

**OVERSIGHT OF EPA'S DECISION TO DENY THE
CALIFORNIA WAIVER**

HEARING

BEFORE THE

**COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE**

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

—————
JANUARY 24, 2008
—————

Printed for the use of the Committee on Environment and Public Works



Available via the World Wide Web: <http://www.fdsys.gpo.gov>

—————
U.S. GOVERNMENT PRINTING OFFICE

82-736PDF

WASHINGTON : 2013

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512-1800; DC area (202) 512-1800
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED TENTH CONGRESS
SECOND SESSION

BARBARA BOXER, California, *Chairman*

MAX BAUCUS, Montana	JAMES M. INHOFE, Oklahoma
JOSEPH I. LIEBERMAN, Connecticut	JOHN W. WARNER, Virginia
THOMAS R. CARPER, Delaware	GEORGE V. VOINOVICH, Ohio
HILLARY RODHAM CLINTON, New York	JOHNNY ISAKSON, Georgia
FRANK R. LAUTENBERG, New Jersey	DAVID VITTER, Louisiana
BENJAMIN L. CARDIN, Maryland	JOHN BARRASSO, Wyoming ¹
BERNARD SANDERS, Vermont	LARRY E. CRAIG, Idaho
AMY KLOBUCHAR, Minnesota	LAMAR ALEXANDER, Tennessee
SHELDON WHITEHOUSE, Rhode Island	CHRISTOPHER S. BOND, Missouri

BETTINA POIRIER, *Majority Staff Director and Chief Counsel*
ANDREW WHEELER, *Minority Staff Director*

¹Note: During the 110th Congress, Senator Craig Thomas, of Wyoming, passed away on June 4, 2007. Senator John Barrasso, of Wyoming, joined the committee on July 10, 2007.

C O N T E N T S

Page

JANUARY 24, 2008

OPENING STATEMENTS

Boxer, Hon. Barbara, U.S. Senator from the State of California	1
Inhofe, Hon. James M., U.S. Senator from the State of Oklahoma	2
Lieberman, Hon. Joseph, I., U.S. Senator from the State of Connecticut	5
Carper, Hon. Thomas R., U.S. Senator from the State of Delaware	7
Lautenberg, Hon. Frank R., U.S. Senator from the State of New Jersey	8
Cardin, Hon. Benjamin L., U.S. Senator from the State of Maryland	9
Sanders, Hon. Bernard, U.S. Senator from the State of Vermont	12
Klobuchar, Hon. Amy, U.S. Senator from the State of Minnesota	13
Whitehouse, Hon. Sheldon, U.S. Senator from the State of Rhode Island	15

WITNESSES

Johnson, Stephen L., Administrator, U.S. Environmental Protection Agency ...	16
Prepared statement	19
Responses to additional questions from Senator Boxer	28
Douglas, Hon. James, Governor, State of Vermont	65
Prepared statement	67
O'Malley, Hon. Martin, Governor, State of Maryland	71
Prepared statement	73
Responses to additional questions from Senator Inhofe	77
Rendell, Hon. Edward G., Governor, Commonwealth of Pennsylvania	77
Prepared statement	80
Cox, Hon. Mike, Attorney General, State of Michigan	84
Prepared statement	87
Haaland, Doug, Director of Member Services, Assembly Republican Caucus, State of California	91
Prepared statement	93
Doniger, David, Policy Director, Climate Center, Natural Resources Defense Council	110
Prepared statement	113
Letter to Senator Boxer dated, January 30, 2008	128
Response to an additional question from Senator Inhofe	130
Holmstead, Jeffrey R., Former Assistant Administrator for Air and Radiation, U.S. Environmental Protection Agency	131
Prepared statement	134

ADDITIONAL MATERIAL

Statement, Corzine, Hon. Jon S., Governor, State of New Jersey	140
Research Letter, On the Causal Link Between Carbon Dioxide and Air Pollu- tion Mortality, Mark Z. Jacobson, Department of Civil and Environmental Engineering, Stanford University, Stanford, CA	143
Study, Stanford News Service, Study Links Carbon Dioxide Emissions to Increased Deaths	159

OVERSIGHT OF EPA'S DECISION TO DENY THE CALIFORNIA WAIVER

THURSDAY, JANUARY 24, 2007

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

The full committee met, pursuant to notice, at 10 a.m. in room 406, Dirksen Senate Office Building, Hon. Barbara Boxer (chairman of the committee) presiding.

Present: Senators Boxer, Inhofe, Lieberman, Carper, Lautenberg, Cardin, Sanders, Klobuchar and Whitehouse.

STATEMENT OF HON. BARBARA BOXER, U.S. SENATOR FROM THE STATE OF CALIFORNIA

Senator BOXER. Good morning, everyone.

The Committee will come to order. Just before I start my timer here, I want to explain what we decided is to have opening statements limited to 4 minutes, and then 5 minute rounds of questions. We will go around as many times as people need.

So I think everyone knows that the purpose of today's hearing is to continue the Environment and Public Works Committee's investigation into the decision, my own opinion, an unconscionable one, by the EPA Administrator to deny California and many other States, as a matter of fact, affecting more than half the population of the United States, the opportunity to cut global warming pollution from motor vehicles.

In my many years in the House and in the Senate, and I am very pained to say this as Chair of this Committee, I have never seen such disregard and disrespect by an agency head for Congress and for the Committee with the responsibility for oversight of his agency. When it comes to global warming, I think most people agree that time is of the essence. Yet 2 years have gone by as EPA dragged out the process of reviewing California's petition for a whatever to fight global warming.

It isn't just California that suffers, as I pointed out. Fourteen other States, and we are going to hear from three Governors today, Republican and two Democrats, have adopted California's standards or are in the process of adopting them. Another four are moving toward adopting those standards. So those 19 States represent more than 152 million, 152 million Americans, a majority of our population.

I would like to place into the record a letter to Administrator Johnson signed yesterday by Governors, Republicans and Democrats, of 14 States, expressing their disappointment in EPA's un-

precedented failure to abide by Federal law, ignoring the rights of the States and the will of millions of people. I would like to place in the record a statement by the speaker of the California Assembly. He calls on the EPA to reverse its decision for all the States involved and for the future of the planet.

I would like to place into the record a statement from the Attorney General of California. He makes clear that it is crucial that EPA's waiver decision be reversed. I would also like to place into the record a statement from the Governor of Connecticut, Jodi Rell. Governor Rell objects to EPA's unprecedented decision to deny this waiver, blocking Connecticut from taking action. She strongly and unequivocally conveys her disappointment with the decision.

[The referenced material was not received at time of print.]

Senator BOXER. There remains much work to be done as we work to uncover the facts behind this decision. EPA has failed to fully respond to our request for information, which I will go into in the question time. I have never seen anything like it. We asked for the documents. First, we didn't get them when they were promised. Then we were told that the EPA staff would have to look over the shoulders of our staff and our staff had to pull off pieces of tape off these documents to find out what Administrator Johnson was advised by his staff.

Do we have that tape here? We are going to show you that. Imagine, and it took the staff 5½ hours of time to transcribe 46 pages. This failure to cooperate with the Oversight Committee is unacceptable and must be corrected. The mission of the EPA is to protect human health and the environment. The Administrator's decision does neither. The people who pay the Administrator's salary have a right to know how he came to a decision that is so far removed from the facts, the law, the science, the precedent, States' rights and all the rest that goes with it. I will stop now and I will, when I get to the questions, I will explain to my colleagues what we have learned thus far. I will attempt in my questioning to get Mr. Johnson to give us more information that we have not been able to get.

Senator Inhofe.

**STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM
THE STATE OF OKLAHOMA**

Senator INHOFE. With equal righteous indignation, Madam Chairman, I would like to clarify something. There have been a number of press reports that Administrator Johnson refused to appear at a hearing in California on January 10th. I believe, and would have to say that there was no formal hearing on January 10th. Senator Boxer held a public briefing, it was not a hearing.

From what I understand, that public briefing was basically a political event. In declining to participate, Administrator Johnson said he would appear at this Committee hearing, and I would point out that Administrator Johnson has never declined to participate nor send a representative to this Committee, either back when I was chairman or since you have been chairman.

In fact, I would have to say I was surprised that Senator Boxer would invite a Bush Cabinet official to participate in a political event. To be honest, Mr. Johnson, if you had decided to show up

there, I would have been very critical of you. This political event set a very negative tone to the Committee's handling of this issue. I am a very strong proponent of vigorous oversight to ensure that the Nation's laws are carried out in a manner intended by Congress and to ensure the executive branch is faithfully discharging its mission.

But today's hearing is not that kind of hearing. Rather, it is more theater. There have been charges the Administration has been tardy with documents, but the EPA has been asked to collect and turn over large amounts of material, all of which needs to go through a normal process, be reviewed by numbers of staffers and by agency lawyers. The initial request gave only 2 weeks, bracketing the Christmas and New Year's holidays, in which to respond.

Where was the outrage and the rhetoric when the Clinton administration was repeatedly late in producing documents for this Committee? As I recall, the Clinton EPA was typically given far more time than the constraints placed on this EPA.

When we focus on the substance of the debate, it seems clear to me that the waiver petitions should be denied. I encourage Administrator Johnson to formally make a final decision to do so. Over and over, it has been said that the EPA has never denied a waiver before. While that is untrue, and even Vermont concedes this in its litigation, it would be irrelevant even if it were true. In every instance, when California was granted a waiver in the past, it was to address "compelling and extraordinary conditions" in the State. That is the standard, as clearly spelled out in 209(b), which we will be talking about quite a bit during the course of this meeting, 209(b) of the Clean Air Act.

Now, tell me how California differs from other States when it comes to global warming? Carbon is a global issue, not a local one. In that regard, California is ordinary, not extraordinary. In fact, I think it is certainly relevant that California cannot show harm from global warming over the last two decades, because temperatures there have been declining, not increasing. We have a chart up here, and I want this chart entered into the record also, showing that the temperatures have been declining since 1985 in the State of California.

[The referenced material was not received at time of print.]

Senator INHOFE. California will not bear the burden of implementing it. That would be borne by other States. My own State of Oklahoma has 27,000 auto-related jobs. Of course, that is dwarfed by States like Michigan in comparison. In addition to Michigan, States represented on this Committee, such as Missouri, Ohio and Tennessee, have up to six times as many. The total job losses are 144,000 auto job losses.

The effect that California's politicians are trying to achieve through this waiver provision is something they cannot achieve through Federal legislation, even tighter fuel economy standards than what the Congress passed in the Energy bill just last month. So I think that the Energy bill just passed means that Congress has already spoken to this issue. That law represents the will of Congress on fuel economy standards. If California legislators thought otherwise, they should have been more aggressive when this was discussed.

Mr. Administrator, I look forward to hearing your testimony.
[The prepared statement of Senator Inhofe follows:]

STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM THE
STATE OF OKLAHOMA

Madame Chairman, I would like to clarify something, there have been a number of press reports that Administrator Johnson refused to appear at a "hearing" in California on January 10th. There was no formal hearing on January 10th. Senator Boxer held a public briefing, not a hearing, and from what I understand, that public briefing was basically a political event. In declining to participate Administrator Johnson said he would appear at this Committee hearing. I would point out that Administrator Johnson has never declined to participate or send a representative to a Committee Hearing.

In fact, I would have to say I was surprised that Senator Boxer would invite a Bush Cabinet official to participate in a political event, and to be honest Mr. Johnson, if you had agreed to attend a political event like that I would have been unhappy with you.

This political event set a very negative tone for the Committee's handling of this issue. I am a strong proponent of vigorous oversight to ensure that the nation's laws are carried out in the manner intended by Congress, and to ensure the executive branch is faithfully discharging its mission. But today's hearing is not that kind of hearing. Rather, it is theater.

There have been charges the Administration has been tardy with documents, but EPA has been asked to collect and turn over large amounts of material, all of which needs to go through the normal process of review by agency lawyers. The initial request gave only 2 weeks bracketing the Christmas and New Year's holidays in which to respond. Where was the outrage or the rhetoric when the Clinton administration was repeatedly late in producing documents for the Committee? as I recall, the Clinton EPA was typically given far more time than the constraints placed on this EPA.

When we focus on the substance of the debate, it seems clear to me that the waiver petition should be denied, and I encourage Administrator Johnson to formally make a final decision to do so.

Over and over it has been said that EPA has never denied a waiver before. While that is untrue—as even Vermont concedes in its litigation—it would be irrelevant even if it were true.

In every instance when California was granted a waiver in the past, it was to address "compelling and extraordinary conditions" in the State. And that is the standard, as clearly spelled out in 209(b) of the Clean air Act. Tell me how California differs from other States when it comes to global warming? Carbon is a global issue, not a local one. In that regard, California is ordinary, not extraordinary.

In fact, I think it is certainly relevant that California cannot show harm from global warming over the last two decades because temperatures there have been declining, not increasing, as this chart shows.

California also will not bear the burden of implementing it. That would be born by other States. My own State of Oklahoma has 27,000 auto related jobs. Of course, that is dwarfed by states like Michigan. In comparison, in addition to Michigan, States represented on this Committee such as Missouri, Ohio and Tennessee have two six times as many.

The fact is that California politicians are trying to achieve through this waiver provision something they cannot achieve through Federal legislation—even tighter fuel economy standards than what Congress passed in the Energy bill just last month.

I think that the Energy bill just passed means that Congress has already spoken to this issue. That law represents the will of Congress on fuel economy standards. If California legislators thought otherwise, why did not one of them offer an amendment to address the issue?

Mr. Administrator, I look forward to hearing your testimony.
Thank you.

Senator BOXER. Well, since Senator Inhofe went over about 30 seconds, and I had 27 seconds left, I am going to use the remainder of my time before I turn to colleagues to respond.

Let's be clear. This is the first time a waiver has ever been denied outright 50 times. I asked the Administrator to please come, I asked him in friendship, to please come to California, to please

face the people who he had turned down and explain to them why. Governor Schwarzenegger sent a representative there, Attorney General was there. There were citizens there and colleagues.

The fact is, Mr. Johnson refused to come, so I said, OK, you can't come, could you send someone else? No, no one else. Could you send documents, if no person can come? No. There were no documents. In all the years I have been around, I have not seen a committee treated this way. Senator Inhofe says that he was treated this way or the Committee was by the Clinton administration. I can truly say that I don't recall that. But if it was so, it was wrong then, and it is wrong now.

As I say, I think it is important to put in the record that we asked him to come because we thought it would be a benefit to the people. Because the people need to understand why this happened.

I said before I would show you the kind of, lack of cooperation we had. Colleagues, this is the tape, this is the tape that was put over, finally, the Administration had a way to use duct tape. This Administration, this is what they did to us. They put this white tape over the documents. Staff had to stand here, it is just unbelievable, and pull off, out of the sentences here. I mean, what a waste of our time. This isn't national security. This isn't classified information, colleagues. This is information the people deserve to have. This is not the way we should run the greatest government in the world. It does not benefit us.

So that is why I am worked up about it and think we have been treated in a very shabby way. I would call on Senator Lieberman. Senator, we have 4 minutes.

**STATEMENT OF HON. JOSEPH I. LIEBERMAN, U.S. SENATOR
FROM THE STATE OF CONNECTICUT**

Senator LIEBERMAN. Thanks very much, Chairman Boxer.

The greenhouse gas emissions standards that California, Connecticut and many other States have adopted cover nearly half the new vehicles sold annually in America. As a result, the requirements will markedly reduce the Nation's greenhouse gas emissions, and consequently, while also reducing air pollution, dependence on foreign oil and consumers overall fuel costs. That is pretty good results from State leadership here.

In my opinion, as we have discussed earlier, the Federal Government is not doing nearly enough to reduce America's greenhouse gas emissions. If the Administration will not work for responsible Federal action in this regard, then I believe it should, at the very least, stay out of the road that many State governments are taking for real forward-looking action to protect our citizens from global warming.

Madam Chairman, I know you love music and lyrics. I was just thinking as we were putting this together that perhaps Bob Dylan's times they are rapidly changing. I am not going to sing, I want to reassure you. But his words as always are lyrical and poetic and relevant. The time are rapidly changing, you had a line about the road is rapidly changing. The one that comes to mind, please get out of the road, the new road, or the new one, he says, if you can't lend a hand.

I think that is what we are saying here this morning, that the Administration has not stayed out of the road, out of the way of progress. It has in fact planted itself directly in the way that the States are taking, consistent with the whole Federal approach to Government. This is the classic American response to a problem: Federal Government, for various reasons, doesn't take action. The States, as Justice Brandeis said, laboratories of democracy, initiate, they try, they see how it works and then ultimately would come to a national solution.

So first I would say the California standards do not threaten us with a regulatory patchwork. I am going to deal with the rationales that Administrator Johnson offered in his December 19th letter, because I truly believe they don't stand up to scrutiny. The first is that the California standards do not threaten us with a regulatory patchwork. Two standards, one applying to the half of the Country that chooses to adopt California's standards, and one applying to the other half simply do not make a patchwork.

Second, the California Air Resources Board's analysis refutes the Administrator's assertion that the recently strengthened Federal fuel economy standard subsumes the environmental benefits of the California emissions standard. Cars subject to the California standard would in fact emit less global warming pollution than cars subject only to the Federal fuel economy standard.

Finally, the statement in the denial letter that the California standards are not needed to "meet compelling and extraordinary conditions" directly contradicts the opinion of the U.S. Supreme Court in the case of *Massachusetts v. EPA*, issued last April, that is to say, April 2007. In fact, EPA's own statements, in my opinion, in that litigation. Thus Administrator Johnson, I say to you directly and respectfully that I believe your December 19th decision was wrong and I urge you to withdraw it and change course.

Thank you, Madam Chair.

[The prepared statement of Senator Lieberman follows:]

STATEMENT OF HON. JOSEPH I. LIEBERMAN, U.S. SENATOR FROM THE
STATE OF CONNECTICUT

Thank you, Chairman Boxer.

The greenhouse gas emissions standards that California, Connecticut, and many other states have adopted cover nearly half of the new vehicles sold annually in this country. The requirements thus will markedly reduce this nation's greenhouse gas emissions and, consequently, make a real contribution to averting catastrophic global warming, while also reducing air pollution, dependence on foreign oil, and consumers' overall fuel costs.

The Federal Government is not doing nearly enough to reduce this nation's greenhouse gas emissions. If the administration lacks the presence of mind to take responsible Federal action, then I believe it should, at the very least, stay out of the way of the many State governments that are taking real, forward-looking action to protect their citizens from global warming. To paraphrase Bob Dylan, "Please get out of the new road if you can't lend your hand."

Unfortunately, the administration has not stayed out of the way. Instead, it has planted itself directly in the way of progress. The rationales that Administrator Johnson offered in his December 19 letter for standing in the way do not themselves stand up to scrutiny.

First, the California standards do not threaten us with a regulatory patchwork. Two standards—one applying to the half of the country that chooses to adopt California's standards and one applying to the other half—do not make a patchwork.

Second, the California Air Resources Board's analysis refutes Administrator Johnson's assertion that the recently strengthened Federal fuel economy standard subsumes the environmental benefits of the California emissions standard. Cars subject

to the California standard would emit less global warming pollution than cars subject only to the Federal fuel economy standard.

Finally, the statement in the denial letter that the California standards are not needed to “meet compelling and extraordinary conditions” seems to contradict the Supreme Court’s April 2007 decision in the *Massachusetts v. EPA* case, and the agency’s own statements in that litigation.

Thus, Administrator Johnson, I respectfully believe that your December 19 decision was wrong, and I urge you to change course.

Thank you, Madame Chairman.

Senator BOXER. Thank you, Senator Lieberman.

Senator Carper.

**STATEMENT OF HON. THOMAS R. CARPER, U.S. SENATOR
FROM THE STATE OF DELAWARE**

Senator CARPER. Thank, Madam Chair. Welcome, Mr. Johnson.

I am proud of the work we did last year in raising CAFE standards. Many of us were involved. It was a lot of work. I personally worked a god deal of last year with the auto industry, with our colleagues, with the environmental community and a number of folks here, who like me have States that they represent that are home to automotive manufacturing. We forged a deal that is going to greatly increase vehicle efficiency over the next 10 years. We also greatly increased the renewable fuels standards. Between these two measures, we will reduce our reliance on foreign oil, help our auto industry, develop new vehicles and begin to reduce greenhouse gases from the transportation sector of our economy.

That doesn’t mean, though, that the EPA’s work is finished. I think you know that. When the Supreme Court decided that EPA has the authority to regulate greenhouse gases in its *Massachusetts v. EPA* decision last year, the court said this: “But that DOT set mileage standards in no way licenses EPA to shirk its environmental responsibilities. EPA has been charged with protecting the public’s health and welfare, a statutory obligation wholly independent of DOT’s mandate to promote energy efficiency. The two obligations may overlap, but there is no reason to think the two agencies cannot both administer their obligations and yet avoid inconsistency.”

I am going to come back in our Q&A and we will talk about inconsistency, something that, and harmony, harmonization between your agency that you and I have discussed before. But having worked so hard to make CAFE increases a reality last year, and having two auto assembly plants in my own State struggling with the rest of the domestic industry here in this Country, I am concerned about having two inconsistencies and possibly conflicting standards for automobiles. I am concerned about a potential policy train wreck between EPA and NHTSA. I think it would be even harder for the U.S. Department of Transportation and the State of California to coordinate to avoid these inconsistencies. They are real issues. They need to be contemplated.

However, what concerns me most is that it does not appear that EPA has tried to address these concerns, at least not yet. Instead, it appears that EPA may have seen it as a convenient excuse for inaction, even though the Supreme Court dismissed these excuses less than a year ago.

Madam Chairman, while this hearing is on whether EPA should have denied California's request for a Clean Air Act waiver, I want to take just a moment to focus on the broader issue that resulted in California even needing to make this waiver request. That is the lack of Federal action to reduce greenhouse gases. The reason why we have this conflict is because States are stepping up and acting while the Federal Government continues to do too little. We should be less concerned with stopping States from acting and more concerned with establishing a nationwide greenhouse gas reduction program, something this Committee has worked on last year, for several years.

States are merely filling a vacuum caused by the Federal Government's inaction. If EPA would have acted to implement tailpipe emissions standards, California might not have been compelled to do so on its own.

In addition to California, the Northeast and Mid-Atlantic States are getting ready to implement their regional greenhouse gas initiative next year. The western States are well on their way to implementing their own Western Climate Initiative. Pretty soon, we are going to have a majority of our Country implementing mandatory reductions in greenhouse gases. What are we going to do when that happens? How are we going to establish a single economy-wide trading system after all these States have already set up their own?

I know many in Congress suggested that we need to preempt States from moving forward. I don't know that we need to preempt States to avoid a patchwork quilt of regulations. What we need to do is to lead. What we need to do is to lead, and the States won't have to do our job for us.

Thank you, Madam Chair.

Senator BOXER. Thank you very much, Senator.

Senator Lautenberg.

**STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR
FROM THE STATE OF NEW JERSEY**

Senator LAUTENBERG. Thank you very much, Madam Chairman.

We are here once again, regrettably, to discuss EPA's failure to act to protect the environment. For the first time, after more than 50 approvals in its history, the EPA has denied California, New Jersey and other States a waiver to set emissions reductions on cars that are stronger than the Federal law. This standard simply would require new cars to emit 30 percent less greenhouse gases by the year 2016. The Governors that are here today, Governors Rendell, O'Malley and Douglas, as well as Governor Corzine's, though not here, his statement that we will be introducing in the record, deserve credit for showing leadership when it comes to the environment by adopting the California standard.

Madam Chairman, it is bad enough when the Federal Government fails to lead. But it is even worse when the Federal Government gets in the way of States that are trying to act in the interest of the public and in the absence of leadership from the EPA. Last year, EPA Administrator Johnson sat in that very seat and told this Committee, "The Administration has been taking steps to tack-

le climate change. The denial of this waiver is taking a step in the wrong direction.”

Now, as all of us know, greenhouse gas emissions are the cause of global warming, which is the most serious environmental threat we face, temperatures and sea levels are already rising. The Intergovernmental Panel on Climate Change’s recent report showed that the earth is warming at an alarming rate.

In 2006, the temperature in the United States was 2.2 percent, 2.2 degrees warmer than the average temperature throughout the 20th century. Despite compelling science, Administrator Johnson still denied this waiver. He argued that our cars do not need strong emissions standards at the State level, because of a recent increase in Federal fuel economy standards. To reach that decision, he overruled the advice of his own legal and scientific experts. They said the decision to deny the waiver was incorrect and would be overturned, they believed, in a court. The Administrator might have listened to his experts, because his decision, as I see it and most of my colleagues, is wrong. The California law, which 16 States are trying to adopt, goes further than the Federal law. If this waiver was granted, it would be the equivalent of taking 6.5 million cars off the road, according to one estimate.

It is an injustice to our environment, it is an injustice to our families. It is an injustice to our children and to the future generations of Americans for EPA to block the way. California, New Jersey and other States are taking EPA to court to overturn this irresponsible decision. I support that action. We shouldn’t have to go that route.

Chairman Boxer, myself, and other of our colleagues will soon introduce legislation to do the same thing. But while here, I hope the Administrator can explain to us why he chose to protect industry over protecting the environment for our children, grandchildren, future generations.

Finally, Madam Chairman, and again I commend you for your resolve to examine this problem once again, I mentioned Governor Corzine did want to be here today, unable to join us. So I ask unanimous consent that his complete statement be included in the record of today’s hearing.

Senator BOXER. Without objection.

[The prepared statement of Governor Corzine follows on page 140.]

Senator LAUTENBERG. With that, I thank you.

Senator BOXER. I thank you, sir.

Senator Cardin.

**STATEMENT OF HON. BENJAMIN L. CARDIN, U.S. SENATOR
FROM THE STATE OF MARYLAND**

Senator CARDIN. Thank you, Madam Chair.

Madam Chair, let me start off by expressing to Administrator Johnson my deep disappointment in the failure to allow the States to move forward with the waiver. I say that for many reasons. First, the scientific information is very clear. I would have hoped that this decision would have been made based upon the legal responsibility and the scientific information that you have available and your agency.

Second, this decision will affect the environment and health of the people of Maryland and this Country. So we have a responsibility to do what we can to make sure that we have the safest environment and health for the people of this Country.

Third, I think the point that Senator Lieberman made is one that is very important to me. I served 20 years in State government, 8 years as speaker of our State legislature. I believe very deeply in federalism and the importance of our States to be able to move forward on programs that can help us develop the types of national policies that are important for our Country. I think your decision today really is an affront to federalism. It is an affront to our States to be able to move forward to protect interests of their citizens, but also to provide a way in which we can develop the appropriate national policy.

Then last, the traditional role of the Environmental Protection Agency is to be the leader in protecting our environment. I think this decision really questions the leadership interest in the EPA in carrying out that historic role.

So for all those reasons, I am extremely disappointed that the California waiver was denied. As you know, Maryland is one of those States that has filed with California, our legislature has passed the California standards and the waiver will affect the people of Maryland.

Madam Chair, I must tell you I do look forward to hearing from Governor Martin O'Malley, the Governor of my own State, and other witnesses. I also look forward to working with you, Madam Chair, as we press ahead with legislation that will require EPA to do what it should have done 2 years ago. I firmly support the responsibility of Federal agencies to take appropriate regulatory action without congressional interference. But when the Federal agencies ignore their own science, scientists and good information, I think it becomes necessary for us to take action.

I want to talk just a moment about the impact it will have on Maryland. Maryland's Clean Car program would have reduced carbon dioxide emissions by 7.7 million metric tons by 2025, according to an interim report recently issued by the Maryland Commission on Climate Change. EPA's denial of this waiver will result in tons of additional greenhouse gases polluting this region. That is unacceptable to me and to the people of Maryland, and it should be unacceptable to the EPA. Cars that will meet the new greenhouse gas standards would also help to clear out our air of nitrogen oxides, a contributing factor to photochemical smog. I say that because we all work in this area. You know what happens when we have those code red days. The action by Maryland would have made it more likely we would have had less code red days, which not only is a lack of comfort for us, but also affect the health of the people of our own State.

As already pointed out, the Energy Independence Security Act will establish higher fuel economy standards at 35 miles a gallon. That is good news. But the California waiver standards would complement that and go further, to allow us to make even additional accomplishments.

So Madam Chair, I hope that this hearing will lead us in the direction where we can find a way to implement the California waiv-

er to allow those States to be able to move forward. I hope we can do that in convincing Administrator Johnson and the Bush administration to change their policy on this. If not, I hope that we can enact legislation to require that action.

[The prepared statement of Senator Cardin follows:]

STATEMENT OF HON. BENJAMIN L. CARDIN, U.S. SENATOR FROM THE
STATE OF MARYLAND

Madame Chairman:

Thank you for holding this hearing today.

Last year, this Committee held two hearings which focused on the California Waiver and EPA's inaction in addition to a hearing on related Supreme Court cases. Today we meet to discuss the EPA's regrettable decision to deny the State of California's request for a Clean Air Act waiver—nearly 2 years after the waiver request was made.

Today's hearing serves as a first step in having Congress right this wrong.

I look forward to hearing from Governor Martin O'Malley and the other witnesses. I also look forward to working with you, Madame Chairman, as we press ahead with legislation that will require EPA do what it should have done 2 years ago.

I firmly support the responsibility of Federal Agencies to take appropriate regulatory actions without congressional interference. But when Federal agencies ignore their own scientists and legal experts, legislative intervention becomes necessary.

Senator Boxer's bill will overturn this wrong-headed decision. I am proud to be an original cosponsor. Today's hearing will highlight the problems with EPA's decision. It will also serve as the first installment of our legislative effort to force the Agency to do the right thing.

At issue in this oversight hearing is not only the extraordinary amount of time the EPA took to formally start the regulatory process, but also the very process itself. Specifically, how the Bush administration and EPA Administrator Johnson ignored the recommendations of career scientists and lawyers within the EPA to reach their decision regarding the California waiver.

During today's hearing we will hear from a number of witnesses, including Governors from some of the states in support of this waiver. They will emphasize the importance this waiver has on their longer term plans to combat mobile source contributions to global warming while simultaneously protecting the health of their citizens and the integrity of the environment. I look forward to hearing this testimony.

I wish to welcome Governor Martin O'Malley from my home State of Maryland. Over the last year, the Governor has brought extraordinary leadership to environmental issues by enacting forward-looking legislation.

Governor O'Malley signed a number of environmental initiatives into law last year including the Maryland Clean Cars Act which calls for stronger emissions regulations for cars sold and registered in Maryland; he established the Maryland Green Building Council, which will advise the Governor and Maryland's General Assembly on how they can best use green building technologies in future State construction projects.

Additionally, Governor O'Malley brought Maryland into the Regional Greenhouse Gas Initiative with 10 neighboring states. RGGI is a cap-and-trade program to control carbon dioxide emissions from the electric generating sector. Furthermore, the Governor also signed an Executive Order that established a Climate Change Commission charged with developing an action plan to address climate change in Maryland and rising sea levels in the Chesapeake Bay.

As part of his "Empower Maryland" program, Governor O'Malley has pledged to reduce the State's per capita electricity consumption by 15 percent by 2015 through increases in energy efficiency and conservation in Maryland State buildings. In these ever more uncertain economic times, steps directed at reducing Maryland's energy consumption through increased efficiencies and conservation, will not only cleanup our environment, but will also produce savings for taxpayers in the State.

Because Maryland is the fourth most vulnerable State in the country for sea level rise due to global warming, it makes sense for the State to take the environmental threat of greenhouse gas emissions seriously and to serve as an example to other states of what must be done. Under Governor O'Malley's leadership, Maryland has done just that.

Maryland, like a number of other states, has already adopted legislation that would enable it to join with California in regulating greenhouse gas emissions from cars and trucks.

Maryland's Clean Cars program would have reduced carbon dioxide emissions by 7.7 million metric tons by 2025, according to an interim report recently issued by the Maryland Commission on Climate Change.

EPA's denial of this waiver will result in *tons* of additional greenhouse gases polluting the region. That's unacceptable to me and to the citizens of my State and it certainly should be unacceptable to EPA.

Cars that will meet the new greenhouse gas standards will also help to clear our air of nitrogen oxides—a contributor to photochemical smog. In my state, mobile sources are not only the leading cause of smog but are also one of the leading causes of greenhouse gas emissions. We have some of the worst smog in the Nation, and during 'Code Red' days, more than 70 percent of the pollution comes from cars and light trucks.

I am pleased with the recently enacted Energy Independence and Security Act, which establishes a higher fuel economy standard of 35 miles per gallon nationwide.

But the goals of a fuel economy standard and a vehicle global warming emissions limit are quite different.

The Department of Transportation sets fuel economy standards to reduce oil use. The DOT is not an environmental agency.

The Supreme Court decision in *Massachusetts v. EPA*, held that section 202 of the Clean Air Act authorizes the EPA to regulate emissions from new motor vehicles on the basis of their possible climate change impacts. Under the Clean Air Act, California has the right to set higher standards for pollution reduction from automobiles, and recent court cases clarify that states have the authority to regulate global warming pollution from mobile sources.

EPA's denial of California's petition is wrong as a matter of policy, wrongly decided by a biased political process, and wrong for the health and safety of the generations who will follow us. It will not stand.

Senator BOXER. Thank you, Senator.
Senator Sanders.

**STATEMENT OF HON. BERNARD SANDERS, U.S. SENATOR
FROM THE STATE OF VERMONT**

Senator SANDERS. Thank you very much, Madam Chair. Thank you for calling this important hearing. I want to thank the Governors who will be speaking in a few minutes, including the Governor of the State of Vermont, Jim Douglas. We appreciate his being here very much.

I want to thank all of the States who are joining with California to say that it is absolutely imperative that we as a Nation go forward in tackling one of the great environmental crises that faces not only our Country but the entire world. Madam Chair, there was an article in the *New York Times* just yesterday, and this is how it began. The headline is, "U.S. Given Poor Marks on the Environment," first paragraph, "A new international ranking of environmental performances puts the United States at the bottom of the group of eight industrialized nations and 39th among the 149 countries on the list."

In Bali, where our representative went to speak to defend the position of the Bush administration, that representative was actually booed, booed. Unprecedented. All over the world, people are wondering what is going on in the United States of America in so many areas, but certainly in terms of the environment. Before this Committee, we have had some of the leading scientists in the world who have come forward and they have said, global warming is an extraordinary crisis, and if we do not begin to move aggressively to reverse global warming, this entire planet is in danger. Yet, we have an Administration, which I must say will go down in American history as the worst Administration in so many areas, certainly including environmental protection, this Administration has

taken the word “environment” out of Environmental Protection Agency.

Now, if I am correct, and I am pretty sure that I am, it was only last year that this Administration actually admitted that global warming was a reality. All over the world, countries are trying to move forward to reverse greenhouse gas emissions, and we have an Administration that was reluctant to even acknowledge the reality of global warming. I want to applaud California, Vermont and all of those States who have decided to provide the leadership that should be coming from the Federal Government, but is not. As others have said, if you can't go forward, at least get out of the way.

In Vermont, we take the environment seriously. We are an outdoor State. We want to see our streams, our lakes kept clean. We want our kids to grow up in a world where there is not flooding, where there is not drought. So if you can't do the right thing, at least get out of the way of those States, like California, Vermont and others, that do want to go forward.

The law, in my view, could not be clearer. Under the Clean Air Act, California is given the explicit right to petition the EPA to implement tougher air pollution standards. Once California's waiver is granted, other States can then implement the California standards. The State of California waited for an answer on its waiver request for 2 years, 2 years. Then in a political stunt, the EPA Administrator called a phone press conference with reporters to announce EPA's decision to deny the waiver. No decision document to back up the denial, just a press release and a letter to the Governor of California. Unprecedented.

So Madam Chair, thank you very much for calling this important hearing. I am glad to join you in your legislation that would immediately grant California's request for a waiver. I know that this Committee will continue to look into exactly how this ill-conceived decision was made.

Thank you, Madam Chair.

Senator BOXER. Thank you very much.

Senator Klobuchar.

**STATEMENT OF HON. AMY KLOBUCHAR, U.S. SENATOR FROM
THE STATE OF MINNESOTA**

Senator KLOBUCHAR. Madam Chair, thank you for holding this hearing. Administrator Johnson, I appreciate your kind call after our bridge collapsed in Minnesota and your interest in the environmental impacts of that collapse.

I was listening as my colleague, Senator Sanders, very eloquently talked about what is going on here. I also noted that he took you to Bali. I am going to take you to a less glamorous place, and that would be Ely, MN, where I was in the last few weeks, as I toured through 47 counties in my State. I did an event there with the Governor, who is a Republican Governor, and the explorer Will Steger. You have to understand that Ely, where my grandpa worked in iron ore mines and as a logger, has always been a place of huge environmental fights over the boundary waters canoe area, over the ATVs and snowmobilers.

But what was interesting about this forum we had is that people came together to talk about climate change. There weren't the

splits that you traditionally see. There was a Republican Governor, there was a Democratic Senator. There were the steel workers, there were the snowmobilers who all voiced their concern about the effects that climate change is having on our environment.

In our State, this hasn't been a partisan issue. We have been able to work with the Democratic legislature and a Republican Governor to come together and get one of the most aggressive renewable standards in the Country. That is why I am so disappointed that we are even here to have this hearing. Because I don't think that we should have an agency that has to be pushed time and time again to get it right.

As Senator Carper was mentioning, to think that this Court, the Supreme Court, which isn't exactly a radically liberal court right now, had to say that the Clean Air Act authorizes the EPA to regulate greenhouse gas emissions, that you couldn't have just come upon that yourself, we have talked about this before, and start working on this. I just believe that we shouldn't need to have these kinds of oversight hearings. But unfortunately, we do.

Administrator Johnson, your agency's decision to deny California a waiver just defies logic to me. It is clearly a decision, I believe, that is based on politics and not on fact. It is a decision that my State, as well as 15 others, are now fighting. I question this inference that an increase in the CAFE standards clearly eliminates the need for the California waiver. I am on the Commerce Committee. We negotiated that agreement. I think there could be room, when you look at the fact that standards were not increased since I was in junior high and we finally got this done, I think one could argue there is room to do more.

Administrator Johnson, I want to read what the United States District Court said last fall when it found that an increase in CAFE standards and the California waiver overlapped but do not conflict. The court said, "Regulation of greenhouse gases from new motor vehicles cannot clearly be categorized as either an area of traditional State regulation, such as medical negligence, or an area in which Federal control predominates, such as the national banks. From the beginning of Federal involvement in environmental pollution regulation, the area has been regarded as a cooperative State-Federal legislative effort."

We are having this hearing today because States' efforts to reduce greenhouse gas emissions are being blocked by this Administration. Back in July, when our friend, Senator Nelson, testified before this Committee on this very issue, he talked about States wanting to control their own destiny. Well, at a time when the Federal Government has really been doing nothing in the area of climate change for years and years and years, it is finally changing.

But we cannot simply step back and say, well, we are finally looking at this issue and are considering doing something about it. But States who have been working on this now and filling in this void for years are not allowed to act. We have 16 States that want to control their own destiny, 16 States that want to tackle the problem that the EPA and this Administration have been ignoring.

So I thank you, Madam Chair, for holding this hearing, and look forward to working with my colleagues during this new session to address the issue that the Administration has failed to do.

Senator BOXER. Thank you, Senator.
Senator Whitehouse.

**STATEMENT OF HON. SHELDON WHITEHOUSE, U.S. SENATOR
FROM THE STATE OF RHODE ISLAND**

Senator WHITEHOUSE. Thank you, Madam Chair. I have a written opening statement that to save time I would like to ask be made a matter of record.

Senator BOXER. Without objection, so ordered.

Senator WHITEHOUSE. I would simply like to take my time this morning to say three things. First, the State of Rhode Island is one of the waiver States, so this is a matter of real and direct importance to me. Second, I am extremely glad that Chairman Boxer has held this hearing, because it strikes me that we have a pattern from EPA of, ignore the science, overlook the law, deliver the goods. That is a pattern that is very alarming and concerning.

I would just like to follow up on what Senator Sanders and Senator Klobuchar said. It is astonishing what unanimity there is around this issue. Just the other day, Chairman Boxer held a hearing in which the head of the Association of State Directors of Health came before this Committee, sat where you are sitting and presented to us a very powerful statement on global warming and climate change. I asked her where is the minority view. She said there was no minority view, we are unanimous on this subject, the directors of health of the States, whether they are from Oklahoma or California or New Jersey, they are unanimous on the subject.

So it remains astounding to me that at the Federal level of our Government, we for some reason seem unable to unwind ourselves from the axle here and make progress on an issue of such importance. So I think this is a very important hearing, and I really appreciate Chairman Boxer's leadership in making it happen. Thank you.

[The prepared statement of Senator Whitehouse follows:]

**STATEMENT OF HON. SHELDON WHITEHOUSE, U.S. SENATOR FROM THE
STATE OF RHODE ISLAND**

I first want to thank Chairman Barbara Boxer for her persistence on this critical issue. This Committee has held three hearings on the California waiver, and we have yet to receive straight answers or appropriate cooperation from the EPA. So here we are again. It is unfortunate, but it is absolutely necessary. Senator Boxer's pursuit of the truth, and her efforts on behalf of the environment, should be applauded by us all.

