(a) may be added to the list under this section, except that the prohibition of this sentence shall not apply to any pollutant which independently meets the listing criteria of this paragraph and is a precursor to a pollutant which is listed under section 108(a) or to any pollutant which is in a class of pollutants listed under such section." (Emphasis added.) Thus, a pollutant aheady listed as a criteria pollutant under section 108(a) may be listed under section 112 only if it is a precursor to a criteria pollutant and it meets the criteria for listing under section 112(b)(2).

(b) Under what criteria might EPA list CO₂ as a HAP but not list any of the ambient air pollutants as HAPs?

EPA could list a pollutant as a HAP if the Administrator determined that it was a pollutant that may present, through inhalation or other routes of exposure, adverse human health effects or "adverse environmental effects whether through ambient concentrations, bioaccumulation, deposition, or otherwise." As noted above, EPA could not list a criteria pollutant listed under section 108 as a HAP unless it (1) was also a precursor to a criteria pollutant listed under section 108, and (2) met the criteria listed above. EPA could list a criteria pollutant as a HAP if it met both of these requirements.

(c) Section 112(b)(2) provides that no ozone-depleting substance shall be classified as a HAP "solely due to its adverse effects on the environment." If no ozone-depleting substance may be listed as a HAP solely due to its adverse environmental effects, does it not stand to reason that no greenhouse gas may be listed solely due to its adverse environmental effects? Indeed, is not the exemption of greenhouse gases from listing under section 112 even stronger than that for ozone-depleting substances, inasmuch as the CAA nowhere expressly authorized EPA to regulate greenhouse gases?

It appears that Congress precluded the listing of an ozone-depleting substance "solely due to its adverse effects on the environment" because Congress believed that those substances' environmental effects would be adequately addressed under Title VI. Congress left open the possibility that EPA could issue regulations under section 112 if an ozone-depleting substance also has effects on public health that were not adequately addressed under Title VI. Since section 112 says nothing precluding the listing of greenhouse gases (or, for that matter, any other pollutants not regulated under Title VI) on environmental grounds alone, EPA does not agree with the conclusion in the last sentence of your question.

(d) Under what criteria might EPA list CO₂ as a HAP but not list Freon-12?

As noted above, EPA could not list Freon-12, which is an ozone-depleting substance covered by Title VI, as a HAP unless the Administrator determined that Freon-12 was a pollutant that may present, through inhalation or other routes of exposure, adverse human health effects. This limitation on the use of section 112 to address a pollutant covered by Title VI simply does not apply to CO2.

5. In Q5 of our October 14th letter, we asked whether EPA could have phased out Freon12 and other non-toxic ozone-depleting substances under its authority to regulate HAPs or whether EPA required new and specific authority, such as conferred by subchapter VI. We further asked whether, if the HAPs framework is unsuited to control substances that deplete the ozone layer, it might not also be unsuited to control substances suspected of enhancing the greenhouse effect. You replied, "EPA has not evaluated whether it would

have had authority to phase out ozone-depleting substances under section 112 of the Act." We regard that answer an non-responsive. Our question was not whether EPA has or has not conducted an evaluation, but whether it has the authority in question. We think the answer to our question is clear. As noted above, section 112(b)(2) states: "No substance, practice, process or activity regulated under subchapter VI [on stratospheric ozone protection] of this chapter shall be subject to regulation under this section solely due to its adverse effects on the environment." In short, the HAPs framework is unsuited to control substances that deplete the ozone layer. Do you agree?

Please see our answer above to question 4(c). We also note that Congress included on the section 112(b)(1) list of HAPs several substances that deplete the ozone layer (e.g., methyl bromide, carbon-tetrachloride (CCl₄).

6. In Q6 of our October 14th letter, we asked whether EPA could have phased out Freon12 and other ozone-depleting substances under the National Ambient Air Quality
Standard (NAAQS) program, or whether EPA required new and specific authority, such
as that conferred by subchapter VI. We further asked whether, if the NAAQS framework
was unsuited to control ozone-depleting substances, it might not also be unsuited to control
substances suspected of enhancing the greenhouse effect. You replied, "EPA has not
evaluated whether it has authority to phase out ozone-depleting substances under the
NAAQS program." We regard that answer also as non-responsive. Again, our question
was not whether EPA has or has not conducted an evaluation, but whether it has the
authority in question.

Stratospheric ozone depletion is, by definition, a phenomenon of the stratosphere, not of the ambient air. Furthermore, from the standpoint of protecting the ozone layer, it matters not whether ozone-depleting chemicals such as chlorofluorocarbons are produced and used in California, Indiana, or Japan. In contrast, it matters a great deal where ambient air pollutants are released; and, consequently, the NAAQS program is organized by geographic region. Finally, to protect stratospheric ozone, it is not practical to monitor and control ambient concentrations of ozone-depleting chemicals; rather, it is necessary to phase out and ban the production, trade, and use of such substances. In light of the foregoing considerations, do you believe the NAAQS program has any rational application to the issue of stratospheric ozone depletion?

