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EPA'S PROPOSED OZONE RULE: POTENTIAL IMPACTS ON MANUFACTURING

JOINT HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND POWER

AND THE

SUBCOMMITTEE ON COMMERCE, MANUFACTURING, AND TRADE

OF THE

COMMITTEE ON ENERGY AND COMMERCE

HOUSE OF REPRESENTATIVES

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EPA'S PROPOSED OZONE RULE: POTENTIAL IMPACTS ON MANUFACTURING

TUESDAY, JUNE 16, 2015

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENERGY AND POWER,
JOINT WITH THE
SUBCOMMITTEE ON COMMERCE, MANUFACTURING, AND TRADE,
COMMITTEE ON ENERGY AND COMMERCE
Washington, DC.

The subcommittees met, pursuant to call, at 10:15 a.m., in room 2322 of the Rayburn House Office Building, Hon. Ed Whitfield (chairman of the subcommittee on Energy and Power) presiding.

Members present: Representatives Whitfield, Shimkus, Burgess, Blackburn, Latta, Harper, Lance, Guthrie, Olson, McKinley, Kinzinger, Griffith, Bilirakis, Johnson, Ellmers, Flores, Mullin, Hudson, Rush, Schakowsky, Butterfield, Sarbanes, Welch, Yarmuth, Clarke, Loebsack, Kennedy, Cardenas, and Pallone (ex officio).

Staff present: Clay Alspach, Chief Counsel; Will Batson, Legislative Clerk; Leighton Brown, Press Assistant; Allison Busbee, Policy Coordinator, Energy and Power; James Decker, Policy Coordinator, Commerce, Manufacturing, and Trade; Melissa Froelich, Counsel, Commerce, Manufacturing, and Trade; Tom Hassenboehler, Chief Counsel, Energy and Power; Kirby Howard, Legislative Clerk; A.T. Johnston, Senior Policy Advisor; Peter Kielty, Deputy General Counsel; Paul Nagle, Chief Counsel, Commerce, Manufacturing, and Trade; Mary Neumayr, Senior Energy Counsel; Dan Schneider, Press Secretary; Lisa Goldman, Democratic Counsel; Michael Goo, Democratic Chief Counsel, Energy and Environment; Tiffany Guarascio, Democratic Deputy Staff Director and Chief Health Advisor; Caitlin Haberman, Democratic Professional Staff Member; Ashley Jones, Democratic Director of Communications, Member Services and Outreach; Adam Lowenstein, Democratic Policy Analyst; John Marshall, Democratic Policy Coordinator; and Alexander Ratner, Democratic Policy Analyst.

OPENING STATEMENT OF HON. ED WHITFIELD, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF KENTUCKY

Mr. WHITFIELD. I would like to call the hearing to order this morning and certainly want to thank our panel of witnesses. We appreciate your being here with us this morning to discuss the proposed ozone rule. As you know, we have had a number of hearings

on this subject matter, and today we are doing a joint hearing with the Subcommittee on Commerce, Manufacturing, and Trade. And each one of us that will be giving opening statements will be given 3 minutes, and then I am going to introduce each one of you individually right before you give your opening statement, and you will be give 5 minutes. We get 3, you get 5. But then we will have the opportunity to question you as well. So thanks for being with us. And at this time I would like to recognize myself for an opening statement.

We have watched the Obama Administration propose and finalize a litany of rules for more than 6 years now, and I can't tell you now how many hearings we have held. I and many others have come to the conclusion that EPA is no longer an independent and impartial arbiter of our environmental laws but has become a politicized extension of the White House to implement the President's Clean Energy Plan.

When EPA testifies, they always refer to the EPA's Scientific Advisory Committee. Now this is a body appointed by EPA. The public does not really have any idea who is on this Advisory Committee, and truthfully, we all understand the importance of science but whether or not they are independent and impartial or have they also become a politicized arm of the White House.

Now, the reason given for adopting a more stringent ozone rule relates to healthcare which is vitally important. To quote Ms. McCabe, a 70 parts per billion standard would prevent an estimated 330,000 missed school days, 320,000 asthma attacks, and 710 to 1,400 premature deaths. Now, that is an important statistic, all of those are, and one that we all would applaud. But today it is a lot different when this Clean Air Act was first administered, and it is important that we understand that cost.

We have listened to many experts over the past 6 years who have pointed out that there is a direct correlation between poverty and healthy living. That also is important because EPA in its Scientific Advisory Committee do not consider the impact of these regulations on jobs. In April of this year, the Global Market Institute, an arm of Goldman Sachs, concluded a study that found for example that the number of small businesses which has been the backbone of America prosperity, the number of small businesses between 2009 and 2014 declined by 600,000. Usually after an economic crisis there is a slow increase. But that is not the case in small business. There are 600,000 less today than 2009 and 6 million fewer jobs. In fact, small business jobs have been declining at roughly 700 per month the last 3 years for which statistics are available. And this report goes on to say the reason for this is one, the availability of credit and the high interest cost, the high cost of capital because of banking regulations that came out of the crisis. In addition, it specifically lists other regulations relating to healthcare, relating to the environmental issues throughout our government.

And so the point is this. Yes, there is a benefit in healthcare with new regulations on ozone, but we have to also consider the impact of people and their families who have lost jobs and the impact on their healthcare. There has got to be some discussion about that as well.

[The prepared statement of Mr. Whitfield follows:]

PREPARED STATEMENT OF HON. ED WHITFIELD

This morning, I am pleased to be partnering with the Subcommittee on Commerce, Manufacturing, and Trade in our review of EPA's proposed new ozone standard. The focus of today's hearing is the impact of the proposed rule on America's manufacturing sector.

We have watched the Obama EPA propose and finalize rules for more than 6 years now, and a familiar pattern has emerged. The agency is inclined to overstate both the extent and the certainty of the benefits, while downplaying the costs. At the same time, the concerns of state and local governments tend to be ignored, as do the issues raised by affected manufacturers.

The proposed ozone rule has all of these flaws, plus one more—the agency already has a stringent rule on the books that it has barely begun to enforce. The ozone rule was strengthened in 2008, but the Obama EPA delayed taking action to implement this rule until quite recently. In fact, EPA did not publish its implementing regulations until last March. As a result, states are only in the initial stages of formulating their implementation plans for this standard.

Now, with the ink barely dry on implementing regulations for the existing standard, EPA is proposing an entirely new one. Back in 2011, the President explained his decision not to move ahead with a new ozone standard by explaining that "I have continued to underscore the importance of reducing regulatory burdens and uncertainty, particularly as our economy continues to recover." Well, our economy still continues to recover, and this proposed rule certainly won't help.

Most of the compliance burden would fall on manufacturers and energy producers. Indeed, much of Americas' manufacturing capacity will be in counties likely to be designated as nonattainment under the proposed rule. A nonattainment designation makes it very difficult to permit a new or expanded facility, and may impose significant costs on existing manufacturers. A study from the National Association of Manufacturers estimates costs of $140 billion dollars annually and 1.4 million job losses as a result of this rule.

As we will learn today, many manufacturers have already reduced their emissions of ozone-forming compounds, and continue to do so. But by pushing too far and too fast, the new rule could jeopardize jobs and affect the quality and price of several everyday items that consumers need. I look forward to learning more about this proposed rule from the manufacturers who would be on the front lines of compliance.

Mr. WHITFIELD. At this time I would like to recognize the gentleman from Illinois, Mr. Rush, for his 3-minute opening statement. I am sorry. At this time I would like to recognize the gentlelady from Illinois, Ms. Schakowsky, for 3 minutes.

OPENING STATEMENT OF HON. JANICE D. SCHAKOWSKY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Ms. SCHAKOWSKY. Thank you, Chairman Whitfield and Chairman Burgess, for holding this hearing, and despite my great affection for Chairman Whitfield, I have to say that I don't agree at all that the EPA is operating in a political manner. And let's make it clear: The EPA is responsible for setting ozone standards based on what is considered safe from a public health perspective. The compliance costs to business are not to be considered in its rule-making.

Health experts, epidemiologists, numerous medical organizations have clearly stated that the current ozone standard of 75 parts per billion is not adequate to protect public health, particularly for vulnerable populations such as children, the elderly, outdoor workers, those with chronic medical conditions like asthma. The EPA has indicated its final rule due in October will likely land somewhere between 65 and 70 parts per billion. I strongly support EPA action

on this issue, although I believe a 60 part per billion standard would be more effective to protect the public health.

The existing standards are not doing enough to protect public health. In my home State of Illinois, 13 percent of children, 13 percent, suffer from smog-related asthma, well above the national average. In response to mounting medical evidence and Clean Air Act requirements, the federal courts rightly directed the EPA to reconsider existing inadequate health protections against smog last year. Let me repeat. This rule-making is court mandated. Federal law requires the EPA to maintain clean air standards, and the courts have said it must do more to meet that requirement.

While anticipated business compliance costs have no place in determining ozone standards, industry concerns about the impacts of rule-making are overblown. We will hear from some of our witnesses that proposed ozone standards would stifle manufacturing, investment, and expansion. That argument is not new but it is flawed. Since the Clean Air Act was enacted into law more than 40 years ago, we have seen tremendous progress in cleaning up our air and in protecting thousands of communities around the country. That has been done in concert with technological innovation and a growing economy.

Doomsday predictions about the impact of EPA regulations on American businesses have never been borne out by the facts. From 1990 to 2010 emissions of the most common air pollutants have declined by more than 40 percent while Gross Domestic Product has increased by more than 65 percent. These standards will save and improve American lives.

I look forward to the EPA finalizing the rule and to the manufacturing sector to continuing its long record of success and expanding while at the same time complying with EPA regulations. Again, I look forward to hearing from our witnesses, to gain from their perspectives on this important rule-making, and I yield back the balance of my time.

Mr. WHITFIELD. The gentlelady yields back the balance of her time. At this time I would like to recognize the gentleman from Texas, the Chairman of the Commerce, Manufacturing, and Trade Subcommittee that we are having the hearing with, Mr. Burgess. You are recognized for 3 minutes.

OPENING STATEMENT OF HON. MICHAEL C. BURGESS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. BURGESS. Thank you, Chairman Whitfield, and thank you for agreeing to have this joint hearing with the Subcommittee on Commerce, Manufacturing, and Trade along with the Energy Subcommittee. So the Environmental Protection Agency's proposal to further reduce the National Ambient Air Quality Standard for ozone represents perhaps one of the most costly regulations the agency has ever imposed upon the United States' economy, and it is a recurring theme with the administration, an unprecedented and overly burdensome regulatory proposal while there is still ongoing debate about the science and the public health benefits of enacting such a rule.

So again, I want to thank my counterpart on the Energy and Power Subcommittee, Chairman Whitfield, and I want to thank our

panel of witnesses for joining us today to talk about both of our subcommittees' work on the impact of EPA's proposed ozone rule on manufacturing.

The simple fact remains that this type of regulatory overreach may be injurious to America's families and jobs. As a physician, the health of all of our citizens is of significant importance to me as well as everyone on the committee, and we know from other conversations occurring throughout this committee, the cost of health care is a real concern for Americans. However, I have reservations about the science and the analysis utilized by the Environmental Protection Agency to support the proposed rule and whether it would be effective.

The 43,000 comments filed with the Environmental Protection Agency about the proposed rule demonstrate that there is a lot of interest, there is a lot of activity, and there may not be a lot of certainty. There is important debate that needs to occur to identify the actual benefits to justify the effect on job creation.

I have written to the Environmental Protection Agency on several occasions over the past few years on issues relating to the rule, most recently regarding the Clean Air Scientific Advisory Committee's evaluation of the risks and the tradeoffs of the ozone proposal. I remain concerned about the scientific process utilized by the Environmental Protection Agency to draw a causal inference about the impact of lowering the National Ambient Air Quality Standard from 75 parts per billion by as much as 5, 10, or 15 parts per billion.

Given that the implementation for the regulations for the 2008 standard of 75 parts per billion were only finalized earlier this year, what will be the proposed rule's impact on states and localities that are already dealing with non-attainment including counties around the Washington Metropolitan Area and counties in the North Texas area?

The National Association of Manufacturers estimates that for Texas this rule could result in 300,000 lost jobs and almost a $1,500 drop in annual household consumption. When there are disincentives to investment in a local economy, either from businesses looking to build and expand or from families trying to make ends meet, we have to pay attention. We have to ask the tough questions. There are going to be a lot of questions for the EPA and for our witnesses today. I am focused on learning about the expected impacts of the EPA's proposed rule and the effect on public health.

Thank you, Mr. Chairman. I will yield back the time.

[The prepared statement of Mr. Burgess follows:]

PREPARED STATEMENT OF HON. MICHAEL C. BURGESS

Today we are again faced with a troubling theme we have seen time and time again from this Administration: an unprecedented and overly burdensome regulatory proposal when there is significant ongoing debate and little science around the public health benefits of such a rule. The EPA's proposal to further reduce the National Ambient Air Quality Standard for ozone represents one of the most costly regulations the agency has ever attempted to impose on the U.S. economy.

I join Energy and Power Subcommittee Chairman Whitfield in thanking the panel of witnesses for joining us today to talk to both of our subcommittees about the impact of EPA's proposed ozone rule on manufacturing. The simple fact remains that this type of regulatory overreach is unsustainable for American jobs and families.

As a physician, the health of all of our citizens is of the utmost importance to me, and as we know from all of the other conversations occurring throughout this Committee, the cost of health care is a real concern for Americans. However, I have serious reservations about the science and analysis utilized by the EPA to support this proposed rule and whether it would be effective. The 43,000 comments filed with the EPA about the proposed rule demonstrate that there is no certainty here. There is a lot of important debate that needs to occur to identify actual benefits to justify stifling job creation.

I have written to the EPA on several occasions over the last few years on issues relating to the rule, most recently regarding the Clean Air Scientific Advisory Committee's evaluation of the risks and risk tradeoffs in the ozone proposal. I remain concerned about the scientific process utilized by EPA to draw causal inferences about the impact of lowering the NAAQS from 75 parts per billion to 70, 65, or even 60 parts per billion.

Given that the implementation regulations for the 2008 standard of 75 ppb were only finalized earlier this year, what will be the proposed rule's impact on states and localities that are already dealing with nonattainment, including counties in my district around the Dallas-Fort Worth area?

The National Association of Manufacturers estimates that for Texas this rule will result in over 300,000 lost jobs and a $1,430 drop in annual average household consumption. When there are disincentives to investment in a local economy, either from businesses looking to build and expand or from families trying to make ends meet, we have to pay attention and ask the tough questions. These are the types of scenarios that can decimate entire towns.

It is a well-known fact that there are several states that are in non-attainment status today and are on an extended schedule to come into compliance. However, estimates show hundreds of additional counties that will be forced into non-attainment when this proposed rule is finalized in October. By the EPA's own estimates, we are talking about a minimum of about 350 to 600 counties that would go from compliant status to non-attainment.

I applaud my colleagues on Energy and Power for their oversight and scrutiny of this proposal. I am very interested to hear from the witnesses for WD-40 and the Henry Company about the impact of this proposed rule on their businesses. All the Members need to understand the potential for this rule to freeze economic growth in their districts.

While there are lots of questions for the EPA to answer about these issues, today I am focused on learning about known or expected impacts of the EPA's proposed rule on manufacturing.

Mr. WHITFIELD. At this time the chair recognizes the gentleman from Illinois, Mr. Rush, for 3 minutes.

OPENING STATEMENT OF HON. BOBBY L. RUSH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Mr. RUSH. I want to thank you, Mr. Chairman, for holding this important joint hearing on EPA's proposed ozone rule and its potential impact on the manufacturing sector.

Mr. Chairman, last week we heard from EPA's Acting Assistant Administrator for air and radiation, Janet McCabe, that lowering the ozone standard from 75 ppb would literally save lives while also preventing hundreds of thousands of missed school days and missed work days and preventing hundreds of thousands of asthma attacks.

Today, Mr. Chairman, we will hear from industry groups that lower the ozone standard will cause great job loss, will damage our economy, and will lead to unprecedented costs. Well, Mr. Chairman, as policymakers, we are always searching to find the right balance between protecting our air and water through regulations without unnecessarily saddling industry with unreasonable burdens that might stifle growth. And today, Mr. Chairman, we will hear about competing studies with conflicting results on everything from potential health benefits to economic growth to the impacts on

employment. However, I think it is instructive to look at how these types of regulations have played out in our most recent past, and if our most recent past is any indication, Mr. Chairman, then I am not fully convinced that this is an either/or proposition that we are confronted with, that Americans must choose between either economic strength or clean air. As Ms. McCabe noted in the hearing last week, Mr. Chairman, and I quote her, the history of the Clean Air Act actually shows us and all of those who are willing to take a look at it that the two things go together, two things go together. We have reduced air pollution dramatically in this country, and the economy has blossomed. It has grown.

Mr. Chairman, this country and the businesses in this country have come up with pollution control technologies that employ American workers, and these new technologies have made us leaders in the world through selling this kind of technology.

So I look forward to engaging the panelists so that we can both protect the public health by reducing ozone in our atmosphere, and we can also create most needed jobs and economic opportunities for American businesses and their families.

And with that, Mr. Chairman, I yield back the balance of my time.

Mr. WHITFIELD. The gentleman yields back. At this time the Chair would recognize the Vice Chairman of the Full Committee, Mrs. Blackburn, of Tennessee for 3 minutes.

OPENING STATEMENT OF HON. MARSHA BLACKBURN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TENNESSEE

Mrs. BLACKBURN. Thank you, Mr. Chairman, and I thank all of our witnesses for the hearing today. This is indeed something that we want to drill down a little deeper on and look at these regulations. Everybody is for clean air and clean water, and there is no argument about that. What we have tremendous concerns about is when you get to the point of diminishing return. And that is something you will be able to help us with today. What we have found is if the EPA is not given to doing cost-benefit analysis, and Dr. Burgess referenced that and the injurious nature of some of these regulations at times and the harm that it does to business, the cost that is there, and the outcome that ends up not being delivered. And you are not, if you will, getting the bang for your buck when you look at these regulations.

So I think that we will want to look at this cost. A trillion dollars? A trillion dollars is what the compliance cost is for this, for industry? What does that do to families? What does it do to jobs? What does it do to local communities?

And those are questions that we are going to want to ask in addition to what does it mean to the environment. If you don't have jobs and if you don't have local, vibrant communities, you are not going to see people who are investing the time and the energy to clean up the environment or to innovate to find a better way.

So we thank you for your participation. We look forward to your questions today. Yield back.

Mr. WHITFIELD. The gentlelady yields back. At this time I recognize the gentleman from New Jersey, Mr. Pallone, for 3 minutes.

OPENING STATEMENT OF HON. FRANK PALLONE, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PALLONE. Thank you, Chairmen Whitfield and Burgess and our Ranking Members Rush and Schakowsky, for holding this hearing. I also wanted to welcome all of our panelists.

We heard some great things about the importance of the proposed ozone rule last week from EPA Acting Assistant Administrator Janet McCabe. Under the proposed standard, we would see tremendous public health benefits. EPA's new standard will avoid nearly 1 million asthma attacks, millions of missed school days, and thousands of premature deaths.

EPA estimates these benefits would range from $13 to $38 billion annually, outweighing the cost by approximately 3 to 1. In addition, it is consistent with the law and scientific evidence.

The proposed ozone standard is part of a set of health-based air-quality standards which make up the foundation of the Clean Air Act. These standards are based on scientific evidence alone and have been extremely effective in cleaning the air and protecting public health.

The current 75 parts-per-billion standard is weaker than the facts would allow. So EPA has proposed based on a complete review of the scientific evidence to revise the standard to fall within 65 to 70 parts per billion as recommended. I am sure today we will hear more about the cost than the benefits, yet a unanimous Supreme Court opinion written by Justice Scalia made it clear that EPA's approach for determining a safe level of air pollution is correct and costs may not be considered.

During today's hearing I urge everyone to keep in mind that the grossly inflated estimate of the rule's projected costs failed to consider any of the benefits associated with reducing ozone pollution. This ignores the real cost of poor air quality that are borne by those who breathe, especially children.

We will also be told that EPA's proposed standard will have dire consequences for economic growth, but the history of the Clean Air Act is one of exaggerated claims by industry that have never come true. In reality, the act has produced public health benefits while supporting economic growth.

As I said last week, EPA's ozone standard is long overdue, and this rule will help put us on the path to reaching the goal of the Clean Air Act, clean air for all Americans. Thank you, and I yield back my time.

Mr. WHITFIELD. The gentleman yields back, and that concludes the opening statements. And at this time we will get to our panel of witnesses.

And our first witness this morning is Mr. Ross Eisenberg who is Vice President for Energy and Resource Policy at the National Association of Manufacturers. And Mr. Eisenberg, you are recognized for 5 minutes.

STATEMENTS OF ROSS E. EISENBERG, VICE PRESIDENT, ENERGY AND RESOURCES POLICY, NATIONAL ASSOCIATION OF MANUFACTURERS; ERIN MONROE WESLEY, EXECUTIVE VICE PRESIDENT AND CHIEF OPERATING OFFICER, BATON ROUGE AREA CHAMBER; ROBERT L. GLICKSMAN, J.B. AND MAURICE C. SHAPIRO PROFESSOR OF ENVIRONMENTAL LAW, GEORGE WASHINGTON UNIVERSITY SCHOOL OF LAW; GREGORY B. DIETTE, M.D., PROFESSOR OF MEDICINE, JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE, ON BEHALF OF THE AMERICAN THORACIC SOCIETY; LOUIS ANTHONY COX, JR., PH.D., PRESIDENT, COX ASSOCIATES; STACEY-ANN TAYLOR, DIRECTOR, PRODUCT STEWARDSHIP, HENRY COMPANY; AND MICHAEL FREEMAN, DIVISION PRESIDENT, THE AMERICAS WD-40 COMPANY

STATEMENT OF ROSS EISENBERG

Mr. EISENBERG. Thank you. Good morning, Chairmen, Ranking Members, members of the subcommittees. I am pleased to represent the NAM, the world's largest industrial trade association here at today's hearing.

Manufacturing is building communities and fueling growth all over America. The factory that our grandfathers worked in is really not what you see today. It has been transformed into a sleek, modern, technology-driven facility that strengthens communities and creates jobs for us and for our children. We are building cleaner and more efficient automobiles. We are using cleaner fuels, and we are operating better, more efficient factories. Since 1990, our NO_x emissions have decreased 52 percent and VOC emissions by 70 percent. As a country, ozone levels have fallen nearly 25 percent since 1990, and the air is unequivocally better. This fact really has not escaped the public, either. Tomorrow, the NAM will release a poll showing that over ⅔ of Americans rate their local air quality as excellent or good.

Manufacturers support reducing ozone, and we believe in the mission of the EPA. But we come before Congress and this committee today seeking help. The EPA has proposed a regulation that pushes beyond the limits of what may be technologically feasible resulting in what could be the most expensive regulation ever. EPA has proposed new ozone standards for which you can only identify about 35 percent of the necessary technologies to achieve that new standard while relying on so-called unknown controls for nearly 65 percent of the path to compliance. This is not a balanced policy, and it is not an achievable rule.

We surveyed our members recently, and over 66 percent of manufacturers are concerned with how new ozone standards will impact their business. More than half of them, 53.5 percent, said they are not likely to move forward with projects in ozone non-attainment areas. But don't just take it from us. Take it from the hundreds of governors, lieutenant governors, environmental agencies, air directors, attorneys general, mayors, counties, cities, highway officials, state representatives, Democrats, Republicans, unions, industry groups, and chambers of commerce who have sent letters to the EPA or the White House asking for the current standard to remain in place.

We recently asked the experts at NERA Economic Consulting to quantify the cost of this new standard set at 65 parts per billion. They found in fact that it would be the most expensive regulation ever: $140 billion annually in lost GDP, $1.7 trillion overall, the equivalent of 1.4 million jobs in jeopardy, and $830 in annual cost to the average household.

Now I am sure you will have questions about the study at the hearing, so let me try to answer some of them now. First off, NERA and EPA's assumptions in their studies are more or less identical. They both assume that the same final regulations will be in place going forward. They both assign the same cost to the known controls. They both assume in the base line that a certain amount of power plants will be retired due to market conditions, and they both assume that a large percentage of the technologies and strategies needed to attain the stricter standard will come from what EPA calls unknown controls. The primary difference between the two studies really is the cost of those unknown controls. EPA assumed a single, flat cost for those controls, $15,000 per ton. It is an assumption that we know based on experience and logic just isn't true. As a society, as we invest in controls to reduce emissions and get closer and closer to zero, the cost per ton of those reductions will necessarily increase.

So what NERA did is they relied on evidence to drive a cost curve to estimate that steep incline as we start to get rid of the technologies that we know about. And if they can't figure out what those technologies are, then the cost to scrap, modify, or shut down certain equipment. Near the bottom of the cost curve is what we know the cost per ton for coal-fired power plants retiring. At the top then is the cost per ton for vehicle scrappage, sometimes referred to as cash for clunkers. My colleague at the GW University claims that no one ever really thought of vehicle scrappage as a pollution control technology until we came along with our study. I am very flattered by that, but it is also dead wrong.

California has had a vehicle scrappage program in place since the 1990s. It is included in their SIP, their state implementation plan, for ozone. Texas also uses a vehicle scrappage program for its ozone compliance tool. It is called the Air Texas Drive a Clean Machine Program.

As Professor Glicksman notes, as a pollution compliance strategy, vehicle scrappage is highly inefficient. But that is kind of our point. We have been so successful in reducing ozone levels that not only is the low-hanging fruit gone, the high-hanging fruit is gone, too. We are playing in the margins now. All that is left are the controls that are not as cost-efficient, and if we can't develop new controls in time, we will have to deal with the severe consequences of ozone non-attainment that you are going to hear about today.

So this is not a sensible regulation. It is especially frustrating when you consider that the implementation of the current standard has just barely begun, that EPA's proposed standard is approaching background ozone levels in many areas, and that the dozens of other laws and regulations on the books that limit NO_x and VOCs will drive ozone levels down 25 percent more in just the next 3 years. This doesn't have to be a choice between the environment and the economy.

Two weeks ago the Energy and Commerce Committee worked together to unanimously approve a bill to modernize TSCA. It was a wonderful day. We ask that you work to find similar middle ground on ozone. Manufacturers cannot cope with the most expensive regulation in history, and we really hope that you will work together to help us find a solution to this problem. Thank you.

[The prepared statement of Mr. Eisenberg follows:]

NATIONAL ASSOCIATION OF
Manufacturers

Leading Innovation. Creating Opportunity. Pursuing Progress.

Testimony

of Ross Eisenberg
Vice President
Energy and Resources Policy
National Association of Manufacturers

before the House Committee on Energy and Commerce
Subcommittee on Energy and Power
Subcommittee on Commerce, Manufacturing and Trade

joint hearing on "EPA's Proposed Ozone Rule: Potential Impacts on Manufacturing"

June 16, 2015

SUMMARY OF TESTIMONY

Manufacturers have demonstrated a commitment to protecting the environment through greater sustainability, increased energy efficiency and reducing emissions. Since 1990, manufacturers have reduced their emissions of the primary precursors of ozone, nitrogen oxides (NO_x) and volatile organic compounds (VOC), by 52 and 70 percent, respectively. As a country, ozone levels are down 25 percent and are due to decrease *another* 25 percent over the next three years under the dozens of existing laws and regulations designed to reduce emissions.

The NAM opposes the EPA's proposed revisions to the national ambient air quality standards (NAAQS) for ozone. This proposal is likely to be the most expensive regulation ever, costing as much as $140 billion per year and placing the equivalent of 1.4 million jobs in jeopardy annually. A substantial portion of the compliance with a new standard will come from controls that are unknown even to the EPA, and if these controls are not invented in time, manufacturers will be forced to consider scrapping existing plants and equipment. Manufacturers operating in newly designated nonattainment areas could be effectively closed off to any new growth, and even manufacturers in areas that comply with the new standards will struggle to model attainment and obtain their new permits. No sector will be spared, and the nation's manufacturing comeback—driven largely by an advantage on energy—could be placed in jeopardy.

A recent poll of manufacturers found that 66.3 percent are concerned with how a new ozone standard will impact their business, and 53.5 percent say they are unlikely to move forward with projects in ozone nonattainment areas. Over half of U.S. states filed comments opposing a tighter standard; 33 states raised serious issues with implementation of the rule. National associations representing counties, mayors, highway officials, metropolitan planning organizations and port authorities, as well as countless individual mayors, state representatives and development officials from virtually every state in the union have all weighed in against this rule.

States, cities, counties, and business leaders have all come to the same conclusion: existing regulations will drive down ozone levels over the next decade and provide the environmental benefits we all deserve, making the excessive costs of a tighter new ozone standard unnecessary. An economy that relies on development cannot withstand the fallout of a new ozone regulation that will plunge large swaths of the country into nonattainment, deter projects from moving forward and place jobs in jeopardy.

TESTIMONY OF ROSS EISENBERG

BEFORE THE HOUSE COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEE ON ENERGY AND POWER
SUBCOMMITTEE ON COMMERCE, MANUFACTURING AND TRADE

Joint hearing on:
"EPA's Proposed Ozone Rule:
Potential Impacts for Manufacturing"

JUNE 16, 2015

Good morning, Chairmen Whitfield and Burgess, Ranking Members Rush and Schakowsky, and members of the Subcommittee on Energy and Power and the Subcommittee on Commerce, Manufacturing and Trade. My name is Ross Eisenberg, and I am vice president of energy and resources policy at the National Association of Manufacturers (NAM). The NAM is the nation's largest industrial trade association, representing nearly 14,000 small, medium and large manufacturers in every industrial sector and in all 50 states. I am pleased to represent the NAM and its members at today's hearing on the Environmental Protection Agency's (EPA) proposed national ambient air quality standards (NAAQS) for ground-level ozone.

Manufacturers have demonstrated a commitment to protecting the environment through greater sustainability, increased energy efficiency and reducing emissions. We are building cleaner and more efficient automobiles. Since 1990, highway vehicle emissions of the primary precursors of ozone, nitrogen oxides (NO_x) and volatile organic compounds (VOC), are down 48 and

30 percent respectively,[1] while an additional 60 million vehicles have been added to U.S. roadways over the same time period.[2] We are operating cleaner and more efficient factories. Since 1990, manufacturers' NO_x emissions have decreased 52 percent and VOC emissions by 70 percent,[3] while our value added to the economy has more than doubled.[4] As a country, ozone levels have fallen nearly 25 percent since 1990,[5] and our economy has grown by 43 percent.[6] With the right policies and a balance between environmental ambition and technological feasibility, we can have both a clean environment and a prosperous economy. However, when policymakers push beyond the limits of what is technologically feasible, the critical balance between environmental improvement and economic growth is lost, and manufacturers and the economy will suffer.

Increasingly, we are losing that balance. More and more, the EPA is proposing regulations that are beyond the bounds of innovation, putting manufacturers and other industries in a position where the only available compliance strategy, unless policies are modified, is closing up shop. When the EPA first issued its Boiler Maximum Achievable Control Technology (MACT) regulation,[7] the standards were so unrealistic that that no single boiler could

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[1] EPA, National Emissions Inventory (NEI) Air Pollutant Emissions Trends Data, February 2014.
[2] U.S. Department of Transportation, Office of the Assistant Secretary for Research and Technology, Bureau of Transportation Statistics, National Transportation Statistics, Table 1-11: Number of U.S. Aircraft, Vehicles, Vessels and Other Conveyances.
[3] EPA, National Emissions Inventory (NEI) Air Pollutant Emissions Trends Data, February 2014.
[4] U.S. Department of Commerce, Bureau of Economic Analysis, Value Added by Industry.
[5] EPA, Air Quality Trends. www.epa.gov/airtrends/aqtrends.html#comparison.
[6] U.S. Department of Commerce, Bureau of Economic Analysis, Gross Domestic Product by Year.
[7] EPA, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 75 Federal Register 32006 (June 4, 2010) (EPA Docket Number OAR–2002–0058).

meet all of the rule's requirements.[8] In 2012[9] and then again in 2014,[10] the EPA proposed New Source Performance Standards (NSPS) for new coal-fired utilities at levels that were neither being achieved in practice nor which could be achieved by any commercially available technology.[11] Now, the EPA has proposed new ozone standards for which it can only identify 35 percent of the necessary technologies to achieve a 65 parts per billion (ppb) standard, while relying on so-called unknown controls for 65 percent of its path to compliance.[12] This is not a balanced policy. This is not an achievable rule.

Last week, the NAM released our quarterly *Manufacturers' Outlook Survey*, which examines manufacturers' attitudes regarding the economy and other topics.[13] Two-thirds of manufacturers (66.3 percent) said they are concerned with how new ozone standards will impact their business. Just more than half (53.5 percent) said they are unlikely to move forward with projects in ozone nonattainment areas. Only 5.9 percent said they would be very likely to move forward with a project in a nonattainment area; 15.1 percent said they would be somewhat likely to move forward; and 25.5 percent said they were uncertain.

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[8] See comments filed by the National Association of Manufacturers on Aug. 23, 2010.
[9] EPA, Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units, Docket ID No. EPA–HQ–OAR–2011–0660; FRL–9654–7, 77 Fed. Reg. 22,392 (April 13, 2012).
[10] EPA, Standards of Performance for Greenhouse Gas Emissions from New Stationary Sources: Electric Utility Generating Units, Docket ID No. EPA–HQ–OAR–2013–0495; FRL–9839–4, 79 Fed. Reg. 1,430 (Jan. 8, 2014).
[11] See NAM comments filed May 9, 2014.
[12] EPA, Regulatory Impact Analysis of the Proposed Revision to the National Ambient Air Quality Standards for Ground-Level Ozone, pp. ES-8, ES-9 (November 2014).
[13] www.nam.org/Data-and-Reports/Manufacturers-Outlook-Survey/2015-Q2-NAM-Manufacturers--Outlook-Survey.pdf?utm_source=nam&utm_medium=download&utm_campaign=outlook.