It has now been over 2 years since California first applied for a waiver under the Clean Air Act to set more stringent vehicle emissions standards for cars and trucks. 14 states, including Rhode Island, have since joined California; four more are expected to do so. In all, these 19 states represent more than half the population of the United States.

The Environmental Protection Agency received more than 98,000 public comments on California's proposal. 99.9 percent of those, including those from Rhode Island Attorney General Patrick Lynch, supported a more stringent standard.

The benefits of the California standard are unquestionable and powerful. According to an analysis by Environment Rhode Island, a very respected entity in my state's environmental community, if every State that has requested a waiver receives one, we will see a cumulative global warming emission reduction of 392 million metric tons by 2020—the equivalent to taking 74 million of today's cars off the road for an entire year. We would see gasoline consumption reduced by as much as 8.3 billion gallons per year in 2020—as much as is consumed by all the vehicles in Florida in a year. And in 2020, we would see up to \$25.8 billion in annual savings at the pump.

So we should not be here today, because allowing California and Rhode Island and all these states to set tough vehicle emissions standards is one of the strongest and most common-sense steps we can take to begin to tackle the enormous challenge of global warming.

But we are here, because once again, this administration has put blind ideology before science; once again, this administration has let politics govern policy; and once again, this administration has taken an action that will directly undermine our efforts to protect our environment and safeguard public health.

We are here because even in the face of scientific and legal advice and overwhelming public support, the EPA has denied California's waiver request. The purpose of today's hearing is to ask why.

The EPA has still not given the required legal justification for denying the waiver as required by law. Instead, Administrator Johnson has continued to give excuses and policy justifications outside the scope of the law he is required to follow. He has attempted to use the new fuel economy standards recently enacted by this Congress as a rationale for denying the California waiver. This is a travesty. While we all should be celebrating the first increase in CAFE standards in over a decade, it has no bearing on the EPA's statutory authority to consider the California emissions waiver under the Clean Air Act.

We are here to learn more about the Administrator's decision, but I fear we may already know the answers. I am deeply troubled by reports that the EPA Administrator ignored recommendations from Agency scientists and lawyers in denying the waiver—a persistent trend under the Bush administration that has been exacerbated during Administrator Johnson's tenure at EPA.

I would remind Mr. Johnson that the Clean Air Act does not leave regulatory decisions to the discretion of the administrator, nor to the dictates of the White House. That fact has been long forgotten, or ignored, by this administration. So has the administration's obligation to be accountable to Congress and the American people. This Committee has requested from EPA all the documents bearing on the California waiver request. Thus far, the Administrator has failed to produce these documents. We need to see them to determine what factors were considered, or ignored, by EPA in denying the California request.

If the EPA will not fulfill its obligation to give the California waiver request a thorough, fair, scientific review and make its decision based on the merits and the law, this Congress must. I am proud to cosponsor Chairman Boxer's "Reducing Global Warming Pollution from Vehicles Act of 2008," which will, in effect, approve the waiver request legislatively.

It's unfortunate that we have been forced to take this step. But until the Environmental Protection Agency begins again to live up to its name, I'm confident that this committee will do all we can to keep our environment clean and safe for generations.

Senator BOXER. Thank you, Senator.

Now we will start the process of 5 minutes each for questions. We will do—I am sorry? Who came in? Oh, yes, your statement. I am so ready to question you that I forgot that.

[Laughter.]

Senator BOXER. But yes, you have 5 minutes for your opening statement. Oh, and by the way, as we told you, because this is an oversight investigation where we will be doing fact-finding, we will be swearing in all of our witnesses. So if you wouldn't mind please standing, raise your right hand, we will be swearing in all three panels, and take the following oath.

[Witness sworn.]

Senator BOXER. Thank you, sir, please proceed.

**STATEMENT OF HON. STEPHEN L. JOHNSON, ADMINISTRATOR,
U.S. ENVIRONMENTAL PROTECTION AGENCY**

Mr. JOHNSON. Good morning, Chairman Boxer, Senator Inhofe and members of the Committee. I appreciate the opportunity to discuss EPA's response to California's request for a waiver of preemption for its greenhouse gas motor vehicle emission standards.

Let me begin by saying that climate change and greenhouse gases are global problems. Just as President Bush recognized during September's Major Economies Meeting, the leading countries in the world are at a deciding moment, when we must reduce greenhouse gas emissions instead of allowing the problem to grow.

The President has committed the United States to take the lead in reducing greenhouse gas emissions by pursuing new, quantifiable actions. I congratulate the Congress and the President for doing just that. By enacting the Energy Independence and Security Act, the Nation will be taking a major step forward to reduce greenhouse gases and improve our energy security.

In particular, I applaud Congress for answering the President's call to increase the Nation's fuel economy standards. The bi-partisan energy legislation reflects the need for a unified national solution rather than an approach taken by a patchwork of States to significantly address the global challenge of climate change.

As I have previously testified, EPA's consideration of the California waiver request has been rigorous. Consistent with the requirements of the Clean Air Act, we undertook an extensive public notice and comment process, and received an unprecedented response. Given the complexity of the request, we devoted the necessary resources to expeditiously review the comments, examine the technical and legal issues and present me with the full range of available options.

During the briefing process, I encouraged my staff to take part in an open discussion of issues, and due to their value options and opinions, I was able to make a determination. As you know, the Clean Air Act requires the EPA Administrator to determine whether or not the criteria for a waiver have been met. It was only after a thorough review of the arguments and material that I announced my direction to staff to prepare a decision document for my signature.

While many urged me to approve or deny the California waiver request, I am bound by the criteria in the Clean Air Act, not people's opinions. My job is to make the right decision, not the easy decision. As I explained in my December 19, 2007 letter to Governor Schwarzenegger, EPA has considered and granted numerous previous waivers requested by the State of California. However, those waivers addressed air pollutants predominantly affecting local and regional air quality. I stated in my letter, in contrast, the current waiver request for greenhouse gases is far different. It presents numerous issues that are distinguishable from all prior waiver requests.

I also noted that greenhouse gases are fundamentally global in nature, which contributes to the problem of global climate change, a problem that poses challenges for the entire Nation and indeed, the world. Unlike pollutants covered by other waivers, greenhouse gas emissions harm the environment in California and elsewhere regardless of where the emissions occur. Therefore, this challenge is not exclusive or unique to California. So in light of the global nature of the problem, I therefore indicated that it is my view that California does not have a need for its own State standard to meet compelling and extraordinary conditions.

My response to the waiver request has been based upon the law, the facts and the information presented to me and on the exercise of my own judgment. I know some members of this Committee disagree. I am here to answer your questions today regarding this determination.

Again, thank you for the opportunity to appear before the Committee today. Thank you, Madam Chair.

[The prepared statement of Mr. Johnson follows:]

**STATEMENT OF
STEPHEN L. JOHNSON
ADMINISTRATOR
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE**

January 24, 2008

Good morning, Chairman Boxer and members of the Senate Committee on Environment and Public Works. I appreciate the opportunity to come before this Committee to discuss EPA's response to California's request for a waiver of preemption for its greenhouse gas motor vehicle emission standards.

Let me begin by saying that climate change and greenhouse gases are global problems. As the President recognized at the Major Economies Meeting last September, the leading countries of the world are at a deciding moment when, together, we must reduce greenhouse gas emissions instead of allowing the problem to grow. In fact, in my letter to Governor Schwarzenegger I stated that the problem of climate change "poses challenges for the entire nation and indeed the world" and that "greenhouse gas emissions harm the environment in California and elsewhere regardless of where the emissions occur."

The President has committed the United States to take the lead in reducing greenhouse gas emissions by pursuing new, quantifiable actions. I congratulate the Congress and the President for doing just that; by enacting the Energy Independence and Security Act (EISA) the nation will be taking many new, quantifiable actions that will

reduce greenhouse gases and improve our energy security. In particular I would like to congratulate Congress in passing significant increases to the nation's fuel economy standards. These national standards recognize that climate change is a global problem and are part of the solution. Also, as you know EISA mandates substantial requirements for renewable fuels (36 billion gallons annually) and efficiency of appliances, lighting systems, and government operations. This law—which is mandatory and binding—will produce some of the largest emission cuts in our nation's history. Early estimates suggest more than 6 billion metric tons of greenhouse gases will be avoided through 2030.

As I have previously testified before this committee, EPA's consideration of the California waiver request has involved a thorough review of the issues which were presented both in the original request and in thousands of pages of comments, documents, and technical information that were filed with the Agency as part of our process to consider the request under section 209 of the Clean Air Act.

Consistent with the requirements of section 209, EPA has undertaken an extensive public notice and comment process. The Agency held two public hearings. One occurred on May 22, 2007 in Washington, D.C. and the other in Sacramento, California on May 30, 2007. The Agency directly heard from over 80 individuals at these hearings who represented a broad set of interests, including state and local governments, public health and environmental organizations, academia, industry, and citizens.

EPA received a substantial amount of written material both during the public comment period for the waiver request, which ended on June 15, 2007, and thereafter. We received supplemental comments from the California Air Resources Board on July 24, 2007, and November 5, 2007, and from automobile manufacturers on October 1, 2007, and October 9, 2007. Utilizing my available discretion, I decided EPA would consider all belated comments in its decision-making process, to the fullest extent practicable.

EPA has also devoted the necessary staff resources to review the extensive comments that were received and to examine various technical and legal issues related to the full range of options available to me. Within the Agency, these issues have been considered in great detail and I requested a number of briefings and follow-up briefings and spent many hours reviewing these materials as well as the record directly. These briefings have consumed a considerable amount of staff time and many hours of my personal time and attention.

EPA's review of the California waiver petition included an assessment of the information presented by California and others in support of its waiver request, an assessment of comments received from those in opposition to the waiver request, a review of the legislative history of the relevant Clean Air Act provisions, a review of relevant past litigation with respect to California waiver decisions, and a consideration of the options available to EPA in addressing and responding to the waiver request.

During the briefing process, I encouraged an open discussion of issues involved regarding the waiver criteria specified in section 209. At the outset, I asked that staff develop the full range of options available and their ramifications. I asked for both technical information and personal viewpoints relevant to the consideration of the waiver request. I also received information relevant to the legal framework, options, and ramifications under which my decision on the waiver request would be made.

At the end of this process, however, there is a judgment to be made. The Clean Air Act indicates that waivers shall not be granted to California if the Administrator makes any of three separate findings spelled out in the Act. The Act vests this authority and responsibility with me as the head of the Agency.

I am well aware that many members of Congress, governors, and others urged me to approve the California waiver request and to act quickly in this regard. Proposed legislation under the cosponsorship of this Committee's Chair and several members of this Committee was, in fact, reported on August 2, 2007, with a written report filed on December 12, 2007. This legislation would have required EPA to make decisions with respect to pending waiver requests by September 30, 2007 and to make decisions with respect to future waiver requests within 180 days.

I fully understand the serious concerns that were expressed in requests to grant the California waiver and the perspectives on law and policy on which they were based.

Those advocating approval of the waiver made their views regarding the law and relevant policy abundantly clear.

Throughout my consideration of this matter, however, my responsibilities under the Clean Air Act remained unaltered. And it was only after a thorough review of the numerous arguments and material presented to the Agency and developed internally within the Agency, as well as my own personal consideration of this matter, that I announced that I directed my staff to prepare a decision document for my signature. The final decision document and federal register notice are currently being prepared by Agency staff. When I review and sign the decision document for publication, that will be the final agency action and that will be the time for any court challenges. As with prior waivers, I expect that decision to be a final action of national applicability, and accordingly, as is the normal course of Agency practice on a waiver request, the Federal Register notice of the decision will say so. The decision document will be placed in EPA's docket for this proceeding at that time.

As I explained in my December 19, 2007 letter to Governor Schwarzenegger, and as this Committee well knows, EPA has considered and granted numerous previous waivers requested by the State of California. These waivers have covered a range of issues. Some waivers have effectively granted approval to large, multiyear programs to improve the emission performance of entire fleets of cars and trucks. And EPA has acted on many smaller, discrete issues such as emission test procedures and minor amendments

to existing standards. Often the notice describing EPA's consideration and findings with respect to these issues has consumed barely a page in the Federal Register.

Previous waiver requests and previous waiver decisions, however, have addressed air pollutants that predominantly affected local and regional air quality. In these cases, the purpose of the waiver was to help the state make further progress on its long, unfinished struggle to comply with Federal, State and local air quality requirements. As I stated in my letter to the Governor, "[i]n contrast, the current waiver request for greenhouse gases is far different; it presents numerous issues that are distinguishable from all prior waiver requests." My letter noted that greenhouse gases are "fundamentally global in nature. Greenhouse gases contribute to the problem of global climate change, a problem that poses challenges for the entire nation and indeed the world. Unlike pollutants covered by other waivers, greenhouse gas emissions harm the environment in California and elsewhere regardless of where the emissions occur." This challenge "is not exclusive or unique to California and differs in a basic way from the previous local and regional air pollution problems addressed in prior waivers." In light of the global nature of the problem, I therefore indicated that it is my view that California does not have a need for these greenhouse gas standards to meet compelling and extraordinary conditions. That is, under the statutory criteria spelled out in Section 209 of the Clean Air Act, California had not met the requirements for a waiver.

In addition to the need for me to make a decision of great importance for both the Clean Air Act and the country as a whole, I have also been aware of the Congressional

debate and approval of the Energy Independence and Security Act. I was aware, during the fall of 2007, that Congress was considering amendments to Title II of the Clean Air Act respecting the regulation of both vehicles and fuels.

Indeed, this legislative effort included proposed language that could have affected EPA's authority under the Clean Air Act with respect to greenhouse gas emissions generally and/or motor vehicles specifically. This consideration and debate was recognized within subsequent statements on the Senate floor with respect to the intent and reach of H.R. 6, the Energy Independence and Security Act of 2007. Senators sought to clarify in their remarks the effect of this law both on Federal regulations and regulations promulgated by the State of California.

In the context of this ongoing consideration of legislation in both bodies of Congress and subsequently in the Conference Committee on H.R. 6, it was important for me to review the legislation Congress approved before announcing my decision and directing staff to prepare the final decision document. It is particularly important given that Congress was specifically contemplating amendments to the Clean Air Act, and in fact amended Section 211 of the law.

Ultimately, as you know, Congress did not amend either section 209 of the Clean Air Act, or approve specific legislative language addressing the California waiver request in the legislation which was cleared by the House of Representatives on December 18th and signed into law by President Bush on December 19, 2007.

With respect to the timing of my review of this matter and my letter to Governor Schwarzenegger, from December 10th to December 15th, 2007, I traveled to Beijing, China to participate in the U.S.-China Strategic Economic Dialogue and to co-chair the second Joint Committee on Environmental Cooperation with Chinese Minister Zhou Sengxian. Upon my return from these meetings and with the Congress nearing completion of its work on energy legislation, I informed EPA staff of my intention to deny the waiver request based on the criteria specified in section 209.

As indicated above, the energy legislation enacted by Congress ultimately did not amend section 209 of the Clean Air Act, but it does provide a policy context in which the issue of federal versus state standards affecting greenhouse gas emissions can be reviewed. Clearly, Congress intended to take action to substantially strengthen fuel economy standards and to thereby promote several policy goals, including increased energy security for our country and environmental improvements.

I believe that it is preferable, as a matter of policy, to have uniform national standards to address fuel economy issues across the entire fleet of domestic and foreign manufactured vehicles sold in the United States. I just think this is common sense and I am glad the Congress moved away from previous policy positions that effectively blocked increases in fuel economy standards to proactively approve a substantial increase in fuel economy for cars and light duty trucks.

But let me be clear. My letter indicating how I plan to proceed with respect to the instant matter of the California waiver request is based on the exercise of my own judgment in this matter given the application of the law, the facts and information that were presented to me. While I know that some on this Committee disagree with my direction to Agency staff on the California waiver request, I believe this direction is the proper course under the Clean Air Act, just as I believe Congress's decision to increase fuel economy standards is the proper course for our nation.

Again, thank you for the opportunity to appear before the committee today. I stand ready to answer your questions.

RESPONSES BY STEPHEN L. JOHNSON TO ADDITIONAL QUESTIONS FROM SENATOR
BOXER

Question 1. Contacts with Executive offices.—In your testimony before the Senate Committee on Environment and Public Works (EPW) in July 2007 you said that you had “routine conversations” about the California waiver with individuals within or affiliated with the White House, the Executive Office of the President, the Vice President’s office, the Council on Environmental Quality, the Office of Management and Budget, and Cabinet members (collectively, the “Executive Office”).

(a) Please identify each individual within or affiliated with any of the Executive Offices listed above with whom you or your staff had any communications regarding the California waiver request, and describe the timeframes and substance of each of those communications.

(b) For each person identified, describe as fully as possible, based on whatever recollection, information or circumstances may be available, your understanding of the views and/or position of such person with respect to whether or not it would be desirable for the California waiver request to be granted.

Response. As I have testified previously, I do have routine conversations with various members of the Administration; I think that’s good government. And I want to respect the candor of those conversations by not sharing the details of attendees, timing, etc. But in any event, when and with whom I had discussions are irrelevant to the issue before us, which is my decision on the California waiver request. The Clean Air Act charges me with making the decision on the waiver, and that is exactly what I did.

Question 2. Overriding Agency experts. You submitted written responses to questions from the EPW Committee after a hearing held on July 26, 2007, in which you said: “The Agency is performing a rigorous analysis in order to properly consider the legal and technical issues that we must address in making a decision under the Clean Air Act waiver criteria.”

And you further said: “I can assure you that I am undertaking a fair and impartial assessment of the request.”

EPW Committee staff recently reviewed a copy of EPA’s October 30, 2007, Administrator’s Briefing document, in which the results of the EPA Staff’s analysis of the waiver request was reported to you. That briefing document included numerous examples of the “compelling and extraordinary circumstances” faced by California as a result of global warming caused by greenhouse gas emissions. The document also indicated EPA would be sued by California and EPA would be “likely to lose” the suit. A second version read “EPA’s litigation risks are significantly higher than if a waiver is granted.”

This advice was consistent with a detailed written analysis prepared by EPA’s staff, dated April 30, 2007, acknowledged by EPA’s General Counsel, which described Congress’s intent that California is to be accorded broad discretion in implementing its own separate motor vehicle standards under Section 209(b), and which reviewed in detail the legal authorities overwhelmingly supporting granting the waiver in this case.

(a) Given this clear advice and the conclusion of EPA’s Staff, how do you explain the diversion of EPA resources and the expenditure of taxpayer funds litigating this unsupported legal position?

(b) Do you believe that you have unfettered discretion to make a decision that contradicts the standards in the Clean Air Act? If not, fully describe the constraints that the Clean Air Act places on your decisionmaking capacity in denying a request from California for a waiver under Section 209(b).

Response. My obligation in acting on California’s waiver request is the same as in most other decisions before me—to reasonably exercise my discretion, both to interpret the law and to apply it to the evidence before me. That is what I have done with respect to California’s application for a waiver. The decision that was released on February 29, 2008 explains in detail both how I interpreted section 209 of the Clean Air Act and how I applied the constraints of its legal criteria to the evidence before me. I expect that various parties will seek judicial review of my decision, and EPA fully intends to defend this decision as a lawful and reasonable exercise of the discretion delegated to me under the Clean Air Act.

Question 3a. Lack of decision document. Internal EPA planning documents prior to September 2007 refer repeatedly to a draft “decision document” that was to be prepared by EPA staff and presented to you as Administrator for your consideration.

Was a draft decision document prepared in any form, including but not limited to interim and final drafts of any such document? If so, please identify the document

or documents with specificity and provide a separate and unredacted copy of any such documents to the EPW Committee not later than February 15, 2008.

Response. In keeping with the regular process for responding to California waiver requests, staff in the Office of Transportation and Air Quality (OTAQ), Office of General Counsel (OGC), and Office of Atmospheric Programs (OAP) prepared preliminary drafts of various sections of a decision document for the greenhouse gas waiver request in November and December 2007. These incomplete drafts were intended to serve as the foundation for the final decision document, which I signed on February 29, 2008, and it was anticipated by staff that the early drafts of the decision document would be modified as necessary to reflect whatever decision I ultimately made. These drafts were circulated only among the staff working on this waiver request, and were not forwarded to my office or to the office of the Principal Deputy Assistant Administrator for Air and Radiation. Copies of these documents have previously been provided or otherwise made available to the Committee through our responses to the Committee's December 20, 2007 letter requesting documents.

Because these drafts were very preliminary, they do not reflect my final thinking on the issues presented by California's waiver request. What is most important here is the final decision document issued on February 29, 2008, which reflects my final thinking on California's waiver request.

Question 3b. If no draft decision—document was prepared, identify who made the decision that no draft decision document would be prepared, and describe fully all communications—including submission of all records—regarding that decision.

Response. Please see the above answer to 3(a).

Question 4a. References to a “patchwork”. In your letter to Governor Schwarzenegger of December 19, 2007, denying the waiver request, you said that your approach was better than what you called a “patchwork” of State laws. But the EPA Staff's Administrator's Briefing of October 30, 2007, acknowledges that there would be no patchwork. As has been true for more than three decades, under Section 209(b) there can only be two standards: (i) the Federal standard, and (ii) the California standard, which other states can adopt.

Since two standards by definition cannot create a “patchwork,” please explain where this objection originated and what support was relied on for it.

Response. I agree that there are only two sets of motor vehicle emission standards that can apply to vehicles sold in the United States: EPA's standards and California's standards, which other states may adopt if they meet the conditions specified in section 177 of the Clean Air Act. I expressed concern about a patchwork of states because, even though there are only two sets of vehicle standards, State adoption of California's standards can still present vehicle manufacturers with varying circumstances that can make compliance with State requirements difficult. For example, states can and do adopt California standards at different times. In addition, compliance with California's greenhouse gas standards is determined based on the averaged emission levels of the vehicles sold in the state, with vehicle manufacturers able to trade and bank excess emission reductions. To the extent other states adopt the California standards, vehicle manufacturers may be faced with compliance circumstances that vary from State to state, including different compliance schedules and fleet mixes. Because consumers occasionally buy vehicles across State lines, such variability between states also may confuse and affect consumers as well.

You asked where the “patchwork” idea originated. With respect to the California GHG waiver proceeding, the idea of a “patchwork” was raised at the first waiver hearing held on May 22, 2007, in Arlington, Virginia. At that hearing, a representative of the Alliance of Automobile Manufacturers in his testimony stated “(t)he Alliance member companies are committed to improving energy security (and) fuel economy, but piecemeal regulations at the State level is (sic) not the answer.” Subsequently, the potential for a “patchwork” of State regulations was discussed in comments we received at the close of the comment period from the Association of International Automobile Manufacturers (AIAM) and the National Association of Automobile Dealers (NADA). For example, the letter from AIAM noted that the global nature of carbon dioxide emissions which “disperses evenly throughout the atmosphere, such that emissions of carbon dioxide in California have no greater impact in that State than elsewhere in the United States or indeed the world. . . . The regulations of greenhouse gas emissions therefore require a coordinated national approach rather than a patchwork of State approaches.”

Question 4b. Please describe all analysis conducted by EPA Staff supporting your references to a “patchwork” and provide unredacted copies of such analysis to the Committee, including the date of their creation. If there is no such analysis, please so indicate.

Response. As noted above, representatives of the auto industry submitted comments regarding the potential “patchwork” of State vehicle regulations that would occur if EPA granted the California greenhouse gas waiver request. EPA reviewed this issue during its work on the waiver request. State adoption of California standards has the potential to raise issues of varying timetables and compliance circumstances for auto manufacturers. However, to date, these issues have largely been avoided by the way in which states adopt or implement California standards. Copies of relevant documents have previously been provided or otherwise made available to the Committee through our responses to the Committee’s December 20, 2007 letter requesting documents.

Question 5. Failure to apply the “in the aggregate” standard. In an e-mail dated June 12, 2007, an EPA lawyer with responsibility for the California waiver request discussed the changes to Section 209(b) of the Clean Air Act in the 1977 Amendments, which he explained: “tell us that we need to look at CARB’s standards ‘in the aggregate’”—i.e., taken as a whole, not limited to the greenhouse gas standards only—in EPA’s consideration of the waiver request.

Please explain in your December 19 decision denying the California waiver request how you addressed the express language of the 1977 Amendments.

Response. The decision that was issued on February 29, 2008 provides a full explanation of how I interpreted and applied the waiver criteria in Section 209 of the Clean Air Act.

Question 6. References to “unique” and “exclusive”. You have repeatedly sought to justify your denial of California’s waiver request by saying that the threats of global warming are not “unique” or “exclusive” to California.

Please identify every instance in Section 209(b) of the Clean Air Act, the legislative history of Section 209(b), EPA regulations, case law, EPA guidance or past interpretations, in support of your view that whether the threats faced by California are “unique” or “exclusive” to California is a factor in deciding whether to grant a waiver.

Response. The decision that was issued on February 29, 2008 provides a full explanation of how I interpreted and applied the waiver criteria in Section 209 of the Clean Air Act. As is typical in any waiver decision, it discusses in detail the legal basis for my decision, including an appropriate discussion of the text of section 209, its legislative history, and other relevant sources.

Question 7. Specific “compelling and extraordinary conditions” faced by California. At the December 19, 2007 press conference where you announced that you were denying California’s request for a waiver, you claimed to have “found that [California] does not meet the compelling and extraordinary conditions” standard.

But the Administrator’s Briefing package provided to your office by EPA Staff dated October 30 included 8 pages describing the conditions faced by California that the EPA Staff referred to as “compelling and extraordinary conditions.”

a. The list below contains the conditions that your EPA Staff stated were “compelling and extraordinary.”

- flooding
- drought
- disease
- coastal impacts
- wildfires
- water supply
- ozone pollution
- agricultural production impacts
- threatened and endangered species habitat

b. For each of the listed conditions above, please identify all analysis or other documentation associated with the compelling and extraordinary conditions and who advised the Administrator to ignore these conditions in the decision to deny the waiver.

Response. Regarding the conditions listed above, all of the technical and scientific information EPA considered in addressing those conditions came from information submitted as part of, or in response to, the California waiver request, or from the 2007 Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). Much of the information concerning California is summarized in the 2006 report by the California Energy Commission, *Our Changing Climate: Assessing the Risks to California* (CEC-500-2006-077). In addition, the information in the October 30, 2007 briefing describing some specific potential impacts of climate change on California was largely drawn from the 2002 report by the California Regional Assessment Group, *The Potential Consequences of Climate Variability and Change for*

California: The California Regional Assessment. The general science information as well as the IPCC findings about key impacts for North America, as identified in the October 30 briefing, came directly from the North America chapter of the IPCC Working Group II Volume of the Fourth Assessment Report.

Contrary to the suggestion in the question, I did not ignore this or any other information—including, among other things, congressional intent and the global nature of climate change—relevant to deciding the waiver. The February 29, 2008 decision document on the waiver explains the rationale behind my consideration of the compelling and extraordinary criterion in detail.

Question 8. Legal analysis underlying your decision to deny California's waiver request (a) Please identify all legal analyses provided to you by EPA counsel, prior to December 19, 2007, supporting the conclusion that California does not meet compelling and extraordinary conditions. (b) For all such analyses, State the name of the lawyer(s) involved, the date that it was provided, and the form in which it was submitted. (c) Provide all such analyses in unredacted form.

Response. Through our responses to the Committee's December 20, 2007 letter requesting documents, the Agency has, at this time, provided copies or otherwise made available information responsive to this question. As explained previously, the Agency does have a confidentiality interest in documents reflecting privileged attorney-client and attorney work product information. Despite this interest, these documents have been made available to the Committee, and we are willing to continue to make documents available to the Committee as needed.

Question 9. Reliance on CAFE standards. In your letter to Governor Schwarzenegger of December 19, 2007, announcing your decision to deny the waiver request, you stated: "I firmly believe that, just as the problem extends far beyond the borders of California, so too must the solution". You then went on to characterize Congress' passage of the Energy Independence and Security Act, which includes increased vehicle fuel economy standards, as "national standards to address greenhouse gases" from cars. You said that you "strongly support this national approach to this national challenge . . ." in your letter, in support of your decision to deny the California waiver.

In your written testimony submitted in connection with the hearing before the EPW Committee on January 24, 2008, you further stated: "I believe that it is preferable, as a matter of policy, to have uniform national standards to address fuel economy issues across the entire fleet of domestic and foreign manufactured vehicles sold in the United States."

a. The Supreme Court made clear that CAFE standards are separate from EPA greenhouse gas requirements for vehicles. Your reliance on the Energy Independence and Security Act as an explanation for denial of the waiver at the time you announced the decision is inconsistent with that Supreme Court ruling. What will you do to comply with the Supreme Court's decision in *Massachusetts v. EPA*?

Response. I have concluded that the best approach for moving forward on our response to the Supreme Court's decision in *Massachusetts v. EPA* is to issue an ANPR that will present and request comment on the best available science relevant to making an endangerment finding and the implications of this finding for regulation of both mobile and stationary sources. This approach gives the appropriate care and attention that these complex issues demand. It will also allow EPA to use the work we have already done. The ANPR will be issued later this Spring and will be followed by a public comment period. The Agency will then consider how best to respond to the Supreme Court decision and its implications under the Clean Air Act.

As we go forward, I will keep the Committee apprised of EPA's response to the Supreme Court's opinion in *Massachusetts v. EPA* and the new energy law approved by Congress.

Senator BOXER. Thank you.

Administrator, you realize that this isn't just about California. You do understand that there are many other States impacted, is that correct? Do you understand that?

Mr. JOHNSON. Madam Chairman, I understand under the law my responsibility is to evaluate the California—

Senator BOXER. No, no, I wasn't asking—

Mr. JOHNSON [continuing].—under section 209—

Senator BOXER. I understand.

Mr. JOHNSON [continuing].—which is specific to the State of California.

Senator BOXER. No, no, I was asking you, do you realize that there are many other States, a lot of them represented here, that are following California's lead, so that this decision just doesn't impact one State? Do you understand that, is what I am asking?

Mr. JOHNSON. I do understand that, Madam Chairman—

Senator BOXER. OK, good.

Mr. JOHNSON [continuing].—and I also understand that the criteria in the law have me focus—

Senator BOXER. Sir, I am just asking because when you speak, you don't indicate to the people, to the American people that in essence, this decision involves really, at this point, and it could be more, more than half the people of America. So you have come down against a majority of the people with this decision.

Now, the mission of the EPA, according to your own Web site, is to protect human health and the environment. I think it is important to reiterate that. That is your mission, that is your goal. That is your trust. So many of us believe, with this decision, you are going against your own agency's mission and you are fulfilling the mission of some special interests. Now, that is a tough charge, and that is what I think.

Now, let's talk about a process, since I think you are walking away from mission, let's talk about a process that you promised this Committee in your nomination hearing. You said to this Committee that your guiding principle as Administrator would be, and I put this in quotes, "to ensure that the agency's decisions are based on the best available scientific information and to pursue as open and transparent a decisionmaking process as possible." This is you, "pursue as open and transparent a decisionmaking process as possible."

So I want to show the American people through this, the wonders of technology here, what you sent us, what you consider to be an open and transparent policy. This is what we got, when we got the documents from you. This is what we got. We got a piece of paper that said, if we grant blank compelling and extraordinary conditions blank if we deny blank.

So when I say it is an insult to this Committee, I am not being political, I am being sincere.

Now, if I told you as a friend, I want to write you a letter, I am going to give you some advice in the letter, and then I sent you a letter that just said, if we grant, it just makes no sense. Is this your notion of an open and transparent way to make decisions?

Mr. JOHNSON. Madam Chairman, I think it is interesting that you point this out and I am glad that you did, because in fact the practice of the agency, certainly over my 27 years, is that when the agency is in litigation, as has been acknowledged, that we protect, and in fact protect attorney-client privileged documents, so that we can defend ourselves in the court system.

Senator BOXER. OK. But you are aware—

Mr. JOHNSON. In fact, as was pointed out with the tape example earlier, I decided to waive my privilege and allow you and your staff to actually see the documents and see the information.

Senator BOXER. All right.

Mr. JOHNSON. So again, from my perspective, I believe in open and transparent process. Your staff obviously spent a lot of time

looking at the information. I followed the law. This was a tough decision. I understand you disagree.

Senator BOXER. OK, wait, wait, I just—

Mr. JOHNSON. I made the decision.

Senator BOXER. I am not talking about the decision. I am talking about you sending us blank documents and then, you are so magnanimous that you used all that tape that I showed you before to cover over what was in there and then saying how you waived your privilege. You have no privilege vis-a-vis the Congress. Our counsel and your counsel have discussed this. You cannot assert privilege vis-a-vis the Congress. To make it so hard for us to get these documents is really extraordinary. They are not classified, they are not confidential. What we had to do to get some information, and by the way, this is just the beginning of information.

Now, I want to talk about one of your main reasons for denying the waiver and show you what your staff said. Because we copied it down and we are going to share that information with the American people. You said that there was no, you called Governor Schwarzenegger to inform him that “I,” meaning you, “I have found that his State does not meet the compelling and extraordinary conditions needed to grant a waiver of Federal preemption for motor vehicle greenhouse gas emissions.”

Now, I want to share with you what your staff told you on that Power Point. If you could just hold up that blank chart that said compelling and extraordinary circumstances. When we peeled off the tape, this is what was written there. So let’s keep holding that up.

“California continues to have,” this is from your staff, excerpts, “California continues to have compelling and extraordinary conditions in general, geography, climatic, human and motor vehicle populations. Many such conditions are vulnerable to climate change conditions as confirmed by several recent EPA decisions.” I am just going to, because of my time, continue to quote from this document. Wildfires are increasing, wildfires, and this is interesting, because Senator Klobuchar pointed this out at the last hearing, “Wildfires generate particulates that can exacerbate health impacts from increased smog projected from higher temperatures. California has the greatest variety of ecosystems in the United States and the most threatened and endangered species in the continental U.S. California exhibits the greatest climatic variation in the U.S.” It goes on to talk about the coastal communities and the habitat impacts and over-allocated water resources and aging infrastructure, and again, insect outbursts and ozone conditions.

I mean, this is what your staff told you. Then you come out and say, it doesn’t meet the test for compelling interest. So my time is—I have gone over my time, I apologize, by a minute. But I just have to say, sir, that when you look at what was underneath the taped-over documents, you find that your staff was very clear. You are walking the American taxpayers into a lawsuit that you are going to lose, and we will all be the worse for it. We are spending money we don’t have, we are spending money we shouldn’t have. All the States are upset, and this was a devastating decision.

Senator Inhofe.

Senator INHOFE. Thank you, Madam Chairman.

A lot of comments were made, and obviously I don't have time to respond to them, in terms of what happened in Bali and all that. I will do that for the record, because some of these statements were not accurate.

Administrator Johnson, as you are aware, the EPA documents that are confidential and litigation sensitive were released after their review. My question I would ask, and I am going to ask a bunch of questions for real short answers, because I am kind of alone over here, do you think this is going to have any kind of a chilling effect on sharing of documents to oversight committees, maybe not just this oversight committee, but other oversight committees?

Mr. JOHNSON. Yes, sir, I do. In fact, I am disappointed because I asked Madam Chairman not to release, given the fact that we are being sued and that the agency, the Government needs to be able to defend itself.

Senator INHOFE. Again, to clarify something that was said a minute ago, was this a staff decision or your decision to make, and was denying the waiver an option that was always presented to you?

Mr. JOHNSON. The responsibility for making the decision for California rests with me and solely with me. I appreciate and value the staff's input. Clearly, as you can see from the documents, I had a wide range of options, legally defensible options that were presented to me. I made the decision, it was my decision, it was the right decision, and I certainly stand by that decision.

Senator INHOFE. Very good.

Are the greenhouses gases different from other pollutants in the context of your decision?

Mr. JOHNSON. Yes, they are. Certainly as a number of the Senators also acknowledged and pointed out, as I have, is that they are global in nature. Therein lies the problem. It is not unique, it is not exclusive to California.

Senator INHOFE. It has been said, and I think we know the answer to this, but it has to get into the record, does the Clean Air Act require the Administrator to grant every waiver petition submitted by the State of California?

Mr. JOHNSON. No, sir, the Clean Air Act does not require me to rubber-stamp waiver petitions.

Senator INHOFE. There has been some criticism of your consulting and talking to the White House or talking to the Department of Justice. You have been at the EPA for a long time. You have heard me say many times before, and I am on record saying that we are very fortunate. This is, I believe the first time, certainly in my service for 22 years, that we have had an Administrator who knows the job, who has been all the way through the ranks. I appreciate that and I think it is an honor, really, to have someone who is that knowledgeable.

So I appreciate you.

Mr. JOHNSON. Thank you.

Senator INHOFE. But since you have been there for a long time, are you the first Administrator to consult with the White House or the Justice Department?

Mr. JOHNSON. To me, in my experience, throughout the Administrations that I have had the pleasure to serve with and under, it is good government to have that inter-administration conversation. As I testified even at the last hearing, I have routine conversations with members of the Administration. I think that is good government. I have done that and will continue to do that.

Senator INHOFE. You were there during the Clinton administration.

Mr. JOHNSON. Yes, sir.

Senator INHOFE. Administrator Brown consulted with the White House, with the Justice Department?

Mr. JOHNSON. Yes.

Senator INHOFE. You are sure of that?

Mr. JOHNSON. Yes.

Senator INHOFE. OK. You are aware of a study that was filed on the waiver docket by Sierra Research, NERA and Air Improvement Resources. They are three highly respected air modeling or economics consulting firms. They conclude that the California standards, if adopted, would result in decades of worse air quality for Californians in terms of most criteria pollutants and air toxics. What do you think about that?

Mr. JOHNSON. Senator, there is certainly a wide range of opinions and studies that were in the docket for this waiver petition.

Senator INHOFE. I think, if I understand their reasoning, it would result in a longer life for older vehicles, because people would be unable to come up and they would be exempt. So it would have the effect, in their opinion, of increasing, not decreasing the pollutants.

Mr. JOHNSON. Certainly that is an area of concern that was duly noted. Again, as I deliberated on the data, the facts, all the testimony from the public hearings, I came to the conclusion that of the criteria that I am required to evaluate, it was the second criteria, that the State does not have compelling, extraordinary conditions. So that is the basis of my decision.

Senator INHOFE. So that was taken into consideration. Is this waiver request different because it took place in the climate change context and the global nature of climate change, does not make California's situation "compelling and extraordinary conditions" within the State as required under the Clean Air Act?

Mr. JOHNSON. As you correctly point out, this is the first waiver of its type, the first time that the agency or in fact the Nation has been faced with a waiver focusing on global climate change. Again, in my opinion, based upon the facts presented to me, I concluded that California doesn't meet the criteria, or at least one of the criteria, which is what I am required to evaluate as Administrator.

Senator INHOFE. Is a national solution the best way to address climate change?

Mr. JOHNSON. I believe so.

Senator INHOFE. Madam Chairman, since I will be leaving at 12:15, that is all the questions I have for right now.

But I believe that you are very courageous to be here today. I appreciate the fact that you didn't do this in a way that would not be appropriate out in California. Thank you.

Thank you, Madam Chair.

Senator BOXER. Very good. Thank you so much, Senator Inhofe. Senator Lieberman.

Senator LIEBERMAN. Thanks, Madam Chair.

Mr. JOHNSON, good morning again. I want to ask you to pick up on the last exchange you had with Senator Inhofe about your preference for a national standard here for vehicle emissions, greenhouse gas emissions. You have indicated that in your testimony and said it again. Of course, I agree that there should be a national standard. There should be a congressional and Federal action with regard to climate change.

But I want to focus in, last year, last April after the Supreme Court decision in the Massachusetts case, the President, as I recall, accepted for the Administration a responsibility and set a goal to issue national transportation emission standards. If I recall correctly at that time or shortly thereafter you indicated that you had the personal goal for the agency, for EPA, of issuing those standards by the end of 2007. Obviously we are now in January 2008.

I wanted to ask you whether you still intend to issue national motor vehicle emission standards and if so, by what date do you hope to do so?

Mr. JOHNSON. Yes, sir, we are continuing to work on both fuel standards as well as vehicle standards. Clearly, the new Energy Independence and Security Act provides, in fact, some specific direction on both of those issues. At the same time, that doesn't relieve us of, or relieve me or the agency of its responsibilities under the Clean Air Act and under *Massachusetts v. EPA*.

What we are doing is working our way through what, obviously, what the legislation directs us to do and then how all those pieces come together with regard to the transportation piece. So that is all being worked on. I do not have at this point a date that my staff has projected as to when these pieces will be. I am certainly aware of the dates that are embodied in the legislation for us to meet, and certainly it is our intent to meet those dates that are in the legislation.

Senator LIEBERMAN. Well, obviously the sooner the better, for issuing those. I appreciate your answer, because I believe that the order of the Court and the Administration's response to it, to issue national motor vehicle emission standards, stands quite separate from the requirements of the recent legislation, particularly with regard to CAFE. Although both have an effect on emissions, CAFE, fuel efficiency, is something quite different from what is coming out of the tailpipe.

So I appreciate your answer, I am glad you are working on it. I hope you will come to a conclusion soon.

Similarly, in your testimony that further court action on the waiver should wait until a notice has been posted in the Federal Register, I wanted to ask you, since EPA has already taken a fair amount of time in issuing its response to this request, and given that you have clearly collected and processed a lot of information to make your decision, when do you expect the Federal Register notice to appear in this matter?