Since Title VI adequately addresses stratospheric ozone depletion, EPA has not had any occasion or need to undertake an evaluation of the use of the NAAQS program to address this problem. In the absence of such an evaluation, we do not have anything further we can provide in answer to your question on this subject.

7. Thank you for pointing out that the "troposphere" begins at the planet's surface and, thus, includes "ambient air," as defined by EPA ("that portion of the atmosphere, external to buildings, to which the general public has access"). Nonetheless, we believe that Q7 of

our October 14th letter identified a basic problem in EPA's position. As Peter Glaser testified at the October 6th joint hearing, "Although groundlevel and lower atmospheric ambient concentrations of carbon dioxide may differ slightly from locality to locality owing to differing sources and sinks, the greenhouse effect results from overall greenhouse gas concentrations in the troposphere rather than at groundlevel. Tropospheric levels of carbon dioxide over any particular locality are not influenced by emissions of carbon dioxide locally or upwind." Similarly, you observe that the troposphere extends upwards "to a boundary layer some miles overhead that demarcates the lower reaches of the stratosphere ('tropopause')," i.e., well beyond the portion of the atmosphere to which the public has access. Ambient air is part of the troposphere, but most of the troposphere is not ambient air.

The conclusions we draw from these facts are: (a) the greenhouse effect, and its supposed enhancement by man-made CO2 emissions are global phenomena of the troposphere, not local conditions of the ambient air; and, (b) the NAAQS program, because it targets local conditions of the ambient air, is unsuited to address the potential problem of global warming. Do you agree?

All of the nations of the world contribute to anthropogenic contributions to a global greenhouse effect, which occurs in the troposphere. To be precise, however, the greenhouse effect occurs throughout the troposphere, which includes the ambient air under EPA's definition. In the Memorandum from Jonathan Cannon to Carol Browner, April 10, 1998, my predecessor as General Counsel stated that the NAAQS provisions and other authorities potentially available for controlling four pollutants from electric power generating sources, which include CO2, "do not easily lend themselves to establishing market-based national or regional cap-and-trade programs, which the Administration favors for addressing these kinds of pollution problems." This is not the same as a conclusion that the NAAQS provisions are totally "unsuited" for use to address CO2. EPA has not reached any conclusion on this question because, as already noted, the Agency has not proposed and has no current plans to propose regulations for CO2. Please see also our response to Q7 of your October 14th letter.

8. In your answer to Q7 of our October 14th letter, you argue, citing CAA section 302(h), that EPA may set "secondary" national ambient air quality standards to protect the public welfare from the known or anticipated effects of an air pollutant on "weather, visibility and climate." However, we understand that this language was adopted in the 1970 CAA amendments — more than a decade before global warming became a theme of public and Congressional debate. Mr. Glaser informs us that, in 1970, Congress was concerned about the weather and climate impacts of particulate pollution, which, at the local or regional level, can impair visibility, increase precipitation through condensation, and cool ambient air temperatures by reflecting sunlight. We find this a reasonable interpretation of section 302(h), as the NAAQS program is suited to address the local or regional impacts particulates may have on weather, visibility and climate. However, section 302(h) provides no clue as to how the NAAQS program could be applied to CO₂ in the context of the issue

of global warming. Do you agree that, when Congress included "weather, visibility and climate" in the 1970 CAA definition of "welfare," its intent was to address the local and regional effects of particulate pollution? Or, do you believe Congress intended that definition to cover global warming caused by emissions of greenhouse gases? If so, on the basis of what information does EPA reach that conclusion?

There is nothing in the text of section 302(h) and we have found nothing in its legislative history to support Mr. Glaser's speculation that the scope of that provision was limited to local or regional air pollution problems. Section 302(h) itself indicates that "effects on welfare" are not limited to those listed, and the broad scope of the examples listed indicates that Congress intended to define the term broadly, in order to encompass both problems known at that time and unanticipated, potential problems that could be recognized thereafter. In fact, the legislative history of the 1970 amendments reflected Congressional awareness that there were "many gaps" in the scientific knowledge of welfare effects at the time, and the expectation that research on such effects would be intensified. S. Rep. No. 91-1196, 91° Cong., 2d Sess. 11 (1970). Such research was to extend to welfare effects "in their broadest definition, including... visibility, weather, and climate." S. Rep. No. 91-1196, 91° Cong., 2d Sess. 7 (1970). The words of the statute indicate on their face that Congress was aware of the potential for air pollutants to have adverse effects on the weather and the climate, and not simply to be addressed solely due to inhalation.