These poll results echo the sentiment that more than 400 manufacturers brought to Washington, D.C., in early June as part of the NAM's annual *Manufacturing Summit.* Again and again in more than 200 meetings on Capitol Hill, including many with members of the Energy and Commerce Committee, manufacturers warned lawmakers of the impact a new ozone standard would have on their operations.

Manufacturers are not the only ones concerned with a stricter ozone standard. The governors of 22 states—Alabama, Arizona, Arkansas, Georgia, Idaho, Indiana, Kansas, Kentucky, Louisiana, Maine, Michigan, Mississippi, Nebraska, New Mexico, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, West Virginia, Wisconsin and Wyoming—sent letters to the EPA or the White House opposing the proposed new standard and asking for the current standard to remain in place. Lieutenant governors in Ohio and Missouri sent letters urging the same, as did state environmental agencies in 15 of those states plus North Carolina and North Dakota, and attorneys general in 12 of those states plus Montana. Iowa and Virginia stated that if the standard were tightened, it must not be any lower than the highest point in the EPA's proposed range. Thirty-three states raised serious issues with implementation of a new standard. The National Association of Counties, National League of Cities, U.S. Conference of Mayors, American Association of State Highway and Transportation Officials, Association of Metropolitan Planning Organizations, American Association of Port Authorities, National Association of Regional Councils and mayors, state representatives and local development officials from

virtually every state in the union sent letters to the EPA warning of the challenges a stricter ozone standard will present.

The NAM opposes the EPA's proposed revisions to the NAAQS for ozone. This proposal is likely to be the most expensive regulation ever, regardless of the point in the proposed range of 65 to 70 parts per billion (ppb) at which the Administrator ultimately lands. A substantial portion of the compliance with a new standard will come from controls that are unknown even to the EPA, and if these controls are not invented in time, manufacturers will be forced to consider scrapping existing plants and equipment. Manufacturers operating in newly designated nonattainment areas could be effectively closed off to any new growth, and even manufacturers in areas that comply with the new standards will struggle to model attainment and obtain their new permits. No sector will be spared, and the nation's manufacturing comeback—driven largely by an advantage on energy—could be placed in jeopardy.

The current standard of 75 ppb and dozens of other recent regulations on power plants, manufacturers, vehicles and fuels are already causing manufacturers to make dramatic reductions in ozone over the next several years, reductions that will protect public health. They will also impose significant new costs. Manufacturers support reasonable regulation, but at some point, the costs of manufacturing in the United States will make it impossible for manufacturers to stay in business. A strict new ozone NAAQS may be that tipping point.

The Clean Air Act has successfully improved air quality across the United States over the past four decades. However, incremental improvements in ozone

are now coming at an exponential cost. A NAAQS process that does not allow the Administrator to consider cost or technical feasibility when choosing a standard is no longer productive. The members of these two Subcommittees have proven that you can work together to tackle challenges facing the manufacturing sector in thoughtful, bipartisan ways. The NAM urges you to consider ways to improve the ozone NAAQS process so that we can continue to protect public health as well as the economy and our nation's manufacturing base.

Manufacturers Are Already Making Major Emissions Reductions

Ground-level ozone is formed through a chemical reaction when NO_x and VOCs interact with sunlight. Emissions from power plants, industrial facilities, automobiles, gasoline vapors and solvents all release NO_x and VOCs. Natural sources, such as plant life and fires, also contribute to the formation of ozone; today, given how much U.S. ozone levels have already been reduced, a significant portion of a given area's ozone concentration is made up of natural background ozone and ozone that has traveled from other states and, increasingly, from overseas.

Under the Clean Air Act, the EPA is instructed to select a primary NAAQS for ground-level ozone that protects the nation's public health within an "adequate margin of safety." In March 2008, the EPA lowered the primary NAAQS for ground-level ozone from 84 ppb to 75 ppb.

EPA groups the sources of manmade ground-level ozone into four main categories: (1) on-road and nonroad mobile sources; (2) industrial processes (including solvents); (3) consumer and commercial products; and (4) the electric power industry. These sectors have taken or will take major steps to reduce NO_x and VOCs over the past few decades by complying with the following regulations:

Mobile Sources

- New emissions standards under Title II of the Clean Air Act, 42 U.S.C. 7521–7574, for numerous classes of automobile, truck, bus, motorcycle, earth mover, aircraft, and locomotive engines, and for the fuels used to power these engines;
- New EPA standards for locomotive and marine diesel engines;
- New standards for Category 3 (C3) engines installed on U.S. ocean-going vessels and marine diesel fuels produced and distributed in the United States;
- New greenhouse gas and fuel efficiency standards from EPA and the National Highway Transportation Safety Administration for new 2014-2018 model year medium and heavy-duty engines and vehicles; and
- New EPA Tier 3 standards for tailpipe and evaporative emissions from passenger cars, light-duty trucks, medium-duty passenger vehicles and some heavy-duty vehicles.

Industrial Processes

- Maximum achievable control technology (MACT), reasonably available control technology (RACT) and best available control technology (BACT) standards for a wide range of industrial categories, including combustion sources, coating categories, and chemical manufacturing;
- New EPA emission standards and fuel requirements for new stationary engines;
- New EPA regulations for commercial, industrial and solid waste incinerators, which set standards for NOx and several air toxics for

all commercial incinerators, as required under Section 129 of the Act;

- New air toxics rules for industrial boilers, which will yield co-benefit NOx reductions as a result of tune-ups and energy efficiency measures, especially from boilers that burn coal; and
- Several new source performance standards and air toxics standards, including upcoming review and revisions for gas turbines and municipal waste combustors and proposed requirements for the petroleum refining industry.

Consumer and Commercial Products

- New national VOC emission standards for aerosol coatings;
- Review and revision of existing rules for household and institutional consumer products, architectural and industrial maintenance coatings, and automobile refinish coatings;
- Control techniques recommendations issued in 2008 for four additional categories of consumer and commercial products, such as surface coatings and adhesives used in industrial manufacturing operations; and
- Energy Star, a joint program of the EPA and the U.S. Department of Energy, which encourages energy-efficient products and practices.

Electric Power Sector

- The EPA's Clean Air Interstate Rule (CAIR) and its successor, the Cross-State Air Pollution Rule (CSAPR);
- New Source Performance Standards (NSPS) for electric-generating units;
- Prevention of Significant Deterioration (PSD) or Nonattainment New Source Review (NNSR) requirements;
- The Mercury and Air Toxics Standard (MATS) rule; and
- Regional Haze best available retrofit technology (BART) determinations.

Manufacturers' responses to these regulations, combined with market-driven innovation and other dynamics, have reduced and will continue to reduce NO_x and VOC emissions substantially. In 1990, 25.2 million tons of NO_x were

emitted in the United States; by 2013, this total was cut by almost half, down to 12.9 million tons. The current ozone standard of 75 ppb will drive down the total U.S. NO_x emissions to 9.7 million tons by 2018.

Even in the absence of new ozone regulations, NO_x emissions will be roughly 25 percent lower in 2018 than they are today, and more than 60 percent lower than they were in 1990. Manufacturers are making the air cleaner and will continue to do so, and we are doing it *without* having to revise the ozone standard any further.

Tighter Ozone Standard Could Be the Most Expensive Regulation Ever

When the EPA sought to tighten the ozone standard to a range between 60 and 70 ppb in 2011, its own estimate of the cost of the rule ranged from $19 billion to $90 billion, depending on the level chosen.[14] Any of these estimates would have made for the most expensive regulation of all time and presented major cost and attainment challenges for manufacturers. Moreover, the EPA's analysis was incomplete: it left out costs for California, the nation's largest economy, and it provided little justification for what appeared to be an unrealistically low cost estimate for unknown controls needed to comply with the rule.

The EPA's proposed ozone rule issued in November 2014 was accompanied by even lower cost projections: $4.7 billion at 70 ppb, $16.6 billion

[14] www.epa.gov/glo/pdfs/201107_OMBdraft-OzoneRIA.pdf.

at 65 ppb and $41.2 billion at 60 ppb.[15] However, the EPA modeled only attainment in 2025, but nonattainment designations will be made as early as 2017, meaning the cost projections do not take into account areas that go from nonattainment to attainment between 2017 and 2025. The EPA only projected costs for areas with emissions monitors, which excludes roughly 76 percent of U.S. counties. It assumes costs will be lower due to NO_x reductions from the proposed Clean Power Plan, a rule that has not gone final and may not in its current form.

The EPA has an affirmative duty under Section 109 of the Clean Air Act to direct its independent advisory board, the Clean Air Scientific Advisory Committee (CASAC), to advise the Administrator of any adverse economic or energy effects resulting from a new ozone NAAQS.[16] Neither the EPA nor CASAC has met this duty—a fact confirmed by the General Accountability Office (GAO) in a report last week.[17] GAO wrote:

> The Clean Air Scientific Advisory Committee (CASAC) has provided certain types of advice related to the review of national ambient air quality standards (NAAQS), but has not provided others. Under the Clean Air Act, CASAC is to review air quality criteria and existing NAAQS every 5 years and advise EPA of any adverse public health, welfare, social, economic, or energy effects that may result from various strategies for attainment and maintenance of NAAQS. An EPA official stated that CASAC has carried out its role in reviewing the air quality criteria and the NAAQS, but CASAC has never provided advice on adverse social, economic, or energy effects related to NAAQS because EPA has never asked CASAC to do so. In a June 2014 letter to the EPA

[15] The EPA separated California from the cost totals from the rest of the lower 48 states, but for purposes of this testimony the two values are combined.
[16] 42 U.S.C. § 7409(d)(2)(C).
[17] *EPA's Science Advisory Board: Improved Procedures Needed to Process Congressional Requests for Scientific Advice*, GAO-15-500 (June 4, 2015), *available at* www.gao.gov/products/GAO-15-500.

> Administrator, CASAC indicated it would review such effects at the agency's request.[18]

Given these uncertainties, the NAM and its members sought a more reliable estimate of the costs of a stricter ozone NAAQS than has been provided by the EPA to date.

The NAM retained David Harrison, Jr., Ph.D, and Anne E. Smith, Ph.D, of National Economic Research Associates (NERA) Economic Consulting to model the impacts of a new ozone regulation set at 65 ppb. Their analysis confirmed our worst fears: the EPA's proposed ozone NAAQS would be the most expensive regulation ever, costing states tens of billions of dollars annually in potential compliance costs. Specifically, NERA found that a 65 ppb ozone standard could:

- Reduce U.S. GDP by about $140 billion per year on average from 2017 through 2040 and about $1.7 trillion total over that period in present value terms;
- Place 1.4 million jobs (i.e., job-equivalents) in jeopardy each year; and
- Reduce annual household consumption by an average of $830 per household per year.

NERA's cost estimates differ from those suggested by the EPA for a standard of 65 ppb; it is worth explaining why. NERA based its analysis on the EPA's Regulatory Impact Analysis (RIA), which sets forth in great detail the specific

[18] *Id.*

technologies the EPA believes can be required, by sector, to comply with a stricter ozone NAAQS.

EPA has identified a suite of "known controls" for power plants, manufacturers, commercial and residential consumers, and on-road and off-road vehicles. These technologies are all expensive. However, application of all existing known controls will still fall short of attainment of an ozone standard set at 60, 65 or even 70 ppb. The remaining reductions will have to be met with what the EPA calls unknown controls. These are exactly as they appear: EPA cannot identify what the controls are.

Attaining a tighter ozone standard will require large reductions in NO_x and VOC emissions from power plants, manufacturing facilities and mobile sources, such as cars, trucks and off-road vehicles. These reductions come at a high cost per ton because significant investments have already been made to reduce emissions, leaving few low-cost control options as the ozone standard tightens.

The EPA projects that existing, on-the-books regulations will cut NO_x emissions from levels of 12.9 million tons in 2013 to 8.2 million tons in 2025, a 36 percent reduction. However, to attain a 65 ppb standard, another 2.8 tons of NO_x must be removed from the environment, representing an *additional* 34 percent in reductions. However, only one ton of the 2.8 needed can be addressed through known controls. The other 1.8 tons come from, as EPA calls them, unknown controls. The EPA assigns a value of $15,000 per ton for unknown controls, which is only marginally higher than many of the known controls—a difficult

estimate to accept, given that the figure refers to controls that the EPA does not even know exists.

NERA's model assumed the same costs per ton as EPA for known controls, but differed sharply on the cost of unknown controls. NERA concluded that removal of the 1.8 million tons of NO_x covered by unknown controls would require some power plants, manufacturing facilities and vehicles, along with other industrial, commercial, agricultural and even residential equipment, to be shut down or scrapped. The aggressive reductions needed to attain 65 ppb spared few industries or sectors.

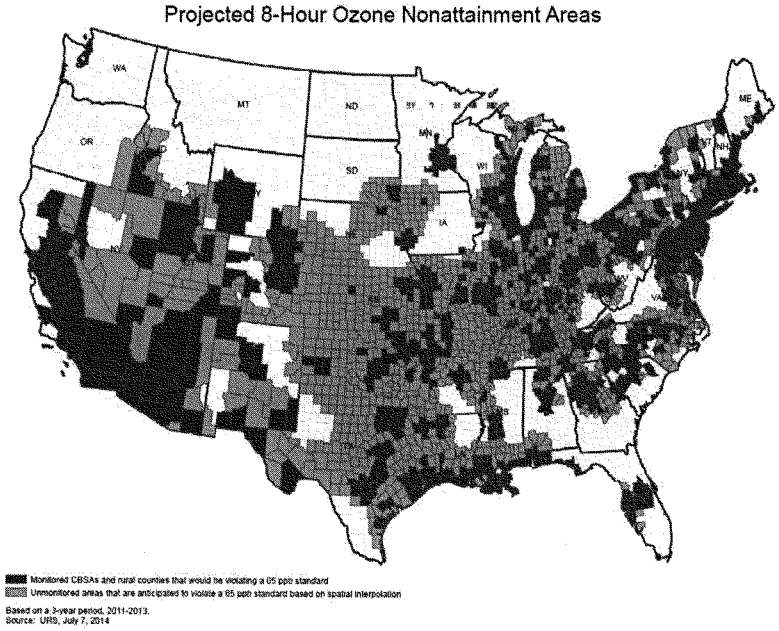
NERA performed an evidence-based approach to draw its cost curve for unknown controls. It used information on the cost per ton to reduce NO_x from existing literature—specifically, studies done on the retirement of coal-fired power plants and an analysis done by Dr. Christopher Knittel of the Massachusetts Institute of Technology on the "cash for clunkers" automobile program[19]—and developed a more informed curve of the potential costs of unknown controls.

[19] Knittel, Christopher, "The Implied Cost of Carbon Dioxide Under the Cash for Clunkers Program," Center for the Study of Energy Markets, UC Berkeley (2009). *Article available at* www.ucei.berkeley.edu/PDF/csemwp189.pdf; *spreadsheet available at* http://web.mit.edu/knittel/www/papers/CfC.xls.

Nonattainment Means No Growth

A new ozone standard means that, as soon as 2017, many new areas across the United States will be thrust into "nonattainment."

Projected 8-Hour Ozone Nonattainment Areas



The map above, which assesses attainment of a 65 ppb standard, looks substantially different than the one the EPA produced when it rolled out the rule in November. The EPA's map is what the Agency projects attainment to look like in 2025—10 years after the rule is finalized and 8 years after initial attainment designations are made. It only accounts for counties with monitored data. The map above uses current monitored data as well as modeling projections of air

quality and is a more accurate reflection of how the map would look in 2017 when counties are designated nonattainment.

Why does this matter? Because nonattainment is a significant barrier to growth. Nonattainment deters manufacturers from building or expanding in an area because the permits are so difficult to obtain versus an attainment area. The poll conducted with NAM members last week confirmed this reality, as more than half stated they would not continue with a project in a nonattainment area. Companies building or expanding facilities in nonattainment areas are required to install specific technologies regardless of cost, and projects cannot move forward unless ozone is reduced from other sources. These offsets are neither cheap nor easy to obtain. Currently, offset prices in the Houston-Galveston-Brazoria Non-Attainment area are close to $175,000 per ton of NO_x and $275,000 per ton of VOC. Offset prices in southern California nonattainment areas are approaching $125,000 per ton of NO_x. Rural areas, which could become new nonattainment areas under a tighter standard, may lack offsets altogether, making the requirement a total barrier to new projects.

Even manufacturers not looking to expand will be subject to restrictive new regulations in nonattainment areas. For instance, in the Houston nonattainment area referenced above, the Highly Reactive VOC (HRVOC) rule outlines additional controls for existing facilities, and combustion units, such as boilers and ethylene crackers, must install selective catalytic reduction (SCR) systems and low-NO_x burners. In the most severe cases, states with nonattainment areas could lose federal highway and transit funding.

Implementation of the Current Standard Has Barely Begun

Even though the EPA finalized the current standard in 2008, the Agency stopped implementing it from 2010 to 2012 while it pondered an out-of-cycle rulemaking that would make it more stringent. The EPA did not restart implementation until early 2012, six months after the White House rejected the more stringent ozone standard.

The EPA's delay put state implementation of the 2008 ozone standard well behind the normal schedule. States did not find out which of their counties would be designated nonattainment under the 2008 standard until April 2012. The implementing regulations from the 2008 standard needed for submission of State Implementation Plans (SIPs) were only released by the EPA a few months ago.

States are committing time and money to meet the 2008 ozone standard, yet the EPA now wants to move the goal posts in the middle of the game, straining limited state resources for implementation and not giving states a chance to meet the current NAAQS.

EPA's Proposed Standard Is Approaching Background Ozone Levels

The chemistry and formation of ozone is complex. Ozone is formed at ground level due to chemical interactions involving solar radiation and VOCs, NO_x, methane (CH_4) and carbon monoxide (CO). Precursor emissions leading to ozone formation result from manmade sources like power plants, factories and cars, but also natural sources like forest fires and plant life. Additionally, ozone

from the stratosphere that protects us from ultraviolet rays can migrate to ground level.[20] Wind can transport ozone hundreds or even thousands of miles across state and national borders. As the EPA notes in its proposed rule, "some locations in the U.S. can be substantially influenced by sources that may not be suited to domestic control measures. In particular, certain high-elevation sites in the western U.S. are impacted by a combination of non-local sources like international transport, stratospheric O_3, and O_3 originating from wildfire emissions."[21] The EPA also notes that analysis suggests that in some parts of the country and at certain times, background concentrations of ozone approach or even exceed the current 75 ppb standard.[22] The EPA's proposal is so stringent that the Grand Canyon would fail the proposed 70 ppb standard, and Yellowstone National Park would fail the proposed 65 ppb standard. The National Oceanic and Atmospheric Administration (NOAA) released a study in 2013 showing that Las Vegas would exceed the EPA's proposed range of ozone NAAQS almost entirely due to background ozone.[23] The EPA's models for determining background ozone came under scrutiny again this month from NOAA, which published a paper in the journal *Science* calling into question EPA's ability to enforce a more stringent standard using the agency's existing background modeling tools.[24] The problem is particularly relevant in the

[20] EPA Proposed Rule, National Ambient Air Quality Standards for Ozone, Pre-Publication, p. 32 (2014).
[21] EPA Proposed Rule, p. 33 (2014).
[22] EPA Proposed Rule, p. 33 (2014).
[23] www.gfdl.noaa.gov/cms-filesystem-action/user_files/m1l/Langford_etal_AE_2014.pdf.
[24] Cooper, O., et al., "Challenges of a Lowered U.S. Ozone Standard," *Science*, Vol. 348 no. 6239, at 1096-7 (June 5, 2015), available at www.sciencemag.org/content/348/6239/1096.summary.

Intermountain West, where background levels at higher elevations sometimes exceed the EPA's proposed range of 65 to 70 ppb.

Further, the relationship between precursor emissions, which regulation from NAAQS policies ultimately target, and ozone formation are nonlinear. As EPA notes in the proposed rule, "In some areas, such as urban centers where NO_x emissions typically are high, NO_x leads to the net destruction of O_3, making O_3 levels lower in the immediate vicinity."[25] The inverse has also been demonstrated: as NO_x emissions are reduced in some areas, ozone levels actually increase.

Conclusion

Manufacturers have established a strong record of environmental protection and strive to reduce the environmental footprint of our operations and to become more sustainable. A high standard of living depends upon a healthy environment, robust economic growth, and an adequate and secure supply of energy at globally competitive prices. There must be a balance.

The EPA's proposed new ozone NAAQS fails to achieve this balance. This proposal is likely to be the most expensive regulation ever and comes at a time when manufacturers are busy complying with dozens of other new regulations that will drive major reductions in ozone. At some point the constant threat of billions of dollars of capital expenditures driven by new regulations will

[25] EPA Proposed Rule, p. 33 (2014).

shut down our nation's job creators. Manufacturers are in the midst of a major comeback—they just need some balance from Washington.

Mr. WHITFIELD. Thank you, Mr. Eisenberg. I want you all to know that I am working the clock. I am introducing the witnesses. The next witness is Ms. Erin Monroe Wesley who is Executive Vice President and Chief Operating Officer of the Baton Rouge Area Chamber. Thanks for being with us, and you are recognized for 5 minutes.

STATEMENT OF ERIN MONROE WESLEY

Ms. WESLEY. Thank you. Good morning. Good Morning Chairman Whitfield, Chairman Burgess, and members of the joint subcommittees. Again, my name is Erin Monroe Wesley. I serve as the Executive Vice President and Chief Operating Officer of the Baton Rouge Area Chamber. On behalf of BRAC's 1,400 investors and the region's business community, we stand before you today to express our significant concern regarding the proposed NAAQS rule issued by the EPA on November 25, 2014.

The Baton Rouge Area Chamber adamantly opposes the proposed reductions in ambient air quality standards from the current level of 75 parts per billion. Our opposition is based on three main points: Number one, the proposed standards have already cost our region thousands of jobs and billions of dollars in capital investment. Two, the standards would drive 18 of the Nation's 20 top performing metropolitan economies into non-attainment and damage U.S. competitiveness for business investment, especially foreign direct investment. And number three, the vast majority of U.S. counties will meet the EPA's proposed standards by 2025 with practices already in place.

BRAC believes in and stands for cleaner air and environmental stewardship. For roughly 10 years, BRAC has supported and hosted the Baton Rouge Clean Air Coalition. On April 4, 2014, thanks in large part to the Coalition's efforts, the Louisiana Department of Environmental Quality announced that the EPA determined that the Baton Rouge Area attained the 2008 8-hour ozone standard. The region has decreased ground-level ozone, improving air quality and human health for its 800,000 plus residents.

Our successes and progress environmentally make the negative effects of the proposed standards even more painful. In 2014, BRAC worked with four chemical manufacturers that were investigating major investments in the region, including two companies that executed purchase agreements on large industrial sites with the intent to develop. Since the EPA first proposed lowering the ozone NAAQS, all four of these companies indicated that the proposed new standards influenced their decisions to look elsewhere or to otherwise not proceed.

In other words, the proposed standards have cost this region at least 2,000 direct and indirect jobs and caused more than $7 billion in capital investment to be put on hold or moved elsewhere. Let me be very clear: These projects were put on hold or lost at the mere prospect of lowering ozone air quality standards to the 65 to 70 parts per billion range. Should these proposed standards be adopted, the Baton Rouge Area will be thrust into non-attainment status. Economic development professionals have projected that under this scenario, the Baton Rouge Area will not even be approached for these types of projects, much less compete for them.

Baton Rouge would not be alone in suffering economically should the proposed standards be adopted. If the EPA were to lower the ozone standard to 65 parts per billion, all but two of the Nation's top 20 metropolitan area economies, as ranked by the Brookings Institution, would be relegated to non-attainment status. These proposed standards would stifle the growth and investments in U.S. manufacturing, exports, and development taking place in metropolitan areas that have been the most successful in helping the country get back its footing economically.

The proposed actions to lower the ozone NAAQS rule run counter to the U.S. Government's interest to grow the national economy, attract foreign direct investment, and increase U.S. exports.

Clean air is a priority for the Baton Rouge Area's business community. Economic development and environmental stewardship do not have to be mutually exclusive goals. This region's businesses are committed to both, as evidenced by the efforts put forth to gain attainment status. Policies that have a significant adverse effect on local economies, as the proposed NAAQS rule does, should be enacted sparingly, only when absolutely necessary. Unfortunately, the rule at hand spares nothing, and is unnecessary.

Despite the EPA's own assertion that a vast majority of the country will be in compliance with the regulations by 2025 under the current regulatory scheme, the Agency seeks to enact rules that will immediately bring the punitive status of non-attainment to areas around the country. We cannot stand by and allow our economy to be collateral damage.

It is therefore the strong recommendation of the Baton Rouge Area Chamber that the National Ambient Air Quality Standards for ozone rule not be reduced from 75 parts per billion. Thank you.

[The prepared statement of Ms. Wesley follows:]

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Subcommittee on Energy and Power and Subcommittee on Commerce, Manufacturing, and Trade joint hearing entitled "EPA's Proposed Ozone Rule: Potential Impacts on Manufacturing"

Good Morning Chairman Whitfield, Chairman Burgess, and Members of the Joint Subcommittees. My name is Erin Monroe Wesley and I serve as the Executive Vice President and Chief Operating Officer for the Baton Rouge Area Chamber (BRAC). I appreciate the opportunity to testify before this joint hearing of the Subcommittee on Energy and Power and the Subcommittee on Commerce, Manufacturing, and Trade regarding the EPA's proposed ozone rule change and its detrimental impact on economic development and manufacturing. On behalf of BRAC's 1,400 investors and the region's business community, we stand before you today to express our significant concern regarding the proposed National Ambient Air Quality Standards (NAAQS) for ozone rule issued by the Environmental Protection Agency (EPA) on November 25, 2014.

The Baton Rouge Area Chamber adamantly opposes the proposed reductions in ambient air quality standards from the current level of seventy-five parts per billion (ppb). Our opposition is based on three main points:

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1) **The proposed standards have already cost our region thousands of jobs and billions of dollars in capital investment;**
2) **The standards would drive eighteen of the nation's twenty top-performing metropolitan economies into non-attainment and damage U.S. competitiveness for business investment, especially foreign direct investment; and**
3) **The vast majority of US counties will meet the EPA's proposed standards by 2025 with practices already in place.**

BRAC believes in and stands for cleaner air and environmental stewardship. For roughly ten years, BRAC has supported and hosted the Baton Rouge Clean Air Coalition. On April 4, 2014, thanks in large part to the Coalition's efforts, the Louisiana Department of Environmental Quality announced that the EPA determined that the Baton Rouge Area attained the 2008 eight-hour ozone standard. The region has decreased ground-level ozone, improving air quality and human health for its 800,000 plus residents. Preliminary air quality data for 2014 shows that the area continues to meet the current ozone standard. Louisiana is now developing a plan to show how the Baton Rouge area can maintain compliance with the ozone standard for the next ten years.

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Our successes and progress environmentally make the negative effects of the proposed standards even more painful. In 2014, BRAC worked with four chemical manufacturers that were investigating major investments in the region, including two companies that executed purchase agreements on large industrial sites with intent to develop. Since the EPA first proposed lowering the ozone NAAQS to the sixty-five to seventy ppb range in November of 2014, all four of these companies indicated that the proposed new standards - as well as the unavailability of emission reduction credits - influenced their decisions to look elsewhere or otherwise not proceed.

In other words, the proposed standards have cost the region at least 2,000 direct and indirect jobs, and caused more than $7 billion in capital investment to be put on hold or moved elsewhere. New payroll created from the projects themselves would have totaled over **$86 million annually.**

Let me be very clear: These projects were put on hold or lost at the *mere prospect* of lowering ozone air quality standards to the sixty-five to seventy ppb range. Should these proposed standards be adopted, the Baton Rouge Area will be thrust into non-attainment status; economic development professionals have projected that under this

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scenario, the Baton Rouge Area will not even be approached for these types of projects, much less compete for them.

Baton Rouge would not be alone in suffering economically, should the proposed standards be adopted. If the EPA were to lower the ozone standard to 65 ppb, **all but two of the nation's top twenty metropolitan area economies, as ranked by the Brookings Institution, would be relegated to non-attainment status.**[1] Like with the examples above for the Baton Rouge Area, the increased compliance costs associated with non-attainment create a disincentive for companies to enter these markets, as well as for companies existing within the markets to expand. These proposed standards would stifle the growth, investments in U.S. manufacturing, exports, and development taking place in the metropolitan areas that have been the most successful in helping the country get back its footing economically. The proposed actions to lower the ozone NAAQS rule run counter to the U.S. government's interest to grow the national economy, attract foreign direct investment, and increase U.S. exports. As has been shown, this action would hurt U.S. competitiveness, and harm the fastest growing economies in the nation. Because of this, BRAC's efforts in opposing the proposed

[1] BRAC analysis of regional ozone levels compared to Brookings Institution's Metro Monitor rankings of regional economic performance

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standards have been backed by economic development organizations across the country, including those from other top-performing metro areas such as Houston, Omaha, Charleston, and Grand Rapids. A significant number of letters of opposition were submitted from regions and states across the country during the public comment process in early 2015.

Clean air is a priority for the Baton Rouge Area's business community. Economic development and environmental stewardship do not have to be mutually exclusive goals; this region's businesses are committed to both, as evidenced by the efforts put forth to gain attainment status. Policies that have a significant adverse effect on local economies, as the proposed NAAQS rule does, should be enacted sparingly, only when absolutely necessary. Unfortunately, the rule at hand spares nothing, and is patently unnecessary.

While the EPA enacted stricter ozone standards six years ago, the Agency effectively suspended implementation of those standards from 2010 to 2012, as it unsuccessfully pursued reconsideration. Because of this delay, states are considerably behind in putting the current standards into effect, meaning that we have yet to see the full impact of the current standard's implementation, including the reduction of ozone

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precursor emissions and the lowering of ozone levels. In fact, the EPA provided a map in a December 2014 webinar concerning the proposed standards, which showed that **the vast majority of US counties will meet the proposed standards by 2025 with the rules and programs in place, and activities already under way.**

This information, which purports to support the new standards, actually undermines them. Despite the EPA's own assertion that a vast majority of the country will be in compliance with the regulations by 2025 under the current regulatory scheme, the Agency seeks to enact rules that will immediately bring the punitive status of non-attainment to areas around the country. A non-attainment status creates significant compliance costs, which serve as a deterrent to businesses looking to move to or expand in an area. This cuts to the heart of how arbitrary and unnecessary the proposal to lower the ozone standard is, especially considering its cost in economic growth. We cannot stand by and allow our economy to be collateral damage.

It is our strong recommendation that the standard not be reduced from 75 ppb. Prior to implementing any future reductions to the ozone NAAQS, the EPA should consider new and innovative ways for achieving lower standards of emissions and implementing emissions control mechanisms. This could include a nationwide rule allowing inter-

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pollutant trading, inter-source trading, or a system to match up companies requiring emission reduction credits with potential emission reduction projects requiring investment.

Mr. Chairman, this concludes my prepared statement. I will be pleased to answer any questions that you or the members of the subcommittees may have.

Respectfully submitted,

Erin Monroe Wesley
Executive Vice President & Chief Operating Officer

Mr. WHITFIELD. Thank you, Ms. Wesley. At this time I recognize the gentleman, Mr. Robert Glicksman, who is the Shapiro Professor of Environmental Law at George Washington University Law School. We appreciate your being with us this morning, and Mr. Glicksman, you are recognized for 5 minutes for your opening statement.

STATEMENT OF ROBERT L. GLICKSMAN

Mr. GLICKSMAN. Chairmen Burgess and Whitfield, Ranking Members Schakowsky and Rush and members of the subcommittees, I appreciate the opportunity to testify today on why strong standards to reduce ozone air pollution are both necessary to fulfill the Clean Air Act's congressionally-mandated public health goals and consistent with a strong economy in which manufacturers can prosper and thrive.

My written statement makes 4 key points. First, a strong national ozone pollution standard that fulfills the public health goals of the Clean Air Act will deliver significant health and environmental benefits.

Second, regulations such as EPA's pending ozone standard can and do provide important economic benefits for U.S. businesses, including those in the manufacturing sector.

Three, a frequently cited study purporting to find catastrophic economic effects from a strong ozone standard fails to provide a reliable accounting of the rule's potential impacts.

And finally, to the contrary, the available evidence confirms that strong national standards for ozone pollution are not an impediment to economic growth.

I will start with the first point. EPA's National Ambient Air Quality Standards have provided enormous benefits, but the need for more protective standards is clear. Ozone pollution adversely affects people of all ages including pregnant women, children, healthy young adults, and the elderly. EPA's rules reduce the incidence of impaired lung function and other health problems for all these populations.

Ozone pollution control rules also strengthen the U.S. economy by preventing billions of dollars of damage to agricultural crops and forest products and through rubber textiles and paints. Controls and ozone precursor emissions also increase the productivity of America's current and future workforces by cutting the number of missed work and school days resulting from health problems linked to ozone exposure.