Mr. JOHNSON. My staff have advised me that they expect to complete the documentation, the Federal Register, by the end of February. So that is what our target is.

Senator LIEBERMAN. OK, I appreciate the answer to that, too.

Finally, you suggest in your letter and in your testimony that the current and future impacts of climate change do not constitute "compelling and extraordinary circumstances for California." I wanted to ask you a little differently than Chairman Boxer did, in light of the recent reports by the IPCC and others, Intergovernmental Panel on Climate Change and others, I wanted to ask you, on what scientific grounds did you conclude that the threats to California were not compelling or extraordinary?

Mr. JOHNSON. Our final decision document, which we just talked about, will fully explain both the science, the technical and legal rationale for my decision. Certainly, the letter to Governor Schwarzenegger outlined the fundamental issue where I believe, and certainly in my judgment, California did not meet the waiver criteria of compelling and extraordinary.

Again, as we have discussed, it is not unique. It is not an exclusive issue to California. Certainly, IPCC and a number of other studies are very important studies. Certainly we considered, and I considered the results of those in making my determination.

Senator LIEBERMAN. Thank you, my time is up. Thanks, Chairman Boxer.

Senator BOXER. Thank you, Senator.

Senator Carper.

Senator CARPER. Thanks, Madam Chairman. Again, Mr. Johnson, thank you for joining us and for your testimony and responses.

I want to return to the CAFE legislation that a number of us worked on, and sent to the President for his signature and he signed on the day that you were there, as was I. The legislation, during the crafting of the legislation, the auto industry raised a whole lot of concerns. We sought to address those as best we could while still ensuring that we required of them over the next 12 years to raise fuel efficiency standards to 35 miles per gallon overall.

Among the concerns, the lingering concerns they had, at the end of the negotiation we came up with a compromise. The President said he would sign it. There was a concern still expressed by the auto industry that there was an inconsistency, a potential inconsistency, and they called it a potential train wreck, between EPA and NHTSA with respect to the path forward for raising fuel efficiency standards.

It would just help for me to clarify, there was actually an attempt on the Floor when we did the bill, a colloquy between Senator Levin and Senators Feinstein and Inouye, where Senator Levin sought to try to make sure that going forward, if there is a lack of consistency between what NHTSA, National Highway Traffic Safety Administration, is endeavoring to do to raise fuel efficiency standards, if there is an inconsistency with what they are doing and what EPA is attempting to do that somehow NHTSA would not be delayed in their efforts.

If I were the President, something I have no interest in doing, although Senator Lieberman tells me that 16 of our colleagues have run for President, if I were President, what I would do to try to harmonize the two agencies is say, look, we are going to get to

35 miles per gallon, we are going to do it by 2020. EPA, NHTSA, you have to work together to make this happen.

So I think that lack of consistency, that potential lack of harmony can be addressed. It gets a little harder when we have States out there that are working toward addressing their own concerns. That is what we have here with California, and as Senator Boxer says, with a number of others. Just talk to us a little bit about how we can make sure we get to 35 miles per gallon and we do so in a way that does not competitively disadvantage our auto industry. We need for them to be successful. They have expressed these grave concerns about lack of harmony going forward.

Your thoughts on that?

Mr. JOHNSON. Again, I would say congratulations to all of you sitting up there for passing the legislation. As we all know, it has been 30 years, and as I think Senator Klobuchar said, I am not sure what grade level you were in at the time.

Senator KLOBUCHAR. That would be seventh grade.

[Laughter.]

Mr. JOHNSON. But it is a significant accomplishment for the Nation. Everyone is to be congratulated.

Two points that I would like to make, Senator. The first is that as you correctly point out, as I was deliberating on the California waiver decision, at the same time, you in Congress were debating whether in fact to pass the Energy Independence and Security Act. In fact, certainly as certain of the colloquy indicate, whether in fact section 209, specifically focusing on the waiver, was going to be amended. I didn't know what you were going to do or not going to do. Certainly, obviously when it was sent to the President, it became clear what the position was. In fact, section 209 was not changed.

So I had to make and I have to make a decision based upon what the law is and what the law of the land is of the day. Certainly that is what I did.

With regard to now our charge, is to develop regulations to implement what Congress has passed, that is what we are working on right now. Certainly within the agency, and certainly the Department of Transportation has a significant lead, and as the law requires, we are to coordinate, or they are to coordinate with us. So that is what we are going to be focusing on doing, is making sure that we as a Nation achieve that 35 miles per gallon.

There is a range of technologies, a range of technologies that—

Senator CARPER. I am going to ask you to stop there, and thank you very much.

You and I have discussed from time to time my letter to you of May 10, 2007, where I called on EPA, if we are going to pass greenhouse gas legislation at the Federal level, there are three things that EPA could be doing to help expedite that process. One of my suggestions dealt with EPA developing a mandatory inventory and registry of major greenhouse gas sources in the United States, I think someone that one of my colleagues has had some interest in, too.

A second dealt with developing health and safety standards for geological sequestration of CO₂. A third was that EPA should de-

velop standards and practices on how best to estimate, measure and verify emission offsets. Real quickly, how are we doing there?

Mr. JOHNSON. No. 1, since the requirement is now part of our Omnibus bill and we are working on the schedule, and we intend to meet that for establishing the mandatory requirements, obviously we are aware that a number of States have mandatory requirements in place. So our staff are, if you will, picking the brains of our State colleagues as we move forward. So we are on track to do that.

Second, with regard to the underground injection and long-term storage, as you and I have discussed, we are now in the process of drafting a regulation which we should see this summer. Then third, with regard to the AG issue, we are working with the Department of Agriculture to see how we might be able to address that issue as well.

We are making good progress and you will see the results soon.

Senator CARPER. Thanks. Madam Chairman, if I could just say in closing, thank you for being generous with me.

We are here today in part because the Federal Government hasn't done its job. Sometimes we flail ourselves in the Congress and say that it is our fault. It is not entirely our fault. This is a shared responsibility. I remember in October 2000 when a Governor from Texas was running for President and gave a speech in Saginaw, Michigan, and said, we need to address sulfur dioxide emissions, carbon dioxide emissions, NOx and mercury, from sources, power plants. We have sought to do that, we have not had the kind of support from this Administration that we need. I think it is regrettable and I just wish, I will say for the record, I wish then-Governor Bush had kept his Presidential pledge that he made 7 years ago.

Last thing, Madam Chairman, we have been looking for an opinion from EPA on revised ozone National Ambient Air Quality Standards. I know you are under a lot of pressure to not do anything, to not change anything at all. I urge you, there is a number between .07 parts per million and .08 parts per million that I think we can find. I hope that in a week or two that you will find that. Thank you.

Senator BOXER. Thank you, Senator.

Senator Lautenberg.

Senator LAUTENBERG. Thanks, Madam Chairman.

Mr. Johnson, do you believe that global warming is a serious problem for human health?

Mr. JOHNSON. I believe that global warming is a serious problem and that it is one, as I mentioned in my testimony.

Senator LAUTENBERG. So you are not sure about whether it is dangerous for human health?

Mr. JOHNSON. Well, it certainly—

Senator LAUTENBERG. I mean, to leave the last part of the sentence—

Mr. JOHNSON. You are driving to an issue that one of the issues—

Senator LAUTENBERG. Let me be the driver, please.

Mr. JOHNSON. OK, Senator. One of the issues that is facing me and certainly the agency is the issue of endangerment under the

Clean Air Act. That there are two areas that endangerment can be fond of the Clean Air Act, one is human health—

Senator LAUTENBERG. I am asking your belief, please, I don't want to be rude, but I am not going to lose the use of my time for a complicated discussion when the question is fairly simple. Is global warming dangerous to human health?

Mr. JOHNSON. The agency has not made a determination on the issue of endangerment, which is the driver or both.

Senator LAUTENBERG. Well, you have had opinions from your staff, professional staff, that disagreed with your decision. What I would ask you, if there was no Federal law that gave you the route to follow, what would your—would your conscience have said anything about what ought to be done here with this waiver?

Mr. JOHNSON. My conscience is directed by what the law says and what the data—

Senator LAUTENBERG. So what is absent here?

Mr. JOHNSON. Well, again, it is interesting to speculate, but I have to follow, and certainly I have taken an oath of office to do what the law says and—

Senator LAUTENBERG. Yes, well, listen, you could leave the job if your conscience was so severe.

Mr. JOHNSON. This is true.

Senator LAUTENBERG. But your conscience is clear. Do you think global warming might have been a hoax that was perpetrated, or is it a serious problem?

Mr. JOHNSON. As I stated in my testimony, I believe it is a serious problem.

Senator LAUTENBERG. A serious problem, but it is not a serious health problem. Well, here is a scientist from Stanford who writes the report for Geophysical Research Letters. His name is Jacobson, research has particular implication for California, study finds that effects of CO₂ warming are the most significant where pollution is already severe. Given that California is home to 6 of the 10 U.S. cities with the worst air quality, the State is likely to bear an increasingly disproportionate burden of death if no new restrictions are placed on carbon dioxide emissions.

But you haven't found anything that would confirm or challenge that statement?

Mr. JOHNSON. Again, I am aware of that. As I recall, it was not part of the record that was before me in making the decision. But I certainly have now been made aware of that particular study.

Senator LAUTENBERG. The fact that—do you believe that greenhouse gases contribute to global warming?

Mr. JOHNSON. Yes, I do.

Senator LAUTENBERG. You do. So—but what you say is that the problem is national and that different area changes that might reduce those greenhouse gases has no value in terms of your view, and that is strictly dictated by law? You are not volunteering any opinion here?

Mr. JOHNSON. Again, obviously, and certainly people have heard, I believe environmental responsibility is everyone's responsibility and we can each make a difference. In the context of California—

Senator LAUTENBERG. Well, this is—

Mr. JOHNSON. In the context of the California waiver decision, I am directed by law to evaluate three criteria—

Senator LAUTENBERG. So if you were free to make a decision based on your conscience and the health of the community, I am going to interpret what you are not saying and say that, well, you wouldn't, that wouldn't dictate any other action than that which you have taken.

Mr. JOHNSON. That is an unfair characterization. I would beg to differ with you, Senator. Again—

Senator LAUTENBERG. Well, we—

Mr. JOHNSON [continuing]. I am confronted with the law in section 209 of the Clean Air Act. I evaluated all the data, I made a decision. It is the right decision.

Senator LAUTENBERG. But you have not gone to the President and said, Mr. President, here is an opinion from my staff, learned staff, professionals who think that we should grant this and say, Mr. President, we could make a modest change here and go ahead and do it?

Mr. JOHNSON. First of all, any conversations that I have with the President are between the President and myself. But I can assure you that I was not directed—

Senator LAUTENBERG. That leaves us out?

Mr. JOHNSON [continuing]. I was not directed by anyone, I was not directed by anyone to make the decision. This was solely my decision based upon the law, based upon the facts that were presented to me. It was my decision.

Senator LAUTENBERG. Yes, but you—and you are satisfied with that decision, based on your professional experience?

Mr. JOHNSON. Not only satisfied, I am confident and comfortable.

Senator LAUTENBERG. If there was a major fire in California that was fouling the air of States to the east, would you say that it is, don't touch that fire, that we, the Federal Government, will come in, put out the fire? Or should the State jump to the fact that there is an imminent danger, serious danger to health and property? I take it that your view would be, well, it is not specifically allowed by law for them to do it, so they are going to have to wait until the Federal firefighters come in?

Mr. JOHNSON. Interesting speculation, sir, and again, I have to deal with the California waiver as the law is written, and I have done that and I made the decision.

Senator LAUTENBERG. Madam Chairman, just a request to enter the Stanford study into the record.

Senator BOXER. Absolutely, we will do that, without objection.

[The referenced information follows on page 159.]

Senator BOXER. Senator Cardin.

Senator CARDIN. Thank you very much, Madam Chair.

Mr. Johnson, I have listened to your testimony and I have read your statement in which you point out very clearly that you asked for both technical information and personal viewpoints relevant to the condition of the waiver request. In some of the questions that we have been asking, we are trying to figure out how you balanced the information that was made available to you to make a decision. One could interpret personal viewpoints to be advice to you that if you don't grant the waiver, you are in for a tough hearing at the

EPW Committee, or if you do grant the waiver, you might have a tough day in the White House. One could intimate that is somewhat the political considerations as well as the technical information.

So I want to concentrate first, if I might, on the personal viewpoints that you had to consider in making this judgment. We are talking about a standard of compelling and extraordinary conditions. I am not exactly clear as to what personal viewpoints were taken into consideration in your reaching this decision to deny the California waiver.

Mr. JOHNSON. First of all, I am obligated and I believe it is good government to consider and in fact I am directed to consider notice and comment, comments from the public hearings. Obviously there are opinions, I have certainly heard from members of this Committee, including yourself, sir, on this. I listened to all of those, and then I needed to make an independent decision. The independent decision looks at the facts, for me, looks at what the science says, what does the law direct me to do.

Senator CARDIN. But if you had to balance it—

Mr. JOHNSON. Ultimately it is a judgment decision by me.

Senator CARDIN. I understand that.

Mr. JOHNSON. I made the judgment decision, and as I said, I feel it is the right decision.

Senator CARDIN. You have indicated that. I am trying to get the balance between technical information and reaching the decision that there was not a compelling, extraordinary condition versus personal viewpoints. How much was it based upon technical information, how much was it based upon personal viewpoints?

Mr. JOHNSON. Again, I examined the law, I examined what the science says. As we have clearly talked about today, it is a global problem requiring a global solution, at least at a minimum, a national solution.

I also listened to what people's opinions were, both from members of this Committee as well as other Members of Congress, including within the Administration. But again, ultimately it was a judgment call on my part. I made that judgment decision and I stand by that decision.

Senator CARDIN. Then, since—I guess we are all going to have to see later as we get some more of the information from you, as it comes out, as this process moves forward, exactly how you based this on the information that was made or presented to you. It seems to me that it may very well have been a significant amount of personal viewpoints in reaching this conclusion, more so than technical information. So I welcome your assessment on the technical information.

What I have seen from my own State, and I understand this waiver was involving California, smog is an issue very much that the people of California are aware of, as well as the people in Maryland are aware of the issue of smog. They know a lot of that smog comes from the emissions from our automobiles and light trucks, 70 percent I believe it is. They know very much that the California standards would have significantly reduced the contributing factors to smog.

Same thing is true in Maryland. We know that reducing smog will be good for the health of our children and our elderly and for all. We know the health-related issues here.

So on the technical information that you used to make this judgment, can you share with us the type of information that you used, so that you reached the conclusion that you feel very comfortable about, that California should not be allowed to significantly reduce the contributing factors to smog in their community?

Mr. JOHNSON. Senator, first, let me say several things. The smog, and I think you are referring probably to ozone, and that I intend to meet a court-ordered deadline of March 12th for evaluation of the ozone standard. I think Senator Carper was asking that question. I intend to meet that.

One of the issues that is part of the petition is, what is the connection between ozone and climate change. While I certainly recognize there is a connection, I also, based upon the science, did not believe that the greenhouse gas emissions and global climate change issue for which California was seeking a waiver met that standard. So that particular issue will be part of the full explanation that I was referring to in the decision document by the end of February.

Senator CARDIN. Thank you, Madam Chair. I am still not clear, though, about the technical information. Perhaps we will follow this up with some written questions. Thank you.

Senator BOXER. We will have a second round, which will be limited to 4 minutes. I will be much tougher on myself and everybody else on that. Then we will have our Governors.

Senator Sanders.

Senator SANDERS. Thank you, Madam Chair.

Administrator Johnson, the Intergovernmental Panel on Climate Change has told us, as you know, that global warming is a huge crisis facing our planet, and that very bold action is needed in the United States and throughout the world, if in fact we are going to cut greenhouse gas emissions and reverse global warming. As I mentioned earlier, however, a new international ranking of environmental performance puts the United States at the bottom of the group of eight industrialized nations, and way behind many other countries in moving forward in environmental issues.

Now, if I am correct, and I believe I am, it was only last year that the Bush administration actually admitted that global warming was a reality. So my questions to you are, No. 1, yes or no would be fine, do you believe that global warming is a major crisis facing our planet?

Mr. JOHNSON. Senator, one, as I said, I believe that it is a serious problem.

Senator SANDERS. Is it a major crisis?

Mr. JOHNSON. I don't know what you mean by major crisis.

Senator SANDERS. Well, the usual definition of the term major crisis would be fine.

[Laughter.]

Senator SANDERS. In other words, I ask these questions, not just to put you on the spot, but to provide some background as to how you reached your decision. If in fact as I believe is the case, the Bush administration does not see this as a very serious problem,

it is quite understandable why you would reject California's waiver. I am not hearing you acknowledge that you believe that global warming is in fact a major crisis.

Mr. JOHNSON. I said that global warming is a serious issue facing our Nation, facing our globe.

Senator SANDERS. OK.

Mr. JOHNSON. I also said that under the law, under section 209—

Senator SANDERS. That is not what I am asking.

Mr. JOHNSON [continuing]. To judge. But that is what I—

Senator SANDERS. All right, let me ask you another question. Do you agree with almost all of the scientific community that global warming is created by human activity? Is it man-made?

Mr. JOHNSON. It is my understanding what the scientific community says is that there are both human activity as well as naturally occurring, but that the current levels and projected levels are due largely to human activity. That is my understanding.

Senator SANDERS. As I understand it, the IPCC has said that the current situation is 90 percent likely caused by human activity. Do you agree with that?

Mr. JOHNSON. I agree with the IPCC, yes.

Senator SANDERS. Statement on that? OK. Do you agree that bold action is needed to reverse global warming?

Mr. JOHNSON. I believe that action needs to be taken to reverse global warming, both here in the United States and around the world.

Senator SANDERS. Bold action is the word I used.

Mr. JOHNSON. As I said, action.

Senator SANDERS. Action, OK. If in fact bold, or if in fact action is taken, why do you think it took 6 years before the Bush administration acknowledged the reality of global warming?

Mr. JOHNSON. I would like to correct, to the best of my recollection, what I recall the President acknowledging as far back as 2001, that it was a problem. Certainly, I would be happy to, for the record, to make sure that that is clarified.

Senator SANDERS. But you will agree that the Bush administration was far behind virtually every other industrialized country in acknowledging the problem and moving to deal with the problem?

Mr. JOHNSON. No, I wouldn't.

Senator SANDERS. You wouldn't?

Mr. JOHNSON. I would not agree with that. I would not agree with that, because as a Nation, we have since 2001 been investing now over \$37 billion in addressing this issue.

Senator SANDERS. I hear that you do not agree with that, and that is fine.

Now, in terms of serious health problems, what we hear from the leading scientists of the world, that if we do not address global warming we are going to see an increase in dangerous flooding, we are going to see drought, we are going to see an increased danger, which we are already seeing, of forest fires. We are going to see hunger because of the loss of farm land. We are going to see wars being fought over limited resources. We are going to see an increase in such insect-caused diseases as malaria. That sounds to me like we may be facing some serious health problems.

Do you disagree with that assertion?

Mr. JOHNSON. Well, again, as I was trying to say to Senator Cardin, that under the Clean Air Act, there are specific definitions, and certainly interpretation of the definitions under the law focusing on endangerment.

Senator SANDERS. I am not asking—excuse me, we don't have much time. Just as a human being, just as a human being, do you happen to think that flooding, the impact of flooding, the impact of drought, the impact of forest fires, hunger, wars, malaria and other insect-borne diseases, do you think that that constitutes serious health problems?

Mr. JOHNSON. As Administrator, I consider myself to be a human being, but I also, sir, agree that those are serious issues that require—and that is why I believe there is a compelling need to address them.

Senator SANDERS. Well. I think frankly your response tells us why the entire world is wondering what is happening in the United States on this issue. Thank you very much.

Senator BOXER. Thank you, Senator Sanders.

Senator KLOBUCHAR.

Senator KLOBUCHAR. Administrator Johnson, I was listening to what Senator Sanders was asking, and some of the other questions about this finding that you have to make to meet the standards. It is the *EPA v. Massachusetts* case, so you have to show there is a dangerous standard. Could you describe it for me again, what it is?

Mr. JOHNSON. When the Supreme Court made its decision in April of last year that CO₂ is a pollutant, they in essence left me with a three-part decision. The three-part decision was, if you find that there is endangerment to public health or the environment, then you must regulate. If you find that there isn't endangerment to public health or the environment, then you don't regulate. Or if there are—again, my words—other conditions or other things that you may not be aware of.

So we are as an agency, and certainly as an Administration, working through a deliberate process to evaluate that very important issue.

Senator KLOBUCHAR. OK. I have a really good idea for you to speed it up. Julie Gerberding testified before this Committee and I assume you think she is a trusted person, and with the Centers for Disease—

Mr. JOHNSON. A great colleague.

Senator KLOBUCHAR. The Centers for Disease Control, you trust them, I would hope?

Mr. JOHNSON. Yes.

Senator KLOBUCHAR. You remember what happened when she testified, and it turned out that some of her testimony was redacted and it was a big brouhaha, which you haven't been in, luckily. But in her testimony that was redacted, she actually said a lot of things that you could use tomorrow to say that it is a public health risk. Because I have it here, she talked about how the United States is expected to see an increase in the severity, duration and frequency of extreme heat waves from climate change. This, coupled with an aging population, increases the likelihood of

higher mortality, as the elderly are more vulnerable to dying from exposure to excessive heat. That would seem to me to be a public health risk.

Mr. JOHNSON. Again, those are the important parts of our consideration to determine, again, under the Clean Air Act, we are charged with evaluating whether there is endangerment, and whether that endangerment, and again—

Senator KLOBUCHAR. OK, but what I am saying is you have one agency of your Administration, in addition to that, talking about how some of the infectious diseases that can develop, talking about the air quality causing permanent lung damage, aggravating chronic lung diseases; vector-borne and zoonotic diseases, such as plague, lyme disease, West Nile virus, malaria, dengue fever, have been shown to have a distinct seasonal pattern. You have all of these things right in another agency that is telling you that this could create a public health risk.

So I think this is what drives people in my State, when I started out talking about Ely, MN, crazy that you have one agency of the Government saying, oh, here it can be a public health risk, but then you are not able to use this report and say, this is a compelling reason, our own Government has found that there is a public health risk. That is my question.

Mr. JOHNSON. One is, I have not said whether we are or are not using it. Certainly as an agency, we need to look at the entirety of the science and make a determination. Again, the threshold question that is posed by the Supreme Court is whether there is endangerment.

For whatever reason there may be, endangerment is certainly important scientifically and certainly, what steps to take to mitigate. But certainly under the Clean Air Act, triggering action and next steps is whether there is or is not endangerment.

Senator KLOBUCHAR. I just think you have your endangerment in this report. You have seen the wildfires in California that this report also predicted would happen. In fact, it was redacted while these wildfires were going on.

One other thing and then I will go into the next round here. I know that as one of the rationales for denying the waiver, you talked about how it could create a patchwork system as opposed to one Federal standard. But correct me if I am wrong, but the way the law works, if the California standard comes in, this would be the choice. There would be the California standard or there would be the Federal standard.

Mr. JOHNSON. Thank you for mentioning that, because I tried to make it clear in the letter to Governor Schwarzenegger that the bases of my decision were on the three criteria under section 209 and compelling and extraordinary was the issue that the criteria, that was not met. I pointed out in the letter that that certainly isn't a context of what is the policy of both what is happening as a Nation, and that is the policy, again my words, policy context.

But that was not the decision criteria. The decision criteria are very clear in section 209 on whether or not—

Senator KLOBUCHAR. That is fine. When I come back, I will talk about it. But you have said before that this could create a confusing patchwork of State rules.

Mr. JOHNSON. Again, that is not one of the criteria for the decision.

Senator KLOBUCHAR. But you did say it.

Mr. JOHNSON. But I certainly said that the——

Senator KLOBUCHAR. What I am trying to point out, to get the record straight, because this is a very useful political argument for people to use, it is not really true, because the way the law works, you will have the California standard or you will have the Federal standard. So you will have two standards that States could pick from.

Mr. JOHNSON. Perhaps a better description would be checkerboard.

Senator KLOBUCHAR. So it is not a patchwork——

Mr. JOHNSON. Perhaps a checkerboard.

Senator KLOBUCHAR. Well, it is like one checkerboard with one red and one black. Not a patchwork.

Mr. JOHNSON. A patchwork of States.

Senator KLOBUCHAR. OK. I just wanted to make clear to the Country here that you said it would be a patchwork. It is not really. It is just two choices, one that you can use different ways to get to, which we will get into in the second round, and then this Federal standard that was a first step, a baby step, that we have taken as we have noted since I was in seventh grade. Thank you.

Senator BOXER. Senator, thank you for making that point.

Senator Whitehouse.

Senator WHITEHOUSE. Thank you, Madam Chair.

Director, I would like to ask you some questions about the process by which this decision came to you. The first one is, did you direct the process, the internal administrative procedure by which this decision was brought to you and presented to you?

Mr. JOHNSON. The process that the agency followed is the routine agency process for dealing with waivers, which include receipt, notice and comment, hearing. In fact, the Governor asked for additional hearing, which we did. Staff collected all of that, reviewed all of that information and gave me a series of briefings. That is all, certainly in my experience, a routine agency process.

Senator WHITEHOUSE. Did the staff briefings include staff recommendations?

Mr. JOHNSON. Yes.

Senator WHITEHOUSE. How were those staff recommendations presented to you?

Mr. JOHNSON. First of all, the staff presented me with a range of options. Then that range of options, all legally defensible, and within that there were certainly pros and cons for each of those. Certainly the staff had their opinions, which I certainly appreciate. I listened to those, I listened to comments by Members of Congress, the notice and comment. Certainly people within the Administration had their view. But it ultimately came to me in making a decision and a judgment call on my part, and I made that decision.

Senator WHITEHOUSE. How was it presented to you by the staff? What aspect of it? Office by office, who was involved?

Mr. JOHNSON. The typical process is that those offices across the agency who are involved in helping to draft and understand both the science and the legal part, as well as the policy, as well as what

the Clean Air Act said, those would typically be the offices involved in providing counsel and advice.

Senator WHITEHOUSE. They were in this case?

Mr. JOHNSON. Yes, I recall they were, yes.

Senator WHITEHOUSE. Is it customary when decisions are brought to the director of the Environmental Protection Agency for the staff to endeavor to consolidate a recommendation and work out their disagreements, if there are in fact disagreements, before they come to the director?

Mr. JOHNSON. Again, what my experience has been certainly as Administrator is the staff identifies what are the available options that are legally defensible, and within the confines of the law. That certainly identify what the pros and cons are for each of those. They understand and certainly I understand that the decision ends up being my decision.

So again, we had a fulsome process. I certainly fully understand the issues. We were talking about litigation and litigation risk. Certainly in my experience in the agency, every decision, and every option on virtually every issue that I have confronted, there is litigation risk. Of course, that is again, ultimately my decision. I made the decision. I believe it was the right decision. I appreciate the great work of our staff.

Senator WHITEHOUSE. So as I understand it, there are three elements ultimately to the process by which you made your decision. One was an options analysis that the staff presented you with the pros and cons of the various, of the options that you had before you. The second was a recommendation that the staff made to you as to what your decision should be. The third was your decision, the ultimate decision for the agency. Is that correct?

Mr. JOHNSON. I would add an earlier step, because part of the briefing process for me was, here is what the law says, here is what the past practice has been, past practices have been under section 209 of the Clean Air Act. So there was a, we call it a foundational briefing to set the stage for the decisionmaking.

Senator WHITEHOUSE. With respect to the recommendation phase of the process, is it customary for you as the Administrator to seek to have the different elements of your organization that are involved in one of these decisions in preparing a matter for your decision to try to come up with a consolidated recommendation to bring to your attention among the staff?

Mr. JOHNSON. What is typical for me, at least certainly in my experience, is that as the staff briefs the options, then I frequently ask each of them if they would like to share what their opinion was. They can certainly pass. Certainly I also have those discussions with my policy advisors inside the agency.

Senator WHITEHOUSE. Is that different from the portion of the administrative decisionmaking process we talked about earlier, where they make a recommendation to you? I assume you are sort of asking them to do that.

Mr. JOHNSON. Not necessarily. Not necessarily.

Senator WHITEHOUSE. Is that what you mean when you say you get a staff recommendation, is it you just, in the course of the options analysis may or may not ask them for their opinions?

Mr. JOHNSON. No. Often, in some cases, there is a consolidated recommendation. In other cases, it is a range of options for me to consider.

Senator WHITEHOUSE. Who decides whether the staff is going to present you a consolidated recommendation or a range of options?

Mr. JOHNSON. Typically I leave that up to the head of the office that is working on the particular issue at hand. Again, certainly as Administrator, I like to see the full range of options that are legally defensible.

Senator WHITEHOUSE. Why wouldn't you as Administrator want in every case not only to see the full range of options but also to force your staff, just as a matter of practice, to try to work together and make a consolidated recommendation for you? Wouldn't that be what you would try every time?

Mr. JOHNSON. Well, again, I like to hear the opinions and all of the options. But under the law, it is not a popularity decision, it is not a vote. It is ultimately my judgment and my decision. I appreciate the great work our staff did.

Senator WHITEHOUSE. I will continue this later, if I may. Thank you, Madam Chairman.

Senator BOXER. Thank you, yes. We are now going to do 4 minute rounds. I just think, for the head of the Environmental Protection Agency to refuse to say that global warming is a threat to human health is at best embarrassing for the United States of America, and at worst, dangerous. Dangerous.

I am going to put into the record, without objection, the IPCC report on public health impacts embraced by yourself, you said you agreed with them, and Dr. Julie Gerberding, who heads the Bush administration CDC. Among other things, increased malnutrition, consequent disorders involved child growth and development. Increase of the number of people suffering from death, disease, injury from heat waves, storms, fires and droughts, et cetera. We will put that in the record.

[The referenced material was not received at time of print.]

Senator BOXER. Next, you have stated, and your spokesperson was just, I think the word he used was disappointed or horrified, I can't remember the word, that we actually told the American people what were in these documents. I think it is important to place in the record the analysis by CRS dated May 1, 2007. The Committee may determine on a case-by-case basis whether to accept a claim of privilege. They talk about it, it is an established, well-established by congressional practice that acceptance of a claim of attorney-client privilege is up to the Committee.

So, I don't know why your spokesman is horrified that I want to make these documents public.

Now, when can we expect the rest of the documents, Mr. Johnson?

Mr. JOHNSON. First of all, Senator, I had asked that you respect the privilege because we are now in litigation with your own State.

Senator BOXER. Well, I understand, but we went through that.

Mr. JOHNSON. Certainly—

Senator BOXER. I am asking you a question, sir. Sir? My responsibility is to the people of my State and this Country. Your salary is paid by those people. The people, the good people who made the

recommendations, who by the way told you in unequivocal terms to grant the waiver—we have the information and we are going to put that into the record, without objection. They said there is almost certainly to be a lawsuit by California. EPA is likely to use the suit. That is what it says.

So I am asking you a question, I would appreciate it if you would just answer the question. When can this Committee expect the rest of the documents?

Mr. JOHNSON. I believe my staff have committed, as they are going through the process, I believe it is February 15th.

Senator BOXER. Will those documents include, as we were told they would, e-mails between you and your staff and the White House and the executive branch, or the White House, the Vice President's office?

Mr. JOHNSON. I know that we are processing them. The nature and the extent of, I would have to get back to you for the record.

Senator BOXER. They told us that those were in the documents that we are anticipating. So as far as you know, we will get all of the information by February, you said 15th, is that right?

Mr. JOHNSON. That is my understanding. That is correct.

Senator BOXER. OK. I am trying to avoid subpoenas and all the rest of it.

Now, you said you were briefed on the law. I place in the record the excerpts from legislative history of the California waiver provision. Here is what it says, Mr. Johnson. The Committee amendment requires the Administrator of EPA to grant a waiver for the entire set of California standards unless he finds that California acted arbitrarily or capriciously, nor is he to substitute his judgment for that of the State. So I will ask unanimous consent to place that in the record.

[The referenced material was not received at time of print.]

Senator BOXER. So let me just say, because my time is winding down, we will press for these documents. We hope you won't send them over with tape. We hope you won't stand over the shoulders of these good people here who work hard, where they have to now transcribe everything. This Committee has determined, and I know there may be minority views, but the majority has determined that these documents are important for the people of this Country to see.

Therefore, we hope that you will not send them over with all of this tape. It is ridiculous. It is a waste of time and it hurts the American people. I just hope you will consider that.

Senator Inhofe.

Senator INHOFE. Thank you, Madam Chairman. Due to the fact that we are having another round and I will not be here for the third round, and I see that Mr. Holmstead is in the audience now, get out your pencil, because I would like to have you address this question, even though I won't be here to ask it. What is the logic of allowing only California to regulate a non-local but instead global pollutant? Do you advocate the repeal of section 209(b) of the Clean Air Act? Doesn't the very essence of the rationale for giving California a special prerogative to regulate mean that California must be unique, otherwise why not give every State the same right? If giving every State the same right to regulate a global pol-

lutant would make no sense, why shouldn't California equally be prohibited from having its own standard?

Now, that is what I would like to have you address. I have many more I am going to have for the record, because it looks like I won't be here for even the second panel.

But let me just real quickly ask you a question I was going to ask you in the first round, Mr. Administrator. In order to obtain a waiver, California needs to show that its standards are consistent with Federal standards. Now, is that correct, there is a consistency requirement that is in the statutes?

Mr. JOHNSON. Yes, sir. There are three criteria: arbitrary and capricious, compelling and extraordinary, and then other, which are consistent with, in essence, the section of the law.

Senator INHOFE. Well, then I would ask, how can California meet the consistency requirement of the statute, because there are no Federal greenhouse gas standards?

I feel compelled to make a couple of comments about some of the statements that have been made by other members of this panel. Because by not doing so, someone might think that perhaps we agree with them. There isn't time to do this, but when you talk about whether or not the anthropogenic are the major cause or a 90 percent or whatever percentage you want to attach to it, this is something that is not settled. The science is not settled. We have gone over this over and over again.

I have actually used specific names of people who were very famous, very authentic scientists, leaders like Claude Allegre in France. Claude Allegre was a socialist, he was one of the top scientists who was on the other side of this issue, I say to my friends, 10 years ago. Now he has clearly, he said the science just flat isn't there. David Bellamy in U.K. is in the same position. He was one who felt very strongly 10 years ago, he was marching the aisles with Vice President Gore. Nir Shariv in Israel was another one that was that way.

Then we noticed that there are several who showed up in the conference in Indonesia, in Bali, that took a different position. I was the only skunk at the picnic at the event that took place in Italy, Milan, Italy a few years ago. But this time, several scientists showed up and wanted to be heard and were not very well received.

Then we have the 400 scientists that we released the names of these scientists, all of whom take issue with the fact that there is a consensus. They have all questioned that there is consensus.

So it is not settled. Yet those who realize that the other side is now being heard and that more and more scientists are coming out and questioning it, I see a sense of panic in those who keep wanting to say louder and louder, the consensus is there.

You were asked the question, Mr. Administrator, if you agreed with the IPCC. I don't agree with your answer, because I don't agree with them. But you said you do. Do you agree with their assessment that they cut the sea level rise expectations in half recently, which is only one twentieth of what the Gore sea level rises are? Do you agree with the IPCC in that case?

Mr. JOHNSON. That is my understanding. I would agree.

Senator INHOFE. Did you agree with the IPCC when they came out and they said the greenhouse gas emissions by livestock exceeds that of the entire transportation segment?

Mr. JOHNSON. I don't recall that particular fact.

Senator INHOFE. All right, I will give that to you, I will submit for the record.

[The referenced material was not received at time of print.]

Senator INHOFE. Thank you, Madam Chairman.

Senator BOXER. Thank you.

Senator Carper, let's try to keep to the 4 minutes, because we have three Governors waiting.

Senator CARPER. No problem.

Mr. Administrator, I want to come back to my question relating to my letter of May 10, 2007 to you, where I raised the three questions. I appreciate your earlier response to my question. I just want to go back to the first one, you may recall my suggestion urging EPA to develop a mandatory inventory registry, if you will, of major greenhouse gas sources in the United States. I seem to recall in the Omnibus Appropriations bill that we passed a month or two ago, I think there is a time line that is called for. Do you recall what that is, and can you just again bring us up to speed as to where EPA is in regard to that time?

Mr. JOHNSON. Yes. The appropriations language directed EPA to develop and publish a draft rule not later than 9 months after the date of enactment, and a final rule not later than 18 months after the date of enactment.

Senator CARPER. My question of you was, are you all off and running on that?

Mr. JOHNSON. Yes, we are.

Senator CARPER. OK. Do you expect to meet both time lines?

Mr. JOHNSON. Our intent is to meet those, yes, sir.

Senator CARPER. If you can beat them, that would be just great, right?

The other thing, a couple of my colleagues have alluded to the Supreme Court's determination that EPA must make an endangerment finding, and explicitly determine whether greenhouse gases cause or contribute to climate change. Just clarify for us, if you would, what is the status, please, of EPA's proceedings to respond to the court's remand? Are you in a position to provide me or any of my colleagues with the documents that your staff has developed to inform this decision?

Mr. JOHNSON. At this point, sir, we are working to develop our full package, as I mentioned. That is our customary practice and it is certainly my intent to follow that is that as we proposed draft regulations, which obviously we will need to do for both vehicles as well as fuels, that endangerment would be part of that, our finding of endangerment as part of notice and comment.

So my intent is we are following that practice. My staff has been evaluating the current legislation and at this point I don't have a date to say when that would be done. But we are working on it. I trust that we will be able to shortly advise you.

Senator CARPER. Are you in a position to provide us with the documents that your staff has developed in conjunction, to help inform you in this decision?

Mr. JOHNSON. Well, again, we are in the internal deliberative process of trying to work through that. But certainly, after we have made that, I have made that decision, I would be happy to share that with you.

Senator CARPER. Thank you. The last thing, we spent a fair amount of time last year under the leadership of Chairman Boxer, with a lot of good work by Senators Warner and Lieberman and others of our staff to try to put together an economy-wide CO₂ bill. I don't know that any of us have asked you today your views on that legislation.

Mr. JOHNSON. Well, we always look forward to working with Congress to address this important and believe real issue of global climate change. We are in the process of finishing up an analysis of the Senator Warner-Lieberman, I am not sure who else, I apologize, that were all part of that. I believe that is going to be by—I will have to get back to you for the record, but I know that our analysis that, we are coming to closure on doing that analysis, which certainly at EPA and certainly I hope will inform the debate.

Senator CARPER. My hope is that it will be a supportive analysis and a timely one as well. Our leader says, Madam Chairman, he hoped to bring our legislation to the floor by maybe early June. So your analysis and hopefully your support would be most appreciated. Thank you.

Senator BOXER. Actually maybe sooner than that.

Senator Lautenberg, 4 minutes, please.

Senator LAUTENBERG. Yes, we will try to move things along.

Mr. Johnson, it took nearly 2 years to review this waiver decision. But on the same day that President Bush signed the new CAFE bill into law, you were able to make a decision. During that time, were you giving any guidance to the review of the decision? You said you didn't have direct contact with President Bush, if I understand you correctly.

Mr. JOHNSON. On that point, I have routine conversations with the President and other members of the Administration. But putting that aside, let me try to walk through some of the big time lines.

Senator LAUTENBERG. Sure, walk, please.

Mr. JOHNSON. After California submitted the waiver petition, it wasn't until the Supreme Court ruled, and it certainly was the agency's position that it was not a pollutant. Therefore, the waiver was not applicable. Once the Supreme Court made the decision in April that it was a pollutant, then as I recall, it was within 2 weeks, I began the process which begins with a Federal Register notice, then follows with hearings. So that process was going, and I had a series of briefings by my staff. Once the public comment period closed, and recognizing that additional comments came in—

Senator LAUTENBERG. It appears that you were waiting to do anything until that decision was handed down to kind of give you the, if I might say, the protection to go ahead and ignore—

Mr. JOHNSON. Senator, Madam Chairman, may I clarify that?

Senator BOXER. It is up to Senator Lautenberg, he controls the time here.

Senator LAUTENBERG. Yes, please.

Mr. JOHNSON. As I was going through my deliberative process, which as I said were the briefings and all the rest, I was also fully aware that Members of Congress were debating whether in fact the Clean Air Act would be changed or not. So I didn't know whether it was or wasn't. Ultimately it was not changed. So I was prepared to make my decision.

The timing of the decision is one that I think is worth noting. Because I had planned a more orderly process of rolling out my decision by the end of the year—

Senator LAUTENBERG. I think you have covered it. My last question is the *Washington Post* reported that technical and legal staffs cautioned Johnson, their language, against blocking California's tailpipe standards. The sources said that and recommended that he either grant the waiver or authorize it for a 3-year period before reassessing it.

Now, if that is so, what compelled you to go against the advice of the lawyers and scientists at EPA? Do you think they were giving you faulty information?

Mr. JOHNSON. No. Again, a great team of people, the lawyers and scientists and policy staff. They presented me with a wide range of options. Those options ranged from approval to denial. I listened to them carefully, I weighed the information and I made an independent judgment. I concluded that California does not meet the standard under section 209.

Senator LAUTENBERG. It is too bad, Mr. Johnson, that with all that staff and all the information you had that you didn't somehow or other comport with the answer you gave me before that there is a problem that ought to be faced with the global warming and the California problem.

Senator BOXER. Thank you.