9. Q9 of October 14th letter posed a series of "hypotheticals" designed to test whether the NAAQS program has any rational application to the issue of global warming. You argued that the "types of questions" we posed 'are ones that typically would be resolved through an extensive rulemaking process" involving "scientific studies, peer-review processes, legal and policy analyses, economic assessments, stakeholder involvement through meetings and public comments, and a proposed and final rulemaking." We disagree. The questions we posed are conceptual, not technical. They are the types of questions that EPA and other policymakers should address and satisfactorily resolve before the start of any rulemaking process.

A NAAQS for CO₂ would have to be set either below, above, or at current atmospheric concentrations. There is no other possibility. So, before a single dime of taxpayer money is expended on an "extensive rulemaking process," policymakers should think through whether setting a NAAQS for CO₂ makes any sense at all. As we see it, setting a NAAQS for CO₂ above the current concentrations would put the entire country in attainment, even if U.S. CO₂ production suddenly doubled. Conversely, setting a NAAQS for CO₂ below current concentrations would put the entire country out of attainment, even if all power plants and factories were to shut down. Setting a NAAQS for CO₂ at current concentrations would put the entire country in attainment — but only temporarily. As soon as global concentrations exceeded the NAAQS, the entire country would be out of attainment, no matter how stringent or costly the U.S. emission control regime might be. From these considerations we conclude that the NAAQS program is fundamentally

unsuited to address the issue of global warming. Do you agree?

Since EPA has no current plans to propose regulations for CO2, the Agency has not fully evaluated the possible applicability of various CAA provisions for this purpose. At this point in time, your question is entirely hypothetical. Our previous response to Q.9 of your letter of October 14 indicated that certain aspects of your question, such as where EPA would set a NAAQS for CO2 under this hypothetical rulemaking, would properly be addressed through a rulemaking process. Please see also our response to Q.7 above.

10. In your answer to Q9e of our October 14th letter, you state that "EPA has not considered or taken a position on the question of whether the Clean Air Act authorizes designation of nonattainment areas where attainment cannot be achieved without international action." This seems to us a significant admission by EPA, because attainment of a NAAQS for CO₂ would clearly be impossible without extensive international action. Until EPA resolves that question in the affirmative, it is not premature to claim, as EPA does, that section 108 of CAA is "potentially applicable" to CO₂?

The April 10, 1998, Memorandum from Jonathan Cannon to Carol Browner states that CO2 is an air pollutant and hence within the scope of EPA's authority to regulate. The Cannon Memorandum specifically noted that although EPA's regulatory authority extends to air pollutants, "[s]uch 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." Section 108 of the CAA authorizes regulation of air pollutants if the criteria for regulation under that provision are met. EPA has not yet evaluated whether such criteria have been met for CO2. Thus, at this time, we believe it is accurate to state that section 108 (and other CAA provisions authorizing regulation of air pollutants) are "potentially applicable" to CO2.

11. CAA section 109(b) requires the Administrator to adopt NAAQS that are "requisite to protect" public health and welfare. However, unilateral emissions reductions by the United States would have no measurable effect on global climate change. Therefore, is it not clear that the NAAQS program can have no application to the global warming issue, even theoretically, except in the context of an international regulatory regime, such as that proposed in the Kyoto protocol? Furthermore, since the CAA requires that NAAQS be "requisite" to protect public health and welfare, does this not imply that any NAAQS for CO₂ established outside the context of an international regulatory regime would be illegal?

The Clean Air Act does not dictate that EPA must be able to address all sources of a particular air pollution problem before it may address any of those sources. Rather, EPA may address some sources that "contribute" to a problem even if it cannot address all of the contributors. For example, EPA was not precluded from addressing airborne lead emissions because there are other sources of lead contamination, some of which may be beyond EPA's jurisdiction. See

Lead Industries Ass 'n v. EPA. 647 F.2d 1130, 1136 (DC Cir. 1980), cert. denied Lead Industries Ass 'n v. EPA. 449 U.S. 1042 (1980). In this particular case, it is worth noting that the U.S. by itself contributes approximately 25% of today's worldwide emissions of greenhouse gases. Just as noted above, section 109 of the CAA authorizes regulation of air pollutants if the criteria for regulation under that provision are met, and EPA has not yet evaluated whether such criteria have been met for CO2.