Despite the air quality improvements achieved under EPA's current ozone standards, more than 140 million Americans continue to live in areas with harmful levels of ozone pollution. In a recent study of the National Center for Atmospheric Research projected that warming temperatures could cause the number of unhealthy ozone pollution days to increase 70 percent by the year 2050. As a result, the Clean Air Act requires EPA to adopt more protective air quality standards that would produce air quality that is safe to breathe. Specifically EPA must set the standards at levels sufficient to protect the public health with an adequate margin of safety as well as protect the public welfare which includes effects on prop-

erty and economic values. The current standards do not meet that requirement and therefore need to be strengthened.

It is important to recognize that EPA's proposed standard is not the product of whimsy or executive overreach. EPA's proposals are a response to demands placed on it by the Clean Air Act itself. That law and the specific duties it imposes on the EPA was adopted in 1970 with overwhelming bipartisan support and was strengthened in 1990 through amendments supported and signed into law by President George H. W. Bush.

In the 45 years since the Act's adoption, EPA's critics have repeatedly argued that EPA must consider the cost of controlling pollution under the National Ambient Air Quality Standards. The courts have repeatedly and resoundingly rejected that claim, most notably, the unanimous Supreme Court opinion written by Justice Scalia. The court ruled that the Clean Air Act prohibits EPA from considering cost when it adopts these standards.

Now, it is critically important not to misunderstand these rulings. They don't mean that compliance costs and economic impact are irrelevant to the statute's operation. Instead, the courts have recognized that the statute empowers the states to take costs into account in designing and implementing plans to achieve the national standards by adopting adequate control strategies that meet their own economic and social needs. The statute therefore accommodates public health concerns and economic needs through a process that respects state sovereignty and discretion.

The economic benefits of air pollution controls are significant, even if they tend to be overlooked. They provide a productivity dividend by reducing work and school days lost to illness-related air pollution exposure. EPA estimates that its Clean Air Act regulations prevented 13 million lost work days in 2010 alone. These regulations also can create new markets and opportunities for entrepreneurs as federal and state energy efficiency regulations have done. Environmental regulation can spur businesses to revolutionize their production processes in ways that lead to greater productivity and profitability as numerous examples under the statute and other laws have shown.

I will be happy to answer any questions the committee may have.

[The prepared statement of Mr. Glicksman follows:]

Statement of Robert L. Glicksman
to the House Energy and Commerce Committee's
Subcommittee on Commerce, Manufacturing and Trade and
Subcommittee on Energy and Power

Hearing on "EPA's Proposed Ozone Rule: Potential Impacts on Manufacturing"
June 16, 2015

Chairman Burgess, Chairman Whitfield, Ranking Member Schakowsky, Ranking Member Rush, and members of the subcommittees, I appreciate the opportunity to testify today on why strong standards to reduce ozone air pollution are both necessary to fulfill the Clean Air Act's congressionally-mandated public health goals and consistent with a strong economy in which manufacturers can prosper and thrive.

My name is Robert L. Glicksman. I am the J.B. & Maurice C. Shapiro Professor of Environmental Law at The George Washington University Law School. I am also a member scholar at the Center for Progressive Reform (CPR). I graduated from the Cornell Law School and have practiced and taught environmental and administrative law for more than 35 years.

My testimony makes four key points:

1. A strong national ozone pollution standard that fulfills the public health goals of the Clean Air act will deliver significant benefits for human health and the environment.
2. Regulations, such as the Environmental Protection Agency's (EPA) pending ozone standard, can and do provide important economic benefits for U.S. businesses, including those in the manufacturing sector.
3. A frequently cited study purporting to find catastrophic economic effects from a strong ozone standard is flawed and fails to provide a reliable accounting of the rule's potential impacts.
4. To the contrary, the available evidence confirms that strong national standards for ozone pollution are not an impediment to economic growth.

I. STRONG NATIONAL OZONE POLLUTION STANDARDS HAVE ALREADY DELIVERED SIGNIFICANT PUBLIC HEALTH AND ENVIRONMENTAL BENEFITS, AND MORE PROTECTIVE STANDARDS WOULD BENEFIT THE PUBLIC EVEN MORE

Clean Air Act regulations to limit dangerous ground-level ozone pollution rank among this country's most successful environmental policies. These rules help prevent around 4,300 premature deaths, 86,000 emergency room visits, and 3.2 million lost school days every year.[1] EPA estimates that by 2020 these rules will deliver even greater benefits, helping prevent as many as 7,000 premature deaths, 120,000 emergency room visits, and 5.4 million lost school days every year. The health benefits of reducing ozone pollution are numerous. For example, The National Research Council concluded that short-term exposure to low levels of ground-level ozone can impair lung function and contribute to heart disease, resulting in increased illnesses, hospitalization, and even death.[2] Ozone pollution affects people of all ages. Recent studies show that a mother's smog exposure also may reduce the size of her newborn infants.[3] One study concluded that exposure of healthy young adults to 0.06 ppm ozone (a lower concentration than the current ozone standard allows) for 6.6 hours causes significant pulmonary function and airway inflammation.[4] Older people and people living in cities without air conditioning seem to be at particular risk.[5]

Ozone pollution-control rules have also strengthened the U.S. economy by promoting the health of the agriculture and forestry sectors. EPA estimates that in 2010 the rules prevented

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[1] U.S. ENVTL. PROTECTION AGENCY, OFF. AIR & RADIATION, THE BENEFITS AND COSTS OF THE CLEAN AIR ACT FROM 1990 TO 2020: SUMMARY REPORT 14 (2011), *available at* http://www.epa.gov/cleanairactbenefits/feb11/summaryreport.pdf.

[2] COMMITTEE ON ESTIMATING MORTALITY RISK REDUCTION BENEFITS FROM DECREASING TROPOSPHERIC OZONE EXPOSURE, NATIONAL RESEARCH COUNCIL, ESTIMATING MORTALITY RISK REDUCTION AND ECONOMIC BENEFITS FROM CONTROLLING OZONE AIR POLLUTION (2008).

[3] *See* Rich et al., *Differences in Birth Weight Associated with the 2008 Beijing Olympic Air Pollution Reduction: Results from a Natural Experiment*, ENVTL. HEALTH PERSPECTIVES, DOI:10.1289/ehp.140879 (2015).

[4] Kim et al., *Lung Function and Inflammatory Responses in Healthy Young Adults Exposed to 0.06 ppm Ozone for 6.6 Hours*, 183 AM. J RESPIRATORY & CRITICAL CARE MED. 1215 (May 1, 2011).

[5] *See, e.g.*, Bell et al., *A Meta-Analysis of Time-Series Studies of Ozone and Mortality with Comparison to the National Morbidity, Mortality, and Air Pollution Study*, 16 EPIDEMIOLOGY 436 (2005).

$5.5 billion worth of crops and forest products being lost to ozone-related damage; by 2020, EPA predicts that they will annually prevent losses of crops and forest products worth $10.7 billion. The ozone standards also reduce the damage to rubber, textiles, and paints that result from ozone pollution. Because exposure to even low levels of ozone pollution can trigger asthma attacks and aggravate lung diseases such as bronchitis, ozone pollution also results in missed work and school days, impairing the productivity of America's current and future work forces.

But more can and should be done. According to the American Lung Association, nearly half of all Americans—more than 140 million people in all—continue to live in areas with harmful levels of ozone pollution.[6] A 2011 analysis by the Natural Resources Defense Council found that U.S. communities had issued more than 2,000 Code Orange and Code Red ozone alerts in just the first seven months of that year alone.[7] The poor and racial minorities are disproportionately harmed since the highest pollution levels are typically found in urban and economically distressed communities. For example, a 2012 study by the Connecticut Department of Public Health found that asthma-related hospitalization rates were roughly twice as high for the state's most urban areas as compared to their neighboring suburbs, which the report in part attributes to disparities in relative air quality.[8] Rising temperatures brought about by global climate disruption threaten to make matters even worse. In a recent study, the National

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[6] Am. Lung Ass'n, *State of the Air 2014*, http://www.stateoftheair.org/2014/key-findings/ozone-pollution.html (last visited Oct. 31, 2014).

[7] Elizabeth Weise, *Report Details 2,000 Unhealthy Air Alerts in 2011*, USA TODAY, Aug. 11, 2011, *available at* http://usatoday30.usatoday.com/weather/news/extremes/story/2011/08/Report-details-2000-unhealthy-air-alerts-in-2011/49920218/1.

[8] AVA NEPAUL ET AL., THE BURDEN OF ASTHMA IN CONNECTICUT: 2012 SURVEILLANCE REPORT 53 (Conn. Dept. Public Health, 2012), *available at* http://www.ct.gov/dph/lib/dph/hems/asthma/pdf/full_report_with_cover.pdf.

Center for Atmospheric Research projects that climate disruption-related impacts could cause the number of unhealthy ozone pollution level days to increase 70 percent by 2050.[9]

To further protect people and the environment, EPA is working on a rulemaking that would strengthen the ozone National Ambient Air Quality Standard (NAAQS). The Clean Air Act was adopted in 1970 with overwhelming bipartisan support and was signed by President Richard Nixon. It was strengthened in 1990, with the support of President George H.W. Bush. The Act requires EPA to adopt national ambient air quality standards that sets maximum allowable outdoor concentrations of common air pollutants, called criteria pollutants. These pollutants are ones whose emissions cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare and whose presence in the air results from numerous sources. Ground-level ozone is one of those pollutants. The statute requires EPA to set the standards at levels that are sufficient to protect the public health, with an adequate margin of safety, and the public welfare, which includes effects on property and economic values. In other words, the standards represent levels of air pollution that are safe to breathe. And Congress, in adopting the statute, explicitly recognized that air pollution is capable of adversely affecting economic values as well as public health, and mandated that EPA take steps to reduce those effects.

In the 45 years since Congress passed the Clean Air Act, industry has repeatedly argued in the courts that EPA must consider the cost of controlling pollution under the national ambient air quality standards. The courts have consistently and resoundingly rejected that contention, most recently in a unanimous Supreme Court opinion written by Justice Antonin Scalia.[10] The

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[9] *Climate Change Threats to Worsen U.S. Ozone Pollution*, Nat'l Ctr. Atmospheric Res./Univ. Corp. Atmospheric Res. ATMOSNEWS, https://www2.ucar.edu/atmosnews/news/11540/climate-change-threatens-worsen-us-ozone-pollution (last visited Oct. 31, 2014).

[10] Whitman v. American Trucking Ass'ns, Inc., 531 U.S. 457 (2001).

Court ruled in that case that the Clean Air Act *prohibits* EPA from considering cost when it adopts the national ambient air quality standards. These rulings do not mean that compliance costs and economic impact are irrelevant to the Clean Air Act's operation. Instead, the courts have recognized that Congress established a regulatory program in which the states take cost into account in designing and implementing plans to achieve the national air quality standards. The statute gives the states broad discretion to adopt strategies for achieving the standards that meet their economic and social needs.

The Clean Air Act requires EPA to review the national ambient air quality standards for every criteria pollutant, including the one for ozone, at least once every five years. In doing so, EPA must solicit the input of an independent scientific review committee called the Clean Air Science Advisory Committee (CASAC), which was formed to advise the EPA on scientific matters related to its clean air regulations. The purpose of this periodic review process is to determine whether current science shows that the existing standards are consistent with achieving the statute's public health and welfare goals. If the scientific evidence shows that a standard is not protective enough to achieve those goals, EPA must amend the standards to make them more protective. Scientists have known for a long time that the current national standard for ozone of 75 parts per billion (ppb), which was set in 2008, is far too weak. CASAC has therefore recommended that the standard should be set as low as 60 ppb. EPA has estimated that restricting ozone pollution to this level would annually prevent up to up to 12,000 premature deaths, 5,300 nonfatal heart attacks, 58,000 cases of aggravated asthma, and 2.5 million missed school and work days.[11]

[11] U.S. ENVTL. PROTECTION AGENCY, FACT SHEET: SUPPLEMENT TO THE REGULATORY IMPACT ANALYSIS FOR OZONE (2010), *available at* http://www.epa.gov/glo/pdfs/fs20100106ria.pdf.

As it works towards completing its pending rulemaking, EPA should reestablish the ozone standard at a maximum concentration of 60 ppb. This standard is necessary to meet the Clean Air Act's requirement that the ozone NAAQS be set at a level "requisite to protect the public health" with "an adequate margin of safety." CASAC unanimously recommended in June 2014 that the agency revise the NAAQS downward to within the range of 60 to 70 ppb. Based on its review of the most up-to-date science on ozone's harmful health effects, CASAC further advised that EPA set the standard toward the lower end of its recommended range, noting that "the recommended lower bound of 60 ppb would certainly offer more public health protection than levels of 70 ppb or 65 ppb and would provide an adequate margin of safety." In August 2014, EPA staff echoed CASAC's recommendations in its final Policy Assessment report, providing further support for a NAAQS set at 60 ppb. EPA should also follow CASAC's advice in setting a separate "secondary" NAAQS necessary for protecting public welfare.

Unfortunately, in November 2014, the EPA announced that it was proposing to revise the ozone standard to within the range of 65 ppb to 70 ppb. This revision is much weaker than what EPA's advisors had called for, and it appears to be inconsistent with the clear statutory language adopted by Congress and interpreted by a unanimous Supreme Court. The proposal did, however, call for comments on revising the standard down to 60 ppb, a level that is more consistent with the best available science and the clear language of the Clean Air Act.

II. REGULATIONS OFTEN PROVIDE IMPORTANT ECONOMIC BENEFITS FOR BUSINESSES, INCLUDING MANUFACTURERS

The economic benefits of regulation for businesses can be significant, but are all too often overlooked. First and foremost, businesses receive a significant productivity dividend when their workers and their workers' families are healthy and safe. Public health and

environmental regulations in particular have been vital in reducing "lost work" days and "restricted activity" days that can undermine a business's productivity—and by extension its competitiveness and profitability. For example, EPA estimates that its Clean Air Act regulations prevented 13 million lost work days and 84 million restricted activity days in 2010.

Second, regulations can help to create new markets and opportunities for entrepreneurs. Energy efficiency regulations provide a good example. Energy efficiency standards adopted by the federal government and the states, such as the corporate average fuel economy standards established jointly by EPA and the National Highway Traffic Safety Administration or standards for consumer products, are pushing American companies to develop more energy efficient products at lower costs. As a result, these products are now and will continue to be attractive both domestically and in foreign markets for consumers and businesses that desire to save money on their fuel and electricity bills. Significantly, these standards can help to ensure that American businesses are well-positioned to be the world's leaders in meeting the growing demand for energy efficient products.

Third, regulations can spur businesses to revolutionize their production processes in ways that lead to greater productivity and profitability. For example, in 1978, OSHA issued the Cotton Dust rule to protect workers from harmful exposures to cotton dust, which can cause byssinosis (or "brown lung" disease). Much like silicosis, brown lung disease is a debilitating and potentially fatal disease that significantly impairs lung function. OSHA later found that, as a result of the Cotton Dust rule, the number of byssinosis cases among textile workers in the country declined from approximately 50,000 in the early 1970s to around 700 in the mid-1980s,

a decline of 99 percent.[12] Significantly, though, the investments that companies covered by the rule made in developing new equipment to comply with the rule also served to increase the industry's productivity and profitability. In a 2000 retrospective review of the rule that OSHA conducted pursuant to the Regulatory Flexibility Act, the agency found that in the years before the rule's full implementation, the industry's productivity rate grew at a rate of roughly 2.5 percent. In the years after, however, the productivity growth rate had increased to 3.5 percent.[13]

Fourth, as recent episodes illustrate, when industrial-scale catastrophe results from a failure to regulate adequately, the attendant costs can be devastating for impacted businesses. Think of all the restaurants and cafés in Charleston, West Virginia that had to close their doors for several days or even weeks following the 2014 spill of MCHM into the Elk River. Or think of all the hotels, charter fisherman, and souvenir shop owners that were devastated by the ongoing fallout from the 2010 Gulf Oil spill. Stronger regulations that are necessary for preventing these catastrophes or for minimizing their harmful consequences would thus deliver particularly large benefits to many businesses that might otherwise be caught in harm's way.

III. INDUSTRY STUDIES ON THE PURPORTED IMPACTS OF THE EPA'S PENDING NATIONAL OZONE AIR POLLUTION STANDARD ARE FLAWED AND THEIR RESULTS ARE UNRELIABLE

Over the last several months, the National Association of Manufacturers (NAM) has released a series of reports that purport to calculate the total economic impacts of EPA's proposed national ozone standard. The most recent study from February 2015 claims to look at what these impacts would be if EPA adopts a NAAQS of 65 ppb—the lower end of its proposed range. It concludes that the rule's compliance costs would reduce the US gross domestic product

[12] OCCUPATIONAL SAFETY & HEALTH ADMIN., OFFICE OF PROGRAM EVALUATION, REGULATORY REVIEW OF OSHA'S COTTON DUST STANDARD ii, 28-33 (2000), *available at* https://www.osha.gov/dca/lookback/cottondust_final2000.pdf.
[13] *Id.* at 22, 35-38.

by about $140 billion per year between 2017 and 2040 and result in "an average annual loss in employment income equivalent to 1.4 million jobs." Opponents of more protective air quality standards have cited these eye-catching numbers repeatedly ever since publication of the studies.

The report suffers from several key flaws, and its results are so unreliable that they detract from rather than promote a meaningful understanding of the proposed ozone rule's potential impacts. As a threshold matter, the study fails to consider the rule's public health and environmental benefits. Any policy decision will look bad if only its costs are considered in this kind of one-sided analysis. Ultimately, it is impossible to discern the real value of a policy without considering both costs and benefits in some manner. The failure to provide an assessment of the benefits of a new ozone standard makes the NAS studies inherently incomplete and their results fundamentally misleading.

The NAM study's methodology also contains several flaws, leading it to significantly overestimate the rule's potential costs and "job loss" impacts. The vast majority of the study's cost estimates comes from the faulty approach that the authors employed to estimate the cost of ozone emissions reductions through "non-existing" control methods and technologies. Like EPA, the study starts from the observation that existing technologies are insufficient to achieve a tighter ozone standard. By definition, the costs of developing and implementing new methods and technologies are unknown, so they must be predicted. The NAM's study took a highly unusual approach to making this prediction: It assumed that the environmental programs that would produce these reductions would look exactly like a non-environmental program known as "Cash for Clunkers."

The "Cash for Clunkers" program was not designed to reduce ozone pollution; rather it was part of Congress's 2009 economic stimulus program. But, because it had the effect of

replacing polluting old cars with cleaner new ones it also had the ancillary benefit of reducing ozone and other air pollutants. Few would disagree that, as a pollution control strategy, an approach like the "Cash for Clunkers" program is highly inefficient; the cost-per-ton of pollution reduction is extremely high, particularly compared to other pollution control strategies. That's why no one ever really thought of it as a pollution control strategy—that is, until NAM published its ozone costs study.

Using "Cash for Clunkers" as its model, the NAM study concludes that the per-ton cost of ozone reduction through "non-existing" technologies would be about $500,000. By applying this per-ton cost to most of the emissions reductions that would be needed to meet an ozone NAAQS of 65 ppb, the NAM study produced huge total cost estimates.

In reality, of course, meeting a tighter ozone standard would be much cheaper. That is why some observers have characterized the NAM study's approach to developing this prediction as both "unrealistic," leading to grossly overstated cost estimates. Laurie Johnson at the Natural Resources Defense Council was able to put the results of NAM's study in perspective by noting that the EPA's 2011 Cross-State Air Pollution Rule was estimated to generate reductions of NOx—an ozone precursor—for as little as $500 per ton. This per-ton reduction cost is 1,000 times less than the NAM's per-ton cost estimate.[14] States and sources obviously will seek to comply with obligations stemming from a more protective ozone standard by choosing the least-cost available method of controlling ozone precursors, not the most expensive.

Trying to predict the costs of "non-existing" pollution control methods and technologies is notoriously difficult. One overarching trend, though, is that predicted estimates, especially but

[14] Laurie Johnson, *National Association of Manufacturers: Thin Air*, SWITCHBOARD, Sept. 16, 2014, http://switchboard.nrdc.org/blogs/ljohnson/national_association_of_manufa.html (last visited June 13, 2015).

not exclusively those provided by regulated entities, tend to be overstated.[15] With a dynamic economy, regulated businesses are often able to find cheaper ways to meet new requirements than seemed possible at the time regulatory standards were being considered. Indeed, this result is consistent with well-functioning free markets. Industries adapt to new challenges, including those posed by needed health-protective regulations, and new technologies develop and become more cost-effective as they spread to more and more firms. EPA's NAAQS process seeks to take advantage of the economy's dynamic features, by affording enormous flexibility to the state agencies that implement the actual pollution requirements needed for meeting NAAQS. States are able to take advantage of their unique local circumstances to find the cheapest ways to meet tougher air pollution standards, and the Clean Air Act provides states with lead time before regulatory deadlines kick in, which allows for technological innovation as well as opportunities for adaptation within and across affected industries.

Further undermining the study's findings of high costs is the fact that the vast majority of the country is already on target to meet at least a 70-ppb NAAQS by 2025 by simply implementing pollution control measures that are already on the books or that are under development. As John Walke of the Natural Resources Defense Council points out, if that is the case, then this suggests that the NAM study has likely overestimated the need for "non-existing"

[15] Thomas O. McGarity & Ruth Ruttenberg, *Counting the Cost of Health, Safety, and Environmental Regulation*, 80 TEX. L. REV. 1997, 2011, 2044-50 (2002). Several retrospective studies have found that *ex ante* cost predictions were overestimated. *See, e.g.*, Winston Harrington, Richard D. Morgenstern, & Peter Nelson, *On the Accuracy of Regulatory Cost Estimates* 6 (Resources for the Future, Discussion Paper 99-18, 1999) (citing PUTNAM, HAYES, & BARTLETT, INC.., COMPARISON OF ESTIMATED AND ACTUAL POLLUTION CONTROL CAPITAL EXPENDITURES FOR SELECTED INDUSTRIES (Report prepared for the Office of Planning & Evaluation, U.S. Envtl. Protection Agency, 1980)), *available at* http://www.rff.org/documents/RFF-DP-99-18.pdf.

pollution control methods and technologies to meet the new ozone NAAQS.[16] This, too, would lead the study to greatly exaggerate the rule's likely costs.

Another questionable premise of the NAM study is its assumption that the ozone standard will force one-third of coal-fired electricity generating units to shut down, to be replaced by costly new power plants. Putting aside the questionable nature of the predicted scope of power plant retirements, the fate of coal-fired generating units must be put in perspective. It is inaccurate to attribute all of the replacement of coal-fired electricity production to federal environmental regulation. A primary driver of this trend is the low price of natural gas.

Another major flaw with the NAM ozone study is the methodology it uses to estimate the rule's so-called negative employments. Critically, the study does not necessarily find that a tighter ozone NAAQS would result in significant job losses. Rather, the study finds that a more protective ozone standard would result in slight income reductions for U.S. workers. Spread out across the more than 100 million people employed in the United States, the study thus finds that the ozone rule would produce a huge total loss in income. It then attempts to equate this lost income with job losses, by dividing the total income loss by the average wage among U.S. workers. This is why the study's results are stated as lost "employment income equivalent." In reality, it is unclear what impact a more protective ozone standard would have on jobs and individual wages.

IV. THE AVAILABLE EVIDENCE CONFIRMS THAT STRONG OZONE STANDARDS AND A STRONG ECONOMY GO HAND IN HAND

Regulatory opponents contend that environmental, health, safety, and other regulations slow economic growth and contribute to job losses. But, as with any type of spending,

[16] John Walke, *Industry Opponents of Safer Air Knows It's Coming; They Just Want to Deny You That Right*, SWITCHBOARD, Apr. 28, 2015, http://switchboard.nrdc.org/blogs/jwalke/the_national_association_of_ma.html (last visited June 13, 2015).

regulatory compliance generates economic activity. While it is often difficult to measure whether on balance job gains from this spending offset any job losses, existing studies do not support the conclusion that regulation retards job growth. Instead, the studies find either no overall impact or, in some cases, an actual increase in employment.[17] This finding should not be surprising. After all, money spent on regulation contributes to the economy, because firms must buy equipment and labor services in order to comply with regulation.

Most of the evidence concerning the impact of regulation on employment comes from studies of environmental regulation. Table 1 summarizes the findings of the key studies:

Source	Segment of Economy Affected by Environmental Regulation	Net Impact on Employment
Bezdek, et.al. (2008)[18]	Entire economy	• Increase
Morgenstern, et.al. (2000)[19]	Four polluting industries	• Increase in petroleum and plastics • No statistically significant impact in pulp and paper and steel
Berman & Bui(2001)[20]	Los Angeles area (Clean Air Act)	• No evidence of decrease • Probable slight increase
Goodstein (1999)[21]	Entire economy	• 7 of 9 available studies found increase • 1 study found decrease • 1 study found mixed results

Table 1: Impact of Environmental Regulation on Employment

[17] *See* Isaac Shapiro & John Irons, *Regulation, Employment & and the Economy: Fears of Job Loss Are Overblown* (Envtl. Pol'y Inst., Briefing Paper No. 305, 2011) (summarizing the evidence), *available at* http://epi.3cdn.net/961032cb78e895dfd5_k6m6bh42p.pdf; Frank Ackerman & Rachel Massey, *Prospering with Precaution: Employment, Economics, and the Precautionary Principle* (Global Dev. & Env't Inst., Working Paper, 2002) (same), *available at* http://www.healthytomorrow.org/attachments/prosper.pdf.

[18] Roger H. Bezdek, Robert M. Wendling, & Paula Di Perna, *Environmental Protection, the Economy, and Jobs: National and Regional Analyses*, 86 J. ENVTL. MGMT. 63 (2008).

[19] Richard D. Morgenstern, William A. Pizer, & Jhih-Shyang Shih, *Jobs versus the Environment: An Industry-level Perspective* (Resources for the Future, Discussion Paper 99-01-REV, 2000), *available at* http://www.globalurban.org/Jobs_vs_the_Environment.pdf.

[20] Eli Berman & Linda T.M. Bui, *Environmental Regulation and Labor Demand: Evidence from the South Coast Air Basin*, 79 J. PUB. ECON. 265 (2001).

[21] EBAN GOODSTEIN, THE TRADE-OFF MYTH: FACT AND FICTION ABOUT JOBS AND THE ENVIRONMENT (1999).

In addition to these studies, the Environmental Policy Institute (EPI) found that Department of Labor data suggest that few jobs are lost because of regulation.[22] The Bureau of Labor Statistics has developed an "extended mass layoff" data series, which examines the reasons why companies lay off 50 or more workers for more than 30 days. Since 2007, about 1.5 million workers per year have lost their jobs in such layoffs. Significantly, the data series is based on employer-supplied information. According to this information, an average of only 0.3 percent of workers lost their jobs because of government regulations or intervention during the years 2007-2009. This result is similar to data concerning layoffs prior to 2007.[23] As the EPI notes, it is "striking" how few of these layoffs employers attribute to government regulations/intervention."[24] (By comparison, the same data find that extreme weather events have caused more extended mass layoffs.[25]) Moreover, the small number of workers who lost their jobs because of government regulation "pales in comparison to any accounting of the jobs lost in this period due to the regulatory failures that contributed to the economy's financial crisis."[26]

Another alleged impact of regulation is that it drives companies to transfer manufacturing overseas in order to remain competitive in international markets, which causes job losses at home. Economists have attempted to confirm that businesses flee to "pollution havens" to avoid domestic environmental regulation, but it is difficult to isolate this reason for moving manufacturing overseas from other factors, such as the availability of natural resources, new

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[22] Shapiro & Irons, *supra* note 17, at 20.
[23] *Id.*; *see* GOODSTEIN, *supra* note 21 at 35-37 (summarizing data from 1970-90 and finding similarly small numbers of workers being laid off because of environmental regulations).
[24] Shapiro & Irons, *supra* note 17, at 20.
[25] *Regulations Do Not Hinder U.S. Job Market, Paper Finds*, OMB WATCH, http://www.ombwatch.org/node/11615 (last visited June 1, 2011).
[26] Shapiro & Irons, *supra* note 17, at 20.

markets, and the supply and cost of local employees. The studies summarized in Table 2 indicate what economists have found:

Source	Environmental Regulation and Competitiveness
Jaffee, et.al (1995)[27]	Relatively little evidence of negative impact
Brunnermeier & Levinson (2004)[28]	Studies find some negative impacts
Pasurka (2008)[29]	Studies split concerning negative impact
Hanna (2010)[30]	Small negative impact

Table 2: Impact of Environmental Regulation on Competitiveness of Domestic Firms

The evidence about outsourcing due to regulation is mixed at best, and it does not suggest that regulation causes a large shift of manufacturing jobs to overseas firms.[31] Moreover, the compliance costs to regulated companies cannot be viewed in isolation. Firms in the United States, for example, spend about the same amount of money on environmental regulation as do the countries of the Organization for Economic Cooperation and Development (OECD).[32] While the cost of regulation may be less in China or India, few Americans would want to live with the appalling air and water pollution present in those two countries. Finally, regulation can increase competitiveness, rather than decrease it. There is considerable evidence that as firms innovate in response to regulatory requirements, they become stronger international competitors because of innovation.[33]

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[27] Adam B. Jaffe et al., *Environmental Regulation and the Competitiveness of U.S. Manufacturing: What Does the Evidence Tell Us?*, 33 J. ECON. LITERATURE 157 (1995).
[28] Smita B. Brunnermeier & Arik Levinson, *Examining the Evidence on Environmental Regulations and Industry Location*, 13 J. ENV'T. & DEV. 6 (2004).
[29] Carl Pasurka, *Perspectives on Pollution Abatement and Competitiveness: Theory, Data, and Analyses*, 2 REV. ENVTL. ECON. & POL'Y 194 (2008).
[30] Rema Hanna, *U.S. Environmental Regulation and FDI: Evidence from a Panel of U.S.-Based Multinational Firms*, 2 AM. ECON. J.: APPLIED ECON. 158 (2010) (finding regulation has caused 5.3 percent increase in foreign assets).
[31] Shapiro & Irons, *supra* note 17, at 19.
[32] *Id.*; Pasurka, *supra* note 29, at 207 (finding the difference between the U.S. and other OECD countries in terms of spending on environmental protection "largely disappeared by the 1990s").
[33] *See, e.g.*, Michael Porter, Hans Landsberg Memorial Lecture (Jan. 19, 2011), at 11-12 (noting many examples of where, despite very strict standards and regulations in a particular country in a particular field, the country was competitive in that field), *available at* http://www.rff.org/Events/Documents/110119.pdf.

These broader results are consistent with evidence on the economic impacts of strong national ozone air pollution standards. For example, opponents of strong ozone protections claim that areas of the country that are determined to be out of compliance with the applicable ozone standard—known as "nonattainment areas"—are incapable of sustaining economic growth. They claim that the costly measures these areas must undertake to meet the standards effectively prevent businesses from engaging in many kinds of economic activities. As John Walke at the Natural Resources Defense Council points out, though, seven of the ten fastest growing state economics have ozone nonattainment areas within their borders.[34] Clearly, the existence of these areas did not serve as insurmountable obstacle to continued economic achievement.

The long-term trends also confirm the finding that combatting air pollution is consistent with a strong economy. As John Walke and others have observed, EPA's ozone standards have succeeded in reducing the country's ozone pollution levels by 70 percent since 1970. During that time, the U.S. economy has grown by over 240 percent.[35]

Thank you. I'd be pleased to answer any questions you might have.

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[34] John Walke, *Industry Lobbyists' Latest Whoppers Fighting Safe Air For Americans*, SWITCHBOARD, June 5, 2015, http://switchboard.nrdc.org/blogs/jwalke/industry_lobbyists_latest_whop.html (last visited June 13, 2015).
[35] *Id.*

Mr. WHITFIELD. Well, thank you very much, Mr. Glicksman. And at this time I would like to recognize Dr. Gregory Diette who is the Professor of Medicine at Johns Hopkins University School of Medicine, and he is testifying on behalf of the American Thoracic Society. Thanks for being with us today, and Dr. Diette, you are recognized for 5 minutes.

STATEMENT OF GREGORY B. DIETTE

Dr. DIETTE. Thank you, Mr. Whitfield, and thank you to the other chairman and the ranking members and all the members at these important subcommittees. I really appreciate the opportunity to talk to you today. As you said, my name is Dr. Gregory Diette, and I practice at Johns Hopkins University in Baltimore, Maryland. I am a pulmonologist there which means I take care of sick people with lung diseases, especially people that are very sick with lung diseases. These are people that have trouble breathing.

You have my written testimony in front of you, and I just wanted to try to elaborate on a couple of points that I wanted to clarify. One is and the first thing is that ozone is bad for people with lung disease. That is not news. That is not news to anybody on these subcommittees, but it is an irritant that bothers the lungs. Multiple research studies in different parts of the country, different parts of the world, have shown that people with diseases like asthma, COPD, and other lung diseases, when they are exposed to ozone, they get sick.

What sick means is—sometimes it means you might need to increase the amount of medicine you are taking. Sometimes it means you are going to go to your doctor's office. Sometimes it means staying in the hospital overnight, and sometimes it means dying from an attack of COPD or from asthma.

The second point that I want to make is that ozone pollution is bad for otherwise healthy people, too. That's really important. We use different ways in order to try to irritate the lungs to prove if somebody has asthma. Ozone does that in normal, healthy people. It is scary.

Third, it doesn't matter if ozone is from the next city, the next county, or from a neighboring state. Ozone is ozone, and it bothers the lungs whether or not it started where you live or it started somewhere else.