Senator Cardin.

Senator CARDIN. Thank you, Madam Chair.

Let me just make an observation. It is interesting that it took almost 2 years and you use as one of the reasons that you needed or waited for a court decision because you disagreed with the application to start off with, and then the courts ruled that California was correct to be able to at least submit the waiver, then you go through a lengthy process. I guess my question to you is, have you learned anything from this? Can we expect that the normal practice of the Environmental Protection Agency will be this protracted in order for a State to get some guidance on a waiver? To me it is just unacceptable, 2 years, to have to wait.

I remember when we had a hearing before this Committee in 2007, and I asked you a question on timing, and tried to pin you down to July being the deadline for getting the answer to California. At that time, no one challenged that date as being unreasonable and yet, of course, it came and went.

So I guess my question to you is that I hope we have learned from this experience is unacceptable, and it took too long in this case. You can justify it on the courts or on the process or this and that, the volume of information you received. But I will just tell you, I don't think it is acceptable for a State to have to wait this long. Now of course is not the end, because there is going to be litigation. There is going to be more that is going to have to come out.

To me, we can do things better. I hope that we have learned something from this process.

Madam Chair, I will be willing to take my answer in written form in order to save the time. I will yield back the balance of my time.

Senator BOXER. Thank you, Senator.

Senator SANDERS.

Senator SANDERS. Thank you, Madam Chair.

Mr. Administrator, my understanding is that a technical document, especially of the magnitude of the California waiver situation, would usually be prepared and made ready for distribution before a decision of this magnitude is announced, so that the legal basis for a decision can be defended and can be well-understood.

Was it just a coincidence, therefore, that you announced your decision regarding the California waiver at a press event at 6:30 p.m. on December 19th on the evening that President Bush signed the Energy bill. It seems like a strange time to be making that announcement.

Mr. JOHNSON. I would be pleased to explain. Again, the way the agency process works is briefings, then ultimately I make a decision, I turn to the staff, direct them to write the decision document. I turned to the staff, directed them to—

Senator SANDERS. Was it a coincidence that you happened to make a decision at 6:30 p.m., right after the President signed the Energy bill? Seems to be rather strange time.

Mr. JOHNSON. Let me explain why. That later afternoon, and I don't recall what time, but my press office started receiving phone calls from major newspapers, saying that papers had been leaked, and that at least in their view, that it was mis-representing what actually was true. They came to me and I made a judgment call that, rather than having inaccurate information, that I would announce the decision.

So while that was not my preferred course, I had a more orderly course of action that I had planned to take of announcement, I felt compelled that the American people were owed what was the truth.

Senator SANDERS. So it was just a coincidence that all that happened to occur on the same day as the President signed the Energy bill?

Mr. JOHNSON. Well, again—

Senator SANDERS. Was it a coincidence?

Mr. JOHNSON [continuing].—I wasn't the person who leaked the information and—

Senator SANDERS. No, no, no, please—

Mr. JOHNSON [continuing].—and caused the flurry of phone calls.

Senator SANDERS. Sir, please, I am asking you a question. The average American would find it rather strange that the head of a major agency at 6:30 p.m. on the evening that the President signs an energy bill, and you are under oath, would make this announcement in a press release rather than in a substantive legal argument on such an important issue.

Mr. JOHNSON. Again, I acknowledge that this situation was unique. It was unique in that I submitted—

Senator SANDERS. You are saying it was a coincidence?

Mr. JOHNSON. What I said was it is a unique situation. I explained what the situation is. I would be happy to, in greater detail for the record, if you would like. Again, my commitment to the Governor, members of this Committee, was that I would make a decision by the end of the year. As I have already testified, while I was deliberating—

Senator SANDERS. Mr. Johnson, could you understand that the American people might be somewhat dubious about your explanation that just on that particular evening at a press conference, on such a lengthy issue, with the Governor of California and the American people, it seems to me, are entitled to a lengthy, technical, legal argument as to why that waiver is rejected, 6:30 p.m. press release on the same day the President signs the Energy bill?

Mr. JOHNSON. Again, I would be happy to, for the record, explain the circumstances that have happened. I said at the roll-out or the release my decision was unique. But given the circumstances I felt it was the best—

Senator SANDERS. The circumstances had nothing to do with the fact that the President was signing the Energy bill on that day?

Mr. JOHNSON. As I said, I have already described the circumstances. We will be happy to—

Senator SANDERS. But you didn't answer my question. Did your release that day have nothing to do with the fact that a few hours before the President signed the Energy bill, nothing to do with it?

Mr. JOHNSON. As I said—

Senator SANDERS. You didn't say, sir. You keep saying, as you said, you didn't say. I am asking you a simple question: was it related, was it not?

Mr. JOHNSON. Well, as I tried to say, that I was aware that Congress was debating the issue whether to change the Clean Air Act. I wasn't sure whether Congress would or would not—

Senator SANDERS. Madam Chair—

Mr. JOHNSON [continuing].—doubtful that the President would sign or would not sign.

Senator SANDERS. You were doubtful whether the President would sign or would not sign? Everybody in America knew that he would sign it. You were the head of the EPA, you were doubtful?

Mr. JOHNSON. I wanted to have the advantage of making sure the President had indeed signed the legislation.

Senator SANDERS. Thank you.

Senator BOXER. Thank you, Senator.

Senator Klobuchar.

Senator KLOBUCHAR. Thank you.

So then just to finish up what Senator Sanders was saying, so this wasn't a pure coincidence that this happened?

Mr. JOHNSON. As I said, the factor that caused me to issue it on that day and that time was that there was mis-information that was being communicated, and that we had multiple phone calls from many press sources, and that I felt an obligation to correct that. As I said, I had already announced to my staff and directed them to begin preparing the technical documents. I knew that I wanted to meet and honor my commitment to the Governor and to members of this Committee and certainly Congress by the end of the year. The mechanism of doing that was a letter announcing

what my intent was, so that I could honor those. The timing of it was, again, driven by the fact that mis-information was getting out there. Again, it was not my ideal roll-out plan at all.

Senator KLOBUCHAR. So this is the first waiver that has ever been denied under this Act?

Mr. JOHNSON. I also consider it the first waiver decision and unique given the greenhouse gases. But you are correct.

Senator KLOBUCHAR. There have been like 50 granted?

Mr. JOHNSON. Yes. Whether it is 50 or 100, this is the first one, and a major one, which again, I did not believe met the criteria under section 209.

Senator KLOBUCHAR. Right. I was thinking back to what we had talked about earlier with the checkerboard of the patchwork, which you have now said you have sort of backed off from, that it is not really a patchwork, instead of a checkerboard, it is two checkers, it is a choice of one standard or another. One of the things that I wanted to make clear here, so people understand, that the California standards don't mandate that the greenhouse gas reductions come from fuel efficiency alone, is that correct?

Mr. JOHNSON. My recollection is that it also includes air conditioners as well, for example.

Senator KLOBUCHAR. So a combination of improved technologies, tailpipe emissions of greenhouse gases, use of alternative fuels, credits for air conditioner improvements, credits carried from another year or fleet, and credit trading among manufacturers? That is what I understand those are all involved.

Mr. JOHNSON. One of the important features that Congress just passed was in fact giving the Department of Transportation the authority under law to be able to trade between trucks and cars. Certainly California already has that authority, and certainly we think that is a good thing.

Senator KLOBUCHAR. So looking back, because you keep talking about the 209(b) and the three ways that you could deny the waiver request, as you were looking at this, would be if California's determination was arbitrary and capricious, and that is not the reason you did it, right?

Mr. JOHNSON. Again, that was not the principal reason why.

Senator KLOBUCHAR. The other one, there is one that says it is inconsistent with other Clean Air Act requirements, and that wasn't the reason?

Mr. JOHNSON. Again, the reason I stated was the second one.

Senator KLOBUCHAR. That California does not need such State standards to meet compelling and extraordinary conditions. So I am thinking of this, this happened, like these wildfires, and your own Centers for Disease Control, the Administration saying that wildfires in West Coast States could happen. I am thinking about your own agency's report, which said, I believe, that the temperature has increased in the world one degree since the industrial age, and then they project something like three to eight degrees in the next century. Is that correct?

Mr. JOHNSON. I don't recall those specific statistics, but I will take your word for it.

Senator KLOBUCHAR. Let me just tell you, Lake Superior, because these guys always talk about oceans all the time, Lake Supe-

rior, lowest level in 80 years. Why is that? Because all the ice is evaporating. So the level is going lower, and the barges can't come in, so they are using more and more barges. The snowmobilers are talking about a huge change in their lifestyles and in their recreation and in the sale of snowmobiles because of less snow. The resort owners have seen a 30 percent reduction.

One point, and this is in Minnesota, but they have these things in California, too, at what point do we see extraordinary conditions occurring that would meet the standard?

Mr. JOHNSON. Again, as you are pointing out, it is not an issue that is exclusive to California. It is not unique to California. It is a global problem, it is a national problem.

Senator KLOBUCHAR. But if California can show that they meet the standard of extraordinary, just like Minnesota does with Lake Superior, why wouldn't they meet the standard?

Mr. JOHNSON. Again, in my judgment, given the fact that it is a global problem and one facing, as you are saying, Minnesota and many other States, it is not exclusive. There is not a compelling need for that State standard. That is the basis of my decision.

Senator KLOBUCHAR. Well, we disagree. Thank you.

Senator BOXER. Senator Whitehouse.

Senator WHITEHOUSE. Administrator, you just used the phrase "in my judgment" as the basis for your decision. The legislative history of this California waiver provision specifically says, nor is he to substitute his judgment for that of the State. Did you evaluate that piece of legislative history in this in any way, and if so, how can you come before this body and say that the basis for this is your judgment, when that has been something that was effectively legislatively disabled in order to facilitate a free and open process administratively?

Mr. JOHNSON. It is very simple, sir. The law, and I will quote, says "Authorization shall be granted if the Administrator finds that," and then it lists the three criteria. So that is not a—

Senator WHITEHOUSE. But an Administrator—

Mr. JOHNSON. It is not a rubber stamp.

Senator WHITEHOUSE. OK.

Mr. JOHNSON. It is a judgment that I have to evaluate the data. I have to evaluate all the issues that we have been talking about as to whether in fact one or more, and it just takes one of the criteria not being met.

So in my mind, when this is directing me to evaluate and make a judgment as to, that is the judgment that I am referring to.

Senator WHITEHOUSE. Well, the process that led to this, let me go back to that discussion we were having. You said that it is typical in your agency for there to be essentially four steps through this process. One, a process of briefing; second, an options analysis with all the options reviewed and evaluated by your staff; third, a consolidated recommendation from your staff as to the decision that they recommend that you make; and finally, your decision, correct?

Mr. JOHNSON. Again, there are a lot of important sub-steps in that, such as here is the basis—

Senator WHITEHOUSE. Was anything that I said wrong?

Mr. JOHNSON. No, no. Let me just add to that. There are very important steps—

Senator WHITEHOUSE. I would like to get to some questions, so I don't want you to slow-walk me through this by going into the minutiae of administrative procedure, if you don't mind. Is it correct that those are the four major elements that lead to your decision?

Mr. JOHNSON. You missed another element, and that is summarizing and evaluating the notice and comments that came in.

Senator WHITEHOUSE. OK, understood. Was there a consolidated recommendation made by your staff on this waiver question?

Mr. JOHNSON. As I recall, there was a series of—

Senator WHITEHOUSE. It is a yes or no question.

Mr. JOHNSON. I don't recall that there was a consolidated recommendation on the briefing papers.

Senator WHITEHOUSE. Why, if it is typical in your agency for there to be a consolidated recommendation made by the staff, was there not a consolidated recommendation made by the staff on this particular question?

Mr. JOHNSON. I thought I just answered the question by saying that I receive a wide range of briefings and option selections. Sometimes—

Senator WHITEHOUSE. That is a different thing. That is the options analysis you talked about.

Mr. JOHNSON. Sometimes there is a consolidated recommendation, sometimes there is not.

Senator WHITEHOUSE. So it is not typical? You are telling me two things. You are saying that—you just agreed with me, and by the way, you are under oath, you just agreed with me that one of the key steps here was the consolidated recommendation by the staff. You just agreed with me that it was typical, that that was the standard process. Now you are saying, maybe sometimes, maybe not. You can't have it both ways. What is the process for your agency, which is a big agency and runs with procedures?

Mr. JOHNSON. Let me correct the record, so that it is clear. It begins with a notice and comment process. Then the staff—

Senator WHITEHOUSE. Focus on the consolidated recommendation piece.

Mr. JOHNSON. Again, there sometimes are consolidated recommendations, and those consolidated recommendations are in the form of here are the five options that we believe are legally defensible. Sometimes those consolidated recommendations are, here is our recommendation.

Senator WHITEHOUSE. What is the difference?

Mr. JOHNSON. Sometimes it is a range, sometimes it is one.

Senator WHITEHOUSE. Yes, but who decides that they are going to give you just the options analysis versus a consolidated staff recommendation?

Mr. JOHNSON. Again, I leave it up to the head of the particular office that is evaluating the particular petition or regulation or whatever.

Senator WHITEHOUSE. Isn't it just a matter of basic administrative discipline with a multi-division agency like yours to force them

to the exercise of trying to get to a consolidated agency recommendation before you are asked to make a decision?

Mr. JOHNSON. Again, my point is, the consolidated agency recommendation might include one option or it might include three options, it might include five options.

Senator WHITEHOUSE. So the options analysis and the consolidated recommendation are the same thing now? We have just been through how they are separate steps. Now you are saying that they are the same thing?

Mr. JOHNSON. I would be happy to be very clear for the record, because it is clear that you seem, from my perspective, to be confused on the steps. So I would be happy to for the record—

Senator WHITEHOUSE. I think it would be important to clarify very specifically what the typical steps are for your agency in presenting a matter to you for decision—typically—and compare that to how that was done in this case. Because what I am hearing is that there typically is a consolidated recommendation that comes from the staff, which makes sense. That is the way administrative agencies should ordinarily operate. It is in fact, to some degree, an administrator's responsibility to try to force his staff to come to a consolidated recommendation.

That would seem to be the logical way to proceed. You have said that you didn't do that in this case. Given how peculiar the ultimate decision is, it raises the suggestion that there has been a manipulation of the agency process in this case, in order to allow you to make a decision that is neither supported by the facts nor by the law nor by your own staff's recommendation. It is a serious matter. So I hope you will give me a real answer to it and not just lots of gobbledygook about administrative law, which I am pretty familiar with. I have a specific question, and I think I have made it pretty clear, and I would like to make that for the record, so I don't take any further time.

[The information was not supplied at time of print.]

Senator BOXER. Thank you.

Senators, I am just going to close this out by putting some things in the record and just completing the record, and then Governors, we are coming to you.

You mentioned when Senator Whitehouse was saying, these are the four criteria, so there is one more, the public comments, the views. Do you know what percentage of those views that came in supported granting the California waiver?

Mr. JOHNSON. I don't know the percentage, but I also know that this is not a popularity contest.

Senator BOXER. I didn't ask you whether it was or wasn't. You said it was a criteria, sir. If it is a criteria, you corrected Senator Whitehouse, he didn't say it was a criteria, you said it was a consideration.

Mr. JOHNSON. I said it was a consideration of public comments.

Senator BOXER. Fine, and I asked you knew how those comments came out. Were they in favor of the waiver, were they against it?

Mr. JOHNSON. There was a wide range of comments.

Senator BOXER. No—wide range.

Mr. JOHNSON. A hundred thousand commenters, probably 200 or so approximately substantive issues that were raised. It was clear

that out of the 100,000 there were quite a few that some might characterize as a letter-writing campaign or a card campaign. Nonetheless, it is a sense of—

Senator BOXER. So your assessment is it was a mixed view?

Mr. JOHNSON. Clearly, that there was a, again, about 100,000, many—

Senator BOXER. I am asking, did you think it was a mixed view?

Mr. JOHNSON [continuing]. Were to support it. But as I said—

Senator BOXER. Some supported, some opposed?

Mr. JOHNSON [continuing]. It is not a popularity contest. It is—

Senator BOXER. I didn't ask you that. I asked you were the comments in favor of granting the waiver or against. I know it is not a popularity contest. That is not my question. You answered and said there were mixed views, some in favor, some opposed. I would place into the record the California complaint. In their analysis, they said 99 percent support the regulation of California.

So I am going to place that into the record. I am sure when you get to court, you can argue that. But I want to put that in the record.

[The referenced material was not supplied at time of print.]

Senator BOXER. I am next putting in the record the Supreme Court's decision, which completely, completely undermined the EPA and this Administration's view on regulating greenhouse gases. Just so you will hear this, I think it is important to read just a sentence. "That the DOT sets mileage standards in no way licenses EPA to shirk its environmental responsibilities. EPA has been charged with protecting public health and welfare." You were lectured by the Supreme Court.

[The referenced material was not supplied at time of print.]

Senator BOXER. Now, I want to get to Senator Sanders' questioning. Why did you announce this on the date that the President signed the Energy bill? Your answer was, well, there is no connection, no connection at all. I heard from my staff there were leaks going on and I wanted to set the record straight. That is what you said. Is that right? Am I giving a fair recitation of what you said?

Mr. JOHNSON. Yes.

Senator BOXER. Well, Administrator Johnson, I want to remind you that you are under oath, and I want to read to you your press release, your press statement. Then if you want to change your answer to this Committee, please feel free to do so. This is what you said at the press conference. "Thanks, Jennifer, and good evening, and thank you all for joining me. Early today, President Bush signed the Energy Independence and Security Act of 2007, improving fuel economy and helping reduce U.S. dependence on oil. This bill delivers energy security benefits and brings a much-needed national approach, national approach, to addressing this national challenge, improving the environment for all Americans. I believe this is a better approach than if individual States acted alone."

Mr. Johnson, you based your entire statement on the fact that the President signed that. Do you still stand by your answer to Senator Sanders that it was just a coincidence?

Mr. JOHNSON. I stand by my statement and I stand by this. Again, I made my decision for the California waiver under section

209 of the Clean Air Act. I found that California does not meet the compelling and extraordinary conditions.

I also noted in the letter, that certainly is in the policy context, that Congress, and again, congratulated all of you for passing legislation. That was true the day the President signed it, and it is true today.

Senator BOXER. Well, Mr. Johnson, let me just say, just really, as a human being to a human being, and I am going to ask Senator Sanders, I am going to give him 3 minutes, because to me, to me, when you say to him it had nothing to do with it, and in essence, and I will put this in the record without objection, your entire rationale was based on this. That is why Senator Klobuchar corrected you, in this statement you said a patchwork. She showed, there is no patchwork, there is two standards, the minimum Federal standard and the California standard. States are free to choose from one of those.

So if I just might say, we are not going to open it up to all colleagues. I just believe on this point, Senator Sanders should, if he—

Senator CARPER. Madam Chair, I would like to have a minute just to may illuminate the perspective if I could.

Senator BOXER. Well, if you could after Senator Sanders, and then we are going to the Governors, because this is to do with his question. I feel he has the right to followup on this.

Senator SANDERS. Mr. Administrator, I would very much appreciate for all of our goods if you could rephrase your answer to me. For your good as well, because you are under oath. To be very honest with you, the first that I have seen the press release is Senator Boxer making it public.

There is concern about the politicization of many aspects of the Bush administration, including the EPA. I asked you if in fact it was just a coincidence that at 6:30 in the evening, when President Bush signed the Energy bill, that you in a press release released such an important statement as your refusal to grant the California waiver. You said there were other reasons, that leaks had been taking place and you wanted to respond to what you believed to be inaccurate information. Senator Boxer just made public what we should have known earlier, is your statement, which begins with stating that "President Bush signed the Energy Independence and Security Act of 2007, improving fuel economy," this evening he did, "and helping reduce U.S. dependence on oil. This bill delivers energy security benefits," et cetera, et cetera.

The beginning of your statement in terms of why you rejected the California waiver has everything to do with the President signing the Energy bill. How can you come here and tell us that it was just a coincidence?

Mr. JOHNSON. As I have tried to explain, that there were two events happening in a parallel path. One, I was deliberating on section 209 and the waiver petition, and the parallel path you all were debating whether to change the Clean Air Act, including that section. When it became clear that you were not going to change, therefore would not impact the decision that was before me, and in fact you did not change section 209—

Senator SANDERS. Let me ask you this—

Mr. JOHNSON [continuing]. Then I was clear that I was able to make my decision on the Clean Air Act, section 209.

Senator SANDERS. You just told us that the reason you made the decision at 6:30 on that particular evening is you wanted to set the record straight, that there was misleading information. Why didn't you begin your statement by saying, look, this is just a coincidence, President signed the bill, but I want to make it clear, this misleading information, and that is why I am making my statement at 6:30 in the evening. Instead, what you do is you congratulate the Congress and the President for passing the Energy bill. That is your justification for rejecting the California waiver.

Mr. JOHNSON. I certainly appreciate your advice on—

Senator SANDERS. No advice, that is what you said here.

Mr. JOHNSON [continuing]. What I said. Again, it is factually correct that in fact Congress had passed, it is a good thing. I stand by that statement then, I stand by it now. As I point out, what I said was, if you will read the rest of the statement, "In light of the global nature of the climate change, earlier this evening I called Governor Schwarzenegger to inform him that I have found that his State does not meet the compelling and extraordinary conditions needed to grant a waiver of Federal preemption."

Senator SANDERS. That is exactly right. But that is in the middle of this paragraph. You begin your statement by recognizing the passage and the signing, is that correct, of the Energy bill. Is that correct?

Mr. JOHNSON. Again—

Senator SANDERS. Did Senator Boxer read the statement that you made? Let's be clear. Did she?

Mr. JOHNSON. Yes, you have the document before you.

Senator SANDERS. I have it right before me. Just wanted to make sure.

Senator Boxer, thank you very much.

Senator BOXER. Thank you.

Now, Senator Carper, rather than open up a lot of time, I know that the point is made that there were leaks. I don't deny that there were leaks. I don't deny that. I don't question your veracity on the point. But I just want to underscore this, it has nothing to do with that. I don't deny your veracity on that point.

What I do, what gravely concerns me, is that when you read the statement, the rationale for the denial, Mr. Johnson, is the bill that was signed. That is the issue. Not your veracity that there was—I don't doubt it. We have leaks every day and I understand that.

But your statement should have said, I would have preferred to wait, but I am moving forward. So we don't deny your veracity on the fact that there were leaks. But what we are concerned about is when you say it had nothing to do with the Energy bill signing and then the whole basis for this denial. Which leads me to just one other question about dates. We are looking forward to receiving the documents on February 15th. When will you have the decision document ready for everyone to read?

Mr. JOHNSON. As I have said to Senator Carper, my staff have advised me that by the end of February. Madam Chairman, we forgot, if we could have my letter to Governor Schwarzenegger put into the record, that would be appreciated.

Senator BOXER. Absolutely, we will place that in the record, yes. [The referenced material was not supplied at time of print.]

Mr. JOHNSON. Then also, concerning your question regarding the documents, I commit to provide you those documents as quickly as possible, according to the guidelines that our staff have discussed. These commitments and deadlines are best described in the January 18th letter, which I would also ask be placed into the record.

Senator BOXER. So will we get the documents by February 15th, was what you said before.

Mr. JOHNSON. Again, quoting from the letter, we expect to provide any responses—

Senator BOXER. So you are backing off from giving us the documents on February 15th?

Mr. JOHNSON. I am quoting and commit to what our staff have agreed to.

Senator BOXER. Sir, sir, help me here. Will we get the rest of the documents by February 15th?

Mr. JOHNSON. I said we expect to, if I had finished the statement, we expect to complete our response and provide the documents by February 15th.

Senator BOXER. Thank you. When will we have the decision document? Because all you have issued is this press release. When are you going to have the document?

Mr. JOHNSON. I said, I expect by the end of February.

Senator BOXER. So the end of February, you will have the decision document. OK.

We are going to call up our Governors. Thank you, Administrator Johnson.

Mr. JOHNSON. Thank you, Madam Chairman.

Senator BOXER. Also the rest of our panel.

We have Hon. Martin O'Malley, the Governor of Maryland; Hon. Jim Douglas, Governor of Vermont; Hon. Edward Rendell, Governor of Pennsylvania; Hon. Mike Cox, Attorney General of Michigan; and Doug Haaland, who is not elected, but the minority here wanted to hear from him. He is the Director of Member Services of the Assembly Republican Caucus of the State of California.

So if we could proceed. I want to say to our Governors, we didn't expect that this would go on as long as it did. But it just shows you the intense feelings here on this. We really look forward to hearing from you.

I would ask the Governors, do you have any preference in order, or should we just go down the panel? Is there anyone that needs to go first because of timeframe?

Very good. Douglas, O'Malley and Rendell, then we will go to Hon. Mike Cox and to Doug Haaland. I am going to ask if you would stand and we are going to swear you in, as we swore in our previous witness.

[Witnesses sworn.]

Senator BOXER. Thank you so much, gentlemen. Why don't you start, Governor Douglas?

**STATEMENT OF HON. JAMES DOUGLAS, GOVERNOR, STATE
OF VERMONT**

Governor DOUGLAS. Thank you very much, Madam Chairman, Senators, members of this Environment and Public Works Committee. I appreciate the opportunity to appear today on behalf of the great State of Vermont.

As the first State to adopt California's motor vehicle greenhouse gas emission standards and to successfully defend these standards against legal challenges by the automobile industry in Federal court, Vermont is a leader among the 12 States that have adopted these standards and the 8 other States that have committed to adopting them. Vermont first adopted California's low emission vehicle standards in 1996, because its program placed more stringent standards on vehicle emissions than EPA's program. Vermont has updated its standards every time California's have been amended.

In November 2005, Vermont became the first State to once again exercise its right under section 177 of the Clean Air Act to sign onto California's amendments. Vermont adopted California's standards as part of a comprehensive State greenhouse gas reduction plan that addresses our contribution to global warming. Climate change poses risks to the State's public health, welfare and economy.

In Vermont, climate change could produce a shorter ski season, allow incursion of warmer climate tree species, which would replace the current mix of hardwoods that produce our spectacular fall foliage, and result in a dramatic change in the quality and quantity of maple sap. Ours is a rural State, and Vermonters have traditionally worked the land for their livelihood. Tourism, farming, logging and maple sugaring are major economic drivers. Global warming could threaten our way of life. We have an obligation to do all we can to protect our environment for future generations.

Vermonters are proud that we have the smallest carbon footprint per capita in the United States. We are a "net sink" State: we absorb more carbon than we emit. Admittedly, Vermont's adoption of California's standards alone will not solve the global warming problem. But it is a significant step in the right direction that Vermont and other States must be permitted to take.

In *Massachusetts v. EPA*, the U.S. Supreme Court endorsed the view that partial solutions to the problem of global warming are valid, and recognized that motor vehicles are significant contributors to greenhouse gas concentrations. This is particularly true in Vermont, where the transportation sector accounts for approximately 45 percent of greenhouse gas emissions.

Under the Clean Air Act, both EPA and California are authorized to establish motor vehicle emission standards, provided that California receives a waiver of preemption from EPA. Congress adopted this two-car strategy for regulating motor vehicle pollution in 1967. In the 1977 Clean Air Act amendments, Congress authorized Vermont and other States to adopt California's standards.

This is a State right that we embrace, and that must be safeguarded. EPA's recent waiver denial infringes on this important right, because without a waiver, the greenhouse gas emissions standards adopted by Vermont are not enforceable.

Two years after California submitted its 2005 waiver request to EPA, the agency issued a letter denying it. The primary reason for denying the waiver was EPA's belief that the national approach set forth in the Energy Independence and Security Act signed into law on the same date, as you have noted, as EPA's letter, was preferable to California standards. EPA's stated reason is legally irrelevant under the statutory criteria for denying a waiver set forth in section 209 of the Clean Air Act.

Moreover, the agency's assertion that the establishment of 35 miles per gallon fuel economy standard by 2020 required by the Energy Independence and Security Act is more aggressive than California's standards is factually incorrect. To the contrary, California's standards go into effect earlier and result in deeper reductions. In 2016, 4 years before vehicles are required to meet the Federal fuel economy standard, California standards are expected to reduce greenhouse gas emissions in Vermont and the 11 States that have already adopted them by 79 percent more than the Federal approach.

Finally, EPA's letter denying the waiver states that in light of the global nature of climate change, California does not have a need to meet compelling and extraordinary conditions. This conclusion ignores legislative intent and more than two decades of EPA precedent establishing that the term "compelling and extraordinary conditions" does not mean conditions that are unique to California. If California's emission standards could only address air pollution problems that are unique to that State, a State's right to adopt high but achievable standards for the reduction of greenhouse gas emissions under the Clean Air Act would be meaningless.

For these reasons, Vermont has joined with 15 other States in California's appeal challenging EPA's waiver denial as both legally and factually unsound.

So these are the reasons why Vermont adopted California's greenhouse gas emission standards, and the reasons why EPA's waiver denial encroaches on the rights of Vermont and other States to do our part to assume a leadership role in averting the impacts from global climate change. Global warming is a complicated problem. It won't be solved by any one action. Coordinated State efforts to reduce emissions from the transportation sector should be applauded, and the statutory provisions authorizing these State actions must be upheld.

Again, I thank you on behalf of the great State of Vermont to be here at the hearing today.

[The prepared statement of Governor Douglas follows:]

**TESTIMONY
JAMES DOUGLAS
GOVERNOR
STATE OF VERMONT
BEFORE THE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
U.S. SENATE**

January 24, 2008

Good Morning Madam Chairman, Ranking Member Inhofe, Senator Sanders and members of the Environment and Public Works Committee. On behalf of the State of Vermont, I appreciate the opportunity to come before your committee today.

I. Vermont's Adoption of California's Standards

As the first state to adopt California's motor vehicle greenhouse gas emission standards and to successfully defend these standards against legal challenges by the automobile industry in federal court, Vermont is a leader among the 12 states that have adopted these standards and the eight other states that have committed to adopting California's standards.

Vermont first adopted California's low emission vehicle standards in 1996 because their program placed more stringent standards on vehicle emissions than EPA's program. Vermont has updated its standards every time California has amended theirs. In November 2005, Vermont became the first state to once again exercise its right under Section 177 of the Clean Air Act to sign on to California's amendments.

Vermont adopted California's standards as part of a comprehensive state greenhouse gas reduction plan that addresses Vermont's contribution to global warming. Climate change poses risks to Vermont's public health, welfare, and economy. In Vermont, climate change could produce a shorter ski season, allow incursion of warmer climate tree species, which would replace the current mix of hardwoods that produce our spectacular fall foliage, and result in a dramatic change in the quality and quantity of maple sap. Ours is a rural state and Vermonters have traditionally worked the land for their livelihood. Tourism, farming, logging and maple sugaring are major economic drivers. Global warming could threaten our way of life and we have an obligation to do all we can to protect our environment for future generations.

Vermonters are proud that we have the smallest carbon footprint per capita in the United States. We are a "net sink" state. We absorb more carbon than we emit. Admittedly, Vermont's adoption of California's standards alone will not solve the global warming problem, but it is a significant step in the right direction that Vermont and other states must be permitted to take. In Massachusetts v. EPA, the U.S. Supreme Court endorsed the view that partial solutions to the problem of global warming are valid and recognized that motor vehicles are significant contributors to greenhouse gas concentrations. This is particularly true in Vermont where the transportation sector accounts for approximately 45 percent of greenhouse gas emissions.

II. EPA's Denial of California's Waiver Request

Under the Clean Air Act, both EPA and California are authorized to establish motor vehicle emission standards, provided that California receives a “waiver of preemption” from EPA. Congress adopted this “two-car” strategy for regulating motor vehicle pollution in 1967. In the 1977 Clean Air Act Amendments, Congress authorized Vermont and other states to adopt California’s standards. This is a state right that we embrace and that must be safeguarded. EPA’s recent waiver denial infringes on this important right because without a waiver the greenhouse gas emission standards adopted by Vermont are not enforceable.

Two years after California submitted its 2005 waiver request to EPA, The Agency issued a letter denying that request. The primary reason for denying the waiver was EPA’s belief that the national approach set forth in the Energy Independence and Security Act, signed into law on the same date as EPA’s letter, was preferable to California’s standards. EPA’s stated reason is legally irrelevant under the statutory criteria for denying a waiver set forth in Section 209 of the Clean Air Act. Moreover, The Agency’s assertion that the establishment of 35 miles per gallon fuel economy standard by 2020 required by the Energy Independence and Security Act is more aggressive than California’s emission standards is factually incorrect. To the contrary, California’s standards go into effect earlier and result in deeper reductions. In 2016, four years before vehicles are required to meet the federal fuel economy standard; California’s standards are expected to reduce greenhouse gas emissions in Vermont and the 11 states that have already adopted them by 79 percent more than that approach.

Finally, EPA's letter denying the waiver states that, in light of the global nature of climate change, California "does not have a need to meet compelling and extraordinary conditions." This conclusion ignores legislative intent and more than two decades of EPA precedent establishing that the term "compelling and extraordinary conditions" does not mean conditions that are unique to California. If California's emission standards could only address air pollution problems that are unique to California, a state's right to adopt high, but achievable, standards for the reduction of greenhouse gas emissions under the Clean Air Act would be meaningless. For these reasons, Vermont has joined with 15 other States in California's appeal challenging EPA's waiver denial as both legally and factually unsound.

III. Conclusion

Today, I have outlined the reasons why Vermont adopted California's greenhouse gas emission standards and the reasons why EPA's waiver denial encroaches on the rights of Vermont and other states to do our part and to assume a leadership role in averting the impacts from global climate change. Global warming is a complicated problem that will not be solved by any one action. Coordinated state efforts to reduce emissions from the transportation sector should be applauded and the statutory provisions authorizing these state actions must be upheld. Thank you for the opportunity to testify.

Senator BOXER. Thank you so much, Governor, and all Governors, for your patience.

Governor O'Malley, we are very happy that you are here.

STATEMENT OF HON. MARTIN O'MALLEY, GOVERNOR, STATE OF MARYLAND

Governor O'Malley. Thank you, Madam Chair. It is good to see you again, and it is good to be with the Committee. To you, Madam Chair and to the distinguished members of the Committee, it is my distinct honor and privilege to testify before you today on this shameful denial by EPA of the State of California's request for a waiver under the Clean Air Act, and to require more stringent automobile emissions standards, something that every reasonable person wants to see our Country doing more of, rather than doing less of.

I would also like to give special thanks to my Senator, Senator Ben Cardin, for his relentless and unfailing leadership on this issue and so many issues related to our environment, the health of the Chesapeake Bay. As you know, Madam Chair, he was speaker of the house of delegates of the great State of Maryland, and he understands just how committed our State is to the cause of reducing global warming and protecting our environment, so that we can pass it on in a healthier condition to our children. So thank you, Senator Cardin.

While we are here today to discuss the denial of a specific waiver request made by the State of California under the Clean Air Act, this is really about a much larger issue. This is about whether or not we are willing to make choices and create policies that promote sustainability, enhance our quality of life and protect the natural environment that we will leave to our kids and to our grandchildren.

The EPA's grant of the waiver would have allowed Maryland, California and 15 other States to have imposed stricter automobile emissions standards on what amounts to 45 percent of the Nation's registered automobiles. By denying the latest waiver request, the EPA has halted progress on this long battle to save our environment, even though 15 other States in the Union had mustered together the political will as a people to make greater progress. Personally as an American, as well as a Marylander, I find that shameful.

Because of this decision, a request long known to be legitimate under Federal law, suddenly, miraculously, overnight or in the darkness of night, on the eve of Christmas at 6:30 p.m. suddenly lacks merit. The longstanding agreement that States should have the freedom to do more if they should so choose than the Federal Government to protect the environment is now being abrogated. It is being abrogated without any scientific justification and without any legal rationale.

In the efforts of my State and 19 others to combat sea level rise and ozone pollution, now we are being told by the EPA, not worth pursuing. We recognize the need for uniformity and predictability in environmental regulation. The EPA's grant of the waiver would not undermine that need. There has not been a patchwork of standards, there have been two standards; one that more and more

States were trying to adopt, which was the more rigorous California standards. Why is that? Because of the scientific evidence that climate change is actually happening much more rapidly than anyone would have anticipated, even 10 years ago.

There are two standards: one that actually moves to address climate change; and the other that would have us stand still. The EPA has granted the waiver so many times in the past, and its denial is what is injecting unpredictability into our policies and our laws when it comes to America's will to step up and do our part to reduce the effect of climate change.

I find this decision, with all due respect to the Secretary, shameful, outrageous and irresponsible. It amounts, in essence, to the EPA saying to the States, how dare you make greater progress against climate change than what we are willing to make here in the Federal Government. It has no policy reason, there is no scientific reason, there is no health reason. It is one thing for the Federal Government to fail to step up under this Administration to confront climate change. It is quite another for this Administration to tell States that we are not free to step up and take greater action against climate change.

I have submitted testimony, I do believe, Madam Chair, and I will, knowing that we have been over some of these things and not wanting to be repetitive, and knowing that we have other people on the panel to hear from, I will simply wrap up by saying that we must move forward to address this challenge. Really, this challenge epitomizes and underscores the real crisis, I think, in our Country, whether or not we still have that future preference, whether we still believe enough that we can make a difference in the world we live for our kids if we are willing to take action now. That is what 15 States, including Maryland, were trying to do until the Federal Government, from this absolutely indefensible decision, told us to back off, and that we are not allowed to make progress on the environment any more.

I hope that the Committee will do everything in their power to reverse this shameful decision. Thank you.

[The prepared statement of Governor O'Malley follows:]

STATE OF MARYLAND
OFFICE OF THE GOVERNOR



MARTIN O'MALLEY
GOVERNOR

STATE HOUSE
100 STATE CIRCLE
ANNAPOLIS, MARYLAND 21401-1925
(410) 974-3901
(TOLL FREE) 1-800-811-8336
TTY USERS CALL VIA MD RELAY

**Testimony of
Governor Martin O'Malley
State of Maryland**

before

**The United States Senate
Committee on Environment and Public Works**

**January 24, 2008
406 Dirksen Senate Office Building**

Madam Chair, Ranking Member Inhofe, and distinguished members of the Committee, it is my distinct honor and privilege to testify before you today on the EPA's recent denial of the State of California's request for a waiver under the Clean Air Act to require more stringent automobile emission standards. I would also like to give special thanks to Senator Ben Cardin from my home state for his extraordinary leadership and help in bringing about the opportunity for me to speak on this critical issue.

While we are here today to discuss the denial of a specific waiver request made by the State of California under the Clean Air Act, this is really about a much larger issue – whether or not we are willing to make choices and create policies that promote sustainability, enhance our quality of life, and protect the natural environment that we will bequeath to our children and grandchildren. There is perhaps no better place to discuss these issues than in a major city lying in a watershed that drains into the Chesapeake Bay. The Bay is so much a part of the fabric of my state, that many say it is its very heart and soul. Unfortunately, it is a soul that is burdened, even tortured, by a series of poor policy choices, one of which we are here to discuss today.



EPA's grant of the waiver would have allowed Maryland, California, and 15 other states to impose stricter automobile emission standards on what amounts to 45 percent of the Nation's registered automobiles. Instead of focusing on the legal reasons why this waiver should have been granted, and there are many, today I want to discuss, on behalf of the citizens of Maryland, why it is unacceptable that 17 states have been denied their right to implement their standard, the Nation's *alternative standard* – for reducing air pollution from automobiles. The EPA has granted the state of California this waiver 40 times. By denying the latest waiver request, the EPA has decided that *this* time:

- a request long known to be legitimate under federal law suddenly lacks merit,
- the longstanding agreement that states can do more than the federal government to protect the environment in which their citizens live is abrogated, and
- the efforts of my state and 19 others to combat sea level rise by reducing ozone pollution are not worth pursuing.

As Marylanders, we recognize the need for uniformity and predictability in environmental regulations. EPA's grant of the waiver would not undermine that need. It simply allows two standards to continue to exist - the federal standard and the more rigorous California standard. It does not result in 50 different standards or anything resembling a patchwork. There are two, and only two.

Furthermore, because the EPA has granted the waiver so many times in the past, it is its denial that injects unpredictability into the equation. The trend has clearly been for states to adopt the California standard. As I mentioned earlier, 17 states, accounting for almost half of the nation's cars, have adopted or committed to adopt the California standard. Foresighted manufacturers understand this trend and, as we speak, are producing and delivering cars that comply with the standard.

The EPA's leadership has decided that an improved national corporate average fuel economy standard – or "CAFE" standard – and a higher percentage of alternative fuels in the fuel distribution system will achieve the same results as allowing states to continue to implement the California standard. While these measures are certainly laudable, they are in no way a substitute for implementation of the California standard if the goal is to address greenhouse gas emissions and begin to combat climate change.

First, the California standard will produce reductions beginning as soon as 2009. In Maryland, we expect to see reductions starting in 2011. By the time the federal fuel economy standard takes effect in 2020, we will have already removed 32 million tons of carbon dioxide from the air.

Secondly, we have already had a mileage standard and a fuel mix requirement for many years. Additional regulations of this type will not significantly advance our efforts to combat our longstanding air pollution problems, nor will it help us meaningfully address the new and extremely difficult challenge we face – global climate change.

To portray the Administration's approach, which would take effect in 12 years, as a credible substitute for the benefits of implementation of the California standard in Maryland and other states is at best disingenuous. Because of the high percentage of the Nation's automobiles that would be subject to the state standards, we can achieve substantial reductions much sooner.