12. In your answer to Q11 of our October 14th letter, you state that "EPA has not undertaken any estimate of the number of small- and mid-sized businesses and farms that emit 100 tons or more of CO₂ per year." We think EPA should undertake such an estimate. One study calculates that one million small-and mid-sized entities individually emit 100 tons of CO₂ per year and, thus, potentially could be regulated as "major stationary sources" under a CO₂ emissions control regime (Mark P. Mills, "a stunning Regulatory Burden: EPA Designating CO₂ as a Pollutant," Greening Earth Society, 1999). In any event, you note that 'some provisions of the Clean Air Act apply to "major stationary sources' and 'major emitting facilities,' but others do not." Please identify which provisions do or do not apply to such sources. Which, if any, of those provisions are also among those EPA considers "potentially applicable" to CO₂?

Parts C and D of Title I and Title V of the CAA specifically apply to "major stationary sources" and/or "major emitting facilities." These provisions of the CAA would apply to a source of an air pollutant only if EPA had regulated the pollutant pursuant to other provisions of the CAA (e.g., if it were a criteria pollutant under section 108). The terms "major stationary source" and "major emitting facilities" are also used in subpart II of Part C of Title I, which addresses visibility impairment, but EPA is not aware that CO2 has ever been associated with visibility concerns.

13. In your response to Q13 of our October 14th letter, you state, "as noted above, and as we have repeatedly discussed in correspondence with you, there are many regulatory actions that have the effect, or even the purpose, of reducing greenhouse gases (sometimes including CO₁), but not the purpose of implementing the Kyoto Protocol" (emphasis added). Similarly, in Attachment M, dated February 18, 1999, you interpreted the Knollenberg funding limitation as follows: "EPA may expend funds to propose or issue a regulation for a number of purposes including the reduction of greenhouse gas emissions, so long as the expenditures are in implementation of existing law and not for the purpose of implementing, or in preparation for implementing, the Kyoto Protocol." We disagree.

Reducing greenhouse gas emissions is the purpose of the Kyoto Protocol. There is no clear practical difference between issuing regulations to accomplish the purpose of the Kyoto Protocol and issuing regulations "for the purpose of implementing" the Kyoto Protocol. Although we have raised this concern in previous correspondence, we feel it is necessary to do so again. If the Knollenberg limitation allows EPA to issue regulations for the purpose of reducing greenhouse gas emissions, does it not effectively allow EPA to implement the

Congress of the United States

Washington, DC 20515

March 10, 2000

BY FACSIMILE

The Honorable Gary S. Guzy General Counsel Environmental Protection Agency 401 M Street, S.W. Washington, D.C. 20460

Dear Mr. Guzy:

Thank you for your February 16, 2000 letter responding to our December 10, 1999 letter examining the Environmental Protection Agency's (EPA's) legal authority with respect to carbon dioxide (CO₂). After studying your answers to our questions, we are more convinced than ever that the Clean Air Act (CAA) does not authorize EPA to regulate CO₂. Indeed, we find it amazing that EPA claims authority to regulate CO₂ when the legislative history of the CAA --particularly in 1990 -- does not support such a claim and when Congress, since 1978, has consistently enacted only non-regulatory laws on climate change and greenhouse gases. Furthermore, some of your answers asserting that EPA has not yet considered certain basic legal issues are not credible.

To make clear why your February 16th letter has only reinforced our conviction that EPA may not lawfully regulate CO₂, we review below each of your answers in the order of the questions posed.

Your response to Q1 of our December 10th letter addresses an argument we pointedly and explicitly did not make and sidesteps the argument we did make. You write: "As we stated previously, specific mention of a pollutant in a statutory provision is not a necessary prerequisite to regulation under many CAA statutory provisions." We agreed with this observation in Q3 of our October 14th letter and again in Q1 of our December 10th letter, where we acknowledge that the CAA sensibly allows EPA to regulate substances not specifically mentioned in the CAA when such regulation is necessary to "fill in gaps" in existing regulatory programs. Yet you repeat that observation as though we had taken the position that EPA may not regulate any substance unless it is listed in a regulatory provision of the CAA.

Our point was different, to wit: Congress was quite familiar with the theory of human-induced global warming when it amended the CAA in 1990; and, consequently, the fact that the CAA nowhere lists CO₂ as a substance to be regulated is "evidence" (note: we did not say proof) that Congress chose not to authorize EPA to launch a regulatory global warming mitigation program. EPA's assertion, that the absence of CO₂ from all CAA regulatory provisions furnishes no evidence against EPA's claim that it may regulate CO₂, strikes us as unreasonable, especially in light of Congress' practice, in amendment after amendment to the CAA, of specifically designating substances for regulation.

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In addition, we are troubled by the apparent implication of your statement, "Congress did not in 1990 limit the potential applicability of any of the CAA regulatory provisions to CO₂." You seem to suggest that, if Congress did not expressly forbid EPA from regulating CO₂, EPA must be presumed to have such power. That implication, we think, contradicts the core premise of administrative law, namely, that agencies have no inherent regulatory power, only that which Congress intentionally and specifically delegates.