The fourth point I want to make is about public health, and I think public health sometimes gets sort of lost. We talk about a lot of numbers, millions of people with this, hundreds of thousands with that. I think what is important about public health is it is actually a collection of stories from all over America about people who have illnesses and suffer from them sometimes. What it can mean, for example, is it can mean a mom that is in the emergency department with her kid hoping that he survives that asthma attack, and in the back of her mind wondering, is she going to be able to take off another day from work. And that is an important point. She might not be able to go to work, to her job, because her son is sick.

The issue that she will face also is how she pays for the care that she gets there. You have to understand what an asthma attack is, too. It is terrifying. People say they can't get enough air. Some peo-

ple say they can't breathe. Other people say it feels like there is an elephant on my chest. They think they are going to die. People feel panic. They can't stop coughing. Sometimes they can't walk, and their medications sometimes work and sometimes they don't.

I asked a patient of mine by e-mail if she could help describe for these subcommittees what the role is of ozone in her particular life, and she is a 29-year-old woman who is fully employed, college-educated, and she has lung damage from being born prematurely and now has asthma. And she says things like I am very sensitive to air quality, specifically areas with large amounts of pollution on code red and code orange days. She talks about those days that she is unable to work, right? She is unable to work. She can't go outside to do her normal-life activities. These are her words. She said even stepping on the balcony of her condo can cause her to have a severe flare-up of her asthma. She can't do simple errands, like going to the grocery store. She can't make it sometimes from the door to her car without difficulty. She is very dependent on her rescue inhaler on those particular days.

She said that she is very dependent on the forecasts that are available for when there is going to be high ozone days because she needs to remember to take her inhaler with her, and she said unfortunately, sometimes she has to change plans with her friends and her family due to the air quality.

The final point I want to leave you with is that the science is strong and compelling. Since 2006 when the Bush Administration EPA looked at the ozone standard, the American Thoracic Society recommended a more protective standard of 60 parts per billion. We are confident of our recommendation then. We are more confident now. There are additional studies that have come out since that time period which have strengthened our understanding of the science.

The EPA is not basing their proposed protective ozone standard on 1 study. It is not ten studies. It is literally hundreds of studies that have helped to inform this rule. It includes multiple scientific methods including animal studies, mechanistic studies, human population studies, natural experiment studies, and meta-analyses. What these studies show is that the current ozone standard is not protective of public health and that the EPA must issue a more protective standard.

Thank you very much for inviting me here, and I appreciate any questions you might have.

[The prepared statement of Dr. Diette follows:]

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Comments from the American Thoracic Society
Presented by Gregory B. Diette MD
House Energy and Commerce Committee
on
EPA's Proposed Ozone National Ambient Air Quality Standard
June 16, 2015

Mr. Chairman, Ranking member, my name is Dr. Gregory Diette. I am a pulmonologist in the Division of Pulmonary and Critical Care Medicine at Johns Hopkins University in Baltimore, Maryland. On behalf of the American Thoracic Society I want to thank the Committee for the opportunity to testify regarding the Ozone National Ambient Air Quality Standard proposed by the Environmental Protection Agency (EPA). The American Thoracic Society is a medical professional organization with over 15,000 professionals and patients who are dedicated to the prevention, detection, treatment and cure of respiratory disease, critical care illnesses and sleep-disordered breathing. We pursue our mission through research, clinical care, education and advocacy.

Ozone (O_3) is a potent oxidant that damages the airways and lungs. The American Thoracic Society strongly supports EPA's proposal to strengthen the National Ambient Air Quality Standard for ozone. If anything, we are disappointed EPA did not go further in recommending a stronger standard of 60 ppb.

For several years, the ATS has encouraged the EPA to issue a more protective ozone standard. When the standard was reviewed in 2007 under the Bush Administration, we recommended a standard of 60 ppb based on the available evidence at that time. When the Obama Administration first reconsidered this standard in 2010, we again urged 60 ppb. While the recommended standard endorsed by physician community has not changed during this time, the scientific evidence supporting this recommendation has significantly strengthened. The scientific evidence available seven years ago justifying this recommendation has been supplemented by an even greater understanding of the health effects of ozone exposure, including higher rates of respiratory disease in infants and children, reduced lung function, and increased mortality in adults. Indeed, there is clear, consistent, and conclusive evidence that we believe should compel EPA to establish an ozone standard no higher than 60 ppb [**1,2**].

It is the second time that the Obama Administration has considered the current ozone standard of 75 ppb. In 2007, the Bush administration established the current standard outside of the range recommended by the independent Clean Air Science Advisory Committee (CASAC) of 60 ppb to 70 ppb [**3**]. In 2010, CASAC reaffirmed its initial recommendation as part of an early reassessment the ozone standard, an effort that was ultimately abandoned in 2011 [**4**]. Since a new scientific assessment was not conducted as part of that review, the current review of the ozone standard is the first to consider new scientific evidence since 2006.

Ozone exposures in the range of 60 ppb to 70 ppb have adverse physiologic effects across the entire age spectrum—from newborn infants to the elderly. While there is also some evidence of health effects of ozone exposure below 60 ppb, the strongest evidence supports the conclusion that serious adverse health effects occur across all ages at levels above 60 ppb.

Highlights of this new body of evidence include several lines of evidence demonstrating dose-response relationships between ozone exposure in the 60-80 ppb range and childhood asthma hospital admissions and emergency room visits. [**6-9**] A new study of emergency department visits by preschool children in Atlanta found that a 30 ppb increase in the three-day average of ozone was associated with an 8% higher risk of pneumonia [**5**].

Suffice it to say, ozone pollution – at levels permissible under the current standard – makes children sick. EPA has the authority and obligation to set a standard that protects children from the adverse health effects of ozone exposure. But it's not just children -- adults are also harmed by ozone exposure.

Research has also shown that for each incremental rise in ozone exposure, severe asthma exacerbations, emergency room visits, and hospitalizations for asthma increase for adults [**9-11**]. Similar associations have been found for adult admissions for chronic obstructive pulmonary disease and [**12, 13**] and pneumonia [**13**]. A population-based cohort study of generally healthy adults found that lung function (FEV_1) was lower after days when ambient ozone ranged from 59 ppb to 75 ppb compared to days with levels under 59 ppb [**14**]. Healthy individuals have normal lung function. Not surprisingly, poorer lung function is associated with greater morbidity in patients who have chronic respiratory diseases and lowers the threshold for exacerbations. Controlled human exposure studies have re-affirmed lung function decrements in healthy adults after exposure to 60 ppb to 70 ppb of ozone [**15, 16**]. Perhaps of greatest concern, there is now stronger evidence of increased mortality in association with higher ozone levels [**17-19**], particularly among the elderly and those with chronic disease [**20, 21**]. These large, multi-city studies found strong and consistent associations with increased risk of premature death, particularly in the warmer months when ozone levels are higher.

In sum, there is accumulating evidence that ozone pollution – at levels permitted by the current standard – is damaging to the human lungs and contributes to disease. We strongly encourage EPA and the Administration to move forward with a strong standard of 60 ppb to protect our nation's health from known health effects of ozone.

While the evidence on ozone and respiratory effects is comprehensive and compelling, recent studies have shown adverse health effects beyond the lung. The Integrated Science Assessment (ISA) has concluded that, "...the evidence is stronger for most every health endpoint, with causal findings strengthened from 'suggestive' to 'likely causal' for cardiovascular effects and total mortality from short-term exposures." In addition, the ISA noted that ozone affects the central nervous system and brain, and comments that a number of recent toxicological studies revealed various changes in neurologic function or histology with long-term exposure to ozone, including changes similar to those observed in neurodegenerative disorders, such as Parkinson disease and Alzheimer disease. The ISA concluded that, "...the toxicological evidence for the impact of O3 on the brain and behavior is strong, and suggestive of a causal relationship between O3 exposure and effects on the central nervous system. "[**22**]

In summary, research only reaffirms and deepens our understanding of the health effects of ozone exposure. Without question, the current EPA ozone standard fails to protect America's public health. The Environmental Protection Agency and the Administration both have the authority and the obligation to establish a more protective ozone standard. The American Thoracic Society strongly urges EPA and the Administration to finalize a more protective ozone standard of 60 ppb.

I would be happy to answer any questions.

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Mr. WHITFIELD. Well, thank you, Dr. Diette. And at this time I would like to recognize our next witness, Dr. Louis Anthony Cox who is the president of Cox Associates and the Chief Science Officer for NextHealth Technologies. Dr. Cox, you are recognized for 5 minutes.

STATEMENT OF LOUIS ANTHONY COX, JR.

Mr. COX. Chairman Burgess, Chairman Whitfield, and members of the subcommittees, thank you for inviting me to discuss the human health aspects of EPA's proposed ozone rule. I am testifying on my own behalf today, understanding that well-informed policy making must consider the likely and foreseeable impacts of the proposed rule on human health, as well as on economic end points. I have lived in Denver since 1987, so I care a lot about air pollution personally. But today I want to focus on what science and data tell us about how changes in ozone affect public health.

I have provided the committee members with a detailed CV describing my academic, publishing, professional, and consulting affiliations and my service as a member of the National Academy of Engineering and as clinical professor of Vital Statistics and Informatics at the University of Colorado, School of Public Health.

In evaluating whether costly proposed regulations are in the public interest, we should ask first, how well will a regulation really work? That is, will it actually cause the desired benefits that motivate it which we have been hearing about? Second, how sure can we be? For how sure we can be, EPA's Health Affects Risk Assessment Report for Ozone clearly warns that their estimation of health impacts uses inaccurate models with significant uncertainties that they have not been able to quantify. Unfortunately this leaves policymakers and the public uninformed about how likely it is that the proposed ozone rule will really cause the substantial public health benefits that EPA estimates and how likely it is to instead produce other outcomes, such as no public health benefits.

We can summarize EPA's uncertainty analysis very simply, by saying that no one can tell from their published risk assessment documents what the true effects of the proposed rule on public health would be. Fortunately, despite this important gap, it is quite easy to find out the correct answer. For decades EPA and the Centers for Disease Control and Prevention have kept data on the ozone levels and public health, mortality, and morbidity rates at hundreds of locations across the United States. It is straightforward to examine what has happened to ozone and what has happened to health risks in hundreds of counties. It is also easy to apply objective, statistical methods for causal analysis to these data to determine how, if at all, ozone levels and mortality and morbidity rates are causally related.

Such analyses revealed the following key points: First, as reported in hundreds of studies, there are positive, statistical associations between ozone levels and mortality and morbidity rates in many locations. Both tend to be higher in some places and at some times than others. For example, both ozone levels and cardiovascular mortality rates used to be higher decades ago than they are now.

EPA interprets such repeated findings of positive associations as evidence of causation, but in fact, they are only evidence for correlation. Dr. Diette says that ozone bothers the lungs, but they are not bothered less at lower concentrations.

Second, mortality and morbidity rates have fallen just the same where ozone levels have increased as where they have decreased. Both short-run and long-run studies that have rigorously examined changes in ozone levels and changes in public health risks pray possible causal relation between them have not found one. How ozone changes does not help to predict or explain how mortality rates will change. This means that the statistical association between them is coincidental, not causal.

These facts answer the question that EPA's Health Risk Assessment for Ozone left unanswered. The human health benefits that EPA and others predict from the proposed ozone rule will not materialize. We know this because they have not materialized in the past. Reductions in ozone much larger than those now being proposed have already occurred without causing any detectible improvements in public health. To predict they will do so in the future is simply wishful thinking and bad statistics based mainly on using uncertain and inaccurate models and are confusing historical correlation with future causation.

Current ozone levels are already low enough so the further reductions should not be expected to cause improvements in public health.

EPA's conclusions about the causal impacts of ozone reductions on public health run against these empirical findings, but their conclusions are based on unreliable, subjective judgments of selected experts on models that they concede are inaccurate and have large but unquantified uncertainties and unmistakenly treating correlation as causality. None of these methods produces trustworthy conclusions.

In summary, we know from extensive real-world experience that EPA's predicted health benefits from the proposed rule are only artifacts of inaccurate modeling assumptions. Assuming that smaller future reductions in ozone will accomplish benefits the previous larger reductions have not is unwarranted. There is no need to repeat the costly effort to obtain better public health by further reducing ozone levels. We already know from abundant historical experience that doing so does not work.

Thank you for your attention.

[The prepared statement of Mr. Cox follows:]

WRITTEN STATEMENT OF

LOUIS ANTHONY (TONY) COX, JR., PH.D.

[redacted]

CHIEF SCIENCES OFFICER

NEXTHEALTH TECHNOLOGIES

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ON

EPA'S PROPOSED OZONE RULE: POTENTIAL IMPACTS ON MANUFACTURING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND POWER AND THE SUBCOMMITTEE ON COMMERCE, MANUFACTURING, AND TRADE

June 16, 2015

SUMMARY

To determine whether EPA's Proposed Ozone Rule would serve the public interest, it is important to understand (1) Whether and to what extent it would truly cause the improvements in public health that EPA predicts; and (2) How sure we are about the answer. However, EPA's own health effects risk assessment report for ozone admits that their estimation of health impacts uses inaccurate models for which they have been unable to quantify uncertainties in predictions and conclusions. This leaves policy makers and the public uninformed about an issue crucial for sound policy-making: How likely is it that the Rule will cause the public health benefits that EPA estimates, or that it will instead produce other outcomes, such as zero health benefits?

However, there is overwhelming evidence that EPA's predictions of public health benefits from the Proposed Ozone Rule are unwarranted and exaggerated. They are unwarranted because EPA's conclusions about the causal impacts of ozone reductions on public health are not derived from objective science or statistical analyses of causation. Instead, EPA's conclusions rely on unreliable subjective judgments of selected experts; on models that they concede are inaccurate and have large but unquantified uncertainties; and on mistakenly treating association or correlation as causality. None of these methods produces trustworthy conclusions.

We also know from extensive real-world experience that EPA's benefits estimates are exaggerated. Ozone levels have already fallen in recent decades by far more than the proposed amounts in many locations in the United States. Yet analysis of public health records shows that these large reductions in ozone levels have caused no detectable public health benefits. Thus, EPA's assumption that smaller future reductions in ozone will do so is unwarranted. There is no need to repeat the costly effort to obtain better public health by further reducing ozone levels when we already know from abundant historical experience that doing so does not work.

Introduction

Chairman Burgess and Members of the Subcommittee, thank you for inviting me to discuss the human health aspects of EPA's Proposed Ozone Rule. I am testifying on my own behalf today, understanding that well-informed policy making must consider the likely and foreseeable impacts of the proposed rule on human health, as well as on economic end points. I have provided the Committee members with a detailed CV describing my academic, publishing, professional, and consulting affiliations.

In evaluating whether costly proposed regulations are in the public interest, two questions stand out: (1) How well will a regulation work in reality, i.e., will it actually cause the desired benefits that motivate it?; and (2) How sure can we be? EPA's Proposed Ozone Rule is intended to protect and improve human health by reducing human mortality and morbidity risks, especially those from respiratory and cardiovascular illnesses. These projected benefits are to be caused by further reducing allowed ambient concentrations of ozone. It is therefore important to ask to what extent the proposed rule will produce these desired improvements in health, and how sure we can be that it will do so.

The rest of this testimony makes the following main points.

- **First, by EPA's own account, they have not quantified their very large uncertainty about the public health benefits that their models project.** This is unacceptable in a risk assessment prepared to inform public policy decision-making. The public health benefits that EPA predicts from lowering ozone levels are purely hypothetical results of models that EPA itself recognizes are inaccurate. A proper quantitative uncertainty analysis might conclude that, with something like 95% confidence, these heath benefits either do not exist or

are so much smaller than EPA has estimated that they cannot be found in massive amounts of past data (Cox and Popken, 2015).

- **EPA's conclusions about public health effects caused by ozone reductions are based on subjective opinions, not objective science.** EPA has relied on notoriously unreliable methods, including asking selected experts for their opinions, using models that are convenient but inaccurate, and assuming that correlation or association can be treated as causality, to reach its conclusions. None of these methods produces reliable or trustworthy conclusions.
- **EPA's Proposed Ozone Rule will not cause the benefits to public health that EPA models project – and we can be certain of this now.** If we look at actual data instead of at EPA's model-based predictions, it is clear that, in many places in the United States, much larger reductions in ozone levels have already occurred in recent decades than those that are now being proposed. Yet, these relatively large reductions in ozone levels have caused no detectable public health benefits. Therefore, EPA's assumption that future proposed reductions in ozone will do so is unwarranted. Such changes have been tried and they have not worked: their predicted public health benefits have not materialized.

1. EPA has not quantified large uncertainties about its predictions for public health risk reductions caused by lowering the ozone standard

EPA has been candid about some of the uncertainties in its modeling of predicted public health benefits from further reducing ozone levels. For example, it states that it has used a modeling approach that "is convenient for fitting the model, but is not accurate. The extent to

which this mis-specification affects the estimates of the… model and its predictions is not clear." (EPA, 2014, http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P100KBUF.TXT). EPA further explains that "[I]t may be that selection bias has influenced the model parameter estimates. … [The] model is also sensitive to the exposure concentrations, but we have not quantified that sensitivity. …We are unable to properly estimate the true sensitivities or quantitatively assess the uncertainty… EPA staff have identified key sources of uncertainty with respect to the lung function risk estimates. … At this time we do not have quantitative estimates of uncertainty for any of these." In short, EPA uses a model that is known to be inaccurate to predict benefits from reducing ozone. EPA's ozone health risk assessment provides no quantitative assessment of uncertainty about whether or to what extent the projected human health benefits would actually occur if the proposed rule were implemented, thus depriving policy makers of the opportunity to see just how hypothetical and unlikely the projected health benefits really are. Failing to properly quantify uncertainties implies that the basic scientific and analytic work required to support well-informed and responsible policy making has not yet been done.

2. EPA's conclusions about public health effects caused by ozone reductions are based on unreliable subjective opinions, not objective science

EPA's conclusions that current standards do not fully suffice to protect public health with an adequate margin of safety and that further reductions in ambient ozone would probably further reduce mortalities and morbidities in the population are derived from its judgment that short term O3 exposures are "causally related to respiratory effects, and likely causally related to cardiovascular effects;" and that long term O3 exposures are likely causally related to respiratory

effects (EPA, 2014 citing EPA, 2013). Remarkably, ***these key causal conclusions are not supported by any reliable, objective statistical tests for potential causality***. They are supported solely by the subjective judgments of selected experts applied to associational data that show that both ozone levels and adverse health effects are higher in some times and places than in others.

The track record of such expert judgments is poor. They are easily influenced by the biases and ideologies of the experts who are invited to give them (Kahneman, 2011). Experts who have opined that reducing pollution causes reductions in mortality or morbidity rates might have the opposite opinion if required to present objective statistical analyses supporting their judgments about causation. For example, a confident and influential causal expert judgment that banning coal burning reduced all-cause and cardiovascular mortality rates (Harvard School of Public Health, 2002) was recently replaced by a finding that there was no objective evidence of these causal effects based on a more objective statistical comparison of mortality rates inside and outside the affected area (Health Effects Institute, 2013).) EPA's health risk assessment for ozone depends critically on judgments about causality that are not supported by any objective statistical causal analyses. Such expert judgments are unreliable. They might well be reversed if different experts were used, or if the experts who have made them were required to use and display objective analyses rather than personal beliefs as a basis for their findings.

Perhaps even more importantly, ***there is now broad scientific consensus outside the EPA-funded air pollution health effects community that associational data – that is, data of the type relied on throughout EPA's health effects risk assessment for ozone – do not in general provide reliable information about causation.*** As stated in a 2014 paper in *Science*, "There is a growing consensus in economics, political science, statistics, and other fields that the associational or regression approach to inferring causal relations—on the basis of adjustment

with observable confounders—is unreliable in many settings" (Dominici et al., 2014). Yet, this is precisely the approach that EPA has taken to estimate health risks from ozone and to predict human health benefits from further reductions in ozone. Throughout EPA's health risk assessment and supporting documents (www.federalregister.gov/articles/2014/12/17/2014-28674/national-ambient-air-quality-standards-for-ozone#t-3; www.epa.gov/ttn/naaqs/standards/ozone/data/20140829healthrea.pdf; http://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=247492#Download), associational and regression approaches are mistakenly treated as if they described causal relations. This ***fundamental error, treating correlation as causality, invalidates EPA's entire risk analysis and its conclusions.*** It is the same type of logical error as would be involved if one were to divide car accidents per year in a population by pounds of potatoes consumed per year in that population, and then were to predict on the basis of the resulting positive "slope factor" ratio of car-accidents-per-pound-of-potatoes that reducing potato consumption would reduce car accidents. In both this toy example and in EPA's real calculations of mortalities or morbidities avoided per ppb of ozone reduced, the fundamental error is to use the ratio as a basis for prediction without first showing that changes in the denominator cause any changes in the numerator.

Expert opinions that exposure-response associations or ratios are causal do not successfully address this problem. First, they not even try to address the question of what *fraction* of the association is causal – that is, what proportion of the slope factor ratio, if any, reflects a causal relation between the exposure in the denominator and the health effect in the numerator; and what proportion reflects non-causal sources of association, such as coincident historical trends (both exposure and effects are declining over time, apart from any causal relation between them), seasonal effects (e.g., both ozone and mortality rates are higher at some times of year than at others), or modeling choices (e.g., EPA's use of a convenient but

inaccurate, misspecified model). EPA asked its experts the wrong question, how probable it is that the statistical association between ozone and health effects is causal, rather than asking what fraction is causal. Second, answers to causal questions and opinions based on causal judgments are not warranted for associational data, such as that which EPA has relied on. Associations or ratios between historical health effects and historical exposure levels do not reveal how *future* changes in exposures would affect *future* changes in health effects, which is the question of practical and policy interest. Thus, EPA's prediction of human health benefits from further reductions in ozone reflects wishful thinking and bad statistics, but not sound science or sound analysis. Because no objective methods of causal analysis have been used in EPA's risk assessment that would allow valid predictions about how or whether further reductions in ozone will affect public health, there is no legitimate basis for projecting any human health benefits from the Proposed Ozone Rule.

3. **EPA's Proposed Ozone Rule will not cause the benefits to public health that EPA models project – and we can be certain of this now.**

Fortunately, it is possible to do much better. More objective, reliable statistical methods od causal analysis that depend on data rather than on expert judgments have been extensively developed and applied in areas such as econometrics and social statistics (see references in Harris et al., 2004 and 2006 and Hipel, 1978), neuroscience (Vincente et al., 2011), epidemiology (Joffe et al., 2012; Robins et al., 2000), physics (Runge et al., 2012), artificial intelligence (Voortman et al., 2008), and machine learning (Sun, 2008). Major companies such as Microsoft and Google, that make or lose money depending on how well they understand the

causal relation between what they do and how people respond, have contributed to a growing body of high-quality statistical algorithms and software for testing causal hypotheses and estimating causal impacts (https://google.github.io/CausalImpact/CausalImpact.html). Modern methods of causal analysis apply sound, objective principles, such as that information flows from causes to their effects. These principles lead to independently reproducible and verifiable quantitative tests and conclusions about causality, rather than to subjective qualitative judgments that may differ from expert to expert.

There is thus no need to rely on EPA's inaccurate models, or on mistaken assumptions that historical association can be substituted for future causation, or on the opinions and judgments of selected experts, in order to determine how changes in ozone levels affect changes in human health. In effect, the experiment of reducing ozone levels and seeing what happens to public health has now already been done many times, as ozone levels have fallen dramatically and health statistics have been maintained for decades in many locations throughout the United States. Examining the historical record using objective statistical methods for causal analysis answers the question of what really happens to public health when ozone levels are reduced.

In contrast to the expert opinions relied on by EPA, relatively objective and reliable statistical methods reveal ***no causal relation between past ozone reductions and past improvements in public health***, such as reductions in asthma-related hospitalizations (Moore et al., 2012) or reductions in all-cause or in cardiovascular mortality rates (Cox and Popken, 2015) or reductions in asthma-related emergency room use (Health Effects Institute, 2010). To be sure, there is indeed a positive statistical *association* between past levels of ozone and past mortality rates, with both declining over time in many locations. What is missing is any evidence that the association is causal. To the contrary, mortality rates declined just as quickly and just as much

between 2000 and 2010 in counties where ozone level increased as in counties where it decreased, vividly illustrating the real-world irrelevance of increases or decreases in ambient ozone levels for public health. Similar findings hold for short-run effects as well. For example, 20%-30% reductions in ozone concentrations, far larger than those now being proposed, have been *associated* with large (42%) reductions in asthma acute care events, but were subsequently found to have *caused* no detectable reductions in such events or in emergency department visits for respiratory or cardiovascular health outcomes in either adults or children (Health Effects Institute, 2010). (The association turned out to be explained by seasonal effects, rather than causal impacts of ozone on asthma.)

In summary, plentiful data on ozone levels and public health at the individual county or city level in recent decades make it possible to directly examine how and whether changes in ozone cause any detectable changes in public health. They do not. Modern methods of causal analysis make reliance on expert judgments and inaccurate predictive models unnecessary. When such unreliable methods are not used, EPA's claim that further reducing ozone will cause substantial public health benefits can no longer be sustained.

4. Conclusions and Recommendations: Doing better

EPA's health effects risk assessment (HERA) for ozone does not emphasize or explain the absence of any detectable causal impact of past ozone reductions on public health. Instead, it focuses on predicting substantial future human health benefits from future reductions in ozone, in part using new and admittedly inaccurate models for which, in EPA's words, "We are unable to properly estimate the true sensitivities or quantitatively assess the uncertainty." Policy makers

and the public interest would be better served by abandoning such models, along with other unreliable methods such as the judgments of selected experts, and instead insisting on a more rigorous, reliable and scientific approach to predicting human health effects of the Proposed Ozone Rule. This can easily be done by applying objective statistical methods of causal analysis to available data. Such an improved approach might start by explaining why past substantial reductions in ozone have not produced the public health effects that EPA predicts from its proposed reductions in ozone levels, and by modifying its health risk assessment for ozone to be more consistent with past data.

Whether environmental regulations in the United States should be based on the judgments of selected experts or on independently reproducible and verifiable statistical analyses of causation, when the two conflict, raises important questions about what relation we want between science and policy-making. In principle, expert judgments would not conflict with relatively reliable and objective statistical methods for causal analysis, but would be informed by them. In practice, EPA's insistence that further reducing ozone standards is necessary to protect and improve human health contrasts with decades of experience revealing that no such benefits actually occur. What to do next will say much about what role if any, we collectively want science and objective causal analysis of data to play in shaping environmental and public health risk management policies and regulations.

Thank you for your attention.

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Mr. WHITFIELD. Well, thank you, Dr. Cox. And our next witness is Ms. Stacey-Ann Taylor who is the Director for Product Stewardship at Henry Company, and thanks for being with us, Ms. Taylor. And you are recognized for 5 minutes.

STATEMENT OF STACEY-ANN TAYLOR

Ms. TAYLOR. Good morning. Thank you Chairman Whitfield, Chairman Burgess, Ranking Members Rush and Schakowsky, and members of the subcommittees for the invitation to testify regarding the EPA's proposed ozone rule and the potential impacts on manufacturing.

My name is Stacey-Ann Taylor, and I am Director of Product Stewardship at Henry Company. Henry Company is a privately owned building products manufacturer based in El Segundo, California, right next to LAX airport. Henry Company has manufacturing facilities in 6 states and employs about 450 people. We manufacture roof coatings, roofing adhesives and sealants, driveway sealers, air and vapor barriers, and a number of other residential and commercial building products.

Henry Company is a very active member of the Roof Coatings Manufacturers Association, RCMA, and I am also pleased to represent RCMA with my testimony as well. RCMA is the national trade association representing manufacturers of asphaltic and solar reflective coatings and their raw material suppliers.

Typically, legislative and regulatory discussions on the impact of lowering the EPA's NAAQS for ozone focus on a few key industries, especially oil and gas production, utilities, and motor vehicle manufacturing. However, these discussions rarely include an explanation of how lowering the NAAQS for ozone will have an impact on everyday consumer and commercial products.

In November 2014, EPA issued a proposed rule to lower the NAAQS for ozone from the current 75 parts per billion to 70 parts per billion or possibly lower. When the EPA lowers the NAAQS for ozone, this requires the states to update their State Implementation Plans to try and meet the EPA's new regulatory requirements. These State Implementation Plans have to be approved by EPA. Understandably, the states will have to include a variety of air quality management methods in their State Implementation Plans to meet the lower standard. One of these air quality management methods is the regulation of Volatile Organic Compounds, VOCs, in consumer and commercial products.

VOCs are gases emitted from certain chemicals found in consumer and commercial products. VOCs are also emitted from natural sources, such as plants and trees. VOCs react with nitrogen oxides and sunlight to form ground-level ozone. As we all know, breathing in ground-level ozone can result in adverse health effects, especially for sensitive populations.

Therefore, it is appropriate for EPA and the states to regulate VOCs. However, VOC regulation of consumer and commercial products in certain air quality management districts around the country are approaching the point of diminishing returns in terms of actually contributing significantly to air quality improvement.

EPA and the states should carefully consider whether requiring manufacturers to achieve further drastic reductions in VOC content

in consumer and commercial products is technically feasible at this time and also worth the time and resources spent by manufacturers to comply for a low return on investment in terms of improved air quality.

In addition, it should be noted that if manufacturers can't find reasonably priced technology to achieve these further VOC reductions, there will certainly be fewer consumer and commercial products available in the marketplace for purchase. Manufacturers will have to restrict non-compliant products from sale, and if replacement products can't be manufactured and sold at prices the market will bear, then the result will be fewer products available for people to purchase.

In closing, I hope that I have provided a clear explanation of how EPA's lowering of the NAAQS for ozone will eventually result in further regulation of VOCs in consumer and commercial products that may not significantly help air quality management districts achieve attainment status and may actually result in less product choice in the marketplace. As manufacturers of consumer and commercial building products, Henry Company and its representative trade association RCMA believe that EPA should not be allowed to further lower the NAAQS for ozone until the vast majority of the air quality management districts across the country have reached attainment status under the current level of 75 parts per billion.

The primary focus of the EPA should be to provide additional support to those air quality management districts currently in non-attainment status to help them reach attainment status under the current level, before making the goal of reaching attainment status even more difficult for the states to obtain.

Thank you very much for your time.

[The prepared statement of Ms. Taylor follows:]

U.S. HOUSE COMMITTEE ON ENERGY AND COMMERCE

Subcommittee on Energy and Power

Subcommittee on Commerce, Manufacturing, and Trade

HEARING ON EPA's PROPOSED OZONE RULE: POTENTIAL IMPACTS ON MANUFACTURING

JUNE 16, 2015

TESTIMONY OF STACEY-ANN M. TAYLOR

Director, Product Stewardship, Henry Company

Member of Roof Coatings Manufacturers Association (RCMA)

Executive Summary

Most legislative and regulatory discussions on the impact of lowering the EPA's National Ambient Air Quality Standards (NAAQS) for Ozone focus on a few key industries, especially utilities, oil and gas production, and motor vehicle manufacturing. However, these discussions rarely cover the impact of the lowering of the NAAQS on every day consumer and commercial products.

Late last year, EPA issued a proposed rule to lower the NAAQS for Ozone from the current 0.075 ppm to 0.070 ppm. When the EPA lowers the NAAQS for Ozone, this requires the states to update their State Implementation Plans (SIPs) to try meet the EPA's new regulatory requirements. Inevitably, the individual states will have to a variety of air quality management methods in their SIPs to meet the lower standard. One of these air quality management methods is the regulation of Volatile Organic Compounds (VOCs) in consumer and commercial products.

As manufacturers of consumer and commercial building products, Henry Company and its representative trade association, the Roof Coatings Manufacturers Association (RCMA), believe that EPA should not be allowed to further lower the NAAQS for Ozone to 0.070 ppm until the vast majority of the air quality management districts across the country have reached attainment status under the current level of 0.075 ppm. The primary focus of the EPA should be to provide additional support to those air quality management districts currently in non-attainment status to help them reach attainment status under the current level, before making the goal of reaching attainment status even more difficult for the states to obtain.

Testimony

Good morning. Thank you Chairman Whitfield, Chairman Burgess, Ranking Members Rush and Schakowsky, and Members of the Subcommittees for the invitation to testify regarding the EPA's proposed ozone rule and the potential impacts on manufacturing.

My name is Stacey-Ann Taylor and I am Director, Product Stewardship at Henry Company. Henry Company is a privately owned building products manufacturer based in El Segundo, CA. Henry Company has manufacturing facilities in six states and employs about 450 people. We manufacture roof coatings, roofing adhesives and sealants, driveway sealers, air and vapor barriers, and a number of other residential and commercial building products.

Henry Company is a very active member of the Roof Coatings Manufacturers Association (RCMA) and I am also pleased to represent RCMA with my testimony as well. RCMA is the national trade association representing manufacturers of asphaltic and solar reflective coatings and their raw material suppliers. RCMA promotes the many benefits of roof coatings and provides regulatory and technical information to members.

Typically, legislative and regulatory discussions on the impact of lowering the EPA's National Ambient Air Quality Standards (NAAQS) for Ozone focus on a few key industries, especially oil and gas production, utilities, and motor vehicle manufacturing. However, these discussions rarely include an explanation of how lowering the NAAQS for Ozone will have an impact on every day consumer and commercial products.

In November 2014, EPA issued a proposed rule to lower the NAAQS for Ozone from the current 0.075 ppm to 0.070 ppm. When the EPA lowers the NAAQS for Ozone, this requires the states to update their State Implementation Plans (SIPs) to try meet the EPA's new regulatory requirements. Understandably, the states will have to include at a variety of air quality

management methods in their SIPs to meet the lower standard. One of these air quality management methods is the regulation of Volatile Organic Compounds (VOCs) in consumer and commercial products.