We as a nation have a proud history of reducing air pollution. Our skies today are much cleaner than they were 10 years ago. Our system has been working, and it will continue to work best when states are allowed to use the tools that have long been available to them.

The EPA's denial of this waiver undermines the historic role of the states and denies them their place at the forefront of protecting, preserving, and restoring the nation's natural resources and the environment. If Maryland had been denied the right to enact more stringent environmental standards than federal law provides, Maryland would not currently have on its books:

- laws to manage development along our 7,000 miles of sensitive shoreline;
- requirements that state-of-the-art technology be used at wastewater treatment plants that discharge into the Chesapeake Bay – setting an example for the nation;
- the Healthy Air Act that will reduce mercury pollution in the state by 90% by 2013;
- Smart Growth laws that manage growth and protect the quality of life that Marylanders so enjoy.

Allowing states to continue to implement the California standard makes common sense. When fully implemented in 2016, the California standard will reduce greenhouse gas emissions from cars and trucks by 30%. Airborne nitrogen emissions from cars and trucks deposited into our Chesapeake Bay will be reduced by 9 percent by the year 2025 through our Clean Cars Program.

Reducing green house gas emissions from sources other than automobiles is going to be a challenge. Reducing these emissions from automobiles is not. Technology that brings emissions from automobiles into compliance with the California standard is already available across the country. As I said before, manufacturers are producing cars using this technology at this very moment.

As a people who are concerned about the world we leave to our children and grandchildren, this is an opportunity that we cannot afford to pass up. The Supreme Court has told the federal government that it may regulate greenhouse gas emissions– and rebuked it for failing to do so. What does it say about us as policy makers, legislators and government officials, if we are not going to take advantage of technology and legal authority that is already here? We must work together to correct this problem.

When it comes to the air that we breathe and the health of our planet, which are directly affected by the energy we consume, we need to be aggressive. In Maryland we are implementing an ambitious, but achievable vision for a more sustainable future.

Together, we are working with 9 other states to reduce greenhouse gas emissions from the power plant sector through the Regional Greenhouse Gas Initiative – known as “RGGI”.

Together, we created the Commission on Climate Change and charged its professional membership with the task of preparing Maryland's plan to address climate change.

Together, we set a goal to reduce Maryland's per capita electricity consumption by 15 percent by 2015.

Together, we are diversifying our energy portfolio by increasing renewables like solar, wind, biodiesel, and biomass. We have started by adopting one of the most aggressive solar standards in the Nation – requiring that two percent of Maryland's electricity (approximately 1,500 megawatts) come from solar by 2022.

And together, we fought for and we passed the Maryland Clean Car Initiative implementing the California standard, which will require cleaner, more fuel efficient cars by 2011.

We have worked so hard to implement these environmental protection and energy efficiency measures because of what renowned Georgetown historian, Carroll Quigley calls our desire for "future preference". The idea that, in fact, tomorrow can be better than today and that each of us has a responsibility, personally, to make it so.

Seventeen states have adopted or are committed to adopting the California standard. More than 20 states have set substantial greenhouse gas reduction targets. Looking to these state efforts as models, there are many programs that can radically reduce greenhouse gas emissions at reasonable costs. But, in order to implement these types of programs, we need the partnership of our federal government and the flexibility that we have always had. The time for action to combat global warming is now. Allowing the states to continue to implement the California standard is one of the most effective steps we can take in this fight.

We greatly appreciate the leadership this Committee and the Congress have shown in helping us protect our environment. Thank you very much for your time in considering my testimony today.

RESPONSES BY GOVERNOR MARTIN O'MALLEY TO ADDITIONAL QUESTIONS FROM
SENATOR INHOFE

Question 1. If your view is that any emissions program California adopts must be granted a waiver by Environmental Protection Agency (EPA), why did Congress craft a three-part test in section 209(b), instead of just granting California a simple power to set its own emissions standards of any kind?

Response. My view is that California should be granted the waiver based on the scientific and technological merits of the request and that the basis for the waiver is consistent with the conditions established in Section 209(b).

Question 2. What is the logic of allowing only California to regulate non-local, but instead global pollutant? (a) Do you advocate the repeal of Section 209(b) of the Clean Air Act? (b) Doesn't the very essence of the rationale for giving California a special prerogative to regulate mean that California must be unique? Otherwise, why not give every State that same right? (c) And if giving every State the same right to regulate a global pollutant would make no sense, why shouldn't California equally be prohibited from having its own standard?

Response. Your question is really directed to the application of CAA §§1A 209(b)(1) (B)- whether California needs separate standards to meet compelling and extraordinary conditions. In carving out an exception for more stringent California motor vehicle emission standards Congress recognized California's unique and severe air pollution problems and its early leadership in the development of effective air pollution control programs. EPA has consistently interpreted this factor as requiring a determination of whether California needs a separate motor vehicle emission control program to meet its compelling and extraordinary air pollution problems, not whether any particular standard is necessary to meet its needs. In acting on previous waiver requests EPA has consistently determined that California's separate motor vehicle emission control program is necessary to address its air pollution problems, without regard to whether a particular emission standard is required by compelling and extraordinary conditions. Moreover even were that not the case the projected adverse impacts to the health and welfare of California citizens from global warming are numerous, serious well-documented and beyond dispute. It is further beyond dispute that motor vehicle emissions are a significant contributing factor to global warming. California's action in establishing motor vehicle greenhouse gas emission standards is clearly needed to reduce greenhouse gas emissions that contribute to rising temperatures and sea levels that will have devastating impacts on that state's coastline and water supply.

I have not advocated for the repeal of CAA §§ 209(b). Nor do I advocate for the right of each State to establish its own separate motor vehicle emission standards. The existing Framework has allowed other states with air pollution problems similar in nature or Degree to those experienced by California to piggyback on the California standards. This structure has produced technological innovation and significant environmental benefits, while avoiding a patchwork of different State standards.

Question 3. Doesn't the detailing of three specific criteria, anyone of which could justify a waiver denial, indicate that Congress did not intend for the EPA to rubber stamp all waiver applications? It is one thing for the EPA to be deferential to California, but deference is not abdication, correct?

Response. I have not advocated rubber-stamping all waiver applications. Rather, it is my view that the waiver should be granted based on its technical and scientific merit.

Senator BOXER. Thank you so much, Governor.
Governor Rendell.

**STATEMENT OF HON. EDWARD G. RENDELL, GOVERNOR,
COMMONWEALTH OF PENNSYLVANIA**

Governor Rendell. Good afternoon, Madam Chairman.

Let me begin by thank you for your leadership not only on this issue, but on so many different environmental causes. Let me also begin by saying I agree with everything that Governor Douglas said and Governor O'Malley said, so I will try to just give you a snapshot into the problems that this action presents for the State of Pennsylvania.

In 2006, we began the rulemaking process so that Pennsylvania could adopt the California standards. I think the Committee should know that in the history of the Commonwealth of Pennsylvania, we received a record-breaking number of comments, there is a public comment period during our rulemaking process, a record number of public comments in support of adopting the California standards. Those standards went into effect in Pennsylvania starting with the 2008 model year that of course begins in September 2007.

We also want to register our complaint about the delay in this decision by the EPA, as California has done. In Pennsylvania, by 2025, when there is a full fleet turnover, the California Low Emissions Vehicle II program will reduce, and this is Pennsylvania only, the emission levels of volatile organic compounds by approximately 5,000 tons per year, and it will cut nitrogen oxide emissions by over 3,500 tons per year. Additionally, implementing the program will also reduce six toxic pollutants from 5 to 11 percent, including a 7 to 15 percent cut in benzene, which as most of you know, is a known carcinogen.

Realizing that these pollution reductions come from our transportation sector is very valuable for us, because it means that we can impose less strict regulations on our industrial employers and utilities. For Pennsylvania, which is still a very big manufacturing State, that is of crucial importance to us.

It has been estimated that Pennsylvania contributes about 1 percent of the world's greenhouse gases. With approximately 25 percent of that total coming from transportation, the expected 30 percent reduction in climate-changing greenhouse gas emissions from passenger cars and light duty trucks under this regulation is vitally important to us, and exceeds, far exceeds what Pennsylvania can expect to realize under the fuel efficiency requirements set forth in the recently enacted Energy Independence and Security Act.

To use corporate average fuel economy or CAFE provisions as a grounds to say that the California approach is not needed is simply false, and the Pennsylvania experience bears witness to that. In a comparison by CARB, if Pennsylvania could cut greenhouse gases from automobiles using the California regulation as opposed to the Federal standard, it would prevent an additional 2.2 million metric tons per year of climate-changing gases from reaching the atmosphere by 2016 and 6.6 million metric tons per year by 2020.

Additionally, I want to note that it will also save Pennsylvania drivers gasoline costs. It has been estimated that because of the efficiency that comes from the implementation of the California standards, the average Pennsylvania driver will save somewhere between \$6 and \$12 a month in gasoline costs.

So it is clear to me that these regulations are crucial for the well-being of the State of Pennsylvania. Back in November 2007, at my direction, the Pennsylvania Department of Environmental Protection, led by Katie McGinty, intervened in two lawsuits, one in district court and one in the court of appeals, for unreasonable delay of EPA's decision on the California waiver request. Since December 19th, Pennsylvania has joined with 14 other States to intervene in California's petition to the Ninth Circuit Court of Appeals for review.

It is clear from the testimony and from the conversations you had with the Administrator and from what Governor Douglas and Governor O'Malley have said that the assertions by the Administrator as to why the California standards shouldn't be applied just don't make sense. As Governor O'Malley said, it isn't a patchwork, it is two separate and distinct standards, and we can live easily and the car companies and everyone else can adapt to two separate and distinct standards. As Governor O'Malley said, 45 percent of the vehicles in the United States would be covered by one standard, 55 percent by the other. That is pretty easy.

Second, this talk about CAFE standards eliminating the need for this, not only is Governor O'Malley correct that, obviously, before 2016, we could be getting all the environmental benefits by the California standards, but even after that, these standards have a much greater effect on keeping pollutants from going into the environment than do the CAFE standards.

That is not to say that the CAFE standards were not a step in the right direction. We applaud the Congress and the Bush administration for doing that.

But we should do more. This is a real battle for the survival of this planet. Every sensible person understands that. We should take every reasonable step that we can. The California standards are reasonable, they make sense, they are more effective, and we should keep them.

[The prepared statement of Governor Rendell follows:]

United States Senate
Committee on Environment and Public Works
Oversight of EPA's Decision to Deny the California Waiver
Testimony of Edward G. Rendell, Governor, Commonwealth of Pennsylvania
January 24, 2008

Good morning, Chairman Boxer, Ranking Member Inhofe and members of the committee. I thank you for your leadership in calling this hearing, and would like to express my appreciation for your invitation to speak and voice Pennsylvania's grave concern regarding President Bush's denial of California's greenhouse gas waiver request.

As authorized by Section 177 of the Clean Air Act, I am proud that Pennsylvania adopted the California Low Emission Vehicle program. Starting with the 2008 model year, Pennsylvania has begun implementing the requirement that only light-duty vehicles certified by California be sold in Pennsylvania. In fact, when we went through the rulemaking process in 2006, we received a record-breaking number of public comments in support that came both from those concerned about traditional pollutants, including the medical community, as well as those urging action on greenhouse gases.

Furthermore, we stand firmly with California in its effort to continue fighting for this waiver. Pennsylvania, like the other states adopting the new motor vehicle program for passenger cars and light-duty trucks, waited for nearly two years while the U.S. Environmental Protection Agency's administrator, Stephen L. Johnson, delayed decision on California's request for a waiver that will provide better protection for public health and the environment than the federal rule would do—even while keeping more money in consumers pockets rather than oil company coffers.

By 2025, when full fleet turnover is expected in Pennsylvania, the California Low Emission Vehicle II program will foster substantial improvement by way of lower smog-producing pollutants. The program will reduce the emission levels of volatile organic compounds by between 2,850 to 6,170 tons per year, and it will cut nitrogen oxide emissions by 3,540 tons per year. Additionally, implementing the program will also reduce six toxic pollutants from 5 to 11 percent, including a 7 percent to 15 percent cut in benzene, which is a known carcinogen.

Pennsylvania is relying on these emission reductions over the long-term to maintain ozone air pollution at healthy levels, but also to cultivate a stronger economic environment. Realizing these pollution reductions from the transportation sector means similar cuts will not have to come through stricter regulations on our industrial employers and utilities.

Returning to greenhouse gases, it has been estimated that Pennsylvania contributes about 1 percent of the world's greenhouse gases, with approximately 25 percent of that total coming from transportation. The expected 30 percent reduction in climate changing greenhouse gas emissions from passenger cars and light-duty trucks under this regulation is very important to us—and exceeds what Pennsylvania can expect to realize under the fuel efficiency requirements set forth in the recently enacted Energy Independence and

Security Act. To use the Corporate Average Fuel Economy, or CAFE, provisions of that act as grounds to say the California approach is not needed is simply false.

In a comparison by CARB, if Pennsylvania could cut greenhouse gases from automobiles using the California regulation as opposed to the federal standard, it would prevent an additional 2.2 million metric tons per year of climate changing gases from reaching the atmosphere by 2016, and 6.6 million metric tons per year by 2020.

And under the California requirement, consumers will also enjoy more fuel efficient vehicles than the federal CAFE standards. Because the California rules are significantly more effective at reducing greenhouse gases than the federal CAFE program, they also yield a better fuel efficiency, which translates into dollars saved at the pump. In 2005, California estimated that vehicle owners would save an overall cost savings of \$3.50 per month to \$7 per month. That was assuming a price of \$1.74 per gallon of gasoline, so if you account for the increase of regular gasoline prices since then, which now stands at more than \$3 per gallon, motorists should expect to save between \$6 per month and \$12 per month.

Given these realities, it is disheartening and disappointing that the president would make such a narrow minded and short-sighted decision to deny the waiver request for the greenhouse gas portion of California's regulation in question here today. The language contained within the federal Clean Air Act recognizes the special role California plays in forging ahead with cleaner vehicle standards and the need for other states with air quality problems to be able to adopt California's rules. We concur in California's arguments that its determination that their motor vehicle standards will be, in the aggregate, at least as protective of public health and welfare as applicable federal standards is not arbitrary and capricious, that California continues to have a compelling and extraordinary need for their motor vehicle program, and that their standards and enforcement procedures are consistent with section 202(a).

California's greenhouse gas regulations address a very real problem with very real consequences. To back this up, California provided EPA with a detailed 251-page Initial Statement of Reasons for its regulation as well as a 446-page Final Statement of Reasons containing CARB's analyses and responses to comments, showing that California's regulation is directly related to reducing atmospheric greenhouse gases. California's standards are not arbitrary and capricious.

The EPA administrator claimed in his December 19, 2007 letter that California does not have a "need to meet compelling and extraordinary conditions" because of the "global nature of the problem of climate change." What the administrator ignored in that assertion was that climate change is causing compelling and extraordinary conditions in California. Along with warmer temperatures, climate change will cause a number of extraordinary and compelling conditions in California and around the globe—including worsening smog pollution in California cities that already suffer from some of the worst air quality in the nation.

The EPA has not adopted greenhouse gas standards for motor vehicles, and does not assert any inconsistency with section 202(a) of the Clean Air Act. We believe the EPA was obligated to grant the waiver because California has met all the legal obligations described in the Clean Air

Act. The April 2, 2007 Supreme Court decision in *Massachusetts vs. EPA* reinforces that obligation by affirming that greenhouse gases are pollutants. Additionally, just as the Supreme Court held that Administrator Johnson cannot ignore his obligation to determine whether greenhouse gases cause or contribute to air pollution which may be reasonably anticipated to endanger public health or welfare when EPA is presented with a petition for rulemaking, he cannot ignore his obligation to apply the Clean Air Act fairly and rationally in determining whether to honor the Act's presumption that favors granting California a waiver.

The Clean Air Act does not authorize the administrator to act arbitrarily and capriciously, as he did. The Clean Air Act expressly directs the administrator to waive federal preemption for California standards if California determines that its standards will be, in the aggregate, at least as protective of public health and welfare as applicable federal standards, unless one of the three exceptions I just listed exists. The statutory presumption is that the waiver will be granted.

What is particularly troubling in the EPA's management of this decision was the issue of timing. California's regulations were adopted in September 2004, and in order for California to enforce its regulation for model year 2009 a decision was necessary before the end of calendar year 2007. California submitted its waiver request to EPA in December 2005. In its report, State and Federal Standards for Mobile Source Emissions released in May 2006, the National Academy of Sciences pointed out a consistent pattern of delay by EPA in considering waivers for California standards and the implications of such stalling tactics for both California and states that have adopted California standards. The National Academy of Sciences recommended a mandatory time limit of two years on waiver requests so that there would be certainty before the start of the applicable model year.

Despite the remaining questions over the legality of Administrator Johnson's "final decision," Pennsylvania will continue to stand in opposition to this waiver denial and will continue to fight it using every option available to us. On November 8, 2007, at my direction, the Pennsylvania Department of Environmental Protection intervened in two lawsuits—one in the U.S. District Court and one in the Court of Appeals—for unreasonable delay of EPA's decision on the California waiver request. Since the December 19, 2007 denial, Pennsylvania has joined with 14 other states to intervene in California's petition to the Ninth Circuit Court of Appeals for review of the Administrator's denial.

It is regrettable that over the last two years we have had to resort to legal actions to compel a decision, and, that we have to resort to legal actions to overturn the decision, rather than being able to look to President Bush's administration for leadership on this increasingly important issue.

December 19, 2007 should have been a day to mark a significant step forward in American energy policy, as the president signed the Energy Independence and Security Act. Instead, this bipartisan achievement was marred when it was used as political cover to reject California's greenhouse gas waiver request.

The fact of the matter is that, despite what Administrator Johnson may claim, allowing a more stringent greenhouse gas reduction regulation compared to the federal government's will not

create a confusing “patchwork” of state standards. There will only be two standards—the federal government’s and California’s—just as Congress intended when it allowed California to establish its own standards under the Clean Air Act.

In addition, Administrator Johnson asserted that the CAFE standards are much more effective than California’s proposed standard. But again, such is not the case. According to the California Air Resources Board, if all 19 states that have either moved to adopt the California standard or are seriously considering to do so, the greenhouse gas emissions reduction benefits above and beyond the possible benefits through the 2007 Energy Bill are expected to be 315 million metric tons by the year 2020, or 85 percent higher than through the CAFE standards.

The recently enacted energy bill should not be used as an excuse for inaction. It should be viewed as an opportunity. Now that American automakers must begin increasing the fuel economy of their vehicles, we have an opportunity to implement already established technology to control the greenhouse gas emissions that are threatening our planet and citizens.

The denial of the waiver is not simply a California issue. It has consequences for other states as well, but more importantly, this is part of the larger issue of protecting the basic life support mechanisms of our planet. Greenhouse gases are imperiling life as we know it, and the threat of a changing climate has ramifications for our basic human health and the foundations of our economy—buildings, infrastructure, land use, transportation and the sustainability of certain industries in certain geographic regions.

It has been frustrating to suffer the lack of leadership by this administration on controlling greenhouse gases, and the EPA’s waiver denial is yet another example of that failing. Each of us has been entrusted with a solemn obligation to be good stewards of God’s creation. If the federal government doesn’t wish to recognize that or exhibit real leadership on the issue, it needs to get out of the way and let states like California, Pennsylvania and others stand up and act to protect the health of our people, the environment, and our economy.

I applaud this committee for its leadership in investigating this issue, and those states that are fighting this unlawful decision. Thank you.

Senator BOXER. Thank you so much, Governor.

Now, for a different perspective, Hon. Mike Cox, the Attorney General of Michigan. Welcome, sir.

STATEMENT OF HON. MIKE COX, ATTORNEY GENERAL, STATE OF MICHIGAN

Mr. COX. Thank you, Madam Chair. Thank you, members of the Committee, for hearing me today.

I am Mike Cox, Attorney General for the State of Michigan. I will start off by saying, unlike Governor Rendell, I will not be agreeing with the people to the right of me, for this simple reason: the proposed waiver would for the first time allow California to regulate gas emissions from automobiles to address the purpose of global warming.

I am here representing the State of Michigan and the State of Michigan's interests and I believe the interests of many States in advocating a comprehensive national solution, as opposed to a one State or multi-State solution to the global problem of greenhouse gas emissions and global climate change.

As Michigan's Attorney General, I have been a strong proponent of State sovereignty and State rights. I have never hesitated from protecting the State of Michigan's right to preserve its environment when necessary and appropriate. As one who sees genius in our Federal system of governance, I believe issues that are not fundamentally national in scope and don't require a national solution should be delegated and handled by the level of government most able to accomplish the mission of serving the people: the States.

Conversely, for problems that impact more than one State, regional if possible, but more likely national solutions and standards are needed. I appreciate California's unique history of air quality problems and the special status that California was given under the Clean Air Act, especially by section 209(b). Because it was an early leader in addressing pollution from auto emissions. It is also clear that the waiver grew out of California's early regulatory expertise and the special problems that California and its cities had with smog.

However, it is also clear as a legal matter that Congress never intended the exception of the Clean Air Act's otherwise broad-field preemption to allow California to issue separate State standards for pollutants that affect every State and every other country without meeting the requirements of section 209(b) that California, and I will use the terms that are in the statute "needs" the requested regulation to "meet" the "compelling and extraordinary conditions" in California.

Against a backdrop of Constitutional principles concerning the supremacy of Federal law, the doctrine of federalism, it is especially implausible to attribute an intent to Congress in the Clean Air Act to allow California to issue separate State standards addressing global climate change. The objective of California's current waiver request is to address global climate change. The problem as I see it is that global climate change is not solely a California problem, nor is it solely a national problem. It is by definition and vernacular a global problem.

Global climate change is a national and international issue which cannot be solved by individual States, nor can it be addressed by focusing on a single sector, automobiles. By doing that, you pit State against State. A single sector, automobiles, that by conservative estimates produce less than 7 percent of the worldwide emissions.

Greenhouse emissions come from numerous sources besides automobile emissions, including power plants, manufacturing facilities, aircraft, commercial vehicles, and naturally occurring emissions in the environment and in the use of agriculture. All these sources are global in nature. Article 6 of the United States Constitution and common sense dictate that any effective global climate change regulatory scheme is necessarily a national policy that addresses or should address all the sources of U.S. emissions in the larger context of international emissions. Allowing California and the other States that adopt its regulations to impose what becomes a de facto national standard contravenes principles of federalism and undermines the possibility for our Nation to speak and act with one voice in addressing this global problem.

California's proposed regulation will not be effective in controlling national and international emissions, because it only addresses a very small part of the total national worldwide emissions. Further, the proposed California waiver fails to engage in any meaningful analysis of the cost of such regulation. While I recognize the problems of our sister State, California, I must point out that the solution is not without a cost to the Nation, and particularly Michigan. This a tenuous time for the Nation's economy.

So I would urge all concerned to move cautiously, especially with respect to an industry that contributes a significant proportion every year to our Nation's gross domestic product. Automotive job losses for the Nation would be felt more acutely, of course, in Michigan, and over the past 6 years, our unemployment rate has grown from 3.8 percent in 2001 to 7.6 percent in 2007, some 50 percent above the national rate. Data from those in the best position to judge and the most conservative estimates from the Nation's auto companies indicate that the net job loss at a minimum, depending on how you factor, would range from 60,000 to 100,000 jobs.

Now, Congress recently debated, and by that I mean this Senate as well, the issue of global climate change.

Senator BOXER. If you could complete. Thank you.

Mr. COX. Sure. When it passed the EISA, which raised mileage standards to 35 miles per gallon by 2020. In that case, representatives from all across the Country, not one State or a couple of States, debated the bill and decided to impose new CAFE standards, which took into account all the issues related to greenhouse gas emissions, as well as energy conservation.

Senator BOXER. Mr. Cox, you have gone over more than a minute.

Mr. COX. Have I gone longer than Governor Rendell?

Senator BOXER. Absolutely.

Mr. COX. I appreciate that.

Senator Boxer. [Remarks off microphone.]

Mr. COX. Excuse me, I am sorry.

Senator BOXER. That is all right.

Mr. COX. While the ink is barely dry on the new Energy Independence and Security Act of 2007, California's waiver request would de facto amend it, promulgating a new regulation that necessarily depends on changing corporate average fuel economy standards. Congress is the national policymaking body in our system of Government. Instead of criticizing EPA's decision, this body should make the national policy choices it is authorized and entrusted to do. The benefit of one national standard based upon the broad-based agreement of all the States through the use of our constitutionally empowered democratic branches of government would result in more uniform compliance and acceptance by all.

Thank you.

[The prepared statement of Mr. Cox follows:]

**TESTIMONY OF
MICHIGAN ATTORNEY GENERAL MIKE COX**

**BEFORE THE U. S. SENATE COMMITTEE ON
ENVIRONMENT & PUBLIC WORKS**

JANUARY 24, 2008

TESTIMONY OF MICHIGAN ATTORNEY GENERAL MIKE COX
Before the Committee on Environment and Public Works
January 24, 2008

Madam Chair and members of the Committee, I am Mike Cox, Attorney General for the State of Michigan. I have been asked to present testimony regarding the Environmental Protection Agency's announced intent to deny California's request for a waiver under Section 209(b) of the Clean Air Act. The proposed waiver would, for the first time, allow California to regulate greenhouse gas emissions from automobiles to address global warming. I am here representing the State of Michigan's interests – and I believe the interests of many states – in advocating a comprehensive national solution, as opposed to a one-state or multi-state solution, to the global problem of greenhouse gas emissions and climate change.

Significant climate change is a serious concern and should be addressed. Reasonable people can disagree on the causes of this phenomenon and the ultimate impact, but all of us want the same outcome – a healthy environment that will sustain the Nation's and the world's population at the level that ever improving modern technology allows.

As Michigan's Attorney General, I have been a strong proponent of state sovereignty and states' rights. I have never hesitated from protecting the State of Michigan's right to preserve its environment when necessary and appropriate. As one who sees genius in our federal system of governance, I believe issues that are not fundamentally national in scope and don't require a national solution should be delegated and handled by the level of government most able to accomplish the mission of serving the people, the states. Conversely, for problems that impact more than one state, regional, if possible, but more likely national solutions and standards are needed. Sometimes the lines are not clear, as the Chairwoman of this Committee knows from my opposition to pending federal ballast water legislation that would preempt state action. In that context, I believe state action is required due to EPA's failure to regulate biological pollutants such as invasive species pursuant to the Clean Water Act.

Consequently, I appreciate California's unique history of air quality problems and the special status California was given under the Clean Air Act because it was an early leader in addressing pollution from auto emissions. It is clear that the waiver grew out of California's early regulatory expertise and the special problems that California or, more specifically, Southern California faced from smog. In fact, California has been granted many waivers over the years, and many of the waivers addressed issues that impacted many other states as well. However, it is clear as a legal matter that Congress never intended the exception to the Clean Air Act's otherwise broad field preemption to allow California to issue separate state standards for pollutants that affect every state – and every other country – without meeting the requirements of Section 209(b) that California "needs" the requested regulation to "meet" the "compelling and extraordinary conditions" in California.

Against a backdrop of constitutional principles concerning the supremacy of federal law and the doctrine of federalism, it is especially implausible to attribute an intent to Congress in the Clean Air Act to allow California to issue separate state standards addressing global climate change. If California faces problems associated with greenhouse gas emissions that are widely shared (non-extraordinary and non-unique), there is no reason to block all other states (as is done in the Clean Air Act except they may adopt a California standard) from regulating new motor vehicle greenhouse gas emissions but allow California to set such standards.

The objective of California's current waiver request is to address global climate change. The problem, as I see it, is that global climate change is not *solely* a California problem nor is it *solely* a national problem; it is, by definition and vernacular, a *global* problem. Accordingly, in contrast to the ballast water issue, here the line where national action is required is not blurred. Global climate change is a national and international issue which cannot be solved by individual states nor can it be addressed by focusing on only a single sector – automobiles – that by conservative estimates produce less than a third of U.S. greenhouse emissions and 7% of worldwide emissions.

Greenhouse emissions come from numerous sources besides automobile emissions including power plants, manufacturing facilities, aircraft, commercial vehicles, and naturally occurring emissions. All of these sources are global in nature. Article 6 of the United States Constitution and common sense dictate that any effective global climate change regulatory scheme is necessarily a national policy that addresses all sources of U.S. emissions in the larger context of international emissions. Allowing California, and the other states that adopt its regulations, to impose what will become the de facto national standard contravenes principles of federalism and undermines the possibility for our Nation to speak and act with one voice in addressing this global problem. California's proposed regulation will not be effective in controlling national or international emissions because it only addresses a small part of the total national and worldwide emissions – again, auto emissions are less than a third of the U.S. greenhouse gas emissions and 7% of the worldwide emissions. Further, the proposed California waiver fails to engage in any meaningful analysis of the costs of such regulation.

While I recognize the problems of my sister state, California, I must point out that its solution is not without a cost to the Nation and particularly to Michigan. This is a tenuous time for the nation's economy and so I would urge all concerned to move cautiously. Automotive job losses for the nation will be felt more acutely in Michigan. Over the past six years, our unemployment rate has grown from 3.8% in 2001 to 7.6% in 2007 – well above the national rate. Different data has been reported related to how many jobs will be lost under the California plan, but all indicate there will be job losses. Data from those in the best position to judge, the Nation's auto companies, indicates the net job loss would range from 60,000 to 100,000 jobs; and because Michigan has 22% of the nation's auto manufacturing jobs, our burden would be even greater – which would truly create "compelling and extraordinary conditions" in my State.

In sum, this is simply not an issue that should or can be addressed by one or even multiple states. Congress recently debated the issue of global climate change when it passed the Energy Independence and Security Act, which raises mileage standards to 35 MPG by 2020. Representatives from across the country passed a bill to impose new CAFE standards that took

into account the issues related to greenhouse gas emissions, as well as, energy conservation concerns. While California's proposal relies on some concepts that are not related to CAFE standards, such as upstream energy costs for hybrid and electric vehicles and air conditioner leakage, the thrust of the greenhouse gas emission standards sought by California are from increased fuel economy; or rather, CAFE standards by a different name. While the ink is barely dry on the new Energy Independence and Security Act of 2007, California's waiver request would de facto amend it – and bypass the constitutional prerogatives of Congress – by promulgating a new regulation that necessarily depend on changing corporate average fuel economy standards. In addition to this Act, there have been numerous bills introduced in Congress over the past few years that address the problems of energy, pollution, and the impact of greenhouse gas emissions on global warming. Certainly, these efforts are evidence that Congress believes global climate change is a national problem.

Unfortunately, time does not permit me to address the impact of greenhouse emissions from Brazil, Russia, India, and China nor the potential for regulatory confusion between EPA, NHSTA, and parallel state agencies, if the California waiver were to pass. Suffice it to say, that more than almost any problem facing American society today, global climate change requires one voice – a national voice.

Congress is the national policy-making body in our system of government. Instead of criticizing EPA's decision, this body should make the national policy choices it is authorized and entrusted to make. The benefit of one national standard based upon the broad-based agreement of all of the states through the use of the constitutionally empowered democratic branches of government will result in more uniform compliance and acceptance by all. I hope this hearing is one of the first steps in addressing this issue and that the national government and Congress will take action.

Thank you.

Senator BOXER. Thanks.

Now, Mr. Haaland. A Minnesota name. I wanted to make it clear that our Governor and our Attorney General have submitted statements for the record, as well as the legislature, the majority. The views we are about to hear now are very important. They are the minority views of the Republicans in the Assembly, and we welcome you and we look forward to your testimony, sir.

STATEMENT OF DOUG HAALAND, DIRECTOR OF MEMBER SERVICES, ASSEMBLY REPUBLICAN CAUCUS, STATE OF CALIFORNIA

Mr. HAALAND. Thank you very much, Madam Chairman, members.

I appreciate the opportunity to comment on the EPA's decision to deny California's waiver request. I am glad that I was preceded in the record by such august bodies as the Governor's office and the speaker's office.

As a Californian, I am proud of the work that has been done to clean our air in preceding decades. As a child, I too remember traveling over the Tejons with my mom and dad into the L.A. Basin to visit relatives, and discovering air that my father referred to as so thick you could cut it with a knife. That pride is now tempered as an adult, in that California's waiver request is a radical change in direction from the efforts of preceding decades. It is understandable, but it is radically different.

I would like to take this opportunity to thank EPA Administrator Johnson for denying California's request, because I believe his decision is a reasoned response to a process that has spun out of control in California. The reasons for this statement are twofold in nature. One is based on policy issues, the second is the legislative and regulatory process.

On a policy basis, the regulations developed by CARB represent an extraordinary expansion of regulatory authority that no State has previously undertaken. As reflected by previous testimony, this is the first of its kind waiver. Following the broad statutory mandate contained in AB 1493 by Ms. Pavley in 2002, CARB has proceeded to develop and impose an unreasonable mandate requiring the regulated community subject to these regulations to account for upstream emissions associated with the production of fuel used by the vehicle.

That policy as embodied in a scheme proposed by CARB would be an attempt to codify what is known as life-cycle costs. The policy implications of this effort are patently unfair, especially when you consider in the light of the regulatory scheme that is being produced as a result of AB 32, which hasn't been discussed here, in light of California's second decision to go forward with an overall State strategy to control greenhouse gases. This unjust intensification of regulatory authority is, as I said, unprecedented and has not been attempted in previous efforts.

Finally, on a policy basis, the Clean Air Act prohibits the granting of a waiver if the State does not meet, as you have heard before, compelling and extraordinary conditions. The argument that California must set a standard for 14 States to follow as an attempt to impact climate change emissions does not rise to the level

of a compelling and extraordinary condition. As you have heard, climate change is global. It is something that will require a coordinated global response. Fifteen States imposing technologically questionable regulations will in the end have a statistically insignificant impact on the global problem.

When you consider, as I mentioned, the statistical impact of these regulations, in light of the fact that during the same time these regulations are proposed to go into effect, the country of China will produce over 500 coal-fired generating plants in its nation, and the impact in California, as has been produced in previous studies, shows that 25 percent of our carbon particulate matter arrives from China.

As a result, when you examine the Administrator's declination of the waiver, it is not hard to determine that California has, as I pointed out, become the bank shot around Washington's perceived inability to take action. The State has an environmentally friendly majority in the legislature, where their agenda requires only a majority vote. With current and previous Governors willing to sign onto green agendas and produce what are called ground-breaking green initiatives, the waiver request that is the subject of this hearing is, I believe, the best example of this bank shot.

As I indicated, I appreciate the Administrator stopping an out of control regulatory process. Were this process to go unchecked, it could badly divide the regulatory approach that has served our Nation so well. Certainly it will lead to standards, even though there be two. Other States will have the requirement to either choose between one which improves the ability of large and small States to offer consumer choice, decrease the cost of goods produced and place significant impediments to continued economic growth.

As you have heard previously, in light of the current \$14 billion deficit in California, I don't believe that we have the luxury of continuing to create regulatory schemes that ignore economic realities of diminished inventories, reduced product sales or the elimination of markets for the products produced within the State.

Thank you again, Madam Chairman, for this opportunity. I look forward to questions.

[The prepared statement of Mr. Haaland follows:]

**Testimony of Douglas Haaland
Director of Member Services, Assembly Republican Caucus
State of California
Senate Committee on Environment and Public Works
Oversight Hearing of USEPA's Decision to Deny the California Waiver
January 24, 2008**

I'd like to begin by thanking you Chairman Boxer and members of the Committee for the opportunity to comment on the Environmental Protection Agency's decision to deny California's request for a waiver to regulate greenhouse gas pollution from motor vehicles.

Inasmuch as members may be wondering how the "Director of Member Services for the Assembly Republican Caucus" has any connection to the issue currently before the Committee, I would like to take a moment to expand on my professional background before I offer my comments on the denial of California's request for a waiver.

In conjunction with the responsibilities associated with my present position, I serve as a Special Advisor to the Assembly Republican Leader on Water, Environmental, and Natural Resources Issues.

Additionally, I have previously served as the Chief Consultant to the California State Senate Select Committee on the CalFED Program working with water and environmental issues related to that program, as well as a principal consultant for the Assembly Republican Office of Policy assigned to the Assembly Natural Resources Committee and the Assembly Environmental Safety and Toxic Materials Committee.

Returning to the matter before this Committee, as a Californian I am proud of the work that has been done in the preceding decades to clean our air. As a child I too remember taking trips to visit relatives with my Mom and Dad, cresting the Tejon Pass and descending into the Los Angeles area through a brown fog. Dad would say it was so thick you could "Cut it with a knife."

That pride is now tempered as an adult as California's waiver request represents a radical change in direction. I would like to take this opportunity to thank US EPA Administrator Stephen Johnson for his denial of

California's request. I believe his decision is a reasoned response to a process that has been allowed to spin out of control in California.

The reasons for this statement are two-fold in nature, one is based on policy issues and the second is rooted in the legislative and regulatory process.

On a policy basis, the regulations developed by the California Air Resources Board (CARB) represent an extraordinary expansion of regulatory authority that no state has previously undertaken. Following the overly broad statutory mandate contained in AB 1493 (Pavley) from 2002, to "...*achieve the maximum feasible and cost-effective reduction of greenhouse gas emissions from motor vehicles,*" CARB has proceeded to develop and impose an unreasonable mandate requiring the regulated community subject to these regulations to account for "...*upstream emissions associated with the production of fuel used by the vehicle.*"

The policy embodied in the regulatory scheme proposed by CARB would seem to be an attempt to codify the need to account for what are termed in the environmental community as "life-cycle" costs of products. The policy implications of the unfairness of such a scheme are clear, especially in light of the regulatory network soon to be produced as a result of AB 32 (Nunez) which will impose another set of regulations and costs across all business sectors of the State.

This unjust intensification of regulatory authority is unprecedented and has not been attempted in any of California's previous waiver requests which received so much attention in the testimony of Attorney General Jerry Brown, CARB Chairwoman Mary Nichols and others during the field briefing held this past January 10th in Los Angeles.

The best example of this is contained in the Attorney General's press release from November of last year regarding a lawsuit he filed against the EPA where he extols the accomplishments of previous waiver requests such as catalytic converters, exhaust emission standards and leaded gasoline standards. The most significant difference between these examples and the current waiver request is the fact that all prior requests have been targeted at a single industry standard, be it automotive or petroleum, but none have required one industry to bear the burden of another's manufacturing practices.

Lastly, the Clean Air Act prohibits the granting of a waiver if the State does not need it to meet "...compelling and extraordinary conditions..." with the regulatory standard. The argument that California must set a standard for 14 states to follow in an attempt to impact climate change emissions does not rise to the level of a compelling and extraordinary condition. Climate change is a global problem that will require coordinated global solutions. 15 states in the U.S. imposing technologically questionable regulations will, in my mind, have a statistically insignificant impact on this global problem. You must consider this statistical impact in the face of the more than 500 coal-fired electrical generating plants planned for development in China during the period of time covered by the regulations which are the subject of the waiver request.

The second reason for my belief that the EPA Administrator issued the proper decision revolves around the issue of process.

The United States became a signatory nation to the 1997 Kyoto Protocols in 1998, but there has been no action to ratify the treaty since that time. This fact has been the source of considerable angst among environmental organizations across the Nation. In light of this state of affairs these groups have taken their message to states and municipalities urging "local" action since Washington has not committed us to the requirements of the Protocols.

As a result, California has become the "bank-shot" around Washington's perceived inability to take action. The state has an environmentally friendly majority in the Legislature where their agenda only requires a majority vote and both the current and previous Governors have been willing to align themselves with what are variously called groundbreaking "Green Initiatives."

The waiver request which is the subject of this hearing is one of the best examples of these "bank-shot" attempts and one of the reasons I stated earlier that it is a process that has spun out of control.

The California Constitution requires bills introduced in the Legislature to be in print for 30 days before any action can be taken on the measure. This requirement was put in place to ensure the public had a chance to become aware of the proposed law and register a position on the policy issue addressed.

In the case of AB 1493 which became the statutory authorization for the regulations subject to the request, the language was amended into the bill in the California Senate on June 28, 2002, voted upon in the Senate on June 29th and dispensed with by the Assembly on July 1, 2002. Governor Davis signed the measure into law on July 22, 2002... voted out of both houses in 3 days and the whole process taking place within a mere 24 days.

While this example is an egregious abuse of the legislative process there are several others which epitomize my belief and assertion that California has become the home to the proverbial back-door implementation of environmental policies not tackled by Washington.

Were this process to go unchecked it could badly divide the regulatory approach that has served our Nation well for decades and could certainly lead to standards that would force manufacturers, both small and large, to reduce consumer choice, unnecessarily increase the cost of goods produced, and place significant impediments to continued economic growth.

In light of the current \$14 Billion budget deficit California faces, I don't believe that we have the luxury of continuing to create regulatory schemes that ignore the economic realities of diminished inventories, reduced product sales, or the elimination of markets for the products produced within the state.

Again, Madame Chair and members I wish to thank you for this opportunity and I look forward to answering any questions you may have at this time.

Senator BOXER. Thank you, sir.

I am going to use my time to respond to what you said and also put something in the record and then turn to my colleagues. So if you could start the clock.