We do not find persuasive your response to Q2 of our December 10th letter. We asked, "If Congress intended to delegate to EPA the authority to regulate greenhouse gases, why did it admonish EPA not to assume such authority in the only CAA provisions [sections 103(g) and 602(e)] dealing with CO₂ and global warming?" You answer that those sections are nonregulatory, and that Congress "would not intend the Agency to regulate substances under authorities provided for nonregulatory activities." You then conclude that the admonitory language of those provisions "does not directly or indirectly limit the regulatory authorities provided to the Agency elsewhere in the Act." We agree that the admonitory language does not repeal by implication any existing authority provided elsewhere in the CAA. However, we do not agree that, when Congress enacted that language, it was merely affirming a tautology (i.e., nonregulatory authorities cannot authorize regulatory programs). It is far more likely that Congress meant to caution EPA against assuming an authority that does not in fact exist.

Please again recall the legislative history surrounding Title VI. When Congress enacted Title VI, it also rejected a Senate version known as Title VII, the "Stratospheric Ozone and Climate Protection Act," which would have required EPA to regulate greenhouse gases. The admonitory language of section 602(e) states that EPA's study of the global warming potential of ozone-depleting substances "shall not be construed to be the basis of any additional regulation under this chapter [i.e., the CAA]." This is very significant, because it means Congress was not content just to reject Title VII. Congress also thought it necessary to state in Title VI that it was in no way authorizing a greenhouse gas regulatory scheme.

The admonitory language of section 103(g) is also worth quoting. EPA's whole case boils down to the argument that section 103(g) refers to CO₂ as an "air pollutant," and the CAA authorizes EPA to regulate air pollutants. This argument is incredibly weak. To begin with, under section 302(g) of the CAA, the term "air pollutant" does not automatically apply to any substance emitted into the ambient air. Such a substance must also be an "air pollution agent or combination of such agents." EPA has never determined that CO₂ is an air pollution "agent." More importantly, the admonitory language of section 103(g) is unequivocal: "Nothing in this subsection shall be construed to authorize the imposition on any person of air pollution control requirements" (emphasis added). If nothing in section 103(g) shall be construed to authorize the imposition of air pollution control requirements, then the reference therein to CO₂ as a "pollutant" should not be construed to be a basis for regulatory action. EPA's case is further undermined by Congressman John Dingell's commentary on the legislative history connected with section 103(g). In his October 5, 1999 letter to Chairman McIntosh, Rep. Dingell wrote: "While it [section 103(g)] refers, as noted in the EPA memorandum, to carbon dioxide as a 'pollutant,' House and Senate conferees never agreed to designate carbon dioxide as a pollutant

for regulatory purposes."

We find disturbing your response to Q3 of our December 10th letter. Citing the very passage of Chevron v. NRDC quoted by EPA in its December 1st letter, we asked whether there was not a vital, practical distinction between EPA's filling a "gap left, implicitly or explicitly, by Congress" in a "congressionally created ... program" and EPA's creating new programs without express Congressional authorization. Your answers to Q3(a) and (b) do not acknowledge that EPA is in any meaningful way constrained by the distinction between filling gaps and creating programs.

In addition, we believe your answer to Q3(c) lacks credibility. We asked whether EPA's authority to control substances based upon their global warming potential "is as clear and certain and unambiguous as EPA's authority to control substances based upon their impact on ambient air quality, their toxicity, or their potential to damage the ozone layer." Rather than acknowledge the obvious (i.e., EPA's regulatory authority with respect to CO₂ rests on a tortuous interpretation at best), you reply that "EPA has not evaluated the strength of the technical and legal basis for such findings under any particular provision of the Act," because it has "no current plans" to regulate CO₂. While that statement is welcome assurance in light of the Knollenberg limitation, it leaves a void as to the legal basis for EPA's view of its authority.

Your answer to Q4 of our December 10th letter is similarly nonresponsive. We noted that, under CAA section 112(b)(2), EPA may not classify an ambient air pollutant like sulfur dioxide (SO₂) as a hazardous air pollutant (HAP) unless it "independently meets the listing criteria" of section 112. In Q4(a), we asked: "What are the criteria for listing under section 112 that SO₂ and the other ambient air pollutants do not independently meet?" Your reply corrects our formulation by pointing out that an ambient air pollutant may be listed as a HPA only if it is an ambient air pollutant "precursor" and "meets the criteria for listing under section 112(b)(2)." However, you did not state what those criteria are; you did not explain the specific difference between an ambient air pollutant and a HAP. In short, you did not answer our question. The reason, we suspect, is that a clear statement of the criteria that a substance must meet in order to be classified as a HAP would also make clear that CO₂ is unlike any of the substances currently listed as HAPs. That, in turn, would cast grave doubt on EPA's claim that section 112 is "potentially applicable" to CO₂.