VOCs are gases emitted from certain chemicals found in consumer and commercial products. VOCs are also emitted from natural sources, such as plants and trees. VOCs react with Nitrogen Oxides (NOx) and sunlight to form ground-level ozone. As we all know, breathing in ground-level ozone can result in adverse health effects, especially for sensitive populations. Therefore, it is appropriate for EPA and the states to regulate VOCs. However, VOC regulation of consumer and commercial products in certain air quality management districts around the country are approaching the point of diminishing returns in terms of actually contributing significantly to air quality improvement.

EPA and the states should carefully consider whether requiring manufacturers to achieve further drastic reductions in VOC content in consumer and commercial products is technically feasible at this time and also worth the time and resources spent by manufacturers to comply for a low return on investment in terms of improved air quality. In addition, it should be noted that if manufacturers can't find reasonably priced technology to achieve these further VOC reductions, there will certainly be fewer consumer and commercial products available in the marketplace for purchase. Manufacturers will have to restrict non-compliant products from sale and if replacement products can't be manufactured and sold at prices the market will bare, then the result will be fewer products available for people to purchase.

In closing, I hope I have provided a clear explanation of how EPA's lowering of the NAAQS for Ozone will eventually result in further regulation of VOCs in consumer and commercial products that may not significantly help air quality management districts achieve

attainment status and may actually result in less product choice in the marketplace. As manufacturers of consumer and commercial building products, Henry Company and its representative trade association, RCMA, believe that EPA should not be allowed to further lower the NAAQS for Ozone to 0.070 ppm until the vast majority of the air quality management districts across the country have reached attainment status under the current level of 0.075 ppm. The primary focus of the EPA should be to provide additional support to those air quality management districts currently in non-attainment status to help them reach attainment status under the current level, before making the goal of reaching attainment status even more difficult for the states to obtain.

Mr. WHITFIELD. Thank you, Ms. Taylor, and our next witness is Mr. Michael Freeman who is the Division President of The Americas for WD-40 Company. Thanks for being with us, and you are recognized for 5 minutes.

STATEMENT OF MICHAEL FREEMAN

Mr. FREEMAN. Thank you, Mr. Chairman, ranking members, and members of the subcommittees. It is an honor and a privilege to be sharing the views of WD-40 Company and its partner trade associations, the National Aerosol Association, or the NAA, and the Consumer Specialty Products Association, CSPA, with you today.

I join you as the President of the Americas for the WD-40 Company. We have our global headquarters in San Diego, California. Our products are found under the sink, in the garage and in the toolboxes of loyal fans in over 176 countries around the world. In the United States, WD-40 is in over 80 percent of U.S.A. households. We are also in over 80 percent of U.S. businesses. That makes us appear a lot larger than we really are. My dentist was horrified the other day when I told him in the USA more people use WD-40 every day than use dental floss. He didn't like that, but it is a true story and really, really testifies to our brand power and uses for all of our brands: WD-40, Lava, 3-IN-ONE, Spot Shot, and the other brands. Which brings me to the national ozone standard.

We know from experience that lowering the national ozone standard has resulted in lower VOC state regulations that drive us to reformulate many of our products, and we are not alone. This happens with other consumer products also.

What are consumer products? Well, if you go look underneath your kitchen sink, your bathroom sink, you go to your pantry, your laundry room, you can go out to the garage. All those products there that make your life better, that is us. Now, it makes us a bigger industry, and that makes us also a target for VOC emissions, even though we are one of the smallest sources of VOC emissions nationally.

So in our opinion, reducing the standard right now can have a serious impact on consumer products. Household products like WD-40 could become much less effective and/or much more expensive for a consumer to buy, and that has been our experience with past regulations.

Reducing the standard now could also create a confusing patchwork of compliance regulations across and within states. And that has been our experience now, too.

The current regulation is not being implemented anywhere close to the same way across all 50 states, and even in the great State of California, which has over 35 air districts, we now have air districts doing something different than the State of California. So you can imagine how complex and confusing this is for everybody involved.

Reducing the standard now would also add significant costs that can adversely impact the entire aerosol industry and others because it is not just your R&D product development cost, it is also the marketing cost. You are constantly changing labels where you can put label claims on for your product, changing labels out due

to the evolving nature of the regulations. It also moves into your supply chain.

In California there are certain plastic bottles that we like to use of a certain size, and if we use them, we have to make sure they have 25 percent recycled content. So you have a compounding of different regulations, and unfortunately, I don't have the impression that all the regulators talk to each other. And so the combined impact on business is rather amazing.

All these costs can become embedded into our business going forward. Sometimes we can pass them on, sometimes we can't. But the tip of the spear is the R&D, and we know from experience that it takes years of diligent research and millions of dollars for the WD-40 company to develop products that meet the statutory regulations.

Let me give you an example. WD-40 company has lowered the VOC content of its flagship brand, WD-40, from 65 percent VOC to 50 percent VOC to the current 25 percent VOC standard in California in the last 15 years. By the end of 2018, California presently requires that we get the VOC content down to 10 percent. Now, we have been working on this for years, and we have not yet discovered the way to do it that is technologically or commercially feasible. But we will keep working on it. We still have time. And all this is being done underneath the current regulation. What do you think happens if you dogpile another regulation on top of that as far as confusion and complexity?

The NAA, the CSPA, the WD-40 Company, and many other consumer product companies have a long and successful history of working with the California Air Resource Board, the Ozone Transport Commission, the EPA, and several individual air districts.

So our recommendations are essentially this. First off, can we celebrate the success that we have had? We have cleaned a lot of air over the last several years working together. I grew up in smoggy Southern California in the '50s, '60s, and '70s, and at the end of a lot of days I couldn't do that without having a smoker's hack. And I wasn't smoking. I was just doing water polo and swimming. So we would like to celebrate. We would like to make sure that many of the regulations that have been developed have not yet been fully implemented with known results. And we just ask, can we finish one job before we start with another? I would rather go into a regulation with actual results and facts and reality than modeling.

Our final recommendation is for Congress to keep the current standard unchanged at 75 parts per billion until states have been able to fully implement that standard and learn from those regulations and results so that we can all move forward in the fact-based, more aligned and successful way to achieve our common clean air goals. Thank you.

[The prepared statement of Mr. Freeman follows:]

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U.S. HOUSE COMMITTEE ON ENERGY AND COMMERCE

Subcommittee on Energy and Power

Subcommittee on Commerce, Manufacturing, and Trade

HEARING ON EPA's PROPOSED OZONE RULE: POTENTIAL IMPACTS ON MANUFACTURING

MICHAEL L. FREEMAN
PRESIDENT, AMERICAS DIVISION
WD-40 COMPANY

JUNE 16, 2015
WASHINGTON, D.C.

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Thank you Chairmen Whitfield and Burgess, Ranking Members Rush and Schakowsky, and Members of the Subcommittees. It is an honor and privilege to be sharing the views of WD-40 and its partner trade association NAA and CSPA with you today.

I join you as the President of the Americas for the WD-40 Company, and on behalf of the National Aerosol Association (NAA). For over 60 years, WD-40's signature blue and yellow can has thousands of uses ranging from stopping squeaky hinges to protecting tools from rust to taking crayon marks off leather furniture. It took us 40 attempts to get our signature water-displacing formula just right, a trial-and-error process that got us our name.

Daily, WD-40 Company does business in over 176 countries. Our USA based supply chain services the USA, Canada, Latin America and large portions of Asia and proudly displays "Made in America." From our origins in a San Diego lab to a globally recognized brand, we are proud to have a consumer product that is the beacon of successful American-made manufacturing and branding.

About WD-40 Company

WD-40 Company is a global marketing organization dedicated to creating positive lasting memories by developing and selling products which solve problems in workshops, factories and homes around the world. Our products are found under the sink, in the garage and in toolboxes of loyal fans around the world. More people use WD-40 every day than use dental floss.

WD-40 Company's corporate headquarters is located in San Diego, California and we have offices throughout the world to support our brands. The company markets its multi-purpose and specialty maintenance products and its homecare and cleaning products under the following well-known brands: WD-40®, 3-IN-ONE®, X-14®, 2000 Flushes®, Carpet Fresh®, no vac®, Spot Shot®, 1001®, Lava® and Solvol®.

About the National Aerosol Association

The National Aerosol Association (NAA) is an industry association dedicated to the promotion and protection of the aerosol package through expert knowledge, technical innovation, and education. NAA represents manufacturers, marketers, fillers, and suppliers to the aerosol market.

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WD-40 is also board member of the Consumer Specialty Products Association and active in their 25-year effort to promote innovative and sustainable products that provide essential benefits to consumers while protecting human health and the environment.

National Ozone Standard

My remarks today concern the debate on the proposal to lower the National Ambient Air Quality Standards for Ozone.

We can all agree that policies to assure clean air and water are important. The challenge is to identify and implement policies that will most effectively achieve these goals. We all need to work together to find a way to achieve both economic growth and environmental progress, they do not necessarily have to be mutually exclusive. The NAA and WD-40 Company have a long history of working with the California Air Resources Board (CARB), the Ozone Transport Commission (OTC), the EPA, and several individual Air Districts in search of this goal. NAA was the first association to assist CARB in their formation of the Relative Reactivity Regulation for Aerosol Coatings. This first of a kind regulation was later mirrored as a National Rule on Aerosol Coatings.

To say we have worked diligently to meet already stringent VOC limits in our products is an understatement. The time, talent, and treasure incurred to reformulate and launch these products has been and is significant. Often, the efficacy of our products has suffered. We have lowered the VOC content for our WD-40 brand from roughly 65% to 50% to the current 25% mandated in California over the past 10-15 years. By the end of 2018, California presently requires that we get VOC content to below 10%. We have not discovered the way to do that yet that is technologically or commercially feasible. All this is being done under the current set of regulations. If we were required to move to more stringent ones now, we and the entire industry would face a most uncertain future. **Our past experience shows that it takes years of diligent research and costs millions of dollars to discover and launch new products that are a result of regulations.** To inflict increased burdens on our industry without first allowing current regulations to be implemented is not good policy. I believe scientific evidence will demonstrate that we will reach a point of diminishing returns when it comes to the costs of new VOC regulations versus the clean air benefit derived from aerosol industry regulations.

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We ask you to seriously consider delaying any lowering of the standard, and requiring the EPA to primarily focus on areas that are presently in non-attainment status with the current standard at 0.075ppm. Any revisions to the National Ozone Standard should be based on sound science and appropriate cost / benefit considerations.

We make this recommendation based on our longstanding and cooperative working relationship with the states and EPA. The development of consumer product VOC regulations, and the hundreds of millions of dollars that WD-40 and many hundreds of other consumer product companies have spent to reformulate our products, may have lowered VOC emissions somewhat and we hope that they have assisted in providing some benefit to improving air quality. Numerous scientific studies, however, show that our VOC emissions are of very low reactivity, and thus, have very small ozone impacts. Indeed, the latest scientific studies are showing that VOCs from all sources are having less and less impact on ozone. Nevertheless, consumer products will continue to be targeted for continued regulatory action if the EPA ozone standard is lowered even further.

Based on our observations in the consumer products industry, a further reduction of the ozone standard at the present time is likely to have the following consequences: (1) a serious impact on consumer products – meaning that household products like WD-40 could become much less effective at a much higher cost and/or possibly discontinued or rejected by our end users; (2) confusing compliance regulation across the United States as Districts copy and paste regulation without considering geographical factors; (3) significant costs that adversely impact the entire aerosol industry.

- Impact on WD-40 Consumer Products

Should the ozone standard be lowered, I fear such costly reformulation requirements will severely harm WD-40 Company and the aerosol industry. Again, WD-40 has lowered its VOC content from 65% to 50% to current 25% - with significant costs and challenges to maintain product performance. We do not have the answer for the upcoming reduction to 10% required by California for 2018.

Our R&D team has informed us that meeting the upcoming 10% VOC standard will require a new and different type of formula that end users will notice looks, smells, sprays and acts differently from our current WD-40 formula. This is of immense concern to us since we have

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built our global brand equity on the current formula. The only positive thing I can say is that we have three more years to work to figure out how we will accomplish this very challenging task.

➢ Overlapping Regulation/Unnecessary Overregulation

Another consideration that will affect our products is how states will adopt regulations to achieve attainment of EPA's proposed new ozone standard. By EPA's estimates, a 70 parts per billion standard will result in a nonattainment designation for 358 counties; a 65 parts per billion standard would increase that number to 558 counties. [1] Under a 65 parts per billion standard, all but two of the nation's top twenty metropolitan economies[2] would be in areas designated as in nonattainment. At a standard of 65 ppb, approximately 75 percent of the projected costs are attributed to unknown controls, or technologies and emission reduction strategies that have yet to be developed.[3]

If the Ozone Standard is lowered, more states will be required to adopt new regulations. As these states adopt regulations, we will have to comply with a patchwork of regulations. The regulations are overlapping and sometimes not in sync with one another. I am concerned that this problem will be magnified if the EPA proposed Ozone Regulation is adopted. Testing, VOC limits and other provisions vary from one locale to another. This creates a marketing and distribution nightmare for national and Global companies such as ours.

Currently, WD-40 has worked with CARB and OTC states on new rules that have not yet been implemented. We would ask that the ozone standard not be lowered until the states and jurisdictions have had time to fully implement the new regulations and to give appropriate time to regulators to determine whether new regulatory requirements are effective to achieve attainment at the current standard.

➢ Economic Impact on the Industry

In addition to implications for the chemical efficacy of the products and overregulation at the State and local level –I ask you to consider the appropriate cost/benefit consideration and economic impact to the industry of lowering the standard.

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[1] Under the Clean Air Act National Ambient Air Quality Standards, areas are classified as nonattainment, attainment, or unclassifiable for each of six criteria pollutants, including ozone.
[2] Baton Rouge Chamber of Commerce analysis, available at http://www.brac.org/brac/news_detail.asp?article=1947, based on Brookings Institution's Metro Monitor, available at http://www.brookings.edu/research/interactives/metromonitor.
[3] Senator Jon Thune (R-SD), June 3. Available at https://www.youtube.com/watch?v=TtOvGwkwWys

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As a global company with sales of almost $400 million and 400 global employees—with hundreds more employed by our contract packagers—resources are always tight. Given that, we have chosen to be one of the industry leaders when it comes to clean air regulations and working with all parties to get the best possible outcome. The time, talent, and treasure it takes to do this does not help us grow our sales or profits, in fact, quite the opposite. But we believe working this way is the "right thing to do" which is our number one company value. The growing number and complexity of environmental regulations in general along with the associated costs of compliance is one of the most significant challenges our company (and others) face in the future. This means that such regulations need to be science and fact based, agreed to by all those involved. They need to be technologically and commercially feasible to be both successful and achieve the positive impacts they seek. We do not believe that changing the current standard will satisfy these requirements.

Concluding Thoughts

Chairmen, and subcommittee members – product modifications for environmental compliance is a top priority for WD-40 Company and our industry. We work every day to improve our products, while at the same time ensuring that our communities remain economically strong.

We recommend Congress seek to keep the current standard unchanged at 0.075 ppb until states have been able to implement that standard, and learn from those regulations.

WD-40 Company and its partner trade associations are ready to work with Congress and the agencies on efforts to assist areas already struggling with attainment. We have made great progress in cleaning up our air and we believe more can be done, but premature establishment of higher standards is not the answer. Please allow the current regulation to establish a more consistent regulatory framework across the country for a higher level of attainment.

Thank you again for the opportunity to testify, and I welcome any questions.

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Mr. WHITFIELD. Well, thank you, Mr. Freeman, and thank all of you for your testimony and for taking time to give us your insights and thoughts on this important topic. At this time I recognize myself for 5 minutes of questions.

Mr. Freeman, you touched on trying to come in compliance with these regulations, and there has been a litany of regulations, I mean, more so in this administration than at any other administration in recent memory. And you mentioned this also, Mr. Eisenberg, about the fact that unknown technology or controls—to me, unknown controls means that it is simply not there yet to meet the standard. Is that what your understanding is, Mr. Freeman?

Mr. FREEMAN. Yes.

Mr. WHITFIELD. Now, some people would say and many people make the argument that, well, we are so innovative in America that we come up with new solutions, and I think that is true. And you have indicated yourself that you have gone from 65 down to 25 percent of VOCs, and California by 2018 wants you to go down to 10. So more than likely you will be able to do that I assume, right?

Mr. FREEMAN. Right now we don't really know. Life is full of ambiguity, whether it is personal life or business. But because we work together well with the California Air Resource Board, that 2018 date was actually supposed to be in effect at the end of this year, and we were able to go back to them and say do you know we have been working hard on this? And they actually delayed it for 3 years. So we have 3 more years. But that is an example of people working together.

Mr. WHITFIELD. Well, another frustrating thing about this is EPA came up with this standard in 2008 and only a few months ago did they provide the implementing guidelines to the states. And so now the states are just getting this, and they are already moving onto a new standard.

Now, we heard a lot of comments about this is good for the economy, and there is no question that since the first Clean Air Act that was adopted in '70 and the major changes in '90, the economy has grown. But I don't think we can just throw under the rug this report that came out in April from the Global Market Institute of Goldman Sachs that point-blank says, in small businesses 500 employees and less, for the first time ever after an economic crisis, as we try to come out of there, the number of small businesses has decreased by over 600,000, 600,000 less.

So if you are a small businessman with this cumulative impact—and they say that the cause is banking regulations because capital is not available and costs are higher, and then other regulations, like healthcare and so forth, that cumulative impact has been responsible for 6 million fewer jobs.

And so I think it is one thing to say, well, this is good for the economy, but for the first time ever, that is not proving to be the case. And so a lot of the arguments being made today, we all recognize the great success of the Clean Air Act. But at some point, you do get to diminishing returns, particularly when ozone is affected by what is going on in China, India, elsewhere. And I think you folks from California—I guess you are from California, Ms. Taylor. Los Angeles has never been in compliance. San Joaquin Valley has

never been in compliance, and there are other parts of the country that have never been in compliance, and they are not going to be in compliance now, either.

So let me just ask you, Mr. Eisenberg, when Ms. McCabe comes here, every time she says our rules promote economic growth. Do you agree with that?

Mr. EISENBERG. Well, in the case of ozone, we actually did address that in the study. The 1.4 million jobs number and the $140 billion that the study has concluded, that is actually net jobs. So they took into account the comment regulations create jobs. They create, people and so on, pollution control technologies and things like that. The study actually has that in it, and we still come out as negative as it does at 1.4 million jobs lost.

So, you know, yes, they do, but they are so far outweighed with this regulation from all of the jobs that would be lost overall.

Mr. WHITFIELD. And you know, this whole issue raises another question. The Clean Air Act has been sort of sacrosanct, and rightfully so, because healthcare is vitally important, and we have made great strides because of what is going on with our physicians and our healthcare delivery system.

But the truth of the matter is EPA cannot look at costs when setting the standard. States can look at costs when implementing under the State Implementation Plans, but maybe we should consider cost particularly when you have 6 million fewer jobs in small businesses. Isn't that a relevant factor? What is the impact on the healthcare of those families who may not have health insurance? Is that a valid point to consider?

Mr. EISENBERG. We would certainly agree with that. We would add that a couple of weeks ago the GAO put out a report that EPA actually does have a duty to at least look at the cost through CASAC, its panel, and CASAC has never done it because EPA has never asked them to.

So while it is legally correct that they are not to consider cost while considering the actual number, they should be informed and CASAC should be informed, and they didn't do it this time. We think they should go back and do it again.

Mr. WHITFIELD. My time is expired. At this time, I recognize the gentleman from Illinois, Mr. Rush, for 5 minutes.

Mr. RUSH. I want to thank you, Mr. Chairman. Mr. Glicksman, currently the Clean Air Act requires the EPA to issue standards based solely on consideration of the public health, and these rules must "accurately reflect the latest scientific technology." What would be the impact on public health if, as the chairman has suggested, that the majority party would rewrite the Clean Air Act to make cost to industry rather than the benefits of public health the primary driver of EPA rules? And Dr. Diette, you can chime in on that. I want to ask Mr. Glicksman first. What would be the impact, in your opinion?

Mr. GLICKSMAN. Yes. The statute has been in effect for 45 years, and throughout that time cost has been a factor that has been irrelevant to the establishment of the national standards, as I indicated in my statement. Cost is highly relevant in the implementation phase, and it appears to me at least in my study of the statute that that has provided a good balance of attempts to achieve public

health protection with cognizance of the economic impact of regulation.

I think if EPA were required to consider cost at the standard promulgation stage, you would inevitably find weaker protection of the public health because cost considerations would, I think in many cases, wind up trumping public health considerations.

Mr. RUSH. Dr. Diette?

Dr. DIETTE. Thank you. I think it is a great point and a great question to ask. I think one of the issues here is to consider, since there is so much focus on employment and jobs and so forth which I think is highly appropriate, that we need a well-educated healthy workforce in order to go to work, right? And so one of the benefits, and it doesn't stop at 70 or 65 parts per billion, is more work days for people who actually breathe in ozone and more children going to school, right? And so there is evidence that children who miss many school days because of asthma score worse on standardized tests.

So I just want to point out if the entire focus, which it is not, was on the workforce, there is a really good argument to be made that you need to keep your workforce healthy and well-educated, and you are fighting against that when people are in the emergency department or in the hospital or otherwise not able to go to work or school.

Mr. RUSH. Thank you. Professor Glicksman, for the past 2 years we have constantly been debating the impact that regulations have on employment, and we have continuously heard from industry groups that any and all regulation will stifle economic growth and lead to job losses. However, in your testimony, you cite an ETI study that reported that few jobs are lost because of regulation. In fact, the EPA study you cited notes that extreme weather events have caused more extended mass layoffs than regulations. Additionally, the report states that the number of workers who lost their jobs because of government regulation "pales in comparison to any accounting of the jobs lost in this period due to regulatory failures that contributed to the economy's financial crisis."

Does federal regulation always lead to economic decline and job loss or is it possible to both regulate our air and water and also grow our economy and provide jobs?

Mr. GLICKSMAN. Environmental regulation does not inevitably lead to job losses, and it is indeed possible to accommodate both public health and economic growth concerns.

There have been many examples of situations in which the regulate community has predicted massive job losses and other adverse economic effects as a result of proposed environmental regulations. And rarely if ever have those predictions come true.

One good example is the adoption in 1990 of the Clean Air Act provisions that phased out the use of ozone-depleting chemicals. At the time that the phase-out was first proposed, the manufacturers of chlorofluorocarbons predicted that there were no available substitutes, there could not be available substitutes in the foreseeable future, and that even if available substitutes became feasible, they would cost many times the cost of the products being replaced. Well, none of those predictions panned out. It turned out that when the handwriting on the wall became clear to companies like Du-

Pont, they engaged in an intense effort to develop new technologies that would allow them to manufacture products that serve the same functions as CFC-containing products did, and not only were they able to make that shift much quicker than the statute required, they did so at a much lower cost than had been predicted, even by EPA. And finally, companies like DuPont found themselves as market leaders. They had developed these substitutes far earlier than any of the competing companies in countries abroad. They were also subject to Montreal Protocol phase-out.

So the U.S. industry had a competitive advantage over foreign producers because of their response to the phase-out adopted in 1990.

Mr. RUSH. Thank you.

Mr. WHITFIELD. The gentleman's time has expired. At this time I will recognize the gentleman from Texas, Dr. Burgess, for 5 minutes.

Mr. BURGESS. And thank you, Mr. Chairman. Ms. Wesley, let me ask you something. Mr. Freeman actually touched on it, but I rather suspect the Greater Baton Rouge Area is very similar to the area that I represent just north of the DFW airport. And a recent report showed in our area the 8-hour ozone levels have improved 21 percent in the last 15 years during which time our population has increased by 29 percent. I think that speaks to some success, in our area, I suspect your area as well. And in controlling this issue at—had nothing been done 15 years ago, had no activity been undertaken to try to improve things with a 29 percent increase in population, I don't know. I suspect we would be in deep trouble in the North Texas area, and yet, we are not.

Most of the ozone in our area actually does come from mobile sources, and I will just tell you that mobile sources have not diminished. Drive on our roads in North Texas, and that becomes painfully obvious. Mobile sources continue to be one of the main drivers, no pun intended, of air quality issues. But I wonder if you would speak to that in the Baton Rouge Area?

Ms. WESLEY. Certainly. We have done a lot of work over the last several years with the Baton Rouge Clean Air Coalition, working with other partners to really get ourselves up to the 75 parts-per-billion standard. I am looking a little bit at the Brookings Institute study and talking specifically about Texas. If you look at that study in terms of the top-performing economies, Austin, Houston, San Antonio, Dallas, and others, they are similarly faced with this ozone attainment issue.

And so for us, it is about looking at our partners, learning how we can do better in terms of reaching that standard and not shooting that standard down the road. Right now we are at 75 parts per billion. We know that the EPA is shifting that standard, you know, on its own will. And so why, one, are we shifting the standard when we are still trying to get there, not only for the Baton Rouge area but certainly areas across our state? And so we are working toward that standard. We are working with partners across states who work toward that standard. But in the meantime, we are certainly opposed to what is being proposed right now by the EPA because of the costs associated with it.

Mr. BURGESS. Thank you. Dr. Diette and Dr. Cox, I want to ask each of you a question, and it is probably not fair. And as a consequence, I am prepared to also offer the question in writing and would look forward to your responses on this.

But Dr. Diette, you say in your testimony, in sum, there is accumulating evidence that ozone pollution at levels permitted by the current standard is damaging to human lungs and contributes to disease. And then Dr. Cox, in your statements, you say the EPA's conclusions rely on unreliably subjective judgments of selected experts on models that they concede are inaccurate and have large but unquantified uncertainties and on mistakenly treating association correlation as causality.

So we seem to have a scientific standoff, if you will, as to these two competing hypotheses. And let me let each of you just take a few minutes and talk about that. But I actually would ask you to respond to that discrepancy in written form as well. Dr. Diette, you are first.

Dr. DIETTE. Sure. Thank you for the question. I think it is a great one, right? I would first of all like to point out that just because there are 2 of us here representing different points of view, it doesn't mean that there is a 50/50 balance. I think the scientific community is strongly behind the evidence being strongly supportive of lowering the standard. So I don't think it is a 50/50 issue.

What I would say is that the issue about associations I think can be overblown. There are association studies, but when you look at how people put together evidence to decide that there is causality, you can go back to Sir Bradford Hill. There are many criteria that fit together for assigning causality. Part of it includes the strength of association or not, but other things such as experimentation which has been available here——

Mr. BURGESS. Let me stop you there to give Dr. Cox a chance to respond.

Dr. DIETTE. Thank you.

Mr. COX. I think we are on substantially the same page which is that many people use many criteria to make decisions about causality. But there are better, more objective methods that don't require subjective decisions. They actually get at causality from the data. Those methods unambiguously show that there is no causal relation detected between changes in ozone and in changes in public health. Subjective decisions do overwhelmingly support the converse proposition.

Mr. BURGESS. Again, I would actually look forward to each of you expounding upon that a little bit in written form, and I will submit the question in writing. But Mr. Chairman, I learned something this morning from Dr. Diette. I had no earthly idea that ozone was used as a provocative test for asthma. It seems a little dicey to me as an asthma patient and as a physician.

Dr. DIETTE. I either misspoke or you misheard. I am not sure which, but my point was we use other agents as a provocative test, not ozone. But what is so powerful a message to me is where we have to try to provoke the airways in an asthmatic with other chemicals, ozone does it in a normal person. So you don't even have

to be asthmatic to see an asthma-like response in a normal person. That is powerful stuff.

Mr. BURGESS. If I can interrupt you there just to briefly interject that I Googled that, and indeed, some people have used ozone as a provocative test for asthma. But it is actually in the parts-per-million range, not the parts-per-billion range. So there is a significant quantitative difference. Mr. Chairman, thank you. I will yield back.

Mr. WHITFIELD. The gentleman yields back. At this time I would like to recognize the gentlelady from Illinois, Ms. Schakowsky for 5 minutes.

Ms. SCHAKOWSKY. So this discussion about whether ozone is involved at all in public health is interesting. I am just wondering if either one of you want to go further in talking about why this regulation is so important and the costs of health, et cetera.

Dr. DIETTE. Sure. It is a great question, right? So why is it important in order to think about a lower threshold, right? And a lower threshold is meant to protect human health. And the issue is that this is a potent, oxidizing agent, right? There is no question about it. This isn't something that is in debate, right? We know that it bothers the airways of people, whether or not they have a lung disease. But when you have a lung disease, you are especially bothered by it. So what you are trying to prevent is the catastrophic chain of events which leads to somebody being in the emergency department or in the hospital, not able to work, not able to go to school, those sorts of things, and in the worst case, dying.

The evidence base is expanded so that we have evidence beyond just respiratory diseases, and there is emerging evidence about whether there are neurologic conditions that may be attributable to ozone exposure. There is also other evidence, too, that goes beyond just short-term effects but looking at long-term effects, and that is starting to emerge as well.

So there are a lot of reasons to worry about it from a human health standpoint. If you are a human, you should care about it.

Ms. SCHAKOWSKY. Thank you. I wanted to follow up on the track that my colleague, Mr. Rush, was going down in terms of cost because it seems that in general, those who focus on costs are not talking about the costs from exposure to unsafe air, they are talking about the costs to polluters of actually cleaning up the air.

So I would like to ask our witnesses about the real costs associated with this rule, the costs of health impacts associated with unsafe air that affect the lives of millions of Americans.

So Dr. Diette, during the current 75 parts per billion ozone standard, have we seen those adverse effects on public health?

Dr. DIETTE. Yes, that is one of the points I think, right? I mean, at least in my written testimony especially I was trying to highlight the fact that since 2008 when the standard was considered to be changed then that the studies that have been done since then are done in an era when the 75 parts-per-billion standard exists.

So we continue to see adverse effects in the current era, even after the implementation of the 75 parts per billion. And the range goes down quite low. So 60 is comfortably within the range of where we see adverse health effects.

Ms. SCHAKOWSKY. So you are saying that 60 even is——

Dr. DIETTE. Sixty parts per billion, yes.

Ms. SCHAKOWSKY. Yes. Dr. Glicksman, would you like to add to that?

Mr. GLICKSMAN. I just want to actually respond to the last two questions, in particular why it is important to adopt this standard. The Clean Air Act is a precautionary statute, as the courts have interpreted it. It is a preventive statute. In other words, the statute demands that EPA err on the side of over-protection of the public health. Congress was aware when it adopted the statute that there inevitably will always be scientific uncertainty about the causes and effects of public health consequences, and it mandated that EPA resolve doubts in favor of protection. And I will give you a good example of why it did that.

In 1978, EPA adopted National Ambient Air Quality Standards for lead. Over the years, it has amended that standard, and science now tells us that the standard that EPA thought was safe in 1978 was 10 times too high. Many think that even the current standard is not sufficiently protective.

So history shows us that over time science is able to detect adverse effects in public health, that it was not able to detect previously and that the statute mandates EPAs overprotection in order to mitigate that tendency.

Ms. SCHAKOWSKY. Going back to the issue of cost for just the minute that I have, you have already talked about the lost school days, et cetera, but I am wondering—and if you have already answered this, I really apologize for having been gone. There are multiple hearings going on at the same time.

How many emergency room visits, if we have any calculation on that, are expected to be avoided with the strengthened ozone standard? Does anybody have that kind of data?

Dr. DIETTE. Yes. Thank you. I mean, there are different estimates of it. I think that one of the papers that I have sort of thought was very valuable was there is one by Jesse Berman, which is in Environmental Health Perspectives, and it talks about what the estimates would be if we achieved the current 75 parts per billion standard and then also what would happen at lower thresholds including 70 and 60 and so forth. And so when you mentioned school, for example, at 70 parts per billion, the estimate is approximately 2 million school days saved. If it is at 60 parts per billion, it would be closer to 4 million as well.

And so there is an incremental advantage at each one of those thresholds for the types of things that you are talking about.

Ms. SCHAKOWSKY. Thank you and I yield back.

Mr. WHITFIELD. The gentlelady yields back. At this time I recognize the gentleman from Texas, Mr. Olson, for 5 minutes.

Mr. OLSON. I thank the chair. Welcome to all seven witnesses. My first question is for you, Ms. Wesley. Last week EPA's ozone guru, Ms. McCabe, told me that many Americans will meet this rule by 2025. In essence she says our concerns are much ado about nothing. EPA has made some big assumptions to get America to that point in a decade.

For example, they say that technology that hasn't been identified will show up and make meeting these rules affordable. They also

say that their 111(d) carbon rule will come off without a hitch and cut some pollution, too.

People back home have their doubts. I share them. But let's imagine they are right for a moment. Even if some counties can't comply in a decade, won't there be dramatic changes and negative impacts in every sector of the American economy from day one?

Ms. WESLEY. Well, I think the biggest concern on behalf of the Baton Rouge Area Chamber and other economic development organizations across the state is if you change that standard today, we are then placed into non-attainment status. And so what does that mean, as we have an economic development toolkit. We look at rules and regulations and laws, and we are trying to attract jobs and companies to Baton Rouge and to the State of Louisiana.

And so if we are placed in non-attainment status, that would be detrimental harm done not only to BRAC but other areas across our State. So even though looking toward 2015 that may be one solution, the biggest concern for us is right now and what that impact means if that standard is changed today.

Mr. OLSON. Yes, ma'am. Mr. Eisenberg, I was about to shoot to you, my friend. Will impacts happen automatically, day one, if this new rule goes into effect?