I want to say to the Governors how much it means to us up here, those of us who are here and a lot of others in the Senate, that you are doing what you are doing in the States. Your voices are necessary. You are the ones that have stepped up to the plate, along with a lot of local officials, mayors, et cetera. We urge you on.

As you know, we are grappling here, we are getting legislation through. I had to smile when Mr. Haaland said only a majority. When I was growing up, majority rules, you know. Now suddenly we need super-majorities to do everything around here. That creates some stumbling blocks for us.

Having said that, it is because of the work you are doing and the fact that you are vocal about it. I want to ask you to please continue to be vocal about it. The bipartisan nature of what we see here with the three of you, and of course this extends to my Governor, the Governor of Florida, it goes on, is so important for the American people to see.

So please continue what you are doing, because you put the wind at our back just a little bit as we reach for those 60 votes that is not going to be easy to get. But we are going to push for it, let the American people see who is with us, who is not with us and they will decide at the end of the day when we have elections where majorities do matter, if you get 50.1, you win.

So this is what we need you to do. Please continue to be strong in teaming up with my State. We need your voices.

I just want to again underscore the fact that there will be no patchwork quilt. We have said it over and over again, two standards, and that has been the history of the Clean Air Act. The Supreme Court came down very hard against the EPA when they said well, EPA said, well, this is a different pollutant, this is greenhouse gases, this is different. The Court said, read the Clean Air Act. It explicitly says that climate change, pollution is part of the Clean Air Act. So clearly, we need to move forward.

We also hear that this national standard is so great it is going to take care of the problem. The Court said, don't stand behind that DOT CAFE standard. That is not what EPA's job is. I will put in the record the fact that the California Air Resources Board did an analysis in all 19 States that are going to go for this standard and say that that standard will reduce CO₂ emissions 85 percent more than the new Federal CAFE standard.

So stick with it. You are onto this, you understand this. We want to do better. We should all do better, including the national government. But if we don't, you need to move.

Now, what I want to place in the record is a letter I just received. Because I find it very touching, very moving, and I will make it available. It is a letter from the working people at the EPA. As EPA union officers, this is a letter to Administrator Johnson, we just got it today.

We write to express our deep dismay and concern over the damage of EPA's reputation following your December 19th decision to deny the California waiver request on vehicle greenhouse gas emis-

sions. It says that it has cast the agency in a negative light, and it goes on to praise the Administrator and say how excited they were when he was nominated. They go through what he said at his nomination hearing, and they said, we couldn't have asked for a more hopeful lead in your administrator-ship.

Then they go on to say, in light of your Administration's repeated proclamations in support of the principles that he elucidated at his confirmation hearing, we are at a loss to understand your decision on the California waiver request. The appearance is that you have disregarded the very principles you proclaimed in your confirmation testimony and our agency's principles of scientific integrity.

Given these circumstances, there is a broad and dark shadow over the integrity of any future agency decisions under your leadership. If your actions cause EPA to lose credibility, how does this make us the stronger EPA you claim to support? How can we attract the best and the brightest to work at our agency if our credibility for making science-based policy decisions is in doubt?

The impact on employee morale can be devastating and may take years to recover. Your December 19th decision and its impact on EPA is reminiscent of the widespread chaos under Administrator Gorsuch, which resulted in many dedicated EPA employees quitting out of disgust and frustration. We call on you as EPA Administrator not to let this happen again.

It is signed by Steve Shapiro, Bill Evans, Dwight Welch and William Herzey.

[The referenced material was not received at time of print.]

Senator BOXER. The point is, and why I think this is key, and also Jeffrey Bradco and Wendell Smith, I have a message to the people who wrote this letter and they represent thousands of employees. Don't leave. Don't leave, because brighter days are coming. We appreciate the work you do, even though the work you do has been disregarded in this case.

So please keep the morale up, because you've got a lot of friends over here who care. So we will put that in the record, and now I will call on Senator Lautenberg.

Senator LAUTENBERG. Thanks very much, Madam Chairman. I greet the Governors, particularly our neighbor, Governor Rendell, with whom we have lots of commerce, lots of contact. Governor, thank you for lots of leadership as well. I don't know our other colleagues as well.

But as I listened to this, I listen with a degree of disbelief. Because when I hear that this will, and I feel terrible about Michigan, unemployment, we all have to care about those things, otherwise we wouldn't be the wonderful country that we are. But the fact of the matter is that change has to take place. Because mistakes were being made over a lot of years. We see other automobile companies, foreign-owned, foreign-led countries taking over the leadership position in sales in our Country. It is heartbreaking to me that an industry invented in our Country, the industry itself, not necessarily the automobile, and we have to get on with solving these problems.

Our gentleman from California, the fact that you are in dispute with the leadership here, a policy matter, apparently suggests that you don't think conditions are so bad in California. You offer the

argument that we have to look at China. But we are not saying that, OK, China, you are a larger country by virtue of numbers of people, and you ought to be telling us how to conduct our environmental policies here in this Country. That is the same thing that says to me, in a different way, well, OK, we ought to listen to the Federal Government here in Washington about how we conduct ourselves in California and other States across the Country.

This is a problem that can be solved in part locally. To turn our backs on the opportunity to solve it I think is dereliction of duty. I have to tell you that. One of the things I know Governor Rendell, he has worked with Governor Corzine from my State, been willing to take bold steps to provide leadership in the face of EPA's inaction. Their excuses, in my view, were pure bureaucracy. That is what they sounded like.

Well, yes, we have a law that we have to obey. Does the condition impose hardship on health and well-being? Well, we have to obey the law as it is. At what point do you say, look, we are firemen, and we have to put out this fire.

One of the things, Governor Rendell, I know that you have done in Pennsylvania, in addition to increasing the fuel efficiency of vehicles, we should be examining ways to get some of these cars off the road altogether and provide options, like improved passenger rail and transit service. What happened with that recently improved line from Philadelphia to Harrisburg?

Governor Rendell. Very instructive of how people will take mass transit if you improve it. We combined with Amtrak and both the State, and Amtrak put money in. We cut the time of that line from 2 hours to 90 minutes. Ridership has come up from 899,000 to over 1.2 million in less than 2 years.

If I could, Senator, I don't mean to interrupt your remarks, but I think what we do in government all ties together. In 2009, this Congress will be asked to look at, I guess, the reauthorization of SAFETEA-LU or the progeny of ISTEА. If we don't, in this battle to reduce greenhouse gases, if we don't make a dramatically increased commitment to mass transit, to passenger rail and to rail freight in this Country, then we can talk about all these standards we want, and we are not doing our job.

I am very proud that in Pennsylvania in June, 4 or 5 weeks before the bridge collapsed in Minnesota, we added a billion dollars annually to our transportation budget. Almost half of that went for mass transit, the highest investment ever in the State of Pennsylvania for mass transit.

Again, that transportation bill will have more to do about our environment than anything we are talking about now. What we are talking about now is obviously keenly important. But the best way to reduce transportation gases is to get cars off the road.

Senator LAUTENBERG. It is also good to get you to work on time, it is also good to reduce our dependence on foreign oil. It also brings so many benefits.

Governor Rendell. Eliminate road rage.

[Laughter.]

Senator LAUTENBERG. Well, if the traffic is bad, you don't have a lot of room to rage. But it does increase the blood pressure across the Country.

I would say that if we think that by not undertaking the costs per conversion now is going to get cheaper in the future, it is not going to happen. I thank all of you and I understand, Mr. Attorney General, that you have a particular dilemma in Michigan.

Mr. COX. May I address that, Senator?

Senator LAUTENBERG. I am sorry?

Mr. COX. May I address that?

Senator LAUTENBERG. That you have a particular dilemma?

Mr. COX. Yes.

Senator LAUTENBERG. Well, I thought that was an acceptable statement.

Mr. COX. No, no, I appreciate that, and I don't think what I am saying is woe is me because we are Michigan and we are the automobile capital of the world. Part of my point is, with all due respect to the good Governor here, part of his argument in his statement is, it is good that you are doing what you are doing with auto emissions, because you won't hurt my industries in Pennsylvania and you won't impact the largest contributor to global emissions, the electricity industry or coal or steel or things like that. Which I understand completely. If I were Governor Rendell, I would say yes, let's regulate automotive emissions, greenhouse gases, let's dump it all on them and then you——

Senator LAUTENBERG. I will let you stand face to face with Governor Rendell, and when you look up at his face, he has a rather imposing——

Governor Rendell. The general would be right, if we hadn't taken steps to deal with coal-fired plants. We adopted higher mercury content regulations, it was a battle royale in the Pennsylvania legislature, but we got them through.

So General, we want to take care of emissions wherever they come from. The auto industry is always telling us that if they make changes, it is going to cost them more money. Remember when airbags, the auto industry said, oh, my gosh, it is going to raise the price of cars, nobody is going to buy American cars. Now car companies fight to say how many side airbags they have. Isn't there one that has nine airbags in the car? They fight because people want them so much.

The auto industry tried to tell us, in Pennsylvania, tried to tell us that adopting the California standards would raise the price of an automobile sold in Pennsylvania by somewhere between \$1,000 and \$2,000. Well, what is the trouble? We have New York, New Jersey, Pennsylvania all around each other. We don't buy enough cars that they could produce en masse the type of requirements that are necessary? It is baloney. It is what the auto industry has been telling us for years and years and years.

Senator BOXER. I am going to ask Senator Lautenberg to complete his thoughts. But I just inept to say, I don't want to get into an argument about what Governor is doing what to what industry. This is about the California waiver. I think we should stick to it if we possibly can.

Senator Lautenberg, I will give you an extra minute to complete your thought.

Senator LAUTENBERG. Just 1 minute. Ford announced today they are terminating 54,000 jobs. This has little to do with the imposition of a standard. It is what exists——

Mr. COX. On the contrary, Senator, you are absolutely wrong.

Senator LAUTENBERG. OK, then the papers are wrong, and the news is wrong.

Mr. COX. They are not terminating, they are offering buy-outs, not all those——

Senator LAUTENBERG. OK. That means the end of your job.

Mr. COX. But to think that more regulation of the domestic automobile companies doesn't decrease their worldwide——

Senator LAUTENBERG. That is not my mission.

Mr. COX [continuing].—structure is absolutely wrong.

Senator LAUTENBERG. You shouldn't accuse me of that. My mission is ten grandchildren that I have and the grandchildren of everybody in this Country who are faced with a plague on our being if we don't do something about this. Yes, job loss is a terrible thing, and we have to invest in our economy. Finally we are going to do something about it.

But to say that the main reason for having these laws is to either punish an industry, help an industry, it is to make life better for our children and future generations. Thank you very much.

Senator BOXER. If I could just say what the rules are, we have a lot of strong personalities here, each of us. So here are the rules. When a Senator has the time, the Senator will address the question to somebody. That is the way we are going to continue.

Yes, Senator Cardin.

Senator CARDIN. Thank you very much, Madam Chair.

Governor Rendell, first, let me thank you for your comments on mass transit and on dealing generally with the problems of global climate change. As you know, the Lieberman-Warner bill that this Committee reported out dealt comprehensively with the problems of carbon and greenhouse gas emissions. So we are concerned about all areas.

But I couldn't agree with you more on mass transit. In that legislation that is moving forward, with the Chairman's help, we were able to get a sizable amount of new resources that will be used for mass transit dedicated for that purpose. Because we understand that is part of the solution. So we very much agree with the point that you made, in dealing with the global climate change issue, we have to deal more aggressively with alternative means of transportation. That is part of our strategy and we are going to continue to make that part of our strategy.

Let me thank the three Governors particularly for being here. This is an issue in which I applaud the leadership, your leadership on this issue for the people of Vermont, Pennsylvania and Maryland. Governor O'Malley, thank God you didn't have to come to the EPA and ask for approval when you passed the Maryland Clean Cars Act. You were able to do that. Or when you established the Maryland Green Buildings Council or joined the Regional Greenhouse Gas Initiative, or issued your executive order for Global Climate Change Commission, or your Empowered Maryland, where you set as a goal for our people to reduce the per capita electricity consumption by 15 percent by 2015.

This is the type of leadership that Governor O'Malley has brought to the people of Maryland. We have mentioned over and over again federalism. We want you to give us ways in which we as a Nation can develop the right policies. I am disappointed we haven't been more aggressive on global climate change in this environment here in Washington. I would like to get more done.

But we at least have the States that are moving forward in this area, and I thank you for that. Madam Chairman took us to Greenland, where we could see first-hand what was happening. But as Governor O'Malley knows, we could have taken you to Smith Island, which is not very far from here, and shown you the direct effect of global climate change.

So my question to Governor O'Malley is, the sense of urgency here, Mr. Johnson sort of says, well, there is no compelling reason to allow the States to move forward. Maryland is the fourth most vulnerable State to sea level change in the Nation. So I would just like to get your reaction as to how urgent it is for the people of Maryland that we move forward on this type of legislation.

Governor O'Malley. Senator, thank you. It is very, very urgent, you can sense that everywhere in our State. If you look at the threat from sea level rise, I have heard fourth most vulnerable, I have heard third most vulnerable. There are insurance companies now who refuse to insure properties in parts of Maryland because of the threat of the sea level rise.

You look at the Chesapeake Bay. If we had fully implemented, if we had the California standard, we would see a 30 percent, we would be able to reduce greenhouse gas emissions from cars and trucks by 30 percent; airborne nitrogen emission from cars and trucks deposited into our Chesapeake Bay would be reduced by 9 percent by the year 2025. We have seen the reports from the EPA telling us that the Chesapeake Bay is not on its way to recovery, but instead, all of these unchecked human behaviors, including our refusal to embrace these higher and better standards, the people of Maryland do not understand why, if the technology is there and why, if the ability for us to do these things is there, why on earth would we not do this before the Chesapeake Bay is irreparably damaged.

I also beg your indulgence to correct something I inadvertently said, Madam Chair, earlier in my testimony, when I criticized this decision as having no justification by policy or science or reason or law. I inadvertently said that was the Secretary's decision. Of course, I should have said the Director's, the Administrator's decision, and I meant no offense to secretarial staff or any of the other dedicated people at EPA.

Senator CARDIN. Let me also point out, we have talked about sea level change. But the Chesapeake is warming, we know that, and that is causing a major impact with the sea grasses. Madam Chair, while we were waiting for this panel, I had a chance to talk with Governor O'Malley, with Senator Mikulski, talking about one of the problems we have of oysters in the Bay. We are losing our sea grasses in the Bay because of climate change.

So I just applaud Governor O'Malley and the Governors that are here. This is an urgent issue, to deal with global climate change. It is affecting the quality of the life of people in my State and the

Nation. I just think, we thank the Governors that we have the leadership in our State governments to move us forward on this issue. We are going to catch up to you. We are going to do it.

Thank you.

Senator BOXER. Thank you so much.

Just before I go to Senator Sanders, I wanted to recognize that Ken Connolly is here. Will you just go like that, Ken? Ken was the chief of staff to the great former Senator Jim Jeffords here at this Committee. It was Senator Jeffords who wrote a very far-reaching bill on global warming that then was picked up by Senator Sanders that I was proud to co-sponsor. I am just thrilled to see you out here.

With that, Senator Sanders.

Senator SANDERS. Thank you, Senator Boxer.

I think one point that hasn't been made as strongly as it might is the very strong tri-partisan agreement that the EPA decision rejecting the California waiver was wrong. I mean, all over this Country and here, we have Republican Governors, Democratic Governors, Independents. I think the vast majority of the American people want us to be aggressive in addressing the crisis of global warming.

Madam Chair, the State of Vermont is well-known for its sense of environmental responsibility. We take the issue very seriously. I am very pleased that the Governor is here representing that view. That position is also shared by Senator Leahy, Congressman Welch, our entire delegation, and I am sure the vast majority of the people of Vermont.

I want to ask Governor Douglas, if I might, just two questions. You have heard during the course of discussion this morning and now afternoon that there are some people who say, hey, why should the State of Vermont and the other States, why should California go off on its own? Why don't we work with just one policy coming here from the Federal Government? What is the problem with that?

The second point, Governor Douglas, I would like you to speak to, we have heard today, as we have often on this Committee in the past, about economic dislocation if we move forward aggressively in terms of cutting greenhouse gas emissions. I know that you, the University of Vermont, many of us, have talked about the incredible job-creating potential if we are aggressive about energy efficiency, solar energy, mass transportation, wind turbines and so forth and so on.

So my first question is, why not let the State of Vermont wait? We have a Federal Government here, just wait patiently for the Federal Government to do what has to be done about global warming.

Governor Douglas. Well, Senator, thank you for your acknowledgement of the great commitment and the environmental value and ethic that we have in the Green Mountain State. As you noted, we take it very seriously indeed. That is why we are such a leader in terms of the least emissions, the most emission-free energy portfolio, the cleanest air in the Northeast according to the EPA. We have provided tremendous environmental leadership in so many ways.

I think I would answer the question about States versus Federal action by looking at the congressional decision beginning in 1967 to establish the two-car standard, to acknowledge that California prior to that time had been a leader in auto emissions regulation, and to allow that State to continue that leadership by granting it an exemption, and then allowing other States, through the Clean Air Act, to sign onto the California standards and have the two-car standard that we are talking about today.

Second, I would note the recent litigation that has affirmed the legitimacy of that dual standard, that choice of standards, and addressing the alleged inconsistency with the CAFE standards. The Federal District Court in Vermont, after a 16-day trial with thousands of pages of testimony, handed the State a very clear, decisive victory. It is on appeal now to the Second Circuit.

Senator SANDERS. But why didn't we patiently wait?

Governor DOUGLAS. I think it is the ethic that we both talked about. My colleagues and I are from, in I guess broader terms, the same area of the Country. We are part of a nine-State effort called RGGI, the Regional Greenhouse Gas Initiative. The New England Governors and Eastern Canadian premiers have adopted some very aggressive standards for the 11-jurisdiction region.

Now, the premier and environment minister of Quebec have expressed an interest in adopting the California standards for their province, and other provincial leaders are starting to embrace them as well.

Senator SANDERS. I can see you are not going to go further in that area, so I will ask you the other question. What about the job-creating potential of an aggressive approach to reducing greenhouse gas emissions? Do you see potential there?

Governor DOUGLAS. Oh, absolutely. I really believe that we can become what our Lieutenant Governor has deemed the Green Valley, a sort of silicon valley for environmental engineering, sustainable technology companies. We have a lot of research underway now at the University of Vermont, at some private companies, some other institutions in Vermont. We are beginning to see an industry develop in hazardous waste cleanup, alternative energy design and installation, air quality monitoring. A lot of different environmental jobs that are quite well-paid and require a high level of skill.

So the partnership that we have in Vermont between our institutions of higher learning and the business sector, I think, is very positive. It is growing and I think can play a tremendous role. China was mentioned earlier, and the relevance, in response to your question is that we had a mission a few months ago of business, education and government leaders from Vermont to go to China to talk about using the expertise that we are developing in our State to help them solve some of their environmental problems.

I was the only American on the stage when the environmental exposition was opened in Beijing last June. I think it is because Vermont, maybe because of my winning personality, but I think it is because the State of Vermont is recognized as such tremendous leader, literally around the world, in its environmental stewardship.

So we do take this seriously, and you certainly have throughout your career, for which we are all grateful. I hope that we can, if not adopt a more aggressive approach on a Federal level, allow the States to continue our leadership individually or regionally, working with our partners, so we can advance this important agenda.

Senator SANDERS. Thank you very much.

Senator BOXER. Thank you, Senator.

Senator Klobuchar, and then just so you can be thinking, because I know some of our witnesses at this side are lonely, we are going to give everybody 30 to 45 seconds to give us your final thoughts before we go to our last panel.

Go ahead.

Senator KLOBUCHAR. Thank you. I keep wanting to ask, Madam Chair, Governor Douglas, I keep thinking I want to ask him what it is like to have Bernie Sanders as his Senator, and what is his best story and then remind him he is under oath, but I only have 5 minutes.

[Laughter.]

Senator KLOBUCHAR. I wanted to extend on what Senator Sanders was asking, and the other Governors, to the other Governors. I just note that I always use this example of what Justice Brandeis would say, that the States are to be the laboratories of democracy, and that how one courageous State can move forward. Our State has done this, we have Eastern States here, but I will tell you, Minnesota, California, all over this Country.

But I don't think he ever meant that there should be inaction by the Federal Government, which has, I think in part, contributed to our sitting here in this hearing room today. I just wonder, first, Governor Rendell, if you could expand. You talked about the economic piece of this and the costs, increasing the gas mileage standard how much, I always used to use an example, can save an average family of four between \$500 and \$1,000 a year, where you see that shaking out in your State, such a large State.

Then also, the economic opportunities. In our State, we have so many wind turbines now, they have opened a bed and breakfast in Pipestone, Minnesota. The package is you stay overnight and you look at a wind turbine in the morning. So you are welcome to come for a weekend.

Governor Rendell.

Governor RENDELL. Let me say that you are right about the States being the laboratories in so many things. But in the development of alternative and renewable energy, which I think will be to the worldwide economy what biotech and information technology have been in the last quarter of a century, I think renewables will be to the next quarter of the century. We are seeing tremendous activity in each one of our States, all over the Country and in the State of Michigan, where Governor Granholm does recognize that as Governor Romney said and as Senator McCain said in their recent primary, that Michigan has to continue to look for new, better ways of building cars, new types of cars and also new types of economy for a diverse economy. We are all doing that.

I am trying to persuade my legislature right now to do a billion dollar bond issue, most of which, some of which is for conservation

and some of which is for incentivizing the growth of alternative and renewable industry.

One wind energy company came to Pennsylvania after we adopted advanced energy portfolio standards, which I would hope the Congress would do for the Nation some day. But right after that, Gemasa, the second largest wind energy company in the world, came to Pennsylvania, created 1,000 jobs, including 700 traditional manufacturing jobs in two locations. Because those huge blades have to be manufactured.

So the great thing about alternatives and renewables is there is some traditional manufacturing as well as high-tech. So I think the sky is the limit for our economy. I want America very deeply to be the leader in developing all of these technologies, because that is where the jobs are going to be, the jobs of the future.

Senator KLOBUCHAR. Then we were talking about the Attorney General being a little lonely down there. I have one, I was listening to your legal argument here, and I was thinking about the fact, I had asked the Administrator this. They have allowed for 50 waivers before this. Certainly not all of the reasons for the waivers, let's look at the catalytic converter, smog and other things. So they get permission, they get a waiver and then other States do the same thing. So that is not unique to California, the problem. They just showed a compelling reason to get a solution and a waiver, and then other States followed.

So what I am trying to get at here is, you clearly seem to be indicating that California couldn't do anything about getting a waiver to work on climate change, because it wasn't unique to California. It doesn't make any sense to me, when you look at the past for why these waivers were granted.

Mr. COX. Well, Senator, I think if you look at the actual language of 209(b)——

Senator BOXER. Sir, is your mic on?

Mr. COX. It is. Senator, I think if we look at the actual language of 209(b), it requires for a waiver that there be a compelling and extraordinary circumstance for California. Unfortunately, the problem with greenhouse gases is that they are worldwide. They are not extraordinary to just California.

Senator KLOBUCHAR. But smog is worldwide, too. They have had smog problems in Baltimore, they have had smog problems in Houston and these other waivers were granted.

Mr. COX. Senator, if I could finish. As you pointed out, we both share Lake Superior. There are falling lake levels in Lake Superior, which you attribute to greenhouse gases. If we say that is the case, it is not extraordinary to California. In fact, it is a common problem throughout the United States. It is a common problem throughout the world, because in fact we know most of the emissions are produced by the rest of the world. We produce the most individually as a Country, but most of the emissions are produced by the rest of the world and greenhouse gases, it doesn't matter where it is emitted, unlike smog particulate in a particular metropolitan area, the heat that is held in is a worldwide——

Senator KLOBUCHAR. Could I just let Governor O'Malley have the last word and respond to that?

Governor O'MALLEY. Senator, I was listening to the argument before. The notion that because it is a worldwide problem and because we are all going down because we are not addressing the problem quickly enough, therefore we shouldn't address it all until the rest of the world figures it out, is, I find, a very strange argument and one that runs counter to most of the 200 year history of this Nation.

We believe in the dignity of every individual. We believe as Americans that we have a role and a very important and revolutionary role, to advance the cause of mankind on this planet. There is no more important cause for us to advance than the science and the technology which we have in greater abundance than other countries do, and muster together again that political will to put behind it and to lead this effort, not to follow behind. What if we said on human rights, we are going to wait until China signs on-board, because human rights violations are a global problem, and we can't do anything about it until everybody else gets on board first.

I find it ludicrous and I find it very, very deeply disturbing that we would even be having that sort of conversation when faced with the overwhelming scientific evidence that there are things that we can do about it and it needs to be done now before this climate change becomes irreversible.

Senator KLOBUCHAR. Thank you.

Senator BOXER. Thank you.

So now we are going to go down, starting from Mr. Haaland, and hear your last words of wisdom to this Committee. We will give you 45 seconds, and you can take up to that much.

Mr. Haaland.

Mr. HAALAND. Thank you, Madam Chair. If I can, addressing both Governor O'Malley and Senator Lautenberg's reason for inclusion of China, the Governor's example of not taking action on human rights because China doesn't, the Senate actually voted in 1997 on a 95 to 0 basis to not act on Kyoto until it included developing nations. So inasmuch as China was excluded from Kyoto, I believe that the rationale for it stands.

Also, Justice Brandeis was listed as an author of the phrase relative to States and experiments. If you look to California, our experiments in hybrid technology, in other areas, attempting to go down the path that these regulations address, hasn't been very successful. We had a zero emissions vehicle percentage of the fleet program and spent tens of millions of dollars installing equipment around the State buildings. There are very few electric vehicles plugged in. The hydrogen highway hasn't happened because of the intense infrastructure investment.

We have an E85, the Governor went out and purchased over 2,500, I believe is the figure, E85 vehicles. Unfortunately, there are only three E85 stations across the State. Those vehicles have ended up adding to the carbon content of the State's air because they are not properly thought out. That is the point. Think through before we act.

Senator BOXER. Thank you.

Attorney General.

Mr. COX. Thank you, Senator.

I would start with this little inconvenience called the United States Constitution, which Article 6 says, has this concept of Federal supremacy, that problems that are inherently Federal in nature, national in nature, international in nature, should be dealt with by the executive branch and the Senate. The treaty-making power of Kyoto, all that rests and puts this problem at your doorstep and you haven't addressed it.

When I hear about 17 States should be able to do this or that, or there is bipartisan agreement, there are 33 other States, both Democrat and Republican, who don't agree with that view. In fact, Senator Boxer's counterpart in the House, who helped draft every major piece of air legislation, that would be Congressman Dingle, over the past 55 years disagrees with much of what has been said here to the right of me.

Finally, I agree with Governor O'Malley, it is about political will. But the political will appropriately under our system of government should be exercised right here on Capitol Hill.

Senator BOXER. Governor Rendell.

Governor RENDELL. Just two quick thoughts.

No. 1, it does make a difference in Pennsylvania. Even though this is a worldwide problem, by adopting these standards, we can keep a significant number of toxins and gases from going into the air in Pennsylvania. That is demonstrated, it is clear. So it does make a difference to each and every one of our 17 States, regardless of the fact that I agree it is a worldwide problem.

No. 2, just to thank all of you for your leadership. I hope we get this done now. But we have to keep the pressure on and I am really looking forward to the transportation reauthorization, because I think it provides us with a unique opportunity to do something that will last for generation after generation.

Senator BOXER. Governor Douglas.

Governor DOUGLAS. Madam Chairman, thank you again for your time and attention on this important topic. I appreciate the leadership Senator Sanders has shown for our State. We will keep doing what we can to advance this important matter.

Very quickly, I would suggest that legally, this is the wrong decision by the Environmental Protection Agency. Federal district courts on both sides of our Country have held very clearly that States have the right under the law to exercise this option. Second, individual States have enjoyed rights under our Federal system to advance agenda items that they feel strongly about, that they feel are important to their citizenry. This is an important area in which State leadership ought to be respected.

Finally, as we have said, nothing could be more important to the future of the quality of life of all the people we represent than the air that we breathe and the economic base of our States that is so important based on our traditions.

Senator BOXER. OK. Last but certainly not least, Hon. Martin O'Malley, Governor of Maryland.

Governor O'MALLEY. Madam Chair, thank you very much. It has been a great honor to be with all of you today and I thank you for your leadership and for seeing the importance of this. This has also been an extraordinary opportunity for me to express views and to

be referred during the course of this panel as being on the right. That is the first time that has ever happened to me.

[Laughter.]

Governor O'MALLEY. We are going to continue to stand together and we are going to go to court and get this overruled as States. I trust that there will be another day when we will be able to regulate further greenhouse gas emissions here in the Federal level. The Supreme Court has said that we have the power to do it, that our Federal Government has the power to do it. In fact, they have rebuked the Federal Government for not doing more in the past. I trust we will get this overturned, and I thank you so very, very much for your commitment to the future of our environment and our children's future.

Senator BOXER. Thank you.

Let me close out this panel by saying a couple of words. First, Governor Rendell, I would like to invite you to be part of a future hearing we are going to be having, because I know you stood with my Governor and I think it was Mayor Bloomberg, President—no, Mayor Bloomberg—and called for a major infrastructure initiative. That was music to my ears, because I agree with everything that has been said here from the standpoint of cleaning up the air, from the standpoint of creation of jobs and easing some of the job losses. I think it is essential that we do that.

So I hope you would respond favorably and I promise you, you will be on the first panel, so you won't have to sit around.

[Laughter.]

Senator BOXER. Not everything we do is as contentious as this. I also want to say to my friend, Mr. Haaland, welcome, all the way from California. I just want to say that you are right, that 11 years ago, we voted to say, let's not do anything until China acts. We don't feel that way any more. We have had votes since where a very strong majority, by the way, when the Senate was Republican, we had like 54 votes to say, we need to move forward.

So you are absolutely right to point that out. But we have changed dramatically, given the information we have received.

Finally, to my friend on the left, Hon. Mike Cox, let me just say a few things. Please know that as I say this it is with great respect. Because you are the top law enforcement, legal beagle in your State. You are the top lawyer. I think it is important that you look at what the Supreme Court said about greenhouse gas emissions. They lectured this Administration. They said that climate change emissions were included in the Clean Air Act.

So this is nothing extraordinary. This is yet another waiver for yet another pollutant specifically mentioned in the Clean Air Act. I just want you to read both the Clean Air Act again and the Court's decision.

Also, to say to you that at the end of the day, if we do work together, I agree with Governor Rendell. He says this is an economic opportunity the likes of which we have never seen. If Bernie Sanders had the chance and he gets going, you are just ready to go out there and pass every law, because the Silicon Valley people, and I represent them, I am proud to represent them, have told me, pass some strong national legislation and let the States continue to do what they do. We are going to see investments that will make the

investments that occurred in the communications revolution just be dwarfed.

So there is so much excitement here. I say to my friends in Michigan, and let me say since I mentioned Senator Sanders, he worked so hard to get a big piece of this Lieberman-Warner bill direct relief and help to the workers in the automobile industry and work with them in crafting this. We shouldn't approach this with fear or trepidation. We should step up to the plate. That is what America does.

I think these Governors are doing it, and all I say to my friends on the other side, if you really step away from fear and embrace hope and the American can-do spirit, I think we are going to lead the world going out in future years. If we shrink and we fight and we get nothing done, somebody else is going to grab that ground, and it won't be America.

But I just want to say to all of you, you have been terrific. You have been honest with us, you have been informative, and we thank you so very much. Thank you very much.

I say now to my third panel, oh, my God, you are still here. We started at 10, it is 10 to 2. We have two of you. If you are still around, David Doniger, Policy Director, NRDC; Jeffrey Holmstead, Former Assistant Administrator for Air and Radiation, U.S. Environmental Protection Agency.

If I could ask our Governors and all their throngs of supporters and friends to exit so we can hear from Mr. Holmstead and Mr. Doniger.

Gentlemen, we thank you so very much for your patience. I am going to ask our colleagues to tiptoe out of the room so we can get started, because this is a very important panel. A lot of excitement in the Committee today.

So you have heard this, I assume, from the beginning. I know that you know we are swearing in all our witnesses. If you wouldn't mind standing up.

[Witnesses sworn.]

Senator BOXER. Thank you so much.

Mr. Doniger, why don't you start.

**STATEMENT OF DAVID DONIGER, POLICY DIRECTOR,
CLIMATE CENTER, NATURAL RESOURCES DEFENSE COUNCIL**

Mr. DONIGER. Thank you very much, Chairman Boxer. It is a pleasure to be here, and I appreciate your long-suffering sitting in the Chair today.

I learned some extraordinary things here. I would like to submit my testimony for the record and just reflect on a couple of things I heard. One of the most interesting things I heard was that Administrator Johnson virtually admits that he and presumably others in the Administration were waiting to see if Congress would change the Clean Air Act, so that they wouldn't have to make this decision.

We know that in the last month or so, when the Energy bill was coming together, Members of the Congress who negotiated this bill considered some language which would have limited EPA at the Federal level and California from going farther than the new CAFE standards. The congressional negotiators closed on the Energy bill,

rejecting that language and including instead language that did the opposite, section 3 of the final law. It provides that nothing in the law, the new Energy bill, affects any pre-existing law, including, and it especially calls out, environmental laws.

I note also that the Energy bill doesn't provide for a 35-mile per gallon standard. It provides for a standard of at least 35 miles per gallon in 2020. So it sets a floor in fuel economy terms and it leaves the Clean Air Act intact.

What I learned is that Administrator Johnson was watching to see how that would come out. In fact, we know they weren't just watching. The White House sent two veto threats regarding the Energy bill to the Congress and included in both of those threats that it would be vetoed unless this language subordinating the Clean Air Act to the CAFE law was included. Congress declined to include it, stuck with the savings clause, and the President, who got some concessions in other areas of the Energy bill, concluded that he would accept the Energy bill with the savings clause, with the Clean Air Act protected, not subordinated, and he signed that law.

It now sounds as though Mr. Johnson was sitting around waiting to see if Congress would provide him an excuse for not allowing California to go forward. It seems as though, having concluded that Congress wouldn't provide that excuse, they went back to try to rack through the Clean Air Act and find some excuse.

I don't find the compelling and extraordinary conditions that the Administrator is making the slightest bit compelling. He is saying that he may wish that the Clean Air Act said that California had to have compelling and extraordinary local conditions. But it doesn't say that. It says compelling and extraordinary conditions. The EPA has interpreted this over the years, Mr. Ruckelshaus, who served under two Presidents, interpreted this language as not requiring a unique problem for California. In fact, it wouldn't make any sense to require a unique problem and then provide that other States can adopt what California adopts.

So this is an extraordinarily flimsy argument. The records which you have been able to get from the Administrator show that the staff advised him exactly how flimsy and weak that argument was. It is going to be necessary, presumably, to test this out in court. But I am very confident that the State and Environmental Coalition, which has tackled this latest EPA refusal to deal with global warming, is going to win again. We won in the Supreme Court, as you all have mentioned. We have prevailed in two court cases that the Governors have mentioned, in Vermont and California.

We prevailed in the legislative battle over whether the Clean Air Act would be subordinated or preserved. The Administrator is just violating the law. It is maybe not unexpected, given who he works for. But it is disheartening, nonetheless.

The other thing I learned, and I will just close with this, is that, I believe it was Senator Sanders who summarized Mr. Johnson's testimony as saying that he had not talked to the President about this matter, and Mr. Johnson felt compelled to point out that he does have routine conversations with the President. I infer from that exchange that they did talk about the waiver, otherwise there would have been no need to say anything to distinguish what Sen-

ator Sanders had said. So they did talk about this. It does seem that your investigation has a lot of value to ferret out just exactly who ordered Mr. Johnson to make this decision.

When he says he made this decision independently, I find that extremely hard to believe. Thank you.

[The prepared statement of Mr. Doniger follows:]



**Testimony of
David Doniger
Policy Director, Climate Center
Natural Resources Defense Council**

**Before the
Environment and Public Works Committee
United States Senate**

**Oversight of EPA Administrator Johnson's Denial of
Waiver for California's Global Warming Standards**

January 24, 2008

Thank you, Chairman Boxer, for the opportunity to testify today on behalf of the Natural Resources Defense Council (NRDC). My name is David Doniger and I am Policy Director and senior attorney for NRDC's Climate Center. NRDC is a national, nonprofit organization of scientists, lawyers and environmental specialists dedicated to protecting public health and the environment. Founded in 1970, NRDC has more than 1.2 million members and online activists nationwide, served from offices in New York, Washington, Los Angeles and San Francisco, Chicago and Beijing.

The focus of my testimony will be to outline just how far Administrator Stephen Johnson has departed from law, science, and even basic arithmetic in denying California a waiver under Clean Air Act Section 209(b) for its landmark emission standards for global warming pollutants from new cars, SUVs, and other light trucks.

In the absence of leadership from Washington, the states have stepped up to the challenge of curbing global warming pollution. California's clean cars law (known as

AB 1493 or the Pavley law, after its chief sponsor Fran Pavley) is their flagship effort. California's vehicle emission standards, if allowed to go into effect, will be the single most effective step yet taken to curb global warming pollution. Ramping up over eight years starting in model year 2009, they will cut the combined heat-trapping emissions of new vehicles by 30 percent in model year 2016. Already, 17 other states have adopted California's standards, or set the administrative wheels in motion to adopt them, and that number is likely to grow. (States that have completed adoption are: Connecticut, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington. States that are currently adopting California's standards are: Arizona, Colorado, Florida, Iowa, and Utah. At least three other states are considering adoption: Delaware, Illinois, and Minnesota). Together, California and the other 17 states make up nearly half of the national sales of new vehicles.

Section 209(b) of the Clean Air Act recognizes the pioneering role California has played for four decades in the development and implementation of wave after wave of new vehicle pollution control innovations. As the U.S. Court of Appeals for the D.C. Circuit stated: "Congress intended the State to continue and expand its pioneering efforts at adopting and enforcing motor vehicle emission standards different from and in large measure more advanced than the corresponding federal program; in short, to act as a kind of laboratory for innovation."¹ Virtually every feature of modern air pollution control technology now present on vehicles nationwide – indeed, worldwide – was implemented first in California.

Section 209(b) requires the EPA administrator to give California the green light for its standards unless he proves one of three disqualifying conditions. The

¹ *Motor & Equipment Mfrs. Ass'n, v. EPA*, 627 F.2d 1095, 1110-11 (D.C. Cir. 1979).

administrator can deny California a waiver if he demonstrates that the state's standards, in the aggregate, are not at least as stringent as the federal emission standards. He can deny the waiver if he proves that California's standards exceed the levels that are technically feasible, considering cost and lead-time. And he can deny the waiver if he proves California does not need the standards to meet compelling and extraordinary conditions.

On any of these issues, the law places the burden of proof on the administrator, or anyone else, who opposes granting California the waiver. Again in the words of the D.C. Circuit, California's standards "are presumed to satisfy the waiver requirements" and "the burden of proving otherwise is on whoever attacks them" during the waiver hearing.²

Other states have the right, under Section 177 of the Act, to adopt California's standards. Once California has its waiver, the other states need no further approval. As I mentioned, 17 other states are already following California's lead.

An EPA administrator who respected law and precedent, fact and science, would have granted California the waiver this time just as his predecessors did more than 50 times before over the last 40 years. But this administrator works for a White House with an unparalleled disregard for law and science. So it was not unexpected – if still profoundly disheartening – that Administrator Johnson would take orders from the White House, override the expertise of his agency's scientists, engineers, and lawyers, and veto California's standards for the first time ever, as he did on December 19, 2007.

² *Id.* at 1121.

Lest anyone think that the December 19th decision was approached with an open mind and taken on its merits, it is worth first reviewing the administration's three prior, but failed, attempts to block California's path.

First, in 2003, at White House direction, the EPA took the position that carbon dioxide and other greenhouse gases – even though obviously emitted from vehicles, power plants and factories – are not “air pollutants” under the Clean Air Act. Thus, the administration claimed, the Clean Air Act conferred no authority to regulate emissions that contribute to global warming. Though broadly written to disable *any* use of the Clean Air Act against global warming, EPA's 2003 decision was plainly targeted at stopping California, which had its clean cars legislation in 2002.

That ploy was struck down by the Supreme Court in *Massachusetts v. EPA*, the landmark global warming decision handed down April 2, 2007.³ Rejecting EPA's position, the Court held that carbon dioxide and other heat-trapping emissions are “air pollutants” just like any other, and are subject to regulation under the Clean Air Act. The Court noted that the Clean Air Act has specifically authorized protection of “climate” since 1970. The court also rejected an argument, made jointly by the administration and the auto industry, that regulating vehicle emissions of carbon dioxide was the sole province of the Department of Transportation under the nation's fuel economy law, called the Energy Policy and Conservation Act (EPCA). The Clean Air Act and EPCA, the Court ruled, are “wholly independent” mandates. Nothing in EPCA restricts the pollution-control authority provided by the Clean Air Act.