Your response to Q4(b) implies that EPA may actually have greater flexibility to list CO₂ as a HAP than any section 108 ("ambient") air pollutant, because CO₂ is not listed under section 108 and, thus, is not subject to the qualification that it be a "precursor." We disagree. The ambient air pollution program is the foundation of the CAA. The fact that Congress and EPA did not list CO₂ under section 108 is evidence that CO₂ is not a "pollutant" in any substantive meaning of the word. The HAPs program deals with substances that typically are deadlier or more injurious than ambient air pollutants. However, even at many times current atmospheric levels, CO₂ is a benign substance compared to ambient air pollutants like lead, ozone, or SO₂. Therefore, the fact that Congress and EPA never listed CO₂ as an ambient air pollutant is an argument against CO₂'s ever being listed as a HAP.

Your responses to Q4(c) and (d) employ the same flawed reasoning. Section 112(b) provides that no ozone-depleting substance may be classified as a HAP "solely due to its adverse effects on the environment." Noting this restriction, we asked: "[D]oes it not stand to reason that no greenhouse gas may be listed solely due to its adverse environmental effect? Indeed, is not the exemption of greenhouse gases from listing under section 112 even stronger than that for ozone-depleting substances, inasmuch as the CAA nowhere expressly authorized EPA to regulate greenhouse gases?" You replied: "Since section 112 says nothing precluding the listing of greenhouse gases (or, for that matter, any other pollutants not regulated under Title VI) on environmental grounds alone, EPA does not agree with the conclusion in the last sentence of your question." Here again, you come close to saying that EPA may lawfully do anything Congress has not expressly forbidden it to do. We would suggest that Congress did not need to exempt greenhouse gases from EPA's section 112 authority, because Congress never gave EPA authority to regulate greenhouse gases in the first place.

We regard your brief response to Q5 to be a tacit admission that the HAPs framework is unsuited to control substances that deplete the ozone layer. You comment that "Congress included on the section 112(b)(2) list of HAPs several substances that deplete the ozone layer (e.g., methyl bromide, carbon-tetrachloride [CCL4])." However, this merely shows that some ozone-depleting substances (i.e., those that are carcinogenic, mutagenic, neurotoxic, etc.) and effectively to protect stratospheric ozone without new and separate authority (e.g., Title VI). We also note that, in Title VI, Congress did not declare any of the ozone-depleting substances to be an "air pollutant." This suggests that EPA's authority with respect to ozone-depleting chemicals comes from a specific grant by Congress, not from a generalized authority to control substances emitted into the air.

We regard your answer to Q6 as nonresponsive. We pointed out that stratospheric ozone depletion is, by definition, a phenomenon of the stratosphere, not of the ambient air, and that it differs fundamentally from ambient air pollution in both its causes and remedies. We therefore asked: "In light of the foregoing considerations, do you believe the NAAQS [National Ambient Air Quality Standards] program has any rational application to the issue of stratospheric ozone depletion?" You responded: "Since Title VI adequately addresses stratospheric ozone depletion, EPA has not had any occasion or need to undertake an evaluation of the use of the NAAQS program to address this problem." We believe that Congress' enactment of Title VI is further evidence that the CAA is a carefully structured statute with specific grants of authority to accomplish specific (hence limited) objectives, not an undifferentiated, unlimited authority to regulate any source of any substance that happens to be emitted into the air.

In Q7, we asked whether the NAAQS program, because it targets local conditions of the ambient air, is unsuited to address a global phenomenon of the troposphere, such as the supposed enhancement of the greenhouse effect by industrial emissions of CO₂. You replied: "EPA has not reached any conclusion on this question because, as already noted, the Agency has no current plans to propose regulations for CO₂." We do not think it necessary for EPA to start a

rulemaking in order to evaluate whether a particular portion of the CAA is suited to control CO₂ in the context of a global warming mitigation program. We regard your answer as a tacit admission that EPA is unable to rebut our argument.

In your answer to Q8, you state: "There is nothing in the text of section 302(h) and we have found nothing in its history to support Mr. Glaser's speculation that the scope of that provision was limited to local or regional air pollution problems" such as those arising from particulate pollution. We disagree. The text in question refers to the effects of pollution on "weather, visibility and climate." As you note in your answer to Q12, CO₂ has never been "associated with visibility concerns." Particulate pollution, on the other hand, can impair visibility as well as affect local or regional weather and climate. As to the legislative history, the source of the phrase "weather, visibility and climate" in the 1970 CAA Amendments would seem to be the National Air Pollution Control Administration's 1969 air quality criteria for particulates, which discussed the interrelated impact of fine particles on weather, visibility and "climate near the ground" (Air Quality Criteria for Particulate Matter, Jan. 1969). The climate effects referred to were not global but local and regional in nature. In any event, we find nothing in the text and legislative history of section 302(h) to suggest that Congress intended that provision to address CO₂ in the context of the issue of global warming.