Mr. EISENBERG. They absolutely will. If this thing goes live on October 1 and October 1 you have to get a new—if you are in the middle of a permitting process for your facility and you are not at the very, very, very, very, very end, then yes, you have got to comply with the new standard. And remember what our poll said, over half of our members believe that it is very unlikely that they are going move forward with a project if they get stuck in non-attainment.

Mr. OLSON. Another question, Mr. Eisenberg. As we proved at last week's hearing with Ms. McCabe, we can never fully eliminate ozone in America. God gave us natural ozone. Half or more of the ozone in America is beyond our control. That means that at a certain point we can't go lower. This is why so much of this compliance technology EPA expects to make this rule work is unknown. And yet EPA can't even consider whether these rules are achievable.

My question is, do you think this is sound law, that EPA doesn't even consider whether its rules are achievable?

Mr. EISENBERG. We absolutely do not. It is actually written in our policy statements that our members put in place every 4 years. We believe EPA should be considering costs in this process and especially feasibility given that that is such a big challenge here. It is a big reason why we support your bill because it would actually inject cost and feasibility into this decision-making process.

Mr. OLSON. A balance between health and actual costs. It is bipartisan, bicameral, myself, Mr. Latta, Mr. Cuellar on this side of the Hill, and Mr. Thune and Mr. Manchin on the other side of the Hill support this bill. So thank you for the little plug there, my friend.

My next question is for Mr. Freeman and WD-40 and Ms. Taylor from the Henry Company. Driven by the Port of Houston, my district is in the middle of a manufacturing petrochemical boom. Many people at home are worried about what this rule would do, whether

it can hurt their jobs along the Gulf Coast. But it seems clear to me that the impact will hit average consumers even far away from the Port of Houston. Mr. Freeman, WD-40 is a staple of American life. I have it in my garage, my Jeep parked down in the garage here. I am going to have my daughter take it to school, college next year. My question is, is it fair to say that these products that every American family has to make their home a home, how would that be impacted by these new rules? Will my grandkids have WD-40 like I have had, like I want my kid to have? What do you think?

Mr. FREEMAN. Well, I would say based on our experience already with the existing regulations and the state regulations that come out of that, that we have had to reformulate WD-40. Now, we have kept the secret juice, the concentrate, the same, but the solvents that we have to mix into it which do affect the formula and also could affect performance and also can affect cost, with this 2018 standard right now, my honest answer would be to you I don't know what WD-40 your grandkids would have because we have to clear that hurdle first.

And so we are dealing with that ambiguity and trying to get there with a lot of great hard work, and I think we are not alone in that. I think a lot of consumer product companies are concerned that maybe we are at that point in diminishing return at least for consumer product goods which is one of the things we want to look at. And then the other part of it is we are still working underneath the current standard and trying to make sense out of that.

Mr. OLSON. Let's not move the goal posts before you achieve those current standards. I yield back.

Mr. WHITFIELD. At this time I recognize the gentleman from New Jersey, Mr. Pallone, for 5 minutes.

Mr. PALLONE. Thank you, Mr. Chairman. During our hearing last week we heard some of my colleagues argue that EPA's proposed ozone standard will hurt the economy and that Americans have to choose between clean air and economic growth. But history tells us that reducing pollution can benefit the economy as well as human health and the environment.

Since its enactment in 1970, the Clean Air Act provides a perfect example of how we can make steady progress in cleaning up the air while growing the economy. In fact, over the past 45 years, we have been able to cut air pollution by 70 percent while our GDP has tripled.

So I am going to ask Mr. Glicksman some questions. What does the history of the Clean Air Act tell us about the relationship between environmental health and safety regulations and a strong economy?

Mr. GLICKSMAN. I think the history tells us it is possible to achieve environmental protection goals without sacrificing economic growth and productivity and that the major statutes, like the Clean Air Act, the Clean Water Act, Resource Conservation Recovery Act demonstrate consistently that American businesses are innovative enough and creative enough to figure out ways to comply in a cost-effective manner that achieve the public health goals of those statutes without resulting in adverse effects on economic growth.

Mr. PALLONE. But Mr. Glicksman, yet almost every time the EPA proposes a significant new requirement, we hear a litany of arguments for why it can't be done. These arguments rely on exaggerated claims about implementation cost, job losses, minimal health benefits. But we have heard all of these doomsday claims before, and throughout the history of the Clean Air Act, industry has made claims that cleaning up air pollution would impose huge costs and harm our economy. Over and over again these claims have turned out to be simply wrong.

One of the exaggerated claims being circulated about the new ozone rule is that estimating the costs would be $140 billion annually, making it the most expensive rule-making in history. However, as we heard last week, EPA's cost estimate approved by OMB was much lower. So again, my question. EPA estimates that implementation would cost approximately $3.9 billion for a 70 parts-per-million standard and $15 billion for a 65 parts-per-million standard. Those numbers are a far cry from the $140 billion. So based on your experience with the environmental regulations, does the $140 billion price tag seem reasonable to you?

Mr. GLICKSMAN. I am skeptical of the $140 billion price tag. There was a similar apocalyptic prediction made when Congress was considering adopting the acid rain control provisions of the 1990 amendments. National Association of Manufacturers at that time predicted serious and lasting damage to the economy as a result of the acid rain provisions that would make the United States a second-class industrial power by the year 2000. Obviously that hasn't happened. What instead happened was that the cost per ton of controlling SO_2 was about a tenth of the amount that the industry predicted at the time those controls were being considered.

Mr. PALLONE. So what is going on here? How have the opponents of the ozone rule landed on such a large estimate? You venture a guess?

Mr. GLICKSMAN. I am not an economist. I can't parse the numbers in any knowledgeable way, but it is clear in the interest of industry to over-predict cost so that it will wind up with less protective regulations that are less costly to comply with.

Mr. PALLONE. Well, I thank you. No matter how high the cost estimate may be, in my opinion there is no reason to oppose the new ozone rule.

I might have time for one more question. Dr. Diette, the Clean Air Act requires the ozone standard to be based solely on consideration of public health establishing the level of pollution that is safe to breathe. Why is it so important to separate considerations of cost from setting the standard?

Dr. DIETTE. Well, there are many reasons. I didn't write the law, right? But I think it has worked out pretty well since 1970 that it has provided us with very clean air compared to some of the countries that I have visited around the world which have horrible air quality. And I think the reason to do that is because the public health is good for people, right? People have a right to breathe clean air. They have a right to not become sick by the air that they breathe, and I think that we have a more productive and a more functional population when people are not sick and they are not

running to the emergency department. So I think that is the reason to do it.

The other is that there is a cost-shifting thing here, right? I haven't heard a lot of talk about the people who inhaled the ozone and missed work. I have only heard about the people that produced the ozone and could theoretically miss work. So there is an imbalance there in terms of the thinking I think.

Mr. PALLONE. I appreciate that. I will just say again that, since the beginning of the Clean Air Act, polluters have cried wolf every time EPA has passed a new rule to protect public health, and the truth is we can have a strong economy while cutting pollution and cleaning the air. Thank you, Mr. Chairman.

Mr. WHITFIELD. At this time I recognize the gentleman from New Jersey, Mr. Lance, for 5 minutes.

Mr. LANCE. Thank you very much, Mr. Chairman. I certainly understand the position of all of the distinguished members of the panel, and of course, from my perspective, this is part of the larger debate on the state of the American economy, the better health of the Nation. It could even tangentially affect the debate we are having in Congress at the moment regarding trade.

To Professor Glicksman, does the Clean Air Act require the establishment of the Clean Air Science Advisory Committee?

Mr. GLICKSMAN. The statute created the Clean Air Act Scientific Advisory Committee, and it mandates that EPA consult with the committee prior to adoption or revision of national standards.

Mr. LANCE. And that is a committee whose members are appointed by the EPA or——

Mr. GLICKSMAN. Yes.

Mr. LANCE [continuing]. By Congress or both?

Mr. GLICKSMAN. EPA.

Mr. LANCE. By EPA? In your written testimony you state that, "Scientists have known for a long time that the current national standard for ozone of 75 parts per billion set in 2008 is far too weak." And then I believe you go onto recommend the 60 parts per billion. Is that accurate, Professor? And then a little less than a year ago, in November, the EPA announced it was proposing to revise the standard to within 65 to 70 parts per billion. Am I reading that testimony accurately?

Mr. GLICKSMAN. Yes, that is correct.

Mr. LANCE. And you believe that that revision is "much weaker and appears to be inconsistent with the clear statutory language adopted by Congress and interpreted by the Supreme Court decision."

So from your perspective, would 65 to 70 be illegal?

Mr. GLICKSMAN. I think it would be an improvement over 75, but I don't think——

Mr. LANCE. Yes. Yes, I can count.

Mr. GLICKSMAN. I don't think it would fully comply with the mandate to protect the public health with an adequate margin of safety.

Mr. LANCE. And would it be illegal?

Mr. GLICKSMAN. If not supported by substantial scientific evidence it would be arbitrative of the EPA to set the standard between 65 and 70.

Mr. LANCE. And would there be a legal remedy for those who thought it illegal?

Mr. GLICKSMAN. Regulations issued by EPA are routinely challenged in the courts, in the Courts of Appeals, and the Courts of Appeals have the authority to invalidate and remand or send back to the agency regulations that don't comply with the statute.

Mr. LANCE. And has that occurred regarding ozone?

Mr. GLICKSMAN. It has occurred in the past regarding ozone.

Mr. LANCE. And the standard has had to be changed as a result of that?

Mr. GLICKSMAN. Yes.

Mr. LANCE. And therefore there would likely be a suit if the EPA were to decide this should be 70 or 65 or somewhere——

Mr. GLICKSMAN. My experience is that there is going to be a lawsuit no matter where EPA sets the standard. It is going to be challenged by those who think it is overly protective and those who think it doesn't go far enough.

Mr. LANCE. Mr. Eisenberg, your opinion on what I have just asked.

Mr. EISENBERG. So first of all, there is a certain irony to the folks that are pushing for a standard of 60 are the same ones that say that we should only be considering science. And 60 is something that EPA dismissed on science grounds. I mean, they said the science doesn't support 60. So I always find that a little odd.

That being said, so the current standard, 75, was challenged, and as Professor Glicksman says, by both sides. And the court upheld that standard.

Mr. LANCE. Yes, that is my understanding. The court has upheld the 75 standard. And then Mr. Eisenberg, I have an industry in my district that manufactures critical water infrastructure components. This is in Phillipsburg in Warren County, and I believe that this could be very damaging to that for the reasons you have suggested. Mr. Eisenberg, could you comment on the cost of non-existing pollution control methods and how that adds to this debate?

Mr. EISENBERG. Sure, and the term, EPA's term, is actually unknown controls. I mean, non-existing—they basically just haven't told us what they are. We don't know if they exist or not. We are pretty sure they don't exist because they didn't tell us. But they call them unknown controls. That is sort of their term of art.

And modeling the unknown is the chief difference between our two studies, to answer the question from before. That is kind of the issue here. What do you consider the unknown? And we took an evidence-based approach. EPA just kind of arbitrarily picked a number and assigned a flat line. That is about the same cost as a lot of the known controls. So we think it is a lot steeper. We hope we invent a better mousetrap, but if we don't you got to start shutting down, and that gets expensive.

Mr. LANCE. Thank you. My time has expired. I respect all the members of the panel. I think this is a very challenging and difficult situation, but we should move forward for the economy of the Nation and the better health of the Nation.

Mr. WHITFIELD. At this time I recognize the gentleman from Kentucky, Mr. Yarmuth, for 5 minutes.

Mr. YARMUTH. Thank you. Thank you very much, Mr. Chairman. Thanks to all the witnesses. Mr. Cox, I listened carefully to your testimony. I want to be very clear. It is my understanding that you said that there is no evidence that reducing ozone has resulted in any public health benefit. Is that correct?

Mr. COX. Yes, or to be very precise, studies that have looked objectively at causality have failed to find evidence of a causal impact of changes on ozone on changes in public health.

Mr. YARMUTH. Well, I represent Louisville, Kentucky. We are a non-attainment community making progress. We have an area of town called rubber town that has I think 32 chemical companies operating in it. Historically we have had tracking. You can see the cases of asthma and other respiratory ailments where they have been admitted from the hospital, where they come from. There is no doubt that there has been a disproportionate amount of those cases surrounding rubber town, and as we have made progress in ozone, those cases have gone down.

Now, obviously they haven't done pathological studies I think or analyses of that. But Dr. Diette, would you like to respond to that because I think that is the fundamental question we have to deal with. If there is no benefit to reducing ozone, no health benefit to reducing ozone, then obviously, none of these rules would make sense. But in terms of your clinical experience and knowledge, how would you respond to that?

Dr. DIETTE. It is a great question, and I think but for Dr. Cox who I respect his opinion, we wouldn't be talking about this. I think the world has mostly moved beyond this question. So this isn't really something that in 2015 we should be talking about, about whether ozone affects human health. We are way beyond that. And I saw in your written testimony, I saw some interesting things. I think one was that this idea that there might be a statistical test which you could assess causality. That is not the way we assess causality. Statistics are part of it. They are supportive of it. But causality is a judgment. It is a judgment. And you know, I know you would like a statistical test, but that isn't the way it works.

The other thing is is that you cited my friend, Francesca Dominici, for one of her articles where she talked about the need to advance the science past just observational studies and to consider things like natural experiments. And I think that is a good idea. I mean, I endorse that as well. And I think the idea of a natural experiment is when these things happen, right, because we can't do a randomized control trial the way we can with a new drug. But when these changes occur, we can study what happened as a result of them. And MIT did I thought a great study, looking at the effect of the NO_x trading and with the NO_x going down and the ozone level going down by several points showing an improvement in healthcare costs among other things.

So I think we have got that sort of evidence as well.

Mr. YARMUTH. Thank you for that. Mr. Eisenberg, I am interested in your survey of members because among the many fine companies that operate in my district, I have two Ford plants, major Ford plants, one major appliance manufacturer, General Electric. I haven't heard from any of them about these ozone rules.

As a matter of fact, I was with the manager of the Ford plant, the Ford truck plant, over the weekend, and he suggested that there were expansion plans on the way, new jobs being contemplated. We already have over the last 5 years 4,000 more employees at Ford in my district.

And we quite frankly haven't heard from any of those 32 chemical companies about the ozone rules. We haven't heard from anybody. So I am curious as to whether—Louisville is a very special place where people just don't complain or whether—and there is probably some of that there—or whether you know, the responses that you got in your survey were kind of the natural inclination of people to say yes, regulation is bad. I would resist that.

Mr. EISENBERG. So I think it is a legitimate question. You know, I can certainly say that a lot of those companies in your district are talking to us. So you know, we will urge them to also talk to you about it. You know, certainly a lot of the more energy-intensive industries are extremely concerned about this. Auto Alliance who represents the auto industry joined our comments I believe and came down on the same place we did.

So you know, the voices are out there. I think we probably could do a little bit more to amplify them. But that being said, we are hearing it. We were a little surprised by the results in our study, too, in our poll, too. We kind of didn't know what we were going to get. We tried to be as unbiased as possible. We were very surprised, number one, that the folks really understood this issue because it is a technical issue. And number two, we are pretty adamant about the fact that it was going to be a real barrier to doing their business.

Mr. YARMUTH. Right. I would suggest just in closing that with corporate earnings being at very, very high levels—even WD-40's earnings, I saw they had a nice earnings report in April. And it is kind of hard to say that this regulation is having a very significant adverse effect on American business. I yield back.

Mr. WHITFIELD. The gentleman yields back. At this time I recognize the gentleman from Illinois, Mr. Shimkus, for 5 minutes.

Mr. SHIMKUS. Thank you, Mr. Chairman, and I am sorry. Like many people, I have been bouncing back and forth to the hearing below. But I am sure many of you saw the beginning of this hearing of last week when I was talking about really—and I am glad my friend from Kentucky is still here because although this is about the ozone, but for many of us, this is about the cumulative effects of regulation and the cost and challenges of responding by either the producers of energy or the manufacturing sector.

And we weave the story about changing the rules midway through a baseball game. If you change the strike zone, you change the outs per inning. You bring in the fences. You take the fences out. You change the foul lines. How can business keep up with those changes? And then I talked about utility MACT, boiler MACT, cement rule, cross-state air pollution, 111(d), 111(b), particulate matter, tier 3, and ozone. That is a lot. I believe that is a lot for manufacturers to respond to.

And so when we have these hearings, right, like we did last week, we have it on one emission standard with the EPA saying there are health benefits. But we never have this full debate

about—there are health benefits of being poor. There are health disadvantages of being poor, when people are dislocated by job and they lose their employment, they lose their health benefits.

So the cumulative effects of these regulations—and they are going on at the same time. This ozone PM is a perfect example. We don't even have states complying with 75 parts per billion, and the EPA wants to ratchet it down to 65 or 60, while we are doing the other, 111(d) and 111(b) and all these other rules and regs that is very difficult for people to get their hands on.

So in my time, if Mr. Eisenberg, Ms. Wesley, Mr. Freeman, and Ms. Taylor would—the basic question is do you think the EPA adequately evaluates the cumulative effects of the regulations?

Mr. EISENBERG. So I think they—I mean, they are supposed to by executive order, by 13563.

Mr. SHIMKUS. Which is a recent permutation. This is a recent executive order.

Mr. EISENBERG. They don't seem to be doing it here. They really don't seem to be doing it here, and in particular, when you look at the conflict between this and some of the other regulations, I mean, first things first. There are dozens of regulations already on the books that take out the same pollutants that we are talking about here, NO_x and VOCs. I mean dozens on almost every industry, which is why we are getting the reductions we are getting in addition to the ozone standard.

But at the same time you start to think about, OK, so we had a truck manufacturer come in the other day. And they are dealing with a new fuel economy rule. And one of the challenges they have got is they are also dealing with, in expectation of the new ozone standard, a stricter NO_x standard.

Mr. SHIMKUS. Right.

Mr. EISENBERG. Well, the controls that go on in an engine to deal with NO_x use fuel. So it is another piece of equipment. And so you kind of can't have the two together. So as they are trying to ratchet one, they can't ratchet the other. They are really struggling with it. Hopefully they will figure it out, but it is a real challenge.

Mr. SHIMKUS. I had an industry come in and say we can get to the NO_x standards, but by doing so we increase the greenhouse gas standards. We just can't meet the same standards. Anybody else of the four that I offered want to respond?

Ms. WESLEY. I had——

Mr. SHIMKUS. Just echo him?

Ms. WESLEY. Yes.

Mr. SHIMKUS. OK. You want to add? OK. Then we had also Mr. Freeman and Ms. Taylor. Did you have any?

Ms. TAYLOR. I definitely agree that I don't think at this time the cumulative effects of regulation are carefully being considered. That is very obvious. I can tell you from my standpoint. I am an environmental regulatory attorney by training. I mean, this is my bread and butter, and even with the subject matter expertise, it is just an enormous amount of information to manage. And quite frankly, compliance execution is very challenging. But that is nothing new.

Mr. SHIMKUS. Mr. Freeman?

Mr. FREEMAN. I am not aware that a lot of agencies if any of them do the cumulative overview. I haven't personally experienced that, but I do think that it is getting more and more complex and that is one of the challenges we have had. We have actually had an instance where we had a can of WD-40 that was under 100 percent California Air Resource Board regulations. Get another regulation. So we had regulatory overlap on the same product against two agencies that did not agree how they measured VOCs, let alone what the metric for success was.

So we have actually gone beyond it just being complex to now they are getting into conflict at times.

Mr. SHIMKUS. Thank you. And I will just end on this. I chair another subcommittee, and we deal with the NRC and we had a great hearing on the NRC. And the NRC evaluated this standard, it costs this much, and the next standard costs this much and the next standard costs this much. But it was not just additive. The true cost was multiplicative, and that is the challenge that we have with these multiple regulations. I yield back. Thank you, Chairman.

Mr. WHITFIELD. The gentleman yields back. At this time I recognize the gentleman from West Virginia, Mr. McKinley, for 5 minutes.

Mr. MCKINLEY. Thank you, Mr. Chairman. I am just trying to absorb all this information. I don't come from a medical background. Mine is an engineering background. So I am trying to understand a little bit, except some of the discussion about the health risks. But I have heard fairly consistently here the inclusion of asthma included. My son has asthma, so I have been sensitive to that from the day he was born.

But I am curious that we seem to be attacking our industries as part of a solution. I am just going to deal with asthma, if we could. And those of you with a medical background, I want to accept that, that there could be something there. But I am also, since we have been talking about this the last couple of years have done additional research. And I find that there are other factors that are seemingly far more reasonably the cause of asthma attacks. Genetics, ethnicity, why we have more asthma attacks in our Afro-American community and in our Puerto Rican/Hispanic communities. He deals with poverty, poor diet, stress, overweight, and lack of exercise in our children, exposure to cigarette smoke, smokers. You have a greater likelihood of having an asthma attack if you also have dermatitis or hay fever allergies. Indoor air quality are all of these factors. Indoor air quality. We have dust mites, cockroach and mouse allergens, mold, animal dander, formaldehyde, dust. I could go on with all—but we are not addressing that at all. We are going to say let's go after manufacturing and have them lower from 75 down to perhaps 60. But we are not addressing what other reports are saying are far more causational than others. In fact, this report, Dr. Diette, from your Johns Hopkins institution, they have come out with a report themselves just recently and said that they can't find a connection. They say there is no statistical difference between the rate of asthma attacks in high-pollution areas than in non-pollution areas. I thought, that is interesting because I thought

all the studies said there is directly a tie. Yet Johns Hopkins came out in opposition to that. So did the——

Dr. DIETTE. Is that the Keets study?

Mr. MCKINLEY [continuing]. University of Utah at Los Angeles study. I could go on with that but——

Dr. DIETTE. Is that the Keets study?

Mr. MCKINLEY. That was a study performed by Keets——

Dr. DIETTE. Yes.

Mr. MCKINLEY [continuing]. McCormick, Pollack and——

Dr. DIETTE. Just so it is clear, the conclusion of that study is not what you said it was, right? So the conclusion of that study has to do with the asthma prevalence, right, so not the asthma attack rate.

Mr. MCKINLEY. Asthma prevalence.

Dr. DIETTE. Asthma prevalence.

Mr. MCKINLEY. Yes.

Dr. DIETTE. And what that determined was that race and poverty were strong determinants but urban dwelling was not a strong determinant of the prevalence of asthma.

Mr. MCKINLEY. So I want to go to——

Dr. DIETTE. There is no—well, excuse me. There is no indication——

Mr. MCKINLEY. I reclaim my time. I want to learn more from this but——

Dr. DIETTE. I appreciate it.

Mr. MCKINLEY [continuing]. I also want to figure out a little bit about Hawaii. Hawaii operates right now from what I understand in their attainment counties, are operating at about right now currently at around 50 parts per billion, and they have been lower. But yet the rate of asthma, whether it is prevalence, attacks or what, is 42 percent higher than the national average here on the continent. I am puzzled with the disconnect.

So I want to go back to yours, Dr. Cox, if we could because I was fascinated with one remark that you made and that was just—I heard and maybe you can clear it up—is that the concentration ozone may not be the issue. Ozone in and of itself, someone exposed to ozone, even at a lesser level, is going to have a triggered attack. Did I misinterpret that?

Mr. COX. No. I think that indeed people who have asthma may be triggered even at lower concentrations of ozone. I think you have hit the key point which is that ozone has many causes. I think the key policy question is what happens to asthma attacks and other health effects when there is a change in ozone level? And the discussion that Dr. Diette and I will put in writing has to do with the difference between statistical associations between levels of pollutants, pet dander, and other factors and what happens when you remove or reduce one of them. I think the most important scientific fact for us today is that decades of reduction in ozone levels have not produced the predicted health benefit.

Mr. MCKINLEY. My time is out, but I just was hoping that you might have been able to help clarify this. There are other issues that are far more prevalent in causing an asthma attack, and that is what I was looking for.

Dr. DIETTE. I would interject, though. I would tend to ask——

Mr. MCKINLEY. We don't seem to be addressing that.

Dr. DIETTE. Well, I think you should direct your question to me, though, and not a biostatistician. It is honestly not the statistician's job to determine what causes asthma, and I think you have done a wonderful job of laying out many of the different causes of asthma, and what you have highlighted is how generally complex it is as you must know from your son, right? And one of the principles of treatment of asthma is that you have to do environmental control on everything at once that you can identify that matters. So it is not sufficient to just take care of the mice or the cockroaches or the dust mites that you mentioned, nor is it enough to get rid of cigarette smoke. You have to do all of those things simultaneously for the asthmatic airways to be in the best state of inflammation and therefore not have an attack.

So that is why it sounds complicated, and that is why it is complicated because all those factors coalesce together and form the syndrome of asthma.

Mr. MCKINLEY. But these reports say that is the biggest cause.

Mr. WHITFIELD. The gentleman's time has expired. At this time I will recognize the gentleman from Ohio, Mr. Johnson, for 5 minutes.

Mr. JOHNSON. Thank you, Mr. Chairman. Dr. Cox, would you like to respond to what you just heard?

Mr. COX. Certainly. I fully agree and emphasize that there are multiple causes of asthma. I think the idea that we should expect benefits from removing or reducing one of them without reducing the rest, as Dr. Diette describes, leads directly to the empirical question, does it work? Does reducing ozone reduce the desired health benefits?

Mr. JOHNSON. Right.

Mr. COX. For that question, for the question of how do changes in exposure change health effects, there is ample evidence, there is evidence from decades of measurements on ozone levels and measurements on hospitalization and indeed death rates, and it is I think very much the job of the biostatistician to say opinion aside, subjective judgment aside, political motivation aside, what do the data tell us about what has actually happened when ozone has been reduced? And the answer from the few studies that do not take a correlational approach or a judgment-based approach but take an empirical data-driven approach, give the perhaps disappointing but clear answer that there is no detectable health benefit or health effect from reducing ozone.

Therefore, the belief that if we pour more energy and effort into further reducing ozone, we should expect fewer asthma attacks, better attendance at school, fewer mortalities, and the other benefits that we have heard about. That expectation is inconsistent with decades of empirical results to show that it just ain't so.

Mr. JOHNSON. OK. Thank you very much. I have got 4 children. I have got 6 grandchildren. I am very concerned about making sure that our air is clean, that our water is clean, that my children are drinking and eating and breathing the right kinds of things.

But I think when we throw out and in most cases make secondary and oftentimes ignore the economic implications of some of the things that we are doing, take an area like mine where I rep-

resent 18 rural Appalachian counties. You rule out the economic implications of these rules, and you shut down companies and you eliminate opportunities, even if the health implications—and I am not a doctor—even if the health implications are bona fide, and I am not saying they are not, people don't have the money to buy insurance. They don't have the money to go to a doctor. Doctors aren't going to come to those areas to treat those patients. We can't ignore the economic implications.

Mr. Eisenberg, your organization released two studies over the past year looking at the economic impacts from a lower ozone standard, and I have found the analysis by NERA Economic Consulting both informative and concerning. I looked at how many of my 18 counties would be out of attainment with the standard set to 65 parts per billion, and to my dismay, I learned that all 18 of those counties would be in non-attainment.

In my district we are seeing signs of life due to increased production of oil and gas, thanks to advances in fracking and horizontal drilling technologies. But the regulations that accompany this new ozone rule standard will most certainly slow and ultimately shackle the growth that we have seen in our communities as I pointed out to Ms. McCabe at our last hearing last week.

In fact, let me read for the committee's benefit what NERA said about the new ozone rule and its impact on oil and gas production. A tightened ozone standard has the potential to cause non-attainment areas to expand into relatively rural areas. Where there are few or no existing emission sources that could be controlled to offset increased emissions from new activity. If non-attainment expands into rural areas that are active in U.S. oil and gas extraction, a shortage of potential offsets may translate into a significant barrier to obtaining permits for the new wells and the pipelines needed to expand or even maintain our domestic oil and gas production levels. Equally concerning is the EPA's Clean Power Plan which envisions a major shift nationwide from coal-fired power to natural gas, but with the rollout of these ozone regulations, I am afraid that our manufacturing industry will not have a source of reliable and affordable energy. This is really, really bad news for my constituents, for my state. I have spent all of my time talking and asking somebody else's question, and I don't get a chance to ask my own. So I think I have made my point. We can't throw out the economic concerns. Throwing out the baby with the bath water doesn't solve the problems. If we don't have an economy that can attack these problems with confidence and resources, we are never going to solve them.

So with that, Mr. Chairman, I yield back.

Mr. WHITFIELD. The gentleman's time has expired. At this time I will recognize the gentleman from Ohio, Mr. Latta, for 5 minutes.

Mr. LATTA. Well, thanks very much, Mr. Chairman, and thanks for holding today's hearing. And thanks to all of our witnesses for being here. I really appreciate your time and your patience.

Ms. Taylor, if I could start with a question to you, in your testimony you say that the EPA and states should carefully consider whether requiring manufacturers to achieve further drastic reductions in VOC content in consumer commercial products is technically feasible at this time and also worth the time and resources

spent by manufacturers to comply for a low return on investment in terms of improved air quality.

Would you like to comment on lowering the VOC content at the Henry Company's types of products that you have? And how long does it take to reformulate the products for roofing material out there to achieve those VOC content and then have to bring that to market?

Ms. TAYLOR. Sure. Well, first let me say that my comment was specifically related to the State Implementation Plan phase. So not at the statutory level where we have already heard that cost is not considered, but really at the implementation plan phase where EPA and the states really work together to design the appropriate plan for the individual state.

In terms of the impact on a company like Henry—and this is my job. That is what Director of Product Stewardship means. I mean I basically manager our SKUs. So I am the person responsible for restricting a specific SKU that, you know, for whatever reason can't comply with a VOC content limit in a certain jurisdiction.

In terms of what we initially tried to do, when we receive new regulatory guidelines, and of course we make every attempt to comply because we are responsible corporate citizens, we go through our SKUs. We sort out our products in terms of what currently complies and what does not. That process alone probably takes a few months. Then after that process is over, we then look at the products that do not comply because those are the products obviously that we are concerned about in terms of the regulation. And we see if any of those are fairly easy to reformulate. Fairly easy, by the way, means like probably a year—fairly easy to reformulate and would go about making those changes.

Then we take a look at the products that are not easy to reformulate, and by not easy, I mean the reformulation process could take 3 to 6 years. And that is not an exaggeration. We have a number of products where that has been the case.

Mr. LATTA. May I ask you, how many at the company would be working on that?

Ms. TAYLOR. Oh, great question. Several. That would probably involve—in an approximately 450-person company like Henry, I would say probably between 15 and 20 would be involved in that, and quite frankly, we may even bring in outside consultants to assist us.

Mr. LATTA. So really not developing a new product, just making sure that the one or those products are compliant? Nothing to advance a new product?

Ms. TAYLOR. That's correct.

Mr. LATTA. OK.

Ms. TAYLOR. That's correct.

Mr. LATTA. Let me ask you another follow-up if I could because I thought what you said was kind of interesting, really, your closing line in your testimony. You said that the primary focus of the EPA should be to provide additional support to those air quality management districts that are currently in non-attainment status to help them reach attainment status under the current level before making the goal of reaching attainment status even more difficult for those states to obtain.

And I think that maybe what you just said kind of answers that when you are looking at the amount of time that you are putting in for products that are already—I am going to assume we are going to meet those attainment where you were. But would you just want to elaborate just a little bit on that? What would you like to see the EPA out there doing?

Ms. TAYLOR. Well, I think in terms of working with—so still working under State Implementation Plans because obviously they would have to be revised with any new statutory, regulatory changes. But really, taking a look at what are the main sources. For example as we are talking about VOCs and ozone, what are the main sources? And we know and Mr. Freeman has echoed this as well that consumer products are one of the smaller sources. And so from our perspective, we quite frankly often feel as though we have been given perhaps more attention than we deserve based upon the amount of pollutants that are coming from our particular industry. So in terms of what EPA could do, I would respectfully suggest that they work with the states to look at the larger sources of pollution and perhaps review available technology at the time, perhaps you know, just have even better—quite frankly, even something like better communication would help this entire process.

As we have alluded to, Mr. Freeman and myself before, just in terms of EPA working with the individual state air districts, there are a number of challenges with that. So that would be quite frankly a good start.

Mr. LATTA. Well, thank you very much. Mr. Chairman, I see my time has expired, and I yield back.

Mr. WHITFIELD. The gentleman's time has expired. At this time I recognize the gentleman from Texas, Mr. Flores, for 5 minutes.

Mr. FLORES. Thank you, Mr. Chairman. Mr. Chairman, I would like to follow up on one of the comments that the Assistant Administrator said last week when she testified. I asked her the question about why has the EPA cost calculation gone down from $90 billion to take ozone requirements from 84 down to—why the 2010 estimate was $90 billion and why their 2014 estimate was $40 billion, and she said that it was because the 2010 estimate was taking the ozone estimate from 84 parts per billion down to 65 parts per billion. That turned out to be a slightly disingenuous answer because she knew full well that the cost embedded to take it from 84 to 75 was 8.8 billion which means that 81 billion was left to take it from 75 down to the 65 estimate. So I will be sending her a letter to ask her to explain why the difference, the $39 billion difference in the estimate from $81 billion down to $42 billion in their 2014 estimate so that we can try to get that cleared up for the benefit of the committee.

Mr. Eisenberg, you had mentioned in your testimony that the EPA is proposing a new standard—and we have talked about this before, that we only can identify 35 percent of the necessary technologies to get to a 65 parts per billion standard and that therefore the unknown controls were 65 percent in terms of a path to compliance.

So this being essentially that the EPA is proposing a standard where the majority of the control technology does not even exist. Is that correct?