This holding dealt the death blow to the auto industry's and the administration's second strategy for blocking California's standards. The auto companies attempted to

³ 127 S.Ct. 1438 (2007).

block the states with a series of federal court lawsuits claiming that California and other states are “preempted” by EPCA from setting greenhouse gas emission standards. The auto companies relied on a gratuitous pronouncement on preemption by the Department of Transportation in a 2006 fuel economy rulemaking. But following the Supreme Court’s ruling that the Clean Air Act and EPCA are “wholly independent,” two federal judges in Vermont and California ruled last fall that EPCA does *not* preempt the states’ emission standards. The two district courts correctly noted that the fuel economy law itself gives Clean Air Act standards – both standards issued by EPA itself and California standards that meet the waiver criteria under Section 209(b) – the status of “federal” standards for the purposes of EPCA. They are “other motor vehicle standards of the Government” that DOT must respect when setting fuel economy standards.

Having struck out three times in the federal courts in one year – four times, actually, counting the Ninth Circuit Court of Appeals’ rejection in November of the administration’s feeble 1.5 mile per gallon increase in light truck fuel economy – the White House tried yet a third line of attack on the California standards.

When Congress came to closure late last year on new fuel economy standards in the Energy Independence and Security Act, House and Senate negotiators agreed on Senate-passed language to protect the Clean Air Act. That language preserved the Supreme Court decision and the other court decisions I have mentioned. The savings clause in Section 3 of the new energy bill reflects the deliberate decision to maintain the “wholly independent” Clean Air Act mandate under which California and the other states have acted. Congressional negotiators rejected alternative language that would have prevented either EPA or California from setting emission standards that go beyond the

Transportation Department's miles-per-gallon standards, thereby effectively overturning the Supreme Court's decision in *Massachusetts* and restricting authority to curb global warming pollution under the Clean Air Act. This effort failed.

The decision to protect the Clean Air Act and the Supreme Court decision reflected the leadership of many members of Congress, especially the California Senate and House delegation of which you, Chairman Boxer, are a key member.

But the story did not end there. After Congressional negotiators closed on the new law's fuel economy provisions, the White House twice threatened to veto the entire energy bill unless the previously rejected language subordinating EPA and California to DOT was included. But although Congress gave ground on other issues, Congress once again rejected this change.

Thus, the final energy legislation, which President Bush signed on December 19, 2007, rejects the administration's and the auto industry's attack on the Clean Air Act and the leadership of California and the other states in combating global warming.

But no matter. The fix was in. Plainly acting on White House orders, Administrator Johnson that same day unveiled the administration's fourth – and weakest yet – line of attack on the California standards.

The December 19th letter is a masterpiece of factual error, scientific manipulation and disregard for the law. Let's start with the oddest aspect of all: the claim that California's emission standards are weaker, not stronger than the mileage standards in the new energy law. California has shown, with full documentation, that this is just plain wrong. The administrator got caught red-handed comparing the stringency of California's emission standards for 2016 with the federal mileage standards for 2020. As

I said in my blog (“Facts are Stupid Things,” attached to this testimony⁴): “That might be okay in fantasy baseball. It may be fun to ask if Babe Ruth could have hit 60 home runs against today’s pitching. But the EPA administrator shouldn’t be playing fantasy carbon regulation.”

Anyway you slice it, on an apples-to-apples basis, California’s emission standards will cut global warming pollution far more than the federal mileage standard. The California Air Resources Board has shown that in California, the state’s standards reduce global warming pollution *more than twice as much* as the federal standards in 2016. Looking at cumulative reductions from 2009 through 2016, California’s standards cut heat-trapping gases *three times as much* as the federal standards. You get the same result for the national fleet mix (50 percent cars, 50 percent light trucks). For example, if applied across the country, in 2016 the California standards would cut heat-trapping gases *75 percent more* than the federal mileage standards.⁵

Mr. Johnson also mimed the auto industry’s claim that the California standards are a “patchwork” – a word used to conjure the specter of 50 different states doing 50 different things. In fact – as he knows – the Clean Air Act permits only two standards: federal emission standards and California standards. Other states may choose standards identical to California’s, but they are expressly prohibited from deviating from these standards in any way. In this way, the car companies are subject to only two emission standards. They lost the argument for only one standard 40 years ago, when Congress recognized California’s role as the pioneer of new standards. And they lost that argument

⁴ Also available at http://switchboard.nrdc.org/blogs/ddoniger/facts_are_stupid_things.html.

⁵ California Air Resources Board, Technical Assessment, January 2, 2008, Comparison Of Greenhouse Gas Reductions Under CAFE Standards and ARB Regulations Adopted Pursuant To AB1493, available at http://www.arb.ca.gov/cc/ccms/ab1493_v_cafe_study.pdf.

again last year in the energy bill, when Congress expressly rejected their effort to undo California's powers.

Administrator Johnson said he thought a single national standard adopted under the energy law would be a "better policy." But he's not paid to make "better policy." His job is to carry out the policy Congress adopted into law. This is exactly the sort of policy-based freelancing that the Supreme Court threw out in the Massachusetts case. There, EPA asserted various "policy" reasons for its conclusion that the Clean Air Act should not be used to curb global warming pollution. But the Supreme Court rejected EPA's "reasoning divorced from the statutory text." This is exactly what has happened again here.

So, finally, we get to something that faintly resembles a legal argument. Mr. Johnson claimed that California does not need these standards to meet "compelling and extraordinary conditions" because, he said, global warming impacts are not unique or exclusive to California. No other state, however, can claim a wider variety of severe impacts than California: including more intense health-damaging smog, greater risks of catastrophic wildfires, damage to the state's agricultural output, and loss of the Sierra snowpack that serves as the state's vital water reservoir.

What's more, prior EPA administrators have rejected the contention that California even has to show unique effects. In 1984, Administrator William D. Ruckelshaus (who served under Presidents Nixon and Reagan) rejected an industry argument that "California must have a 'unique' particulate problem; i.e., one that is demonstrably worse than in the rest of the country. ... [A]s CARB points out, there is no indication in the language of section 209 or the legislative history that California's

pollution problem must be the worst in the country for a waiver to be granted.”⁶

Administrator Johnson made much of a supposed distinction between local and global pollutants. He may wish the statute read “compelling and extraordinary *local* conditions,” but it does not. In *Massachusetts*, industry parties got nowhere with a similar argument that the term “climate” must mean “*local* climate.” Rather, the Supreme Court recognized that Congress chose to use broad language that allows regulatory authorities to respond to the march of science and newly recognized threats to public health and welfare.

So now we must take EPA to court again. Given the Administrator’s repeated promises to Governor Schwarzenegger, this committee, and other congressional committees that he would decide the California waiver by the end of 2007, and given the unequivocal nature of the denial actually issued on December 19, 2007, we have taken that action at face value as the definitive denial of the waiver. Because the December 19th denial violates the Clean Air Act, California, together with other states and environmental organizations, has challenged the administrator’s decision in the Ninth Circuit Court of Appeals,

EPA’s lawyers are now contending that the December 19th letter was not actually a decision and that the waiver denial cannot be challenged until a notice is published in the Federal Register. As of the time of this writing, we have no idea when – or even if – a further written explanation will be forthcoming. As a necessary backstop against the government’s theory that the December 19th letter is not reviewable, the state and environmental coalition is also suing in the federal courts here for a deadline to publish the elusive Federal Register notice.

⁶ 49 Fed. Reg. 18877, at 18891 (May 3, 1984).

One way or the other, the administrator is going to be held to account in the courts. He and his White House masters may have bought the auto companies some delay, but they will not win. California's authority is clear. Together with the other states, California will prevail.

It's time for the auto companies to lock up their lawyers and turn loose their engineers. We desperately need cleaner cars to help avoid the coming climate catastrophe. They can do it. And they must.

With the spotlight on Administrator Johnson's denial of the California waiver, less attention has been paid to the administrator's failure to follow through on the commitments made by the President and by him to implement the Supreme Court's decision in *Massachusetts v. EPA*. That case, of course, directly concerned EPA's responsibilities to set federal standards for global warming pollution from vehicles. The Supreme Court ordered EPA to make a fresh decision whether vehicle emissions of carbon dioxide and other heat-trapping pollutants "may reasonably be anticipated to endanger public health or welfare." If the answer is yes – and how could the answer be otherwise give President Bush's embrace last year of the IPCC's definitive scientific conclusions – then EPA is required to set federal emission standards for these pollutants.

On May 14, 2007, President Bush entered the Rose Garden and announced that his administration would respond to the Supreme Court by directing EPA to issue vehicle and fuel standards for global warming emissions by the end of his term. To do this, Administrator Johnson announced that EPA would make an endangerment determination and propose vehicle and fuel standards by the end of 2007. Mr. Johnson repeated this promise over and over in the months that followed, to Congress, to other countries, and to

the public. And a huge amount of work was done to ready the proposed standards and the accompanying endangerment determination for proposal by the end of the year. According to trade press reports, hundreds of pages of Federal Register notices and support documents were written, reviewed at the highest levels of EPA, other agencies, and White House offices, and were ready to go.

But the end of the year came, and nothing happened. And neither the Administrator nor White House officials have said what will happen. It is as if the whole project disappeared into a black hole in an undisclosed location.

We know that various auto companies, trade associations and other companies weighed in with the Vice-President Cheney, urging him to deep-six the endangerment determination. And as I have described, we know that the White House tried unsuccessfully to get Congress to override the Clean Air Act and the Supreme Court decision.

But Congress refused, and so EPA still owes a response to the Supreme Court decision. For this reason, the state and environmental coalition that prevailed in *Massachusetts* is serving notice on Mr. Johnson this week that he still owes that response. We are asking him to tell us when he will issue the decisions that he had promised to issue last December.

I urge this Committee to expand the scope of its oversight inquiry to include the administrator's failure to carry through on his promises to respond to the Supreme Court by the end of last year. In particular, I encourage you to seek the extensive documentation prepared on the vehicle and fuel proposal, including the documentation

prepared on endangerment. I hope you will request documentation of all interagency and White House contacts that EPA has had in the course of this project.

Thank you for the opportunity to testify, and I look forward to your questions.

David Doniger's Blog

Facts Are Stupid Things

January 8, 2008

Posted by David Doniger in Curbing Pollution , Moving Beyond Oil , Solving Global Warming , U.S. Law and Policy

Tags: california, CARB, cleancars, EPA, globalwarminglaw, globalwarmingpollution

John Adams, our second president, famously said: "Facts are stubborn things." In a 1988 slip of the tongue, Ronald Reagan said: "Facts are stupid things." For the Bush administration, the slip of the tongue has been going on for seven years.

Here's the latest from the fact-free zone. Last month, when denying California the right to set its own standards for global warming pollution from new cars and SUVs (see my previous post), Bush's EPA administrator, Stephen Johnson, claimed California's global warming standards are *weaker* than the fuel economy standard in the newly enacted energy bill.

In his December 19th get-lost letter to Gov. Arnold Schwarzenegger, Johnson wrote: "I strongly support this national approach to this national challenge which establishes an aggressive standard of 35 miles per gallon for all 50 states, as opposed to 33.8 miles per gallon in California and a patchwork of other states."

Huh? If California's standards are weaker, then why are the car companies so opposed to them?

Well, for starters, Johnson was comparing apples and oranges. He was comparing the federal miles per gallon (mpg) standard for 2020 with the mpg level he attributed to the California emissions standards for 2016.

That might be okay in fantasy baseball. It may be fun to ask if Babe Ruth could have hit 60 home runs against today's pitching. But the EPA administrator shouldn't be playing fantasy carbon regulation.

In fact, lined up year-by-year, the California standards are always stronger. This is true whether you are comparing them on the basis of greenhouse gas reductions or mileage. And it is true whether you are looking at California alone, or the nation as a whole.

As Mary Nichols, chairwoman of the California Air Resources Board, put it: "[The] California standards start earlier, go faster ... and the end points are more stringent."

Let's look more closely at Johnson's math. The EPA administrator supplied no documentation for his calculations. (My high-school son can't get away with that when he turns in his math homework.) In contrast, the California Air Resources Board (CARB) prepared its own fully-documented comparison of the California emission standards and the federal mileage standards.

CARB's analysis compares apples to apples, matching up the California global warming standards and federal mileage standards year for year. No more comparing federal standards for 2020 with state standards for 2016.

Now the new energy law says the mileage standard must reach at least 35 miles per gallon by 2020, but doesn't spell out the mileage standards for the intervening years. The federal Department of Transportation (DOT) still has to write the miles per gallon standards for 2011 through 2019. So to fill this gap, CARB assumes that the federal DOT will increase the mileage standards proportionally each year. In that case, CARB calculates that the federal standard will be only 29.6 mpg in 2016.

Last time I checked, 33.8 was bigger than 29.6.

Ka-ching!

(CARB actually found a small difference between its estimate of the mpg value of its 2016 standards (33.1 mpg) and the number ascribed to the California standards in EPA administrator Johnson's letter (33.8 mpg). As I said earlier, because Johnson didn't "show his work," no one knows how he got his number. But whether equivalent to 33.1 or 33.8, the California global warming standards beat 29.6.)

CARB then translated the federal mileage standards into reductions in global warming pollution and compared them in the years through 2016. CARB did this first for California's vehicle fleet.

CARB found that in California, the state's standards reduce global warming pollution *more than twice as much* as the federal standards in 2016. Looking at cumulative reductions from 2009 through 2016, California's standards cut heat-trapping gases *three times as much* as the federal standards.

Ka-ching!

That's for the fleet mix in California, which has more cars than SUVs and other light trucks (70 percent cars, 30 percent light trucks). You get the same result for the national fleet mix (50 percent cars, 50 percent light trucks). If applied across the country, in 2016 the California standards would cut heat-trapping gases *75 percent more* than the federal mileage standards.

Ka-ching!

California doesn't stop in 2016. CARB has announced plans to strengthen its standards through 2020 (here, p.45). CARB's current analysis shows that California's 2020 standards will vastly outperform the federal mpg standard in 2020 as well, reducing global warming pollution nearly *75 percent more* based on the California fleet mix, and nearly *60 percent more* if applied nationally.

Ka-ching!

For good measure, CARB converted its own global warming standards into miles per gallon. California comes out way ahead this way too:

	California standards	Federal standards
2016	33.1	29.6
2020	40.4	35.0

Based on Fed fleet mix

	California standards	Federal standards
2016	36.6	30.5
2020	43.9	35.7

Based on CA fleet mix

Ka-ching!

Well, let's go back to EPA administrator Johnson's fuzzy math.

Slips of the tongue happen (even in a written letter). But even after being called on his mistakes, Johnson didn't take the opportunity to correct himself. Instead, Johnson had his spokesman *repeat* his bogus 2020-vs.-2016, 35-vs.-33.8 comparison when the state and environmental coalition took him to court on January 2nd.

Once is a slip. Twice is deliberate.

EPA administrator Steven Johnson is a trained scientist. Scientists are supposed to be able to count. Scientists are supposed to have a respect for facts. Facts are not supposed to be stupid things.



NATURAL RESOURCES DEFENSE COUNCIL

January 30, 2008

Hon. Barbara Boxer
 Chairman
 Committee on Environment and Public Works
 410 Dirksen Senate Office Building
 Washington, DC 20510

Dear Chairman Boxer:

Thank you for the opportunity to testify at the January 24, 2008, oversight hearing on the California waiver denial. I would like to clarify one part of my oral testimony.

In my remarks I mistakenly suggested that Mr. Jeff Holmstead had not quoted Section 209 of the Clean Air Act correctly. Without the statutory text in front of me, I was thinking of the sentence that precedes the one he (correctly) quoted. The full text of Section 209(b)(1) reads as follows. The passage to which he referred is italicized. The passage I was thinking of is underlined:

The Administrator shall, after notice and opportunity for public hearing, waive application of this section to any State which has adopted standards (other than crankcase emission standards) for the control of emissions from new motor vehicles or new motor vehicle engines prior to March 30, 1966, if the State determines that the State standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. *No such waiver shall be granted if the Administrator finds that –*

- (A) the determination of the State is arbitrary and capricious,
- (B) such State does not need such State standards to meet compelling and extraordinary conditions, or
- (C) such State standards and accompanying enforcement procedures are not consistent with section 202(a) of this part.

The thrust of both sentences is as I stated: The statute places the burden of proof on the administrator, or anyone else, who opposes granting California the waiver. In the words of the U.S. Court of Appeals for the District of Columbia Circuit, California's standards "are presumed to satisfy the waiver requirements" and "the burden of proving otherwise is on whoever attacks them" during the waiver proceeding. *Motor & Equipment Mfrs. Ass'n, v. EPA*, 627 F.2d 1095, 1121 (D.C. Cir. 1979).

Please include this letter in the hearing record.

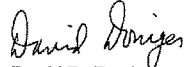
www.nrdc.org

1200 New York Avenue, NW, Suite 400
 Washington, DC 20005
 TEL 202 289-6868
 FAX 202 289-1060
 100% Postconsumer Recycled Paper

NEW YORK • SAN FRANCISCO • LOS ANGELES • BEIJING • CHICAGO



Sincerely,

A handwritten signature in black ink that reads "David D. Doniger". The signature is written in a cursive style with a large, prominent initial "D".

David D. Doniger
Policy Director
NRDC Climate Center

cc: Senator James Inhofe
Mr. Jeff Holmstead

RESPONSE BY DAVID DONIGER TO AN ADDITIONAL QUESTION FROM SENATOR INHOFE

Question. What is the logic of allowing only California to regulate a non-local, but instead global pollutant? Do you advocate the repeal of Section 209(a) of the Clean Air Act? Doesn't the very essence of the rationale for giving California a special prerogative to regulate mean that California must be unique? Otherwise, why not give every State that same right? And if giving every State the same right to regulate a global pollutant would make no sense, why shouldn't California equally be prohibited from having its own standard?

Response. In 1967 and 1977, Congress deliberately created a two-car system of air pollution standards with authority to set vehicle emission standards vested in both the Federal EPA and in California. Congress determined in 1967 that it was worth preserving the benefits of California's historical role in setting emission standards even as the Federal Government assumed a more prominent role.

So while Congress in Section 209(a) preempted other states from setting emission standards, it preserved the role of California, subject only to the waiver requirement in Section 209(b). In short, while Congress agreed that the auto industry should not be subject to 50 separate State standards, Congress determined that allowing two standards the Federal one and California's was a workable arrangement that assured the Nation the benefit of continued technological leadership from California while limiting the exposure of the auto industry to just two standards. California serves as the pioneer, setting standards that break ground in advance of Federal standards. From the start Congress anticipated that California's standards would be "more stringent than, or applicable to emissions or substances not covered by, the national standards." H.R. Rep. No. 90-728 (1967), *reprinted in* 1967 U.S.C.C.A.N. 1938, 1958. Time and again, Congress and EPA have adopted the technologies proved up by California into subsequent Federal standards applying nationwide. Indeed, other nations have followed California's pioneering example, such that technologies pioneered in California are now standard equipment on cars made throughout much of the world.

In 1977 Congress reiterated the value of California's role as a technological pioneer, stating its intent "to ratify and strengthen the California waiver provision and affirm the underlying intent of that provision, i.e., to afford California the broadest possible discretion in selecting the best means to protect the health of its citizens and the public welfare." H.R. Rep. No. 95-294, at 301-02 (1977). Congress also chose to adopt Section 177, which authorizes other states to adopt California's emission standards, as long as they do so identically. The point of so doing was to enable other states that share California's pollution problems to adopt the same remedies.

On the basis of these enactments, in a 1984 waiver decision, Administrator William Ruckelshaus specifically held that California need not have a unique problem nor even the most severe version of a problem that it shares with other states. As he stated: "[T]here is no indication in the language of section 209 or the legislative history that California's pollution problem must be the worst in the country, for a waiver to be granted." 49 Fed. Reg. 18877, at 18891, May 3, 1984. If California had to have a unique problem, there would be no point in providing other states the authority to adopt California's standards.

In *Massachusetts v. EPA*, the Supreme Court rejected EPA's argument that Federal regulation of motor vehicle emissions would make no difference to a global problem. The Court stated: "Agencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop. . . . They instead whittle away at them over time, refining their preferred approach as circumstances change and as they develop a more-nuanced understanding of how best to proceed." 127 S. Ct. 1438, 1457 (2007). The same holds for California's actions. Especially when joined by 17 other states—12 that have fully adopted California's standards and five others that are in the process of so doing—California's standards will make a tangible reduction in U.S. and global levels of greenhouse gases. In fact, as California has found, its standards will reduce these emissions by more than twice the amount of the new Federal CAFE standards.

In sum, NRDC sees no need for statutory change in Section 209. All we seek is EPA's faithful adherence to the law, which requires granting the waiver.

Senator BOXER. Thank you.

Welcome, Mr. Holmstead. You and I did a little debate on this issue on television, remember that? So it is nice to see you in person as well.

STATEMENT OF JEFFREY R. HOLMSTEAD, FORMER ASSISTANT ADMINISTRATOR FOR AIR AND RADIATION, U.S. ENVIRONMENTAL PROTECTION AGENCY

Mr. HOLMSTEAD. Thank you. Thank you for having the patience and thanks to everyone who stuck around this long. I remember a long time ago when more people stuck around when I used to testify.

Senator BOXER. Ah, yes.

Mr. HOLMSTEAD. Thank you for your patience.

Senator BOXER. It is a little easier on you now.

Mr. HOLMSTEAD. It is nice to be here with my friend, David Doniger. He has pointed out a number of things, although few of them really have much to do with the legal issue that is in front of us.

Just for the record, let me say, my name is Jeff Holmstead, and I am now a partner in the law firm of Bracewell and Giuliani. But I am not here appearing on behalf of my law firm or any clients. I am here in my personal capacity as someone who spent a lot of time over the last 20 years working on Clean Air Act and climate change issues. As everyone here is well aware, late last year Administrator Johnson announced his intention to deny California's request for a waiver. I know that you, and we have heard from others who are unhappy with this decision, but I think as a legal matter, it is the right decision. I believe that it is also right as a policy matter.

Now, again, I think one of the Governors mentioned that this issue really goes back almost 40 years ago, when Congress first began to deal with air pollution issues. It decided, and some people may not be happy with this, but it did decide that there would generally be one set of uniform national emission standards for motor vehicles. That is the way the law has worked since 1967, and a few years later, that responsibility for setting those standards was given to the Environmental Protection Agency when it was first created.

As you also know, there is this important exception that applies only to California. So it is kind of irrelevant, at least as a legal matter, that 17 other States or 40 other States. As a legal matter, the question here has to do with California. Then back in 1967, Congress explicitly recognized that California faced compelling and extraordinary conditions with respect to air quality because of its location, its geography, its weather patterns and because the vast majority of the air pollution that caused its dirty air came from vehicles driven on California roads. So Congress allowed, under certain circumstances, for EPA to waive this Federal preemption.

Importantly, however, and as a legal matter it is important to note what the words actually say. It says in very strong terms, "No such waiver shall be granted if the Administrator finds," and again, this is the Administrator, "No such waiver shall be granted if the Administrator finds that California does not need such standards to meet compelling and extraordinary conditions."

Historically, there has been very little debate about what is meant by the phrase compelling and extraordinary conditions. It was undisputed except for, I think, one important instance that Mr. Doniger is well aware of. But it was generally undisputed that

California faced very serious air quality problems, the air in many of its major cities was unhealthy to breathe, and that most of the State's pollution, really quite different from virtually everybody else, most of the State's pollution came from vehicles being driven on California roads. Thus, there was very little question as to whether the State needed its own more stringent standards to meet compelling and extraordinary conditions.

Now, as we have heard this morning, or I guess now this afternoon, California seeks a waiver to deal with a very different type of problem, global climate change. As you have also heard, this is truly a global issue, a ton of CO₂ emitted in New York or New Dehli has precisely the same impact on California as a ton of the same gas emitted in Los Angeles or Sacramento. The State is seeking a waiver not to provide healthier air for its residents to breathe, but to make what it admits is a minimal difference in global emissions of greenhouse gases.

There is no denying that climate change is an enormously important issue. But based on the history and the structure of the Clean Air Act, it is also clear that compelling and extraordinary does not mean enormously important. It means that there must be something different about California relative to other States, something extraordinary that would justify differential treatment for California.

In support of its waiver request, California lists a number of potential impacts that the State may face because of climate change, including impacts on tourism, public health, water resources and the like. Obviously these impacts are potentially very serious. But many other States face some or all of them. Nowhere does California really attempt to demonstrate in any meaningful way that the negative impacts it would face from climate change are extraordinary as compared to other States in the Union.

Simply as a constitutional matter, it would be problematic if Congress were to favor one State over all the others unless there is a good reason for doing so, unless there is something different about that State to justify its special status. The special status of California only makes sense if section 209(b) is read to allow the State to address conditions that are compelling and extraordinary compared to other States.

Senator BOXER. I am going to ask you to finish up right now.

Mr. HOLMSTEAD. Oh, I didn't think I had gone my 5 minutes yet. If I have, I apologize.

Senator BOXER. Time flies.

Mr. HOLMSTEAD. I even timed myself last night.

But the situation here really is quite different, and I am afraid that Governor Rendell and Senator Cardin maybe don't understand exactly what the waiver is. Because there is nothing about the waiver decision that actually creates healthier air to breathe. It doesn't result in—

Senator BOXER. Well, that is so incorrect on its face I will put the documentation into the record.

Mr. HOLMSTEAD. I would be—

Senator BOXER. The studies on ozone are overwhelming.

Mr. HOLMSTEAD. No, no, the studies—

Senator BOXER. We have those and we will put them in the record.

Mr. HOLMSTEAD. The studies that are in the record, actually—

Senator BOXER. We will put studies into the record just to refute what you just said, sir.

[The referenced material follows on page 143.]

Senator BOXER. Now, do you want to just complete, because you have gone over.

Mr. HOLMSTEAD. Yes, thank you. Emissions of traditional air pollutants that contribute to ozone and other problems are not affected by the waiver decision. I think as you undoubtedly can guess, this will go to court. I think this is a case in which EPA will be upheld, because it really doesn't have anything to do with *Massachusetts v. EPA*.

[The prepared statement of Mr. Holmstead follows:]

**Testimony of Jeffery R. Holmstead
Before the
U.S. Senate Committee on Environmental and Public Works
110th United States Congress**

January 24, 2008

Good morning. My name is Jeff Holmstead. I am a partner in the law firm of Bracewell & Giuliani and head of the firm's Environmental Strategies Group (ESG). This morning, however, I am not appearing on behalf of my law firm or any of the firm's clients. I am here in my personal capacity – as a former EPA official who has spent almost 20 years working on Clean Air Act and climate change issues.

From 2001 to 2005, I was the Assistant Administrator for Air and Radiation at EPA. I am proud to say that I headed EPA's Office of Air and Radiation – the Office in charge of implementing the Clean Air Act – longer than anyone else in the Agency's history. I believe that I am as well acquainted as anyone with the legal, policy, and political issues associated with the Clean Air Act and climate change.

Late last year, Administrator Johnson announced his intention to deny California's request for a waiver under Section 209 of the Clean Air Act. I know that Chairman Boxer and certain other members of the Committee are unhappy with this decision, but I believe it is the right decision as both a legal matter and a policy matter.

The Clean Air Act creates complex relationship between the federal government and the states when it comes to regulating sources of air pollution. Very generally speaking, the federal government sets "ambient air quality standards" and then allows states to decide which sources of pollution to regulate in order to meet those standards. Almost 40 years ago, however, when

Congress first began to deal with air pollution issues, it decided that there should generally be one set of uniform national emission standards for motor vehicles. Thus, section 209(a) of the Clean Air Act provides that "No State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles." But there is an important exception to this federal preemption. Congress recognized that California faced "compelling and extraordinary conditions" with respect to air quality because of its location, its geography and weather patterns – and because the vast majority its air pollution came from vehicles. Thus, Congress provided that EPA "shall, after notice and opportunity for public hearing, waive application of this section – the prohibition on state vehicle standards – to California. Importantly, however, the Act also states that "No such waiver shall be granted if the Administrator finds that – [California] does not need such State standards to meet compelling and extraordinary conditions."

Historically, there has been very little discussion about what is meant by the phrase "compelling and extraordinary conditions." It was undisputed that California faced very serious air pollution problems – the air in many of its major cities was unhealthy to breathe – and that most of the State's pollution came from vehicles being driven on California roads. Thus, there was very little question as to whether the State needed its own, more stringent standards to "meet compelling and extraordinary conditions."

Now, however, California seeks a waiver to deal with a very different type of problem – global climate change. And this is truly a global issue. A ton of CO₂ emitted in New York or New Delhi has precisely the same impact on California as a ton of the same gas emitted in Los Angeles or Sacramento. The state is not seeking a waiver in order to provide healthier air for its

residents to breathe, but to make what it admits is a "minimal" difference in global emissions of greenhouse gases.

There is no denying that climate change is an enormously important issue. But based on the history and structure of the Clean Air Act, it is clear that "compelling and extraordinary" does not just mean "enormously important." It means that there must be something different about California relative to other states – something "extraordinary" that would justify differential treatment for California.

In support of its waiver request, California lists a number of potential impacts that the State may face because of climate change, including on impacts on tourism, public health, water resources, agriculture, wildfires, sanitation, water-borne infections, temperature feedbacks on ozone levels, river flows, and the like. Obviously, these impacts are potentially very serious, but many other States face some or all of them. Nowhere does California attempt to demonstrate that the negative impacts it would face from global climate change are "extraordinary" as compared to other States in the nation.

It would be problematic under our constitution if Congress were to favor one state over all others unless there is a good reason for doing so – unless there is something different about that state to justify its special status. If California's problems are not different from those faced by other states, yet it alone is given special treatment under the statute, the rationale for Congress's blocking all other States from regulating emissions from new motor vehicles would be eliminated. The special status for California only makes sense if section 209(b) is read to allow the State to address conditions that are "compelling and extraordinary" compared to other States.

Climate change is clearly not a state specific issue. It is one that the nation and the international community as a whole need to address. This Committee should not view greenhouse gases in the same manner as conventional pollutants currently regulated under the Clean Air Act and should recognize the need to control greenhouse gases under national and international programs.

Regulation of greenhouse gases is an issue that crosses over various industrial sectors and will affect the nation's economy as a whole. The United States cannot afford, from either an economic or environmental perspective, to address climate change without a thoughtful national discussion. California is obviously in a strong position to influence a national debate. It is well represented in Congress, and the technical experts in California agencies are well respected at EPA and other parts of the federal government. The best way to ensure that all the ramifications of greenhouse gas regulation are carefully considered and addressed is to ensure a federal preemption of state regulatory activities. This is a national and global issue and solutions to global warming need to be addressed at that level.

Senator BOXER. Well, Mr. Holmstead, your testimony is so unbelievable to me. Now, I know you don't represent your firm, although it says Bracewell and Giuliani on your statement. We shouldn't have done that. But the fact is, the firm does represent the biggest polluters.

But let me just say this. You are the one who made the argument that the Clean Air Act didn't cover greenhouse gas emissions. Not only was your theory struck down, but you were lectured by the Supreme Court, and again, we will put that in the record. They found, contrary to the opinion of EPA counsel, the Clean Air Act does not authorize EPA to issue mandatory regulations to address global change. They said in fact that was totally wrong.

Now, your assertions then were wrong, you predicted EPA would win, you were wrong. You now say EPA is going to win this.

Now, I have to tell you, I have great respect for your credentials, but your legal opinion doesn't square with the legal opinion given to Mr. Johnson by the EPA lawyers who pick apart your comment that there is no compelling or extraordinary circumstances. Again, I will put this in the record again, this is the lawyer speaking.

California continues—

Mr. HOLMSTEAD. This is the opinion of EPA lawyers? With all due respect, I don't think that is correct.

Senator BOXER. These are the lawyers. These are the lawyers. Excuse me, sir. These are the documents. We will show them to you. I can't give them to you. We will show them to you.

Mr. HOLMSTEAD. I am aware this is apparently from a briefing. That wouldn't be considered—

Senator BOXER. It's not apparently a briefing. It is the recommendations. EPA has asserted attorney-client privilege over it. So don't tell me it is not an opinion of the attorney. So let's not argue over how many angels dance on the head of a pin. I will finish.

California continues to have compelling and extraordinary conditions, in general, geography, climatic, human and motor vehicle populations. Many such conditions are vulnerable to climate change conditions, as confirmed by several recent EPA decisions. Wildfires, they go through it chapter and verse.

So EPA's lawyers in the documents we have, to which Mr. Johnson is asserting executive privilege, dispute you completely. You were wrong before, and you don't seem to have any feeling of humility about it. You were so strong, you predicted how the Supreme Court would go. Not only did the Supreme Court rule against you in saying that greenhouse gas emissions were included in the Clean Air Act, they lectured the EPA. I have never seen anything like it. They lectured the EPA.

Now, I read the Clean Air Act, and it is plain English. By the way, you are a lawyer, I happen to in general love lawyers. My husband is a lawyer, my son is a lawyer, my father was a lawyer. But I have to say, if you just read English, you can see that the Clean Air Act said in plain English, greenhouse gases, they used the word climate change emissions are covered.

So you are standing on quicksand when you say that the lawsuit will be overturned.

Your other point about, oh, this doesn't really involve other States, and I get your point, it does involve other States. That is why other States are suing along with California and why you heard three Governors from other States speak eloquently on the point. So I don't think it serves us well.

Mr. HOLMSTEAD. Senator, my position was it would be illegal for Steve Johnson to consider how many other States had said they wanted to follow California's lead. That is not the way the law works. That was my point.

Senator BOXER. Well, it is illegal for Steve Johnson to substitute his judgment for what California is asking. All you have to do is read the legislative history. I would just say, sir, having been called out once by the Supreme Court, you come before us with all this certainty. I just want to say with all due respect to you, you really ought to take another look at what you are saying.

For example, you said something that is totally inaccurate. You said that this different standard is minimal, it is going to make a minimal difference, when the facts are out and the studies are out, 85 percent more than the new Federal CAFE standards.

Mr. HOLMSTEAD. Senator, those are California's words.

Senator BOXER. No, no, no, it is not California's words. It is a study.

Mr. HOLMSTEAD. That is what California has said repeatedly. They have acknowledged a minimal directional difference.

Senator BOXER. Do you not respect Governor Schwarzenegger?

Mr. HOLMSTEAD. I certainly do, enormously.

Senator BOXER. Do you not respect Attorney General Brown? Do you not respect the people of California who want this to happen? Sir, all I can say is that your conclusions that the waiver should be denied and that the Administrator is standing on strong ground is simply belied by the EPA's lawyers and everything else.

I am going to close and ask David Doniger, do you think that California and the other States have a strong case in front of the Court?

Mr. DONIGER. Yes, Senator, I do. I think two quick comments. Mr. Holmstead has a track record that goes beyond the Supreme Court case. There are somewhere between 6 and 10 decisions that have been overturned on pure legal grounds from his tenure. So—

Senator BOXER. Would you make that available for the record?

Mr. DONIGER. Sure, we can make a list of those available.

Senator BOXER. Thank you very much.

Mr. DONIGER. The second point is, this is all going to come down to, what does compelling and extraordinary mean. It doesn't mean unique. That has already been determined by the Administrator. It wouldn't make any sense for it to mean unique, because Congress has provided the other States can adopt the same standards.

So to the extent that Mr. Holmstead is pinning all his hopes on compelling and extraordinary, meaning something that is affecting California only, it is not going to prevail.

The last thing I would note just for the record is, I think Mr. Holmstead misquoted the current statute. It says, the Administrator shall grant the waiver unless he finds, unless he determines.

Mr. HOLMSTEAD. No, I was reading right from the statute, Dave. We can double check that.

Mr. DONIGER. We can double check that.

Presumptions run very heavily in favor of California. That is what the D.C. Circuit has said.

Senator BOXER. That is what the EPA's lawyers have said in the documents, that we had to painstakingly transcribe because the EPA is hiding behind some Nixon-era decision on executive privilege, not recognizing that Mr. Johnson is not the President of the United States, he is an Administrator, and not recognizing that these documents are not classified, they have nothing to do with national security.

So I think this is an outrageous decision. They are trying to run the clock, that is what this Administration is all about, and the people who were part of it before, run the clock, take 2 years with a bogus argument that you get lectured at wasn't even right, that the Clean Air Act doesn't include greenhouse gas emissions, run the clock, run the clock, 2 years. Then at 6 o'clock, late at night, say, oh, well, we just passed the Energy bill, this is unnecessary, and then run the clock on these lawsuits. The American people have to pay to go to court, they pay for the lawyers, they pay for the time, they pay for the time of our Governor, of the other Governors. It is all on the clock, and it is all about beat the clock.

What they are trying to do is nothing, nothing helpful in terms of reduction of greenhouse gas emissions. Thank God the States are moving forward. Thank God for that, the mayors are moving forward. Thank God the American people do not share the views that are expressed here by those who are associated with this Administration.

I am going to close by saying today I am introducing a bill that would grant the California waiver. My co-sponsors so far are Feinstein, Lieberman, Lautenberg, Cardin, Whitehouse, Sanders, Clinton, Leahy, Kerry, Obama, Dodd and Mikulski. We will continue to get more co-sponsors as the days and weeks progress.

But the fact is, this Administrator, I hope he will consider the views of the members of this Committee, the views of the Governors, the views of the people and instead of waiting to be told by a court or to be overruled by Congress, do the right thing. Grant the waiver, let the States protect the health and safety of the American people and this planet.

We will stand adjourned.

[Whereupon, at 2:15 p.m., the committee was adjourned.]

Additional material submitted for record follows.]

STATEMENT OF HON. JON S. CORZINE, GOVERNOR, STATE OF NEW JERSEY

Thank you for this opportunity to testify on the Environmental Protection Agency Administrator's denial of California's waiver to allow states to reduce greenhouse gas emissions from motor vehicles, and its significance to New Jersey. This decision is unacceptable and will negatively impact New Jersey's efforts to combat global climate change. Denying the waiver will have a profound effect on the health of New Jersey's citizens and our attempts to protect our natural resources and our economy.

There is no mistaking the threats of global warming and the health hazards caused by ozone air pollution in our densely populated coastal state. However, the Administrator's denial of the waiver, ignores the threats of global warming. In response to the environmental and economic threats of climate change, states like California and New Jersey have worked to reduce their impacts of greenhouse gas

emissions. But Administrator Johnson's decision has denied New Jersey and the other states a key resource in our efforts to address climate change.

Recently, I signed an Executive Order that seeks by 2020 to reduce greenhouse gas emissions to 1990 levels, or by approximately 20 percent, and calls for a total 80 percent reduction below 2006 levels by 2050. The goals in the executive order were then incorporated into the "New Jersey Global Warming Response Act", which was signed into law in July, 2007. These policies and goals are among the most aggressive climate control programs in the country.

However, these goals cannot be met, unless the State is permitted to implement the California program, to decrease the emissions of motor vehicles. In 2004 the transportation sector accounted for 36 percent of New Jersey's total carbon dioxide emissions. Improving motor vehicle fuel efficiency and setting greenhouse gas emissions standards represent the greatest opportunity for significant energy savings in the transportation sector.

The California greenhouse gas standards for motor vehicles are a key component in meeting those goals. The California greenhouse gas standards for motor vehicles must move forward so that not only California, but the 13 other states, including New Jersey, that have adopted the standards will be able to move forward in addressing the problem of global warming.

The authority to implement this California Low Emissions Vehicle Program, has been confirmed by numerous court decisions that have upheld challenges to the California emissions standard and clarified the legalities for California to adopt such standards. In fact, in April, the United States Supreme Court ruled that greenhouse gas emissions from motor vehicles are pollutants that can be regulated under the Clean Air Act. This ruling and the Clean Air Act give states like California and New Jersey the jurisdiction to design a clean car program.

In the Administrator's denial of the waiver, he cited concerns about creating a confusing patchwork of different State emissions standards. However, there are only two standards ? the California standard and the Federal standard. While these two standards are similar, they serve different purposes. The new energy bill will regulate fuel economy standards, but the California standard focuses primarily on regulating greenhouse gas emissions, which are the cause of global climate change. Instead, the only patchwork created would be the geographic distribution of the two programs.

Administrator Johnson also cites the Energy Bill and its CAFE standards as a substitute for California's greenhouse gas standards. However, the two programs are not equivalent. The California Air Resources Board has analyzed the two programs and found the California program will have nearly double the emission reductions relative to the new energy law. The goals of the Energy Bill are to reduce energy consumption which is laudable, but it is not sufficient to protect the environment from the impacts of greenhouse gas emissions.

We should not kid ourselves. The reason we are having this debate today, is because states are looking for ways to combat global climate change. New Jersey's situation is compelling as we will be adversely impacted by climate change. Global warming is the most urgent environmental issue we face. It is having a serious impact on New Jersey's public health, environment and economy in several ways.

First, the effects of global climate change could be devastating to New Jersey's natural resources. New Jersey has 130 miles of highly populated coastline, as well as thousands of acres of coastal salt marshes and tidal flats, coastal wetlands, and tidal freshwater wetlands. These areas are highly vulnerable to the predicted sea level rise from global warming. Rising seas would inundate many acres of New Jersey's remaining coastal salt marshes and tidal flats that provide flood protection, water quality benefits, and habitat for native species. Sea level rise would alter flooding and salinity of the State's coastal wetlands, which are among the largest, most productive, and most diverse in the mid-Atlantic region, with substantial adverse impacts on wildlife and fisheries.

Second, sea level rise could cause chronic flooding within this century, and sections of the State's highly developed coastline could be submerged by this flooding.