In Q9, we asked whether the NAAQS program is fundamentally unsuited to address the issue of global warming, since there seems to be no sensible way to set a NAAQS for CO₂. For example, a NAAQS for CO₂ set below current atmospheric levels would put the entire country out of attainment, even if every power plant and factory were to shut down. Conversely, a NAAQS for CO₂ set above current atmospheric levels would put the entire country in attainment, even if U.S. coal consumption suddenly doubled. You replied: "Since EPA has no current plans to propose regulations for CO₂, the Agency has not fully evaluated the possible applicability of various CAA provisions for this purpose. At this point in time, your question is entirely hypothetical." Whether "hypothetical" or not, our question points out that CO₂ does not seem to fit into the NAAQS framework. We regard your answer as a tacit admission that EPA has no idea how to set a NAAQS for CO₂ in the context of a global warming mitigation program.

In Q10, we noted that the attainment of a NAAQS for CO₂ would be impossible without extensive international cooperation, and that EPA had not yet determined whether CAA section 108 authorizes the designation of nonattainment areas where attainment cannot be achieved without international action. From these facts, we drew the reasonable conclusion that, until EPA determines that the CAA does grant such authority, it is "premature" for EPA to claim that section 108 is "potentially applicable" to CO₂. You replied: "Section 108 of the CAA authorizes regulation of air pollutants if the criteria have been met for CO₂. Thus, at this time, we believe it is accurate to state that section 108 (and other CAA provisions authorizing regulation of air pollutants) are 'potentially applicable' to CO₂" (emphasis added). We disagree. The mere fact that EPA has not evaluated whether CO₂ meets section 108 criteria furnishes no evidence that section 108 is potentially applicable to CO₂.

Before examining whether CO₂ meets the criteria for regulation under section 108, EPA would first have to determine whether the CAA authorizes EPA to designate nonattainment areas where attainment cannot be achieved without international action. Also, as noted above, before examining whether CO₂ meets section 108 criteria, EPA would have to resolve the basic conceptual issue of whether setting a NAAQS for CO₂ is possible without putting the entire country either in attainment or out of attainment. Since EPA has not resolved these threshold questions, it is disingenuous to claim that section 108 is "potentially applicable" to CO₂. The most EPA can honestly say at this point is that it does not know whether section 108 could be found to be applicable to CO₂.

In Q11, noting that unilateral CO₂ emissions reductions by the United States would have no measurable effect on global climate change, we asked whether the NAAQS program can have any application to CO₂ outside the context of an international regulatory regime, such as the Kyoto Protocol, since CAA section 109(b) requires the Administrator to adopt NAAQS that are "requisite to protect" public health and welfare. You replied: "The Clean Air Act does not dictate that EPA must be able to address all sources of a particular air pollution problem before it may address any of those sources. Rather, EPA may address some sources that 'contribute' to a problem even if it cannot address all of the contributors. For example, EPA was not precluded from addressing airborne lead emissions because there are other sources of lead contamination, some of which may be beyond EPA's jurisdiction. See Lead Industries Ass'n v. EPA, 647 F.2d 1130, 1136 (DC Cir. 1980)." We agree that EPA may address some sources that contribute to a problem even if it cannot address all of the contributors. However, there is a fundamental difference between lead pollution and CO₂ "pollution."

As the D.C. Circuit Court of Appeals observed in the Lead Industries case, airborne lead is one of three major routes of exposure, the others being diet and accidental ingestion of lead objects by small children. Accordingly, setting a NAAQS for lead cannot provide comprehensive protection against lead pollution. However, setting a NAAQS for lead can significantly reduce exposure to airborne lead. Moreover, reducing airborne lead would also reduce the amount of lead in the nation's food supply — another major route of exposure. Therefore, it is possible to set a NAAQS for lead that is "requisite" to protect public health. In contrast, setting a NAAQS for CO₂ outside the context of a global treaty cannot significantly reduce (or even measurably slow the growth of) atmospheric concentrations of CO₂ particularly since China alone will soon overtake the U.S. as a source of greenhouse gas emissions. Thus, it is hard to imagine that a NAAQS for only one gas — CO₂— that applies only to the U.S. could satisfy the section 109(b) requirement that it be "requisite" to protect public health and welfare.