Mr. EISENBERG. They certainly haven't identified it. So that is our view.

Mr. FLORES. OK. And so that is obviously an area of concern. So one of the questions I have raised to the administrator last week was how should that be priced? And they relied on past calculations which were the easier ozone reductions to achieve than the one we are getting now because we are getting to the point of diminishing returns.

So I would ask you a two-part question. As you get to the part of diminishing returns on control technology, how should the pricing work? Because you are getting diminishing returns, should it be higher or lower? And also, if it is unknown, therefore there is a higher risk that that technology doesn't exist, how should that be priced?

Mr. EISENBERG. So that is an excellent question, and that is one of the real challenges in looking to the past, including the immediate recent past as a predictor of the future on this issue.

NO_x was controlled by CARE and a lot of other statutes, but that is why it is more expensive now because those technologies are now gone. And so the low-hanging fruit is gone. The high-hanging fruit is gone. Things are getting a lot more expensive. And in fact, you just run out pretty quickly when you start to do this.

The question of modeling unknown controls, we continue to be surprised that EPA just draws this flat line at $15,000 per ton. I don't want to say they don't explain it. They do explain it. We just don't necessarily agree with where they are coming from. But the real issue is, they are essentially modeling hope, right? You are modeling the hope that we will figure this out.

Mr. FLORES. Yes, and that takes me to sort of the real world. My question to her was if the cost by an offset today is $170,000 a ton in the gulf coast area of Texas, wouldn't you price the offset technology at some premium over that versus coming up with the price of hope at $15,000 a ton. So shouldn't it be priced more at $300,000 a ton or something more reasonable? What is your comment on that?

Mr. EISENBERG. So, the current offset prices in Houston are $175,000 per ton of NO_x and $275,000 per ton of VOCs. In Southern California, they are $125,000 per ton of NO_x. So there is definitely a disconnect there.

Mr. FLORES. So theoretically, the price of an unknown technology, since you have got the risk that it may never develop, should be higher in coming up with the——

Mr. EISENBERG. We certainly expect it to be higher than $15,000 per ton.

Mr. FLORES. Ms. Taylor, I appreciate your prior testimony because you give a real-world perspective on these issues. And I don't think you answered this in your last—this is kind of a modification on the questions asked to you before, and this is more specific. Does the roof coating industry currently have the technology to achieve further significant reductions in the VOC content of their products?

Ms. TAYLOR. That is an excellent question. It really depends upon the product. If you are talking about roof coatings, you can make an argument on both sides that perhaps the technology is

currently available where we could achieve further significant reductions. If you are talking about roofing adhesives and sealants, which have different performance characteristics obviously than a traditional paint coating, then I would say no. We currently don't have the technology. We have been researching the technology for the past 2 ½, 3 years, and we will have to do some—I don't know, we will have to get fairy dust or something. We will have to sort it out if further drastic reductions are required.

Mr. FLORES. OK. Thank you for your answers. I yield back.

Mr. WHITFIELD. The gentleman's time has expired. At this time I will recognize the gentleman from Florida, Mr. Bilirakis, for 5 minutes.

Mr. BILIRAKIS. Thank you, Mr. Chairman. I appreciate it very much. Mr. Freeman, you indicate cost to your company and industry to meet existing volatile, organic compounds to regulations have been very significant. Could you elaborate on the costs to date for your industry?

Mr. FREEMAN. I am over here.

Mr. BILIRAKIS. Oh, OK. Very good. Thank you.

Mr. FREEMAN. Cost per day?

Mr. BILIRAKIS. Yes, per day.

Mr. FREEMAN. That is not a measure that——

Mr. BILIRAKIS. No, cost to date for your industry.

Mr. FREEMAN. If I look at our R&D effort alone, it would be several million dollars. Not included in that would be our ongoing supply chain costs I talked about a little bit earlier that can be a result of regulatory compliance, our ongoing marketing costs and our ongoing people costs. I have not added it all up. I am almost a little afraid to, but they are not easy costs to track necessarily, completely, and accurately. But we know that it has been significant——

Mr. BILIRAKIS. Thank you——

Mr. FREEMAN [continuing]. The view that we do have.

Mr. BILIRAKIS. Thank you. Ms. Taylor, have the costs of compliance so far been substantial for your company and the roof coatings industry?

Ms. TAYLOR. Yes. The cost—for us especially at Henry in particular, I think the most adequate measure would just be in the number of products that we have had, already have had to restrict from sale in certain air quality management districts. As I said, we have over 1,200 SKUs. There are certain parts of this country where we sell, you know, less than 50 or 60 individual SKUs.

Mr. BILIRAKIS. Thank you. Ms. Wesley, for the Baton Rouge Area, have the costs to meet ozone regulations in the past been significant? Do you believe that EPA's estimate to implement the proposed ozone rule are accurate or do you believe it will be more costly than expected?

Ms. WESLEY. I certainly believe it will be more costly than expected. We are hearing from our companies in the Baton Rouge Area and across the State of Louisiana the costs are excessive. I don't have an exact number for you, but we are hearing from our companies that it is significant.

Mr. BILIRAKIS. OK. Very good. Thank you. Just this past week a survey was released indicating that 26 states have raised con-

cerns about the role of background ozone, including both naturally occurring and internationally transported contributions to ground-level ozone as an achievability or implementation challenge. Mr. Eisenberg, what happens to permitting for new and expanding businesses when ozone standards are set close to background levels?

Mr. EISENBERG. Thanks for the question. It makes it extremely hard. You can't get out of it. Think of the San Joaquin Valley for a minute. So in the San Joaquin Valley the air regulators there—and they are in really bad non-attainment, probably the worst in the country. The air regulators there have said to meet the 70 or 75 parts-per-billion standard, it is going to require—and this is the regulators saying this—it would require zeroing out emissions from all stationary sources, all off-road vehicles, all farm equipment, and all passenger vehicles. That is how you get there to account for the ozone. So we have got a real problem.

Mr. BILIRAKIS. Yes. Do you believe EPA's proposal to bring down levels lower than the current levels which many are still in the process of being compliant will have a positive or negative impact on the manufacturing sector?

Mr. EISENBERG. So we believe it will have a—the numbers show that it will have a manufacturing-wide negative impact. No sector is really spared here. Everybody gets hit.

Mr. BILIRAKIS. Thank you very much. I yield back, Mr. Chairman.

Mr. WHITFIELD. The gentleman yields back. At this time I will recognize the gentleman from Virginia, Mr. Griffith, for 5 minutes.

Mr. GRIFFITH. Thank you, Mr. Chairman. I appreciate the members of the panel for being here today. I apologize I have not been here for the whole hearing because I have been at another hearing downstairs, a very important hearing as well. So I do apologize for that.

Mr. Eisenberg, I want you to go over that again because it is staggering. You just indicated to Mr. Bilirakis that in order to comply based on background or foreign ozone levels you were talking about the San Joaquin Valley in California. I don't represent anything close to that, but I think it might be important to hear that again because it was staggering. Could you tell us again?

Mr. EISENBERG. Yes. And this comes from their regulators. Because of geographic factors, because of ozone that is wafting in from Southeast Asia and just because of naturally occurring background, they have got a real problem. And so you could literally zero out all the industry there and you still couldn't make it.

That is obviously an extreme case, but the problem is we are getting to levels that this is becoming a more normal problem. I don't think it is ever going to be quite that bad for anybody in Virginia. I hope it won't. But it is a real challenge, and this is why our members, the manufacturers in this country, are on edge because it means that we can't grow if we are in a place like that.

Mr. GRIFFITH. I think you told Mr. Bilirakis you would have to eliminate, what did you say, all the farm equipment?

Mr. EISENBERG. All stationary sources, so all plants, all off-road vehicles, all farm equipment, and all passenger vehicles. Period.

Mr. GRIFFITH. Wow. And so what we are in essence doing is that we are shipping our jobs to other countries, say in Asia, and they are shipping us back the pollution that then causes this level to be so high that we would have to eliminate all passenger vehicles?

Mr. EISENBERG. Well, in that area you would.

Mr. GRIFFITH. In that area, right, in the San Joaquin Valley. Been a long day already. Ms. Taylor, let's talk about something that you said in your written testimony. You indicated that the volatile organic compound regulation of consumer and commercial products in certain air quality management districts around the country are approaching the point of diminishing returns in terms of actually contributing significantly to air quality improvement.

Ms. TAYLOR. Yes.

Mr. GRIFFITH. So what you're saying is is that you are really not going to have much impact if they go further on your industry? Am I interpreting that correctly?

Ms. TAYLOR. That is correct, yes.

Mr. GRIFFITH. So they are really not going to have much accomplishment——

Ms. TAYLOR. Well, the greatest gains which is not uncommon—the greatest gains in terms of VOC reduction were made over a decade ago, maybe more than two decades ago. And so now what we are working with, especially for certain categories of consumer products—I would imagine for these regulatory agencies, the goal is to get to zero grams per liter of VOC. And so we now have products that have very honestly gone from 200 grams per liter down to 100, down to 75, down to 50, down to 25. There is just not much further for those products to go in terms of being able to sell a product at a price point that consumers will accept and that has performance characteristics that accurately reflect what we market the product for. So that is where we are.

Mr. GRIFFITH. And Dr. Cox, I know others have hit on this, but I thought that it was interesting in your testimony that there is a real question, and you testified, and I am quoting, "EPA's insistence that further reducing ozone is necessary to protect improved human health contrasts with decades of experience revealing no such benefits actually occur." Can you explain that?

Mr. COX. Yes. The current usual approach to assessing causation and to predicting whether benefits will occur is to ask selected scientists to form a judgment in light of the evidence that they consider to be relevant, and the scientists that EPA invited to form such judgments have made a judgment that because ozone is deleterious to the lung, reducing its level will have benefits. It is a very common-sense proposition. However, there is an alternative approach to looking at what will happen which is to adopt the natural experiment. The natural experiment says in hundreds of counties across the United States, ozone has gone down in some cases and has gone up in others. Let's look and see what difference those different histories have made to the corresponding histories of health defects. When that analysis is done, not based on judgment but based on data, no health benefit from reduction of ozone is seen. That doesn't mean that no reductions in health risks have occurred, but they have occurred just as much where ozone has gone up as where it has gone down.

So based on empirical analysis for causation, the science would say there is no evidence of a causal impact of further changes.

Mr. GRIFFITH. Let me see if I can translate that because I only have a few seconds left.

Mr. COX. Thank you.

Mr. GRIFFITH. So what you are saying is if you take a look at the country as a whole, you don't see any health benefits gained where the ozone level has gone down. You might see that in individual patients but you don't see it across the board when you are looking at the entire population.

Mr. COX. That is correct.

Mr. GRIFFITH. Thank you. I yield back.

Mr. WHITFIELD. The gentleman yields back. At this time we have just a couple more questions, and then we will conclude this hearing. But I will recognize the gentleman from Illinois, Mr. Rush, for 3 minutes.

Mr. RUSH. Thank you, Mr. Chairman. Dr. Diette, I wanted to give you a chance to respond to anything that you have heard here but particularly the Keets study that was the subject of controversy and how the study was mischaracterized. I want you just to respond to the mischaracterization of the study and any other thing you might want to add.

Dr. DIETTE. Sure. Thanks very much. So it is being misrepresented, right? So first of all what we heard from the member was not even the facts from the study, but the study was simply one that looked at a few different factors and whether or not somebody actually has asthma, so not whether they have asthma attacks. It was not a study of air pollution. So it wasn't a study of air pollution, right? So we can't reach a judgment about ozone from the study. And what it showed was that being African-American and being poor were independent risk factors of having asthma and that living in a city was not.

It can't even potentially have anything to do with the ozone question because ozone isn't concentrated in cities. It is in valleys. It is in suburbs. It is in rural areas and so forth. So it doesn't inform that question whatsoever. So that is why it is being misrepresented.

But other things that I have heard that I think are unusual, right, so one, there are a whole bunch of issues here we have been talking about. One is I heard earlier in the day that somehow that the parts per billion is going to get down from 75 to 70 on its own with the current regulations, and then I am also hearing at the same time that there is no way to get below 75. So I think there is an inconsistency with what we are expecting to already happen and then what we are saying we can't do.

And I would also just say, too, just probably the last comment I will have with Dr. Cox here, but what he is describing about there not being any benefit is not a mainstream view, right, that there a strong consensus among people who actually take care of sick patients with asthma and other lung diseases that ozone is harmful. It causes illnesses. It causes them to die. It is in our guidelines to tell people to avoid the outside when there are high ozone days. It is not made up stuff. This is based on science. So I just want to clarify that as well.

Mr. RUSH. Let me just ask you this. Is there any correlation between diet and ozone as was indicated or lack of exercise? Diet and asthma and lack of exercise and asthma? Are those some preconditions for asthma?

Dr. DIETTE. So like a lot of things, it is very complicated, right? So the relationship between exercise is that for people that exercise outdoors, there is some evidence that somebody who exercises around the time when ozone is high, that that can affect their lung function among other things. So that is an issue. Diet, I don't think we know yet, right? Diet has the potential to be very helpful to us, and so to the extent that people have things that help fend off pollutants, there may be an issue with the American diet that we and others are working on about whether or not modifying that would be protective. But that is not a settled issue.

Mr. RUSH. Mr. Chairman, I want to thank you so very much for your giving me this time. I really appreciate it. Thank you.

Mr. WHITFIELD. You are welcome. At this time I would also recognize—did you want to enter into the record——

Mr. RUSH. Yes, I want to enter into the record a letter, Mr. Chairman, from the Johns Hopkins University. This letter is Ms. Corinne A. Keet's response, Dr. Keet's response to a letter of inquiry from Senator Barbara Boxer. I want to enter it into the record.

Mr. WHITFIELD. Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. WHITFIELD. And at this time, I am going to give 3 minutes to Dr. Burgess of Texas for additional questions.

Mr. BURGESS. Thank you, Mr. Chairman, but in the interest of full disclosure, I don't have a question but I would like to deliver a soliloquy on the Montreal Protocol, and we are here today talking about things we can do to reduce the number of asthma episodes. But I just got to tell you as someone who has suffered with asthma his entire life, the withdrawal of an over-the-counter remedy for an acute asthma attack has been more injurious than anything else that I have seen in some time. And we can talk about whether or not we are reducing by 1,000, 2,000, 3,000 the number of attacks that may occur across the country if we lower the makeup of ozone by an additional part per billion. But regardless of how the asthma attack starts, when it starts, for people who have reactive airway disease who are not on constant chronic treatment, it is generally 2:00 in the morning or weather changes, somebody brings a dog in the house, some trigger mechanism that you may not even know. But when it happens, there used to be a remedy, and the remedy was drive down to your all-night pharmacy and buy a Primatene mist inhaler. You can't do that anymore, and you can't do that because of the Montreal Protocol enforced by the Environmental Protection Agency. People tell me that the EPA or I am sorry, the FDA withdrew my asthma inhaler from the market, but that is actually not true. It was the EPA under the Montreal Protocol.

Now, we had a great discussion about this a Congress or two ago, and I attempted to prevail or to get Congress to allow the continued sale of over-the-counter asthma medications. Let me just stress. There is no over-the-counter asthma rescue inhaler available now. There was one for a brief period of time that the

gentlelady from Florida's district produced, but then that was taken off the market. So there is nothing out there for the person who has an asthma attack in the middle of the night. But no less than our former Chairman Emeritus, Mr. John Dingell, who had been on this committee for a long time, in precise, quantitative terms, said that the amount of chlorofluorocarbon in an asthma inhaler was, and I am quoting him directly, "only a piddling amount." It seems nonsensical to have removed that from the market, and we have only done a disservice to asthmatics across the country. And it was the EPA that delivered that disservice.

Thank you, Mr. Chairman. I will yield back.

Mr. WHITFIELD. Well, thank you both, and I might say that that illustrates one of the concerns that we do have because when that was taken off the market, the price increase for people suffering from asthma as a replacement was significant, which raises the issue Ms. Taylor I think touched on this and Mr. Freeman. We do live in an innovative country. We have innovative people in business, and they are able to come within the guidelines with a lot of money and effort and time. But frequently, and not unusual, it does affect the performance of the product. And so eventually you sometimes reach the point where the product is not what it was, and so the market goes away.

So this has been an informative hearing, and we genuinely thank all of you. Many of you came from long distances, and some of you just came from down the street. But we do appreciate your taking time to be with us and giving us your perspective on this important issue. And we look forward to containing to work with you as we continue to address this issue. And I am also going to ask unanimous consent to entering the following documents into the record: We have a March 17, 2015, letter to EPA Administrator McCarthy from the Baton Rouge Area Chamber and 15 other chambers regarding EPA's proposed ozone rule. And we have about 10 letters here to EPA Administrator McCarthy from Louisiana chambers outside the Baton Rouge Area. We have a statement of the American Chemistry Council and a statement of the American Forest and Paper Association requesting retention of the current ozone standard. Without objection, I will enter that into the record.

[The information appears at the conclusion of the hearing.]

Mr. WHITFIELD. We will keep the record open for 10 days, and once again, we look forward to the reply of Dr. Diette and Dr. Cox from—someone asked you all a question. You said you would get back with them. I appreciate that, and with that, we will conclude today's hearing.

[Whereupon, at 12:40 p.m., the subcommittees were adjourned.]

[Material submitted for inclusion in the record follows:]

PREPARED STATEMENT OF HON. FRED UPTON

Today we continue our work examining EPA's proposed new National Ambient Air Quality Standard for ground-level ozone, and in particular its impact on jobs and the manufacturers who will bear much of the compliance burden.

At the beginning of his second term, President Obama set a goal of creating one million new manufacturing jobs. Unfortunately, President Obama's rhetoric has failed to match up with the economic realities of the policies coming out of the EPA. The new rules have been wide ranging, and each one on their own, like the Clean

Power Plan, will harm our economy. Taken collectively, the results could be disastrous.

This proposed rule is a tough pill for the manufacturing industry to swallow. An ozone nonattainment designation would make it significantly more difficult for industries to invest and create businesses in communities across the United States. Even existing factories would face higher operating costs and red tape. EPA estimates that hundreds of counties across the country would not meet the proposed standards, including many in Michigan. In southwest Michigan, in Allegan County, you could remove all of the human activity and the region would still be in nonattainment because of ozone generated in Chicago, Milwaukee, and Gary, Indiana.

The economic consequences of this proposed rule are very real. I recently received a letter from Southwest Michigan First, an economic development organization in Kalamazoo, Michigan. The CEO Ron Kitchens wrote to me yesterday voicing their concerns with the EPA's proposal.

In the letter, Ron wrote, "The addition of red tape and more severe requirements in these non-attainment areas would stifle economic development and job growth including much needed highway funding in our region and state."

Any proposal must take into account economic growth and job creation—and the ozone revisions do not. I strongly support efforts to reduce smog and I supported the ozone standard finalized in 2008. We have seen significant progress and I endorse reasonable measures to ensure that air quality continues to improve. I believe that we don't need a new ozone standard—we need EPA to implement the existing one. Thank you.

JOHNS HOPKINS
UNIVERSITY

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School of Medicine / CMSC 1102
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Division of Immunology and Allergy

March 9, 2015

The Honorable Barbara Boxer
Ranking Member, Senate Environment and Public Works Committee
456 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Boxer,

We are writing to give more information and perspective about our recent publication "Neighborhood poverty, urban residence, race/ethnicity, and asthma: Rethinking the inner-city asthma epidemic" and its implications for the relationship between asthma and air pollution.

In this study we used data from the National Health Interview Survey (NHIS) to examine the relationship between metropolitan status (i.e., living in an Urban, Suburban, Medium Metro or Small Metro/Rural area), poverty, race/ethnicity, and prevalence of asthma among children in the U.S. This survey, conducted by the Centers for Disease Control is a nationally representative sample. In our study we found that poverty and race/ethnicity were major risk factors for asthma prevalence, but that living in an urban metropolitan area was not a risk factor for asthma prevalence. This study's finding has been misinterpreted by some who believe that it suggests that air pollution in general, and ozone in particular, is not important for asthma[i].

This is an erroneous conclusion to draw from the study's results because first, our study did not examine air pollution, and second, residence in an urban area cannot be taken as a surrogate for high air pollution exposure, as air pollution is not confined to urban areas. In fact, ozone levels are actually highest in suburban areas downwind from urban areas rather than in urban areas themselves[ii], and there is substantial variability across the U.S. between regions and areas. For example, air pollution levels are very high in non-urban areas in the California Central Valley. Most importantly, a link between ozone levels and respiratory health outcomes is supported by many studies that have used a variety of methods that are more appropriate for this question[iii].

Our findings instead highlight that children with asthma live in all types of metropolitan areas throughout the U.S., and suggest the need for comprehensive policies to reduce the prevalence of asthma across the U.S. Until we can develop such policies, we need to reduce threats to the health of people with asthma, including ozone pollution.

Thank you for your interest in this matter. Please contact me with any questions.

Sincerely,

Corinne A. Keet, MD, PhD
Assistant Professor of Pediatrics
Johns Hopkins School of Medicine
Baltimore, MD 21287
Email: ckeet1@jhmi.edu
Phone: 410-955-5883

On behalf of my co-authors:
Meredith McCormack, MD, MHS, Johns Hopkins School of Medicine
Roger D. Peng, PhD, Johns Hopkins School of Public Health
Craig Pollack, MD, MHS, Johns Hopkins School of Medicine
Emily McGowan, MD, Johns Hopkins School of Medicine
Elizabeth C. Matsui, MD, MHS, Johns Hopkins School of Medicine

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[i] For example: http://instituteforenergyresearch.org/analysis/study-undermines-scientific-basis-epas-ozone-rule/
[ii] Simon, H et al. Environmental Science and Technology. 2015, 49, 186-195
[iii] For example:
Meng, YY et al. J Epidemiol Community Health 2010; 64: 142-147.
Kim CS et al. Am J Respir Crit Care Med. 2011, 183:1215-1221.
Gleason JA et al. Environmental Research 132 (2014) 421-429.
Rice MB et al. Am J Respir Crit Care Med. 2013. 188(11): 1351-1357

March 17, 2015

The Honorable Gina McCarthy
Administrator
U.S Environmental Protection Agency

RE: Docket ID No. EPA-HQ-OAR-2008-0699

Dear Administrator McCarthy:

The undersigned metropolitan business organizations (collectively "the Chambers") appreciate the opportunity to submit the following comments in response to the EPA's proposal to lower the ozone National Ambient Air Quality Standards (NAAQS) from 75 parts per billion to a range of 65-70 ppb.[1] The Chambers submitting these comments drive the local economies of states across our nation, with a majority being in the unique and fortunate position of having recently been identified as among the twenty top-performing metro economies according to the Brookings Institution.[2] In other words, they are located in some of the country's most economically prosperous areas in the United States right now. Much of that prosperity and economic growth is being threatened and could be halted completely by the EPA's proposal to lower the ozone standard. Consequently, the undersigned request that the EPA retain the current 75 ppb ozone standard.

If the EPA were to lower the ozone standard to 65 ppb, all but two of the nation's top twenty metropolitan area economies, as ranked by the Brookings Institution's assessment of performance through recession and recovery, would be in "nonattainment" status. Severe repercussions can result almost immediately from a nonattainment designation, such as increased costs to industry, permitting delays, restrictions on expansion, as well as impacts to transportation planning.

[1] Proposed Revisions to the National Ambient Air Quality Standards for Ozone, 79 Fed. Reg. 75,234 (December 17, 2014) at http://www.gpo.gov/fdsys/pkg/FR-2014-12-17/pdf/2014-28674.pdf.
[2] http://www.brookings.edu/research/interactives/metromonitor#/M10420.

In essence, being in "nonattainment" can make it much more difficult for an area to attract new business or expand existing facilities.

According to a recently released Public Policy Commentary by the Baton Rouge Area Chamber,[3] below are the Brookings Institution's top twenty metropolitan area economies cross referenced with those areas' ozone values (2011-2013).

Brookings Institute Metro Monitor - September 2014			
City/Area	**State**	**Overall Rank (Recession + Recovery)**	**Ozone Design Value 2011-2013**
Austin	Texas	1	73
Harris/ Houston	Texas	2	82
San Antonio/Bexar	Texas	3	81
Dallas	Texas	4	84
Oklahoma County	Oklahoma	5	79
Davidson/Nashville	Tennessee	6	70
Provo/Orem	Utah	7	73
San Jose/Silicon Valley (Santa Clara)	California	8	68
Delaware/Columbus	Ohio	9	80
El Paso	Texas	10	72
Denver/Boulder	Colorado	11	79
Portland	Oregon	12	56
Salt Lake	Utah	13	76
Raleigh/Durham	North Carolina	14	71
Omaha	Nebraska	15	67
Charleston	South Carolina	16	63
Pittsburgh	Pennsylvania	17	76

[3] http://www.brac.org/brac/news_detail.asp?article=1947.

Spartanburg/Greenville	South Carolina	18	72
Grand Rapids	Michigan	19	74
Baton Rouge	Louisiana	20	75

Brookings' Metro Monitor tracks the performance of the one hundred largest U.S. metropolitan areas on four indicators: jobs, unemployment, output (gross product), and house prices. The analysis of these indicators is focused on change during three time periods: the recession, the recovery, and the combination of the two (recession + recovery). To create the chart above, the Baton Rouge Area Chamber cross-referenced the Brookings Institution's rankings with their respective ozone design values (average of fourth highest readings over a period of three years), as compiled by the EPA.

It is important to note that all of the undersigned groups believe in and are committed to cleaner air and environmental quality. Indeed, some of them have worked hard in the past few years to reduce ozone levels in their areas. The Chambers also believe in economic development, job creation, and prosperity for their metropolitan areas. A balance between these goals can be achieved; however, lowering the ozone standard at this time, particularly when the 2008 standard is still being implemented, would make that balance almost certainly unachievable. And without that balance, projects will be lost and economic opportunities missed.

The Baton Rouge Area already has seen the real-world impacts of those lost opportunities. Since the EPA first proposed lowering the 2008 ozone NAAQS, the Baton Rouge Area has seen four major industrial projects totaling **2,000 direct and indirect jobs**, and more than **$7 billion in capital investment** either put on hold or go elsewhere. These losses are in direct correlation with the uncertainty created by the newly proposed ozone standards rule.

In 2014, BRAC worked with four specific chemical manufacturers that were investigating major investments in the region. This included two companies that executed purchase agreements on large industrial sites with intent to develop.

Subsequently, all four of these companies indicated that the EPA's proposed new standards (and availability of emission reduction credits) influenced their decisions to look elsewhere or not proceed. The direct impact on the Baton Rouge Area, in terms of new payroll created from the projects themselves, would have been over **$86 million annually in wages** for the local economy. This does not include any indirect or "spin-off" investment or payroll created. Because these projects will include foreign direct investment projects, they also represent new U.S. investment from multi-national corporations into our country.

Unfortunately, these cancelled projects and the resulting lost jobs and economic revenue will not be the only examples of missed opportunities, particularly if the EPA lowers the current ozone standard. Our metropolitan areas have been among the economic bright spots in this country in the last few years, particularly during a time of economic recovery. The Chambers impress upon the EPA that they all have projects that are underway and/or have been announced for future construction, many of which will be threatened if the EPA further tightens the 75 ppb ozone standard.

Economic development and environmental stewardship do not have to be mutually exclusive goals. The Chambers and their members are committed to both, and ask that the EPA retain the current ozone standard so that they can continue to work towards achieving both.

Sincerely,

Baton Rouge Area Chamber.

ARKANSAS STATE CHAMBER OF COMMERCE | ASSOCIATED INDUSTRIES OF ARKANSAS

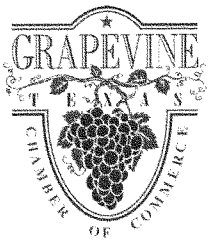
Business matters.

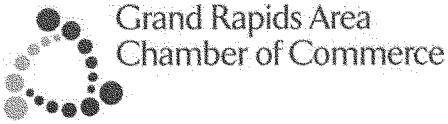
The CHAMBER Angleton & Brazoria County

BAY CITY CHAMBER OF COMMERCE AND AGRICULTURE

Charleston Metro Chamber of Commerce

FRISCO
CHAMBER OF COMMERCE


GRAPEVINE
TEXAS
CHAMBER OF COMMERCE

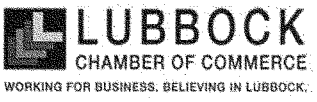

Grand Rapids Area
Chamber of Commerce

GREATER BEAUMONT
CHAMBER
OF COMMERCE

GREATER HOUSTON
PARTNERSHIP
Making Houston Greater.

GREATER
OMAHA
CHAMBER

Real East Texas
LONGVIEW
CHAMBER OF COMMERCE


LUBBOCK
CHAMBER OF COMMERCE
WORKING FOR BUSINESS. BELIEVING IN LUBBOCK.

MIDLAND
CHAMBER OF COMMERCE

Plano Chamber of Commerce
ADVOCACY • EDUCATION • NETWORKING

TEXAS
ASSOCIATION
of
BUSINESS

March 17, 2015

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
Attn: Docket ID No. EPA-HQ- OAR-2008-0699

Dear Administrator McCarthy:

As representatives of Louisiana's business community, we, the undersigned chambers and economic development organizations of the state of Louisiana, feel compelled to express our deep concern about the proposed National Ambient Air Quality Standards (NAAQS) for ozone rule issued by the Environmental Protection Agency (EPA) on November 25, 2014.

Ozone standards at the level proposed by the EPA would push nearly every pocket of the state of Louisiana into "nonattainment," and create a heavy burden on commercial and industrial activity. This burden would not only be borne by local businesses, but also by our area's residents. Aside from an inability to create new jobs, stunted business growth would mean less tax revenue for the area – tax revenue that funds vital public safety and education programs. The proposed rule creates a tremendous hardship for local businesses and citizens, while the alleged benefits are unverified and uncertain.

Because of this, the undersigned organizations strongly oppose the proposed reductions in ambient air quality standards from the current level of seventy-five parts per billion (ppb).

We all value clean air; the fact that we've cut ozone-forming emissions in half as a nation since 1980 is a testament to this statement. Despite this progress, and in the wake of the EPA updating ozone standards just six years ago, the EPA is now proposing an even more stringent range of standards from 70 to 65 ppb. If adopted, this standard would push large swaths of the country into nonattainment. In fact, the standards are so heavy-handed that even the pristine Grand Canyon and Yellowstone National Parks fail to meet them.

If finalized, the EPA's proposed standards would restrict business expansion in nearly every region of the country, including ours. The standards add another layer of red tape to companies seeking to grow. Increased costs associated with restrictive and expensive permit requirements deter companies from building facilities in nonattainment areas; companies already in nonattainment areas will be required to meet the strictest Clean Air Act standard should they seek to grow or renovate their existing facilities. The increased compliance costs create a disincentive for companies to enter a new market, or even grow in the markets they currently occupy. The stagnancy will result in less job creation and lower revenue collected through local taxes, and stifle the economic recovery taking place in communities across the country.

Policies that effect local economies so adversely should be enacted sparingly, and only when absolutely necessary; unfortunately, neither is the case with the EPA's proposed standards. While the EPA enacted stricter ozone standards six years ago, the Agency effectively suspended implementation of those standards from 2010-2012 while it unsuccessfully pursued reconsideration. Because of this delay, states are still making up ground in putting the current standards into effect, meaning we have yet to see the full impact of the last standard decrease, which was implemented just six years ago.

Further, there is mounting uncertainty concerning the consequences of the proposed standards. Studies show that by increasing the costs of goods and services such as energy, and decreasing disposable incomes, regulation can inadvertently harm the socio-economic status of individuals, which contributes to poor heath and premature death. As a representative of businesses that provide much-needed jobs in our community, we believe that we have a duty to explore uncertainties such as these, and to enact policies that strengthen the environment without harming individuals in our community.

It is our strong recommendation that the standard remain 75 ppb.

The air is getting cleaner, and the current ozone standards should be given the opportunity to work. In light of this fact, as well as the economic hardship our community would undergo for a policy with uncertain benefits, we strongly urge the EPA not to proceed with implementing any changes that include lowering of the ozone NAAQS at this time.

Sincerely,

Baton Rouge Area Chamber

Bossier Chamber of Commerce

Chamber Southwest Louisiana

C100 Louisiana

East Feliciana Chamber of Commerce

East Feliciana

East St. Tammany Chamber of Commerce

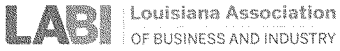
Greater New Orleans Inc Regional Economic Development

Greater Shreveport Chamber of Commerce Accredited

Iberville Chamber of Commerce

Jefferson Chamber Improving Business. Improving Lives.

LEDC Livingston Economic Development Council


LABI
Louisiana Association
OF BUSINESS AND INDUSTRY

MINDEN
SOUTH WEBSTER
CHAMBER OF COMMERCE

Monroe
chamber of commerce

north louisiana
economic partnership

The Central Louisiana
CHAMBER
OF COMMERCE
ANNUAL EVENTS

N
W
E
S
WEST BATON ROUGE
CHAMBER OF COMMERCE

March 6, 2015

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency

Attn: Docket ID No. EPA-HQ- OAR-2008-0699

Dear Administrator McCarthy:

The Louisiana Association of Business and Industry (LABI) appreciates this opportunity provided by the Environmental Protection Agency to share our members' concerns over the agency's proposed ozone standard. Louisiana's businesspeople are keenly sensitive to the broad economic impacts arising from federal regulations, even when those rules are directed at a specific industry. In this case, a large array of industries will bear the burden of this new rule, and it will affect virtually every individual and business in Louisiana at some level.