Third, higher temperatures and increased frequency of heat waves due to global warming also may increase the number of heat-related deaths and the incidence of heat-related illnesses. Climate change models project a significant increase in the number of days above 90 degrees Fahrenheit in New Jersey, which will increase heat stress, particularly for vulnerable urban populations such as the elderly and urban poor. In addition, an increase in temperature also means an increase in air pollutants in a State already has high air pollution. For example, in the summer of 2002, New Jersey had the highest number of ozone violations per monitoring station in the Nation. Ground level ozone concentrations throughout the entire State

of New Jersey exceed current national health-based standards. Higher temperatures will tend to increase these health violations.

In summary, the Administrator's decision to prohibit the states' ability to effectively reduce greenhouse gas emissions from motor vehicles is unacceptable. This decision will have a profoundly adverse effect on New Jersey and must be reversed. This is a non-partisan, state's rights issue, and I call upon the Administrator to fully explain his rationale for his decision.

1 **On the causal link between carbon dioxide and air**
2 **pollution mortality**

3

4 Mark Z. Jacobson

5 Department of Civil and Environmental Engineering, Stanford University, Stanford,

6 California 94305-4020, USA; Email: jacobson@stanford.edu; Tel: (650) 723-6836

7

8

Geophysical Research Letters

9

Submitted June 22, 2007, Accepted, Dec. 24, 2007, In Press, Jan. 3, 2007

10

11 Greenhouse gases and particle soot have been linked to enhanced sea-level, snowmelt,
12 disease, heat stress, severe weather, and ocean acidification, but the effect of carbon
13 dioxide (CO₂) on air pollution mortality has not been examined or quantified. Here, it is
14 shown that increased water vapor and temperatures from higher CO₂ separately increase
15 ozone more with higher ozone; thus, global warming may exacerbate ozone the most in
16 already-polluted areas. A high-resolution global-regional model then found that CO₂ may
17 increase U.S. annual air pollution deaths by about 1000 (350-1800) and cancers by 20-30
18 per 1 K rise in CO₂-induced temperature. About 40% of the additional deaths may be due
19 to ozone and the rest, to particles, which increase due to CO₂-enhanced stability,
20 humidity, and biogenic particle mass. An extrapolation by population could render
21 21,600 (7400-39,000) excess CO₂-caused annual pollution deaths worldwide, more than
22 those from CO₂-enhanced storminess.

23

24 **1. Introduction**

25 Because carbon dioxide's (CO₂'s) ambient mixing ratios are too low to affect human
26 respiration directly, CO₂ has not been considered a classic air pollutant. Its effects on
27 temperatures, though, affect meteorology, and both feed back to air pollution. Several

1 studies have modeled the sensitivity of ozone to temperature [*Sillman and Samson*, 1995;
2 *Zhang et al.*, 1998] and the regional or global effects of climate change from all
3 greenhouse gases on ozone [*Thompson et al.*, 1989; *Evans et al.*, 1998; *Dvortsov et al.*,
4 2001; *Mickley et al.*, 2004; *Stevenson et al.*, 2005; *Brasseur et al.*, 2006 *Murazaki and*
5 *Hess*, 2006; *Steiner et al.*, 2006; *Racherla and Adams*, 2006] and aerosol particles [*Aw*
6 *and Kleeman*, 2003; *Liao et al.*, 2006; *Unger et al.*, 2006]. Some studies have highlighted
7 the effect of water vapor on chemistry [*Evans et al.*, 1998; *Dvortsov et al.*, 2001;
8 *Stevenson et al.*, 2005; *Steiner et al.*, 2006; *Racherla and Adams*, 2006; *Aw and Kleeman*,
9 2003]. However, none has isolated the effect of CO₂ alone on ozone, particles, or
10 carcinogens, applied population and health data to the pollution changes, or examined the
11 problem with a global-regional climate/air pollution model.

12 Here, a box photochemistry calculation is first used to show how increases in
13 water vapor and temperature independently increase ozone more with high than low
14 ozone. This analysis helps to explain the causal link between CO₂ and health in areas
15 where most people live, as subsequently found in 3-D global-regional simulations.

16

17 **2. Chemical Effects of CO₂ on Ozone**

18 The SMVGEAR II chemical solver was used first in box mode, without dilution or
19 entrainment, to solve chemistry for 12 hours among 128 gases and 395 inorganic,
20 organic, sulfur, chlorine, and bromine reactions (including 57 photoprocesses) [mostly in
21 *Jacobson*, 2007, Suppl. Mat.]. Cases with different initial NO_x and organic gas were run.

22 Figure 1 shows the water-vapor (H₂O)- and temperature-dependence of ozone
23 under several ozone precursor combinations. For initial NO_x<8 ppbv, ozone decreased
24 with increasing H₂O. For initial NO_x>80 ppbv and moderate initial NO_x with low
25 organics, though, ozone increased with increasing H₂O, by up to 2.8 ppbv-O₃ per 1 ppthv-
26 H₂O. Between these extremes, ozone increased with increasing H₂O at low H₂O and
27 stayed constant or slightly decreased at high H₂O (Supplementary Material). Figure 1 also

1 shows that, generally (but not always), increasing water vapor increased ozone more with
2 higher ozone.

3 Further, the more ozone present, the more temperature-dependent chemistry
4 increases ozone (Fig. 1), consistent with *Sillman and Samson* [1995] and *Zhang et al.*
5 [1998]. The ozone increase ($\Delta\chi$, ppbv) per 1 K change in temperature (ΔT) from all
6 points in Fig. 1 were fit to

$$8 \quad \Delta\chi/\Delta T = -0.13034 - 0.0045585\chi + 0.00028643\chi^2 - 4.6893 \times 10^{-7}\chi^3 \quad (1)$$

9
10 where χ is ozone (ppbv) at 298.15 K (32-250 ppbv). A 1 K rise increased ozone by about
11 0.1 ppbv at 40 ppbv but 6.7 ppbv at 200 ppbv. *Olszyna et al.* [1997] reported an observed
12 correlation in the rural southeast U.S. of 2.4 ppbv ozone per 1 K. If temperature-
13 dependent chemistry alone were causing this increase, ozone would need to be about 115
14 ppbv (Equation 1) in that study, but it was 30-90 ppbv. Thus, other factors not accounted
15 for in Equation 1, such as H₂O increases (described above) and biogenic gas emission
16 increases [e.g., *Guenther et al.*, 1995], due to higher temperatures, may have caused the
17 larger observed temperature-ozone correlation. Also, both temperature and ozone
18 increase with sunlight, so all observed temperature-ozone correlations overestimate the
19 magnitude of cause and effect.

20

21 **3. Health Effects of CO₂ From Global-U.S. Simulations**

22 The chemistry used for Fig. 1 was applied with emission, aerosol, cloud, meteorological,
23 radiative, transport, and surface processes in the nested global-urban 3-D model,
24 GATOR-GCMOM. The model (Supplementary Material) has been evaluated against U.S.
25 gas, aerosol, meteorological, and radiative data extensively [e.g., *Jacobson et al.*, 2001;
26 2004; 2007; *Cotella et al.*, 2005]. .

1 Two global simulations (4° -SNx 5° -WE) were run under present-day conditions. In
2 the second, fossil-fuel CO₂ (fCO₂) ambient mixing ratios and emissions were set to
3 preindustrial values. When U.S. temperatures were about 1 K higher in the present minus
4 preindustrial-CO₂ global simulations, the U.S. regional domain (0.5° S-Nx 0.75° W-E) in
5 each global simulation was turned on and initialized with global-domain data (including
6 ambient CO₂). Global and regional domains were run another four months. Emissions of
7 fCO₂ were included in the present-day but not preindustrial-CO₂ global- and U.S.-domain
8 simulations.

9 Figures 2 and S3 show differences between the present-day and preindustrial-CO₂
10 simulations. Figure 2a compares modeled with radiosonde (1958-2006) vertical
11 temperature differences. The population-weighted near-surface temperature increase over
12 land was 1.07 K (Table S4), which increased population-weighted H₂O by 1.28 ppbv
13 (Table S4) and U.S.-averaged H₂O by 1.1 ppbv (Fig. 2b). The observed 1961-1995 U.S.
14 water vapor increase and positive correlation between temperature and H₂O [Gaffen and
15 Ross, 1999] support the modeled H₂O increase with increasing temperatures.

16 Fig. 2c indicates that fCO₂ increased ozone by 0.12 ppbv in the U.S., 5 ppbv in
17 Los Angeles, 1-5 ppbv in the southeast, and up to 2 ppbv along the northeast coast. In
18 Los Angeles, the 0.75 K temperature increase (Fig. 2a) and 1.3 ppbv water vapor
19 increase increased ozone through chemistry (Fig. 1).

20 In the southeast, 0.5-1 K temperature increases increased isoprene and
21 monoterpenes (Fig. S3a), reducing the relative humidity (Fig. S3c) and cloud optical
22 depth (Fig. S3d), increasing ultraviolet radiation (Fig. S3e), and enhancing ozone. The
23 0.5-2 ppbv/K ozone increase in Tennessee is just below the correlated estimate of 2.4
24 ppbv/K from *Olszyna et al.* [1997] as expected (Section 2). Averaged over the U.S.
25 domain, higher temperatures from fCO₂ increased biogenic soil NO_x, isoprene,
26 monoterpene, and other organic carbon emissions by 6% (0.01 Tg/yr), 9% (0.47), 9.8%
27 (0.15), and 8.9% (0.14), respectively. In the northeast, higher ozone due to higher

1 temperatures was offset partly by higher cloud optical depth (Fig. S3d) and lower
2 ultraviolet radiation (Fig. S3e), modestly increasing ozone.

3 The population-weighted 8-hr ozone increase due to fCO₂ was +0.72 ppbv (Table
4 1), suggesting a greater increase over populated than less-populated areas. FCO₂
5 increased particles in populated areas (Tables 1 and S4) by warming the air more than the
6 ground, increasing stability (as with radiosonde data-Fig. 2a.ii), decreasing turbulence,
7 shearing stress, and surface wind speed (Table S4; Fig. S3), reducing dispersion. Reduced
8 dispersion and wind speed are consistent with *Mickley et al.* [2004] who correlated
9 warmer temperatures with reduced cyclone activity. FCO₂ also increased isoprene and
10 monoterpene emissions, thus secondary organic matter (SOM) (Table S4; Figs. S3a,b);
11 and increased relative humidity (Table S4) by increasing H₂O, swelling aerosol particles,
12 increasing nitric acid and ammonia dissolution and the surface area for sulfuric acid and
13 organic condensation. FCO₂ increased land precipitation, consistent in direction with
14 observed trends [*IPCC*, 2001], increasing aerosol removal, but less than other processes
15 increased aerosol concentrations.

16 Health effect changes (Δy) due to ozone and PM_{2.5} changes in each model cell
17 were determined from [e.g., *Ostro et al.*, 2006],

$$19 \Delta y = (1 - \exp[-\beta \Delta x]) y_0 P \quad (2)$$

20
21 where Δx is the simulation-averaged mixing ratio or concentration change in the cell, β is
22 the fractional increase in risk per unit Δx , y_0 is the baseline health effect rate, and P is the
23 cell population exposed to at least a minimum threshold. Table 1 and its footnote provide
24 values of P , Δx , β , y_0 , and thresholds. Changes were summed over all cells and adjusted
25 from a four-month to an annual average (Table 1, footnote).

26 With this method, mortality increases due to modeled ozone and PM_{2.5} from fCO₂
27 were 415 (207-620)/yr and 640 (160-1280)/yr, respectively, per 1.07 K (Table 1) or a

1 total of near 1000 (350-1800) per 1.00 K (a 1.1% increase relative to the baseline death
2 rate - Table 1), with about 40% due to ozone. A simple extrapolation from U.S. to world
3 population (301.5 to 6600 million) gives 21,600 (7400-39,000) deaths/yr worldwide per 1
4 K due to fCO₂ above the baseline air pollution death rate (2.2 million/yr). The ozone
5 portion of this (8,500 deaths/yr) is conservative compared with 15,500 deaths/yr,
6 calculated from *West et al.* [2006] (=30,000 deaths/yr from 1 ppbv ozone multiplied by
7 the 2006:2030 population ratio (66:92) and the ozone change ratio (0.72:1.0). Remaining
8 differences may be due to different thresholds used (35 ppbv here vs. 25 ppbv).

9 One estimate of severe weather-related fatalities worldwide in the 1990s was
10 33,000/yr [*Worldwatch*, 2005]. A 1 K rise will increase this number, but less than
11 23,000/yr given that hurricane and tornado deaths have declined due to better warning
12 systems (e.g., the deadliest hurricane since 1910 was over 30 years ago – Honduras,
13 1974, 10,000 deaths). Global warming will increase heat stress- and disease-related
14 deaths as well, but by uncertain rates [e.g., *Medina-Ramon and Schwartz*, 2007].

15 FCO₂ increased carcinogens, but the increase was small. Isoprene increases due to
16 higher temperatures increased formaldehyde and acetaldehyde. Reduced dispersion
17 increased exposure to these carcinogens and benzene and 1,3-butadiene.

18 These simulations treated temperature effects on natural emissions but not power
19 plant or vehicle emissions. A sensitivity test was run examining the impact of 1 K on
20 power plant energy demand and emissions. The resulting ozone (Fig. S4) may cause 80
21 more U.S. deaths/yr. However, warmer winter temperatures will also decrease natural gas
22 and vehicle emissions, and warmer summers will increase vehicle emissions [*Rubin et*
23 *al.*, 2006; *N. Motallebi et al.*, manuscript in review 2007]. The feedbacks of temperature
24 to anthropogenic emissions must be studied more but are expected to be smaller than the
25 other feedbacks examined here. Further uncertainties arise from model resolution, current
26 and future emissions, numerical treatments, health data, and extrapolation of four-month
27 results to a year, as detailed in the Supplementary Material.

1

2 **4. Effects of CO₂ on Stratospheric Ozone and UV radiation**

3 Whereas, fCO₂ warms the surface and troposphere, it cools the stratosphere (Fig. 2a.ii).
4 Measurements indicate a 1%/yr (0.45 ppmv/decade) stratospheric water vapor increase
5 from 1954-2000 [Rosenlof *et al.*, 2001], but a slight lower-stratospheric decrease from
6 2001-2005 [Randel *et al.*, 2006]. The simulations here, which accounted for chlorine and
7 bromine gas and heterogeneous chemistry, found that the temperature and H₂O changes
8 due to fCO₂ increased middle and upper-stratospheric ozone but decreased upper
9 tropospheric and lower stratospheric (UTLS) ozone, where its column abundance is
10 greater, causing a net U.S. column ozone loss of 2.7% (Fig. 2c.ii, Table S4). The UTLS
11 ozone losses were due to increases in H₂O there (Fig. 2b.ii), as indicated by Fig. S2b and
12 *Dvortsov and Solomon* [2001]. The upper- and middle-stratospheric gains can be
13 explained by Fig. S1, which shows that, at 25 km, stratospheric ozone decreases by 1.5%
14 as H₂O increases by 1 ppmv. As temperature decreases by 1.5 K, though, ozone increases
15 by 3.6%, suggesting an overall ozone increase from H₂O and cooling. The ozone increase
16 upon stratospheric cooling is due to reduced loss from O+O₃ [Evans *et al.*, 1998]. Despite
17 the column ozone loss due to fCO₂, surface UV hardly changed (Table S4) because fCO₂
18 increased cloud optical depth, offsetting UV increases from ozone loss.

19

20 **5. Summary**

21 A climate-air pollution model showed by cause and effect that fossil-fuel CO₂ increases
22 increase U.S. surface ozone, carcinogens, and particulate matter, thereby increasing
23 death, asthma, hospitalization, and cancer rates. Increased water vapor and temperatures
24 due to higher CO₂ each increase ozone increasingly with increasing ozone. At low ozone,
25 more water vapor decreases ozone slightly but higher temperatures increase biogenic
26 emission in many areas, offsetting ozone decreases in such areas. CO₂ increases stability,
27 the relative humidity, and biogenic particle mass thus PM_{2.5}. Finally, CO₂ decreases

1 column ozone over the U.S. by increasing upper tropospheric/lower stratospheric water
2 vapor.

3

4 **Acknowledgements.** NASA grants NNG04GE93G and NNG04GJ89G and U.S.
5 Environmental Protection Agency grant RD-83337101-O. I thank Hien Tran of the
6 California Air Resources Board for helpful health statistic comments.

7

8 **References**

- 9 Aw, J., and M.J. Kleeman (2003), Evaluating the first-order effect of intraannual
10 temperature variability on urban air pollution, *J. Geophys. Res.*, *108* (D12), 4365,
11 doi:10.1029/2002JD002688.
- 12 Brasseur, G.P., M.M. Schultz, C. Granier, M. Saunois, T. Diehl, M. Botzet, and E.
13 Roeckner (2006), Impact of climate change on the future chemical composition of the
14 global troposphere, *J. Clim.*, *19*, 3932-3951.
- 15 Colella, W.G., M.Z. Jacobson, and D.M. Golden (2005), Switching to a U.S. hydrogen
16 fuel cell vehicle fleet: The resultant change in emissions, energy use, and greenhouse
17 gases, *J. Power Sources*, *150*, 150-181.
- 18 Dvortsov, V.L., and S. Solomon (2001), Response of the stratospheric temperatures and
19 ozone to past and future increases in stratospheric humidity, *J. Geophys. Res.*, *106*,
20 7505-7514 (2001).
- 21 Evans, S.J., R. Toumi, J.E. Harries, M.P. Chipperfield, and J.M. Russell III (1998),
22 Trends in stratospheric humidity and the sensitivity of ozone to these trends, *J.*
23 *Geophys. Res.*, *103*, 8715-8725.
- 24 Gaffen, D.J., and R.J. Ross (1999), Climatology and trends of U.S. surface humidity and
25 temperature. *J. Clim.*, *12*, 811-828.
- 26 Guenther, A., et al. (1995), A global model of natural volatile organic compound
27 emissions, *J. Geophys. Res.*, *100*, 8873-8892.

- 1 Hoyert, D.L., M.P. Heron, S.L. Murphy, and H.-C. Kung (2006), National Vital Statistics
2 Reports, Vol. 54, No. 13, <http://www.cdc.gov/nchs/fastats/deaths.htm>.
- 3 Intergovernmental Panel on Climate Change (IPCC), Third Assessment Report, Climate
4 Change 2001: The Scientific Basis, J.T. Houghton *et al.*, eds., Cambridge University
5 Press, New York (2001).
- 6 Jacobson, M.Z. (2001), GATOR-GCMM: 2. A study of day- and nighttime ozone layers
7 aloft, ozone in national parks, and weather during the SARMAP Field Campaign, *J.*
8 *Geophys. Res.*, *106*, 5403-5420.
- 9 Jacobson, M.Z., J.H. Seinfeld, G.R. Carmichael, and D.G. Streets (2004), The effect on
10 photochemical smog of converting the U.S. fleet of gasoline vehicles to modern diesel
11 vehicles, *Geophys. Res. Lett.*, *31*, L02116, doi:10.1029/2003GL018448.
- 12 Jacobson, M.Z., Y.J. Kaufmann, Y. Rudich (2007) Examining feedbacks of aerosols to
13 urban climate with a model that treats 3-D clouds with aerosol inclusions, *J. Geophys.*
14 *Res.*, *112*, doi:10.1029/2007JD008922.
- 15 Jacobson, M.Z. (2007) Effects of ethanol versus gasoline on cancer and mortality in the
16 United States, *Environ. Sci. Technol.*, *41*, 4150-4157, doi:10.1021/es062085v.
- 17 Liao, H., W.-T. Chen, and J.H. Seinfeld (2006), Role of climate change in global
18 predictions of future tropospheric ozone and aerosols, *J. Geophys. Res.*, *111*, D12304,
19 doi:10.1029/2005JD006852.
- 20 Mannino, D.M., D.M. Homa, L.J. Akinbami, J.E. Moorman, C. Gwynn, S.C. Redd
21 (2002), Center for Disease Control Morbidity and Mortality Weekly Report,
22 Surveillance Summaries 51 (SS01); 1-13.
- 23 Medina-Ramon, M., and J. Schwartz (2007), Temperature, temperature extremes, and
24 mortality: a study of acclimatization and effect modification in 50 U.S. cities, *Occup.*
25 *Environ. Med.*, doi:10.1136/oem.2007.033175.
- 26 Merrill, C.T., and A. Elixhauser (2005), HCUP Fact Book No. 6: Hospitalization in the
27 United States, 2002. Appendix, www.ahrq.gov/data/hcup/factbk6/factbk6c.htm.

- 1 Mickley, L.J., D.J. Jacob, B.D. Field, and D. Rind (2004) Effects of future climate
2 change on regional air pollution episodes in the United States, *Geophys. Res. Lett.*, *31*,
3 L24103, doi:10.1029/2004GL021216.
- 4 Murazaki, K., and P. Hess (2006), How does climate change contribute to surface ozone
5 change over the United States? *J. Geophys. Res.*, *111*, D05301,
6 doi:10.1029/2005JD005873.
- 7 Olszyna, K.J., M. Luria, and J.F. Meagher (1997), The correlation of temperature and
8 rural ozone levels in southeastern U.S.A., *Atmos. Environ.*, *31*, 3011-3022.
- 9 Ostro, B.D., H. Tran, and J.I. Levy (2006), The health benefits of reduced tropospheric
10 ozone in California, *J. Air & Waste Manage. Assoc.*, *56*, 1007-1021.
- 11 Pope, C.A. III, R.T. Burnett, M.J. Thun, E.E. Calle, D. Krewski, K. Ito, and G.D.
12 Thurston (2002), Lung cancer, cardiopulmonary mortality, and long-term exposure to
13 fine particulate air pollution, *JAMA*, *287*, 1132-1141.
- 14 Racherla, P.N. and P.J. Adams (2006), Sensitivity of global tropospheric ozone and fine
15 particulate matter concentrations to climate change, *J. Geophys. Res.*, *111*, D24103,
16 doi:10.1029/2005JD006939.
- 17 Randel, W.J., F. Wu, H. Vomel, G.E. Nedoluha, and P. Forster (2006), *J. Geophys. Res.*,
18 Decreases in stratospheric water vapor after 2001: links to changes in the tropical
19 tropopause and the Brewer-Dobson circulation, *111*, D12312,
20 doi:10.1029/2005JD006744.
- 21 Rosenlof, K.H., et al. (2001), Stratospheric water vapor increases over the past half
22 century. *Geophys. Res. Lett.*, *28*, 1195-1198.
- 23 Rubin, J.I., Andrew J. Kean, R.A. Harley, D.B. Millet, and A.H. Goldstein (2006),
24 Temperature dependence of volatile organic compound evaporative emissions from
25 motor vehicles, *J. Geophys. Res.*, *111*, D03305, doi:10.1029/2005JD006458.
- 26 Sillman, S. and P.J. Samson (1995), Impact of temperature on oxidant photochemistry in
27 urban, polluted rural, and remote environments, *J. Geophys. Res.*, *100*, 11,497-11,508.

- 1 Steiner, A.L., S. Tonse, R.C. Cohen, A.H. Goldsten, and R.A. Harley (2006), Influence of
2 future climate and emissions on regional air quality in California, *J. Geophys. Res.*,
3 *111*, D18303, doi:10.1029/2005JD006935.
- 4 Stevenson, D., R. Doherty, M. Sanderson, C. Johnson, B. Collins, and D. Derwent
5 (2005), Impacts of climate change and variability on tropospheric ozone and its
6 precursors. *Faraday Disc.*, *130*, 1-17.
- 7 Thompson, A.M., R.W. Stewart, M.A. Owens, and J.A. Herwehe (1989), Sensitivity of
8 tropospheric oxidants to global chemical and climate change, *Atmos. Environ.*, *23*, 519-
9 532.
- 10 Thorne, P.W., D.E. Parker, D.E., S.F.B. Tett, P.D. Jones, M. McCarthy, H. Coleman, and
11 P. Brohan (2005), Revisiting radiosonde upper-air temperatures from 1958 to 2002. *J.*
12 *Geophys. Res.*, *110*, D18105, doi:10.1029/2004JD005753.
- 13 Thurston, G.D., and K. Ito (2001), Epidemiological studies of acute ozone exposures and
14 mortality, *J. Exposure Analysis and Env. Epidemiology*, *11*, 286-294.
- 15 Unger, N., D.T. Shindell, D.M. Koch, M. Ammann, J. Cofala, and D.G. Streets (2006),
16 Influences of man-made emissions and climate changes on tropospheric ozone,
17 methane, and sulfate at 2030 from a broad range of possible futures, *J. Geophys. Res.*,
18 *111*, D12313, doi:10.1029/2005JD006518.
- 19 West, J.J., A.M. Fiore, L.W. Horowitz, and D.L. Mauzerall (2006) Global health benefits
20 of mitigating ozone pollution with methane emission controls, *Proc. Nat. Acad. Sci.*,
21 *103*, 3988-3993.
- 22 Worldwatch Institute (2005), Unnatural disaster: The lesson of Katrina,
23 www.worldwatch.org/node/1822.
- 24 Zhang, Y., C.H. Bischof, R.C. Easter, and P.-T. Wu, Sensitivity analysis of a mixed
25 phase chemical mechanism using automatic differentiation, *J. Geophys. Research*, *103*,
26 18,953-18,797 (1998).
27

Figure Captions

1
2

3 **Figure 1.** Mixing ratio of ozone and several other gases as a function of water vapor
4 mixing ratio after 12 hours of a box-model chemistry-only simulation initialized at 0430
5 under several initial NO_x and nonmethane organic gas (NMOG) mixing ratio
6 combinations (ppbv) (given in the figure) at 298.15 K (solid lines) and 299.15 K (dashed
7 lines). The simulations assumed sinusoidally varying photolysis between 0600 and 1800.

8

9 **Figure 2.** Four-month (mid-July to mid-November) domain-averaged near-surface and
10 vertical-profile differences in (a) temperature, (b) water vapor, and (c) ozone between the
11 present-day and preindustrial- CO_2 simulations. The domain-averaged (over land and
12 water) change for each surface plot is given in parentheses. Also shown in Fig. 2a.ii is the
13 1958-2006 globally-averaged radiosonde temperature change [*Thorne et al.*, 2005],
14 which is for reference only since the present simulations isolate the effects of CO_2 and do
15 not examine all forcing agents.

16
17
18

1 **Table 1.** Summary of CO₂'s effects on cancer, ozone mortality, ozone hospitalization,
 2 ozone emergency-room (ER) visits, and particulate-matter mortality. Results are shown
 3 for the present-day ("Base") and present-day minus preindustrial ("no-fCO₂") 3-D
 4 simulations. All mixing ratios and concentrations are near-surface values averaged over
 5 four months (mid-July to mid-November) and weighted by population (!). Divide the last
 6 column by 1.07 K (the population-weighted CO₂-induced temperature change from Table
 7 S4) to obtain the health effect per 1 K.

	Base	Base minus no fCO ₂
Carcinogens		
Formaldehyde (ppbv)	3.61	+0.22
Acetaldehyde (ppbv)	2.28	+0.203
1,3-Butadiene (ppbv)	0.254	+0.00823
Benzene (ppbv)	0.479	+0.0207
USEPA cancers/yr [†]	389	+23
OEHHA cancers/yr [†]	789	+33
Ozone		
8-hr ozone (ppbv) in areas ≥35 ppbv%	42.3	+0.724
Pop (mil.) exposed in areas ≥35 ppbv#	184.8	184.8
High ozone deaths/yr*	6230	620
Med. ozone deaths/yr*	4160	+415
Low ozone deaths/yr*	2080	+207
Ozone hospitalizations/yr*	24,100	+2400
Ozone ER visits/yr*	21,500	+2160
Particulate matter		
PM2.5 (μg/m ³) in areas > 0 μg/m ³ \$	16.1	+0.065
Pop (mil.) exposed in areas ≥ 0 μg/m ³	301.5	301.5
High PM2.5 deaths/yr^	191,000	+1280
Medium PM2.5 deaths/yr^	97,000	+640
Low PM2.5 deaths/yr^	24,500	+160

8 (!) A population-weighted value is defined in the footnote to Table S4.

1 (+) USEPA and OEHHA cancers/yr were found by summing the product of individual CUREs (cancer unit
2 risk estimates=increased 70-year cancer risk per $\mu\text{g}/\text{m}^3$ sustained concentration change) by the
3 population-weighted mixing ratio or mixing ratio difference of a carcinogen, by the population, and air
4 density, over all carcinogens, then dividing by 70 yr. USEPA CUREs are 1.3×10^{-5} (formaldehyde),
5 2.2×10^{-6} (acetaldehyde), 3.0×10^{-5} (butadiene), 5.0×10^{-6} (=average of 2.2×10^{-6} and 7.8×10^{-6}) (benzene)
6 (www.epa.gov/IRIS/). OEHHA CUREs are 6.0×10^{-6} (formaldehyde), 2.7×10^{-6} (acetaldehyde), 1.7×10^{-4}
7 (butadiene), 2.9×10^{-5} (benzene) (www.ochha.ca.gov/risk/ChemicalDB/index.asp).

8 (%) 8-hr ozone ≥ 35 ppbv is the highest 8-hour-averaged ozone during each day, averaged over all days of
9 the four-month simulation in areas where this value ≥ 35 ppbv in the base case. When base $\text{O}_3 > 35$ ppbv
10 and no-f CO_2 $\text{O}_3 < 35$ ppbv, the mixing ratio difference was base O_3 minus 35 ppbv.

11 (#) The 2007 population exposed to ≥ 35 ppbv O_3 is the population exposed to a four-month-averaged 8-
12 hour averaged ozone mixing ratio above 35 ppbv and was determined from the base case.

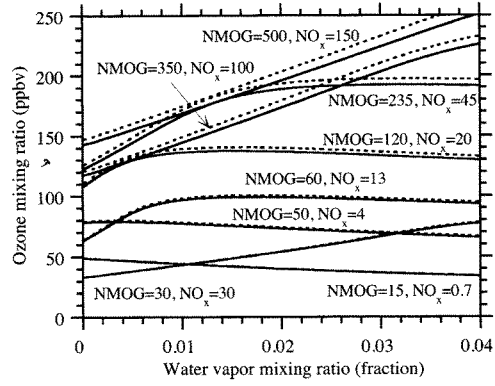
13 (*) High, medium, and low deaths/yr, hospitalizations/yr, and emergency-room (ER) visits/yr due to short-
14 term O_3 exposure were obtained from Eq. 2 applied to each model cell, summed over all cells. The
15 baseline 2003 U.S. death rate (γ_0) was 833 deaths/yr per 100,000 [Hoyert *et al.*, 2006]. The baseline 2002
16 hospitalization rate due to respiratory problems was 1189 per 100,000 [Merrill and Elixhauser, 2005].
17 The baseline 1999 all-age emergency-room visit rate for asthma was 732 per 100,000 [Mannino *et al.*,
18 2002]. These rates were assumed to be the same in each U.S. county, although they vary slightly by
19 county. The fraction increases (β) in the number of deaths from all causes due to ozone were 0.006,
20 0.004, and 0.002 per 10 ppbv increase in daily 1-hr maximum ozone [Ostro *et al.*, 2006]. These were
21 multiplied by 1.33 to convert the risk associated with 10 ppbv increase in 1-hr maximum O_3 to that
22 associated with a 10 ppbv increase in 8-hour average O_3 [Thurston and Ito, 2001]. The central value of
23 the increased risk of hospitalization due to respiratory disease was 1.65% per 10 ppbv increase in 1-hour
24 maximum O_3 (2.19% per 10 ppbv increase in 8-hour average O_3), and that for all-age ER visits for
25 asthma was 2.4% per 10 ppbv increase in 1-hour O_3 [Ostro *et al.*, 2006] (3.2% per 10 ppbv increase in 8-
26 hour O_3). All values were reduced by 45% to account for the mid-July to mid-November and year-around
27 $\text{O}_3 > 35$ ppbv ratio, obtained from detailed observations [H. Tran, *pers. comm.*].

28 (\$) This is the simulated 24-hr $\text{PM}_{2.5}$, averaged over four months, in locations where $\text{PM}_{2.5} \geq 0 \mu\text{g}/\text{m}^3$.

29 (^) The death rate due to long-term $\text{PM}_{2.5}$ exposure was calculated from Eq. 2. Pope *et al.*, [2002] provide
30 increased death risks to those ≥ 30 years of 0.008 (high), 0.004 (medium), and 0.001 (low) per $1 \mu\text{g}/\text{m}^3$
31 $\text{PM}_{2.5} > 8 \mu\text{g}/\text{m}^3$ based on 1979-1983 data. From 0-8 $\mu\text{g}/\text{m}^3$, the increased risks were conservatively but
32 arbitrarily assumed = $\frac{1}{4}$ those $> 8 \mu\text{g}/\text{m}^3$ to account for reduced risk near zero $\text{PM}_{2.5}$. Assuming a higher
33 risk would strengthen the conclusion found here. The all-cause 2003 U.S. death rate of those ≥ 30 years
34 was 809.7 deaths/yr per 100,000 total population. No scaling of results from the 4-month model period to
35 the annual average was performed to be conservative, since $\text{PM}_{2.5}$ concentrations from July-November
36 are lower than in the annual average based on California data [H. Tran, *pers. comm.*].

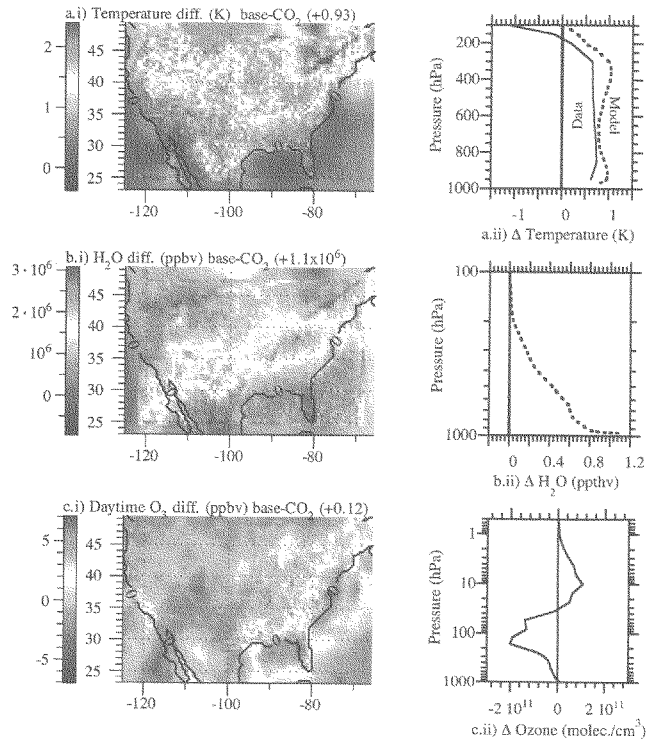
37

1 **Figure 1.**
2
3



4
5
6
7

Figure 2.



STANFORD NEWS SERVICE

HOME NEWS BY TOPIC FOR JOURNALISTS FOR FACULTY & STAFF ABOUT US

SEARCH

Stanford Report, January 3, 2008

Study links carbon dioxide emissions to increased deaths

BY LOUIS BERGERON

[printable version](#)

A Stanford scientist has spelled out for the first time the direct links between increased levels of carbon dioxide in the atmosphere and increases in human mortality, using a state-of-the-art computer model of the atmosphere that incorporates scores of physical and chemical environmental processes. The new findings, to be published in *Geophysical Research Letters*, come to light just after the Environmental Protection Agency's recent ruling against states setting specific emission standards for this greenhouse gas based in part on the lack of data showing the link between carbon dioxide emissions and their health effects.

While it has long been known that carbon dioxide emissions contribute to climate change, the new study details how for each increase of 1 degree Celsius caused by carbon dioxide, the resulting air pollution would lead annually to about a thousand additional deaths and many more cases of respiratory illness and asthma in the United States, according to the paper by Mark Jacobson, a professor of civil and environmental engineering at Stanford. Worldwide, upward of 20,000 air-pollution-related deaths per year per degree Celsius may be due to this greenhouse gas.

"This is a cause and effect relationship, not just a correlation," said Jacobson of his study, which on Dec. 24 was accepted for publication in *Geophysical Research Letters*. "The study is the first specifically to isolate carbon dioxide's effect from that of other global-warming agents and to find quantitatively that chemical and meteorological changes due to carbon dioxide itself increase mortality due to increased ozone, particles and carcinogens in the air."

Jacobson said that the research has particular implications for California. This study finds that the effects of carbon dioxide's warming are most significant where the pollution is already severe. Given that California is home to six of the 10 U.S. cities with the worst air quality, the state is likely to bear an increasingly disproportionate burden of death if no new restrictions are placed on carbon dioxide emissions.

On Dec. 19, the Environmental Protection Agency denied California and 16 other states a waiver that would have allowed the states to set their own emission standards for carbon dioxide, which are not currently regulated. The EPA denied the waiver partly on the grounds that no special circumstances existed to warrant an exception for the states.

Stephen L. Johnson, the EPA administrator, was widely quoted as saying that California's petition was denied because the state had failed to prove the "extraordinary and compelling conditions" required to qualify for a waiver. While previous published research has focused on the global effect on pollution—but not health—of all the greenhouse gases combined, the EPA noted that, under the Clean Air Act, it has to be shown that there is a reasonable anticipation of a specific pollutant endangering public health in the United States for the agency to regulate that pollutant.

Jacobson's paper offers concrete evidence that California is facing a particularly dire situation if carbon dioxide emissions increase. "With six of the 10 most polluted cities in the nation being in California, that alone creates a special circumstance for the state," he said, explaining that the health-related effects of carbon dioxide emissions are most pronounced in areas that already have significant pollution. As such, increased warming due to carbon dioxide will worsen people's health in those cities at a much faster clip than elsewhere in the nation.

According to Jacobson, more than 30 percent of the 1,000 excess deaths (mean death rate value) due to each degree Celsius increase caused by carbon dioxide occurred in California, which has a population of about 12 percent of the United States. This indicates a much higher effect of carbon-dioxide-induced warming on California health than that of the nation as a whole.

Jacobson added that much of the population of the United States already has been directly affected by climate change through the air they have inhaled over the last few decades and that, of course, the health effects would grow worse if temperatures continue to rise.

Jacobson's work stands apart from previous research in that it uses a computer model of the atmosphere that takes into account many feedbacks between climate change and air pollution not considered in



Mark Jacobson

RELATED INFORMATION

- More carbon dioxide equals more deaths
- Jacobson's website
- The paper to be published *Geophysical Research Letters*

[Click on photo\(s\) to enlarge.](#)

previous studies. Developed by Jacobson over the last 18 years, it is considered by many to be the most complex and complete atmospheric model worldwide. It incorporates principles of gas and particle emissions and transport, gas chemistry, particle production and evolution, ocean processes, soil processes, and the atmospheric effects of rain, winds, sunlight, heat and clouds, among other factors.

For this study, Jacobson used the computer model to determine the amounts of ozone and airborne particles that result from temperature increases caused by increases in carbon dioxide emissions. Ozone causes and worsens respiratory and cardiovascular illnesses, emphysema and asthma, and many published studies have associated increased ozone with higher mortality. "[Ozone] is a very corrosive gas; it erodes rubber and statues," Jacobson said. "[It] cracks tires. So you can imagine what it does to your lungs in high enough concentrations." Particles are responsible for cardiovascular and respiratory illness and asthma.

Jacobson arrived at his results of the impact of carbon dioxide globally and, at higher resolution, over the United States by modeling the changes that would occur when all current human and natural gas and particle emissions were considered versus considering all such emissions except human-emitted carbon dioxide.

Jacobson simultaneously calculated the effects of increasing temperatures on pollution. He observed two important effects:

- Higher temperatures due to carbon dioxide increased the chemical rate of ozone production in urban areas.
 - Increased water vapor due to carbon dioxide-induced higher temperatures boosted chemical ozone production even more in urban areas.
- Interestingly, neither effect was so important under the low-pollution conditions typical of rural regions, though other factors, such as higher organic gas emissions from vegetation, affected ozone in low-pollution areas. Higher emissions of organic gases also increased the quantity of particles in the air, as organic gases can chemically react to form particles.

And in general, where there was an increase in water vapor, particles that were present became more deadly, as they swelled from absorption of water. "That added moisture allows other gases to dissolve in the particles—certain acid gases, like nitric acid, sulfuric acid and hydrochloric acid," Jacobson said. That increases the toxicity of the particles, which are already a harmful component of air pollution.

Jacobson also found that air temperatures rose more rapidly due to carbon dioxide than did ground temperatures, changing the vertical temperature profile, which decreased pollution dispersion, thereby concentrating particles near where they formed.

In the final stage of the study, Jacobson used the computer model to factor in the spatially varying population of the United States with the health effects that have been demonstrated to be associated with the aforementioned pollutants.

"The simulations accounted for the changes in ozone and particles through chemistry, transport, clouds, emissions and other processes that affect pollution," Jacobson said. "Carbon dioxide definitely caused these changes, because that was the only input that was varied."

"Ultimately, you inhale a greater abundance of deleterious chemicals due to carbon dioxide and the climate change associated with it, and the link appears quite solid," he said. "The logical next step is to reduce carbon dioxide. That would reduce its warming effect and improve the health of people in the U.S. and around the world who are currently suffering from air pollution health problems associated with it."



[contact](#) [directories](#) [maps & directions](#)

STANFORD
News Service

© Stanford University. All Rights Reserved. Stanford, CA 94305. (850) 723-2300.