In Q12, we asked which provisions of the CAA apply to "major stationary sources" and "major emitting facilities," and whether such provisions are among those EPA considers "potentially applicable" to CO₂. You explained that the regulatory requirements of Parts C and D of Title I and Title V of the CAA apply to major stationary sources and major emitting facilities. You also noted that, to be a major stationary source or major emitting facility, an entity must emit an air pollutant that EPA regulates "pursuant to other provisions of the CAA (e.g., if it were a criteria pollutant under section 108)." As you know, section 302(j) defines

"major stationary source" and "major emitting facility" as any stationary facility or source that emits, or has the potential to emit, "one hundred tons per year or more of any air pollutant." It is our understanding that several hundred thousand small and mid-sized businesses and farms individually emit 100 tons or more of CO_2 per year. Regulating CO_2 , therefore, would dramatically expand EPA's control over the U.S. economy generally and the small business sector in particular. We are concerned that EPA has an enormous organizational interest in laying the legal predicate for future regulation of CO_2 .

In Q13, we challenged EPA's reading of the Knollenberg funding limitation. We noted that there is no clear practical difference between issuing regulations for the purpose of reducing greenhouse gas emissions, which EPA claims is legal, and issuing regulations "for the purpose of implementing ... the Kyoto Protocol," which EPA acknowledges is illegal. Rather than speak to the substance of our concern, you refer to previous letters which, in our judgment, also sidestep that concern. We believe that EPA has once again failed to elucidate any criteria that would enable Congress, or other outside observers, to distinguish between legal and illegal greenhouse gas-reducing regulations under the Knollenberg limitation.

In your response to Q13, you also took issue with our understanding of the conditions on which the Senate agreed to ratify the Rio Treaty. We asked: "[W]ould it not have been pointless for the Senate to have insisted, in ratifying the Rio Treaty, that the Administration not commit the U.S. to binding emission reductions without the further advice and consent of the Senate, if it were already in EPA's power to impose such reductions under existing authority?" You replied: "[T]he Senate insisted that the Executive Branch not commit the U.S. to a binding international legal obligation (i.e., a treaty obligation) without further advice and consent. The Senate's statement on this point has no bearing on the scope of existing domestic legal authority to address pollution problems as a matter of domestic policy, independent of any international legal obligations." We agree in part, and disagree in part. We agree that the Senate's statement referred to international obligations. Nonetheless, that statement does have a bearing on the scope of EPA's authority.

A major reason for the Senate's instruction was the concern that the Administration might commit to an international agreement that imposes costly burdens on the U.S. and a few other countries while exempting most nations, including major U.S. trade competitors like China, Mexico, and Brazil, from binding emission limitations. Acting on this same concern, the Senate in July 1997 passed the Byrd-Hagel Resolution (S. Res. 98) by a vote of 95-0. Byrd-Hagel stated, among other things, that the U.S. should not be a signatory to any climate change agreement or protocol that would exempt developing nations from binding emissions limits.

Now, if the Senate is overwhelmingly opposed to a climate change treaty that would exempt three-quarters of the globe from binding obligations (even though they emit significant greenhouse gases), it is unthinkable that Congress would support a *unilateral* emissions reduction regime binding upon the U.S. alone. Simply put, when the Senate ratified the Rio Treaty, it did so with the understanding that the Executive Branch would not attempt via

administrative action, executive agreement, or rulemaking to go beyond the Treaty's voluntary goals.

In Q14, we asked you to account for the fact that, although the Administration claims to regard the science supporting the Kyoto Protocol as "clear and compelling," EPA apparently does not believe the science is strong enough to commence a "formal scientific review process" to determine the appropriateness of domestic regulatory action. Rather than explain how such seemingly inconsistent positions cohere, EPA simply asserts without explanation that there is no incongruity or contradiction.

In summary, with EPA's answers in hand, we are more convinced than ever that the CAA does not authorize EPA to regulate CO2. As we have stated in previous letters, it is inconceivable that Congress would delegate to EPA the power to launch a CO₂ emissions control program -- arguably the most expansive and expensive regulatory program in history -- without ever once saying so in the text of the statute. We also think it is obvious that the basic structure of the NAAQS program, with its designation of local attainment and nonattainment areas and its call for State implementation plans, has no application to a global phenomenon like the greenhouse effect. Furthermore, in view of the well-known fact that CO2 is a benign substance and the foundation of the planetary food chain, we are appalled by the Administration's insistence that EPA might be able to regulate CO2 as a "toxic" or "hazardous" air pollutant.

The CAA is not a regulatory blank check. The Administration's claim that the CAA authorizes regulation of greenhouse gas emissions can only serve to undermine Congressional and public support for legitimate EPA endeavors.

Chairman

Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs

Subcommittee on

Energy and Environment

The Honorable Dan Burton cc:

The Honorable Dennis Kucinich

The Honorable Joseph Knollenberg

The Honorable James F. Sensenbrenner, Jr.

The Honorable Jerry F. Costello

The Honorable John D. Dingell