The impending new ozone standard that the EPA seeks to impose are of particular concern to Louisiana's businesspeople because of our state's tenuous economic recovery and the harm the new standards represent to anticipated project development in our state. Louisiana is poised to experience significant industrial growth and expansion in the years ahead. However, the uncertainty and burden eliciting from the EPA's new standards threaten to snuff out the flame of this forecast manufacturing renaissance.

LABI is Louisiana's chamber of commerce and manufacturers' association. Our organization exists to promote economic development and advocate for an improved business climate in Louisiana by representing the general interests of its business community through active involvement in the political, legislative, judicial and regulatory processes. LABI represents trade associations, chambers of commerce, and thousands of individual businesses from across our state.

Our membership includes over 5,000 business owners and operators in all sectors, including accounting, banking and financial services, chemical manufacturing, communications, construction, energy, engineering services, food and beverage production, health care, hospitality, legal services, oil and gas, retail and wholesale, tourism, and transportation. More than 85% of LABI's members represented in these business sectors are small businesses employing 100 employees or less. Our member businesses employ tens of thousands of workers in every region of our state. These employers and employees have a profound interest and stake in the EPA's new ozone standard.

Around $100 billion in new projects have been announced for Louisiana, and with them, hundreds of thousands of jobs. This represents tremendous potential for all of Louisiana's citizens to experience substantial income growth. This will likewise enhance state and local revenues. Yet, a standard below the existing 75 parts per billion level would likely cause many, if not all, of those projects to be shelved, as their profitability will necessarily be placed in some jeopardy. In fact, I am told, in some cases, the threat of the lower standard already has caused some to be placed on hold pending the final outcome.

Four factors that business abhors most are uncertainty, red tape, unnecessary expenditures and unanticipated delays. Business owners and operators require continuity and predictability in order to plan and make decisions. They must have few and minimal cost impacts to a project to make it affordable and worthwhile.

When any of these four factors are in play, businesspeople are inclined to wait and see. This effectively paralyzes business activity. Capital is withheld pending a more definitive and reliable outcome. New employment is postponed likewise. It is the nature of businesspeople to be certain before acting. Economic laws operate in spite of government interventions, and those laws cannot be defied without consequences.

As you know, the National Association of Manufacturers (NAM) recently commissioned a study by NERA Economic Consulting to assess, on both a national and state-by-state basis, the economic impacts arising from the ozone standard being lowered to 65 ppb. One of the more alarming aspects of a 65 ppb standard is the fact that it would place three quarters of Louisiana's parishes – including some rural parishes without any industrial plants – under non-attainment. Some parishes in our state achieved attainment at the current 75 ppb level just this past year.

The costs of the proposed standard to Louisiana are staggering to consider, and our state would be one of the hardest hit by the proposed decrease. Louisiana's economy would lose $3 billion in Gross State Product between 2017 and 2040. It would lose nearly 34,000 jobs or job equivalents annually. Compliance costs would approach $45 billion. This sort of damage to Louisiana's economic growth will be devastating. Louisiana has set an all-time record for total private employment. Yet, our state's ability to maintain that employment level beyond this year will hit a serious wall if the EPA's standard is lowered to 65 ppb.

Our country has made great progress during recent years in reducing concentrations of ground-level ozone. Levels have dropped almost 25 percent since 1980 despite the growth of the U.S. economy and the industries that support it. This is due to a commitment on the part of American manufacturers to deploy and utilize best practices and state-of-the-art emissions reduction technologies. American manufacturers excel at finding solutions, but the new mandate from the

EPA may create a problem that even they cannot solve. We would hope that the agency takes seriously with the prospect that millions of American jobs are at stake.

As onerous as the new standard may seem, the penalty for noncompliance is debilitating – especially for a state like Louisiana. Being deemed in nonattainment would mean our state would be unable to attract new investment or even expand existing businesses until industries in the region find emissions reductions sufficient to bring it back into attainment. Given the EPA's inability to provide insight into what some of those reduction practices would entail, prospects appear pretty bleak.

The EPA's proposed ozone standard would be unsustainable and unachievable in Louisiana. Louisiana manufacturers and businesses are dedicated to improving their operations in order to protect our environment and enhance our quality of life – all while ensuring economic prosperity for our communities. The timing of this job-killing regulation is gravely concerning at this moment in Louisiana's history. Our state is on the verge of a great run, one that could redefine our economy for generations, but the EPA's proposed ozone standard would unquestionably derail it. LABI strongly urges the EPA to rescind its proposed new ozone standard and retain the current 75 ppb level.

Thank you again for this opportunity to comment on this matter of great importance to all of Louisiana's businesses and their employees.

Sincerely,

Jim Patterson
Vice President, Government Relations
Director, Taxation and Finance Council
Director, Environmental Quality Council

LABI
Louisiana Association
OF BUSINESS AND INDUSTRY

One Voice. Amplified.

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Direct Line: 225-215-6657
Fax: 225-929-6054
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Visit Our Website at LABI.org

EAST FELICIANA PARISH ECONOMIC DEVELOPMENT DISTRICT

P.O. Box 667
Jackson, LA 70748
www.efpedd.com

T/F: (225) 634-7155

audrey@efpedd.com

March 9, 2015

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
Attn: Docket ID No. EPA-HQ- OAR-2008-0699

Dear Administrator McCarthy:

As a representative of the local business community, East Feliciana Parish Economic Development District (EFPEDD) feels compelled to express our deep concern about the proposed National Ambient Air Quality Standards (NAAQS) for ozone rule issued by the Environmental Protection Agency (EPA) on November 25, 2014.

Ozone standards at the level proposed by the EPA would push the Baton Rouge area into "nonattainment," and create a heavy burden on commercial and industrial activity. This burden would not only be borne by local businesses, but also by our area's residents. Aside from an inability to create new jobs, stunted business growth would mean less tax revenue for the area – tax revenue that funds vital public safety and education programs. The proposed rule creates a tremendous hardship for local businesses and citizens, while the alleged benefits are unverified and uncertain.

Because of this, EFPEDD strongly opposes the proposed reductions in ambient air quality standards from the current level of seventy-five parts per billion (ppb).

We all value clean air; the fact that we've cut ozone-forming emissions in half as a nation since 1980 is a testament to this fact. Despite this progress, and in the wake of the EPA updating ozone standards just six years ago, the EPA is now proposing an even more stringent range of standards from 70 to 65 ppb. If adopted, this standard would push large swaths of the country into nonattainment. In fact, the standards are so heavy-handed that even the pristine Grand Canyon and Yellowstone National Parks fail to meet them.

If finalized, the EPA's proposed standards would restrict business expansion in nearly every region of the country, including ours. The standards add another layer of red tape to companies seeking to grow. Increased costs associated with restrictive and expensive permit

requirements deter companies from building facilities in nonattainment areas; companies already in nonattainment areas will be required to meet the strictest Clean Air Act standard should they seek to grow or renovate their existing facilities. The increased compliance costs create a disincentive for companies to enter a new market, or even grow in the markets they currently occupy. The stagnancy will result in less job creation and lower revenue collected through local taxes, and stifle the economic recovery taking place in communities across the country.

Policies that effect local economies so adversely should be enacted sparingly, and only when absolutely necessary; unfortunately, neither is the case with the EPA's proposed standards. While the EPA enacted stricter ozone standards six years ago, the Agency effectively suspended implementation of those standards from 2010-2012 while it unsuccessfully pursued reconsideration. Because of this delay, states are still making up ground in putting the current standards into effect, meaning we have yet to see the full impact of the last standard decrease, which was implemented just six years ago.

Further, there is mounting uncertainty concerning the consequences of the proposed standards. Studies show that by increasing the costs of goods and services such as energy, and decreasing disposable incomes, regulation can inadvertently harm the socio-economic status of individuals, which contributes to poor heath and premature death. As a representative of businesses that provide much-needed jobs in our community, we believe that we have a duty to explore uncertainties such as these, and to enact policies that strengthen the environment without harming individuals in our community.

It is our strong recommendation that the standard remain 75 ppb.

The air is getting cleaner, and the current ozone standards should be given the opportunity to work. In light of this fact, as well as the economic hardship our community would undergo for a policy with uncertain benefits, we strongly urge the EPA not to proceed with implementing any changes that include lowering of the ozone NAAQS at this time.

Sincerely,

Bobbie Bourgeois

Bobbie Bourgeois
Chairman

EAST FELICIANA CHAMBER OF COMMERCE

March 10, 2015

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
Attn: Docket ID No. EPA-HQ- OAR-2008-0699

Dear Administrator McCarthy:

As a representative of the local business community, East Feliciana Chamber of Commerce feels compelled to express our deep concern about the proposed National Ambient Air Quality Standards (NAAQS) for ozone rule issued by the Environmental Protection Agency (EPA) on November 25, 2014.

Ozone standards at the level proposed by the EPA would push the [insert area name] area into "nonattainment," and create a heavy burden on commercial and industrial activity. This burden would not only be borne by local businesses, but also by our area's residents. Aside from an inability to create new jobs, stunted business growth would mean less tax revenue for the area – tax revenue that funds vital public safety and education programs. The proposed rule creates a tremendous hardship for local businesses and citizens, while the alleged benefits are unverified and uncertain.

Because of this, East Feliciana Chamber of Commerce strongly opposes the proposed reductions in ambient air quality standards from the current level of seventy-five parts per billion (ppb).

We all value clean air; the fact that we've cut ozone-forming emissions in half as a nation since 1980 is a testament to this fact. Despite this progress, and in the wake of the EPA updating ozone standards just six years ago, the EPA is now proposing an even more stringent range of standards from 70 to 65 ppb. If adopted, this standard would push large swaths of the country into nonattainment. In fact, the standards are so heavy-handed that even the pristine Grand Canyon and Yellowstone National Parks fail to meet them.

If finalized, the EPA's proposed standards would restrict business expansion in nearly every region of the country, including ours. The standards add another layer of red tape to companies seeking to grow. Increased costs associated with restrictive and expensive permit requirements deter companies from building facilities in nonattainment areas; companies already in nonattainment areas will be required to meet the strictest Clean Air Act standard should they seek to grow or renovate their existing facilities. The increased compliance costs create a disincentive for companies to enter a new market, or even grow in the markets they currently occupy. The stagnancy will result in less job creation and lower revenue collected through local taxes, and stifle the economic recovery taking place in communities across the country.

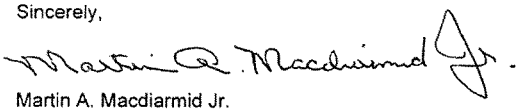
P.O. Box 667 • Jackson, Louisiana 70748
Phone: 225.634.7155 Fax: 225.634.7154
e-mail: tourism1@bellsouth.net
www.eastfelicianachamber.org

Policies that effect local economies so adversely should be enacted sparingly, and only when absolutely necessary; unfortunately, neither is the case with the EPA's proposed standards. While the EPA enacted stricter ozone standards six years ago, the Agency effectively suspended implementation of those standards from 2010-2012 while it unsuccessfully pursued reconsideration. Because of this delay, states are still making up ground in putting the current standards into effect, meaning we have yet to see the full impact of the last standard decrease, which was implemented just six years ago.
Further, there is mounting uncertainty concerning the consequences of the proposed standards. Studies show that by increasing the costs of goods and services such as energy, and decreasing disposable incomes, regulation can inadvertently harm the socio-economic status of individuals, which contributes to poor heath and premature death. As a representative of businesses that provide much-needed jobs in our community, we believe that we have a duty to explore uncertainties such as these, and to enact policies that strengthen the environment without harming individuals in our community.

It is our strong recommendation that the standard remain 75 ppb.

The air is getting cleaner, and the current ozone standards should be given the opportunity to work. In light of this fact, as well as the economic hardship our community would undergo for a policy with uncertain benefits, we strongly urge the EPA not to proceed with implementing any changes that include lowering of the ozone NAAQS at this time.

Sincerely,



Martin A. Macdiarmid Jr.
President

10 PARISHES
Jefferson
Orleans
Plaquemines
St. Bernard
St. Charles
St. James
St. John the Baptist
St. Tammany
Tangipahoa
Washington

March 6, 2015

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
Attn: Docket ID No. EPA-HQ- OAR-2008-0699

Dear Administrator McCarthy:

As a representative of the local business community, Greater New Orleans, Inc. feels compelled to express our deep concern about the proposed National Ambient Air Quality Standards (NAAQS) for ozone rule issued by the Environmental Protection Agency (EPA) on November 25, 2014.

Ozone standards at the level proposed by the EPA would push the Greater New Orleans area into "nonattainment," and create a heavy burden on commercial and industrial activity. This burden would not only be borne by local businesses, but also by our area's residents. Aside from an inability to create new jobs, stunted business growth would mean less tax revenue for the area – tax revenue that funds vital public safety and education programs. The proposed rule creates a tremendous hardship for local businesses and citizens, while the alleged benefits are unverified and uncertain.

Because of this, Greater New Orleans, Inc. strongly opposes the proposed reductions in ambient air quality standards from the current level of seventy-five parts per billion (ppb).

We all value clean air; the fact that we've cut ozone-forming emissions in half as a nation since 1980 is a testament to this fact. Despite this progress, and in the wake of the EPA updating ozone standards just six years ago, the EPA is now proposing an even more stringent range of standards from 70 to 65 ppb. If adopted, this standard would push large swaths of the country into nonattainment. In fact, the standards are so heavy-handed that even the pristine Grand Canyon and Yellowstone National Parks fail to meet them.

If finalized, the EPA's proposed standards would restrict business expansion in nearly every region of the country, including ours. The standards add another layer of red tape to companies seeking to grow. Increased costs associated with restrictive and expensive permit requirements deter companies from building facilities in nonattainment areas; companies already in nonattainment areas will be required to meet the strictest Clean Air Act standard should they seek to grow or renovate their existing facilities. The increased compliance costs create a disincentive for companies to enter a new market, or even grow in the markets they currently occupy. The stagnancy will result in less job creation and lower revenue collected through local taxes, and stifle the economic recovery taking place in communities across the country.

Policies that effect local economies so adversely should be enacted sparingly, and only when absolutely necessary; unfortunately, neither is the case with the EPA's proposed standards. While the EPA enacted stricter ozone standards six years ago, the Agency effectively suspended implementation of those standards from 2010-2012 while it unsuccessfully pursued reconsideration. Because of this delay, states

GREATER NEW ORLEANS
INC
REGIONAL ECONOMIC DEVELOPMENT

10 PARISHES
Jefferson
Orleans
Plaquemines
St. Bernard
St. Charles
St. James
St. John the Baptist
St. Tammany
Tangipahoa
Washington

are still making up ground in putting the current standards into effect, meaning we have yet to see the full impact of the last standard decrease, which was implemented just six years ago.

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It is our strong recommendation that the standard remain 75 ppb.

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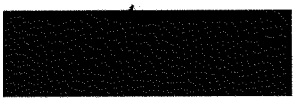

Michael Hecht
President and CEO

365 Canal Street, Suite 2300, New Orleans, LA 70130
Phone: 504.527.6900 Fax: 504.527.6970 www.gnoinc.org

March 10, 2015

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
Attn: Docket ID No. EPA-HQ- OAR-2008-0699

Dear Administrator McCarthy:

As a representative of the local business community, [insert organization's name] feels compelled to express our deep concern about the proposed National Ambient Air Quality Standards (NAAQS) for ozone rule issued by the Environmental Protection Agency (EPA) on November 25, 2014.

Ozone standards at the level proposed by the EPA would push the [insert area name] area into "nonattainment," and create a heavy burden on commercial and industrial activity. This burden would not only be borne by local businesses, but also by our area's residents. Aside from an inability to create new jobs, stunted business growth would mean less tax revenue for the area – tax revenue that funds vital public safety and education programs. The proposed rule creates a tremendous hardship for local businesses and citizens, while the alleged benefits are unverified and uncertain.

Because of this, the Iberville Chamber of Commerce strongly opposes the proposed reductions in ambient air quality standards from the current level of seventy-five parts per billion (ppb).

We all value clean air; the fact that we've cut ozone-forming emissions in half as a nation since 1980 is a testament to this fact. Despite this progress, and in the wake of the EPA updating ozone standards just six years ago, the EPA is now proposing an even more stringent range of standards from 70 to 65 ppb. If adopted, this standard would push large swaths of the country into nonattainment. In fact, the standards are so heavy-handed that even the pristine Grand Canyon and Yellowstone National Parks fail to meet them.

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23520 Eden Street - Plaquemine, LA 70764 - (225) 687-3560 - Fax (225) 687 3575

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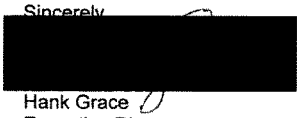
Sincerely



Hank Grace
Executive Director

February 6, 2015

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
Attn: Docket ID No. EPA-HQ- OAR-2008-0699

Dear Administrator McCarthy:

As a representative of the local business community, The Jefferson Chamber of Commerce feels compelled to express our deep concern about the proposed National Ambient Air Quality Standards (NAAQS) for ozone rule issued by the Environmental Protection Agency (EPA) on November 25, 2014.

Ozone standards at the level proposed by the EPA would push the Jefferson Parish area into "nonattainment," and create a heavy burden on commercial and industrial activity. This burden would not only be borne by local businesses, but also by our area's residents. Aside from an inability to create new jobs, stunted business growth would mean less tax revenue for the area – tax revenue that funds vital public safety and education programs. The proposed rule creates a tremendous hardship for local businesses and citizens, while the alleged benefits are unverified and uncertain.

Because of this, The Jefferson Chamber of Commerce strongly opposes the proposed reductions in ambient air quality standards from the current level of seventy-five parts per billion (ppb).

We all value clean air; the fact that we've cut ozone-forming emissions in half as a nation since 1980 is a testament to this fact. Despite this progress, and in the wake of the EPA updating ozone standards just six years ago, the EPA is now proposing an even more stringent range of standards from 70 to 65 ppb. If adopted, this standard would push large swaths of the country into nonattainment. In fact, the standards are so heavy-handed that even the pristine Grand Canyon and Yellowstone National Parks fail to meet them.

If finalized, the EPA's proposed standards would restrict business expansion in nearly every region of the country, including ours. The standards add another layer of red tape to companies seeking to grow. Increased costs associated with restrictive and expensive permit requirements deter companies from building facilities in nonattainment areas; companies already in nonattainment areas will be required to meet the strictest Clean Air Act standard should they seek to grow or renovate their existing facilities. The increased compliance costs create a disincentive for companies to enter a new market, or even grow in the markets they currently occupy. The stagnancy will result in less job creation and lower revenue collected through local taxes, and stifle the economic recovery taking place in communities across the country.

3421 N Causeway Blvd., Suite 203 Metairie, Louisiana 70002 p. (504) 835-3880 f. (504) 835-3828 www.jeffersonchamber.org

Policies that effect local economies so adversely should be enacted sparingly, and only when absolutely necessary; unfortunately, neither is the case with the EPA's proposed standards. While the EPA enacted stricter ozone standards six years ago, the Agency effectively suspended implementation of those standards from 2010-2012 while it unsuccessfully pursued reconsideration. Because of this delay, states are still making up ground in putting the current standards into effect, meaning we have yet to see the full impact of the last standard decrease, which was implemented just six years ago.

Further, there is mounting uncertainty concerning the consequences of the proposed standards. Studies show that by increasing the costs of goods and services such as energy, and decreasing disposable incomes, regulation can inadvertently harm the socio-economic status of individuals, which contributes to poor heath and premature death. As a representative of businesses that provide much-needed jobs in our community, we believe that we have a duty to explore uncertainties such as these, and to enact policies that strengthen the environment without harming individuals in our community.

It is our strong recommendation that the standard remain 75 ppb.

The air is getting cleaner, and the current ozone standards should be given the opportunity to work. In light of this fact, as well as the economic hardship our community would undergo for a policy with uncertain benefits, we strongly urge the EPA not to proceed with implementing any changes that include lowering of the ozone NAAQS at this time.

Sincerely,

[redacted]

Todd P. Murphy
President

March 10, 2015

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
Attn: Docket ID No. EPA-HQ- OAR-2008-0699

Dear Administrator McCarthy:

As a representative of the local business community, the Livingston Economic Development Council (LEDC) feels compelled to express our deep concern about the proposed National Ambient Air Quality Standards (NAAQS) for ozone rule issued by the Environmental Protection Agency (EPA) on November 25, 2014.

Ozone standards at the level proposed by the EPA would push the Livingston Parish area into "nonattainment," and create a heavy burden on commercial and industrial activity. This burden would not only be borne by local businesses, but also by our area's residents. Aside from an inability to create new jobs, stunted business growth would mean less tax revenue for the area – tax revenue that funds vital public safety and education programs. The proposed rule creates a tremendous hardship for local businesses and citizens, while the alleged benefits are unverified and uncertain.

Because of this, the LEDC strongly opposes the proposed reductions in ambient air quality standards from the current level of seventy-five parts per billion (ppb).

We all value clean air; the fact that we've cut ozone-forming emissions in half as a nation since 1980 is a testament to this fact. Despite this progress, and in the wake of the EPA updating ozone standards just six years ago, the EPA is now proposing an even more stringent range of standards from 70 to 65 ppb. If adopted, this standard would push large swaths of the country into nonattainment. In fact, the standards are so heavy-handed that even the pristine Grand Canyon and Yellowstone National Parks fail to meet them.

If finalized, the EPA's proposed standards would restrict business expansion in nearly every region of the country, including ours. The standards add another layer of red tape to companies seeking to grow. Increased costs associated with restrictive and expensive permit requirements

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Mailing address: P.O. Box 809 Livingston, LA 70754
Phone: 225-686-3982 **Fax:** 225-686-3983 **Email:** Info@ledc.net

deter companies from building facilities in nonattainment areas; companies already in nonattainment areas will be required to meet the strictest Clean Air Act standard should they seek to grow or renovate their existing facilities. The increased compliance costs create a disincentive for companies to enter a new market, or even grow in the markets they currently occupy. The stagnancy will result in less job creation and lower revenue collected through local taxes, and stifle the economic recovery taking place in communities across the country.

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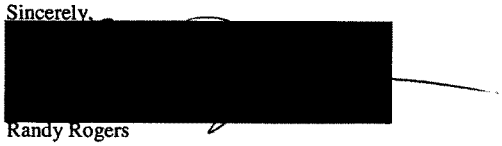
It is our strong recommendation that the standard remain 75 ppb.

The air is getting cleaner, and the current ozone standards should be given the opportunity to work. In light of this fact, as well as the economic hardship our community would undergo for a policy with uncertain benefits, we strongly urge the EPA not to proceed with implementing any changes that include lowering of the ozone NAAQS at this time.

Sincerely,



Randy Rogers
President and CEO

Physical address: 20355 Government Blvd., Suite E Livingston, LA 70754
Mailing address: P.O. Box 809 Livingston, LA 70754
Phone: 225-686-3982 **Fax:** 225-686-3983 **Email:** Info@ledc.net

Together we're stronger
www.monroe.org

March 4, 2015

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
Attn: Docket ID No. EPA-HQ- OAR-2008-0699

Dear Administrator McCarthy:

As a representative of the local business community, The Monroe Chamber of Commerce feels compelled to express our deep concern about the proposed National Ambient Air Quality Standards (NAAQS) for ozone rule issued by the Environmental Protection Agency (EPA) on November 25, 2014.

Ozone standards at the level proposed by the EPA would push the Ouachita Parish area into "nonattainment," and create a heavy burden on commercial and industrial activity. This burden would not only be borne by local businesses, but also by our area's residents. Aside from an inability to create new jobs, stunted business growth would mean less tax revenue for the area – tax revenue that funds vital public safety and education programs. The proposed rule creates a tremendous hardship for local businesses and citizens, while the alleged benefits are unverified and uncertain.

Because of this, the Monroe Chamber of Commerce strongly opposes the proposed reductions in ambient air quality standards from the current level of seventy-five parts per billion (ppb).

We all value clean air; the fact that we've cut ozone-forming emissions in half as a nation since 1980 is a testament to this fact. Despite this progress, and in the wake of the EPA updating ozone standards just six years ago, the EPA is now proposing an even more stringent range of standards from 70 to 65 ppb. If adopted, this standard would push large swaths of the country into nonattainment. In fact, the standards are so heavy-handed that even the pristine Grand Canyon and Yellowstone National Parks fail to meet them.

If finalized, the EPA's proposed standards would restrict business expansion in nearly every region of the country, including ours. The standards add another layer of red tape to companies seeking to grow. Increased costs associated with restrictive and expensive permit requirements deter companies from building facilities in nonattainment areas; companies already in nonattainment areas will be required to meet the strictest Clean Air Act standard should they seek to grow or renovate their existing facilities. The increased compliance costs create a disincentive for companies to enter a new market, or even grow in the markets they currently

212 Walnut Street, Suite 100 • Monroe, LA 71201 • phone: 318-323-3461 • fax: 318-322-7594

occupy. The stagnancy will result in less job creation and lower revenue collected through local taxes, and stifle the economic recovery taking place in communities across the country.

Policies that effect local economies so adversely should be enacted sparingly, and only when absolutely necessary; unfortunately, neither is the case with the EPA's proposed standards. While the EPA enacted stricter ozone standards six years ago, the Agency effectively suspended implementation of those standards from 2010-2012 while it unsuccessfully pursued reconsideration. Because of this delay, states are still making up ground in putting the current standards into effect, meaning we have yet to see the full impact of the last standard decrease, which was implemented just six years ago.

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It is our strong recommendation that the standard remain 75 ppb.

The air is getting cleaner, and the current ozone standards should be given the opportunity to work. In light of this fact, as well as the economic hardship our community would undergo for a policy with uncertain benefits, we strongly urge the EPA not to proceed with implementing any changes that include lowering of the ozone NAAQS at this time.

Sincerely,

Sue Nicholson
President and CEO

212 Walnut Street, Suite 100 • Monroe, LA 71201 • phone: 318-323-3461 • fax: 318-322-7594

CHAMBER
SOUTHWEST LOUISIANA

March 6, 2015

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
Attn: Docket ID No. EPA-HQ- OAR-2008-0699

Dear Administrator McCarthy:

As the regional business organization for five parishes, The Chamber Southwest Louisiana (Chamber SWLA) feels compelled to express our deep concern about the impact of proposed National Ambient Air Quality Standards (NAAQS) for ozone rule issued by the Environmental Protection Agency (EPA) on November 25, 2014.

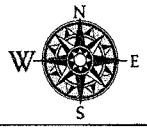
Headquartered in Lake Charles, The Chamber SWLA has more than 1,500 members representing a wide range of small and large businesses and professions spread over Allen, Beauregard, Calcasieu, Cameron and Jefferson Davis Parishes. Our mission is to develop Southwest Louisiana by creating economic opportunity, and demanding responsible government and quality education. Southwest Louisiana boasts a robust industrial sector, and we strive to find a beneficial balance between our concern for environmental quality and common sense regulation that allows our major employers to succeed.

Ozone standards at the level proposed by the EPA would push the Lake Charles area into "nonattainment," and create a heavy burden on commercial and industrial activity. Southwest Louisiana is home to several major plants and refineries, and has been selected for more than $85 billion in new projects or expansions. These projects are considerable economic development achievements and will help to lift our region out of poverty, continue our hurricane recovery progress and provide a better quality of life for our communities. To ensure the success of these projects for the benefit of generations of workers and families in our region, as well as to protect our natural resources that nurture our economy and define our heritage, The Chamber SWLA advocates for economically responsible environmental regulation. We believe the proposed rule change would adversely affect our economy and jeopardize these projects.

Because of this, The Chamber SWLA strongly opposes the proposed reductions in ambient air quality standards from the current level of seventy-five parts per billion (ppb).

Sincerely,

George Swift, President and CEO
SWLA Economic Development Alliance



WEST BATON ROUGE
CHAMBER OF COMMERCE

March 9, 2015

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
Attn: Docket ID No. EPA-HQ- OAR-2008-0699

Dear Administrator McCarthy:

As a representative of the local business community, the West Baton Rouge Chamber of Commerce feels compelled to express our deep concern about the proposed National Ambient Air Quality Standards (NAAQS) for ozone rule issued by the Environmental Protection Agency (EPA) on November 25, 2014.

Ozone standards at the level proposed by the EPA would push the Capital Region area into "nonattainment," and create a heavy burden on commercial and industrial activity. This burden would not only be borne by local businesses, but also by our area's residents. Aside from an inability to create new jobs, stunted business growth would mean less tax revenue for the area – tax revenue that funds vital public safety and education programs. The proposed rule creates a tremendous hardship for local businesses and citizens, while the alleged benefits are unverified and uncertain.

Because of this, the West Baton Rouge Chamber of Commerce strongly opposes the proposed reductions in ambient air quality standards from the current level of seventy-five parts per billion (ppb).

We all value clean air; the fact that we've cut ozone-forming emissions in half as a nation since 1980 is a testament to this fact. Despite this progress, and in the wake of the EPA updating ozone standards just six years ago, the EPA is now proposing an even more stringent range of standards from 70 to 65 ppb. If adopted, this standard would push large swaths of the country into nonattainment. In fact, the standards are so heavy-handed that even the pristine Grand Canyon and Yellowstone National Parks fail to meet them.

If finalized, the EPA's proposed standards would restrict business expansion in nearly every region of the country, including ours. The standards add another layer of red tape to companies seeking to grow. Increased costs associated with restrictive and expensive permit requirements deter companies from building facilities in nonattainment areas; companies already in nonattainment areas will be required to meet the strictest Clean Air Act standard should they seek to grow or renovate their existing facilities. The increased compliance costs create a disincentive for companies

to enter a new market, or even grow in the markets they currently occupy. The stagnancy will result in less job creation and lower revenue collected through local taxes, and stifle the economic recovery taking place in communities across the country.

Policies that effect local economies so adversely should be enacted sparingly, and only when absolutely necessary; unfortunately, neither is the case with the EPA's proposed standards. While the EPA enacted stricter ozone standards six years ago, the Agency effectively suspended implementation of those standards from 2010-2012 while it unsuccessfully pursued reconsideration. Because of this delay, states are still making up ground in putting the current standards into effect, meaning we have yet to see the full impact of the last standard decrease, which was implemented just six years ago.

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It is our strong recommendation that the standard remain 75 ppb.

The air is getting cleaner, and the current ozone standards should be given the opportunity to work. In light of this fact, as well as the economic hardship our community would undergo for a policy with uncertain benefits, we strongly urge the EPA not to proceed with implementing any changes that include lowering of the ozone NAAQS at this time.

Sincerely,

Scott Gaudin, 2015 Board Chair
West Baton Rouge Chamber of Commerce

John Richard, 2015 Board-Chair Elect

P O Box 448
Addis La 70710
225-383-3140

Statement of the American Chemistry Council on
Joint Hearing of the House Energy and Power Subcommittee and the
House Subcommittee on Commerce, Manufacturing, and Trade,
"EPA's Proposed Ozone Rule: Potential Impacts on Manufacturing"

June 16, 2015

Thank you, Chairman Whitfield and Chairman Burgess, for holding such a critical hearing today focusing on EPA's proposed ozone standard. The American Chemistry Council (ACC) is pleased to offer this statement for the record of the hearing. ACC[1] represents the leading companies engaged in the business of chemistry. We apply the science of chemistry to create innovative products and services that make people's lives better, healthier, and safer. The U.S. chemical industry is a key element of the economy, providing 793,000 skilled, good-paying jobs across the country. We are among the nation's largest exporters and investors in research and development. Our advanced materials and technologies include many that help save energy and reduce greenhouse gas emissions.

ACC is opposed to EPA's proposal to lower the ozone National Ambient Air Quality Standard (NAAQS).

EPA Administrator Has Discretion to Set the Standard

In setting the 2008 ozone standard, EPA Administrator Stephen Johnson said CASAC's recommendation appeared to be based on "a mixture of scientific and policy considerations," noting that he was "in general agreement with CASAC's views concerning the interpretation of the scientific evidence. The Administrator also note[d] that *there is no bright line clearly directing the choice of level and the choice of what is appropriate is clearly a public health policy judgment entrusted to the Administrator*."[2] Given the discretion afforded him under the Clean Air Act, Administrator Johnson set the standard at 0.075 ppm.

[1] ACC members apply the science of chemistry to make innovative products and services that make people's lives better, healthier and safer. ACC is committed to improved environmental, health and safety performance through Responsible Care®, common sense advocacy designed to address major public policy issues, and health and environmental research and product testing. The business of chemistry is an $812 billion enterprise and a key element of the nation's economy. It is the nation's largest exporter, accounting for twelve percent of all U.S. exports. Chemistry companies are among the largest investors in research and development. Safety and security have always been primary concerns of ACC members, and they have intensified their efforts, working closely with government agencies to improve security and to defend against any threat to the nation's critical infrastructure.

[2] pp. 16482-83, *Federal Register Volume 73, Number 60, March 27, 2008, National Ambient Air Quality Standards for Ozone, Final Rule*, emphasis added

The Health Science Evidence Does Not Support Lowering the Standard

ACC believes in appropriately peer-reviewed sound science. We do not believe the scientific evidence supports a lowering of the standard. EPA's existing ozone standard of 0.075 ppm, through a series of significant emission control programs, will continue to provide ample protection of public health. Moreover, there are numerous questions about the science being used to justify a lower standard: Some recent health studies contain inconsistent or conflicting findings, while others are re-analyses of previous studies that rely on outdated information.

U.S. Air Quality Continues to Improve

The nation's air quality has significantly improved and continues to improve with new voluntary and regulatory programs already in place or being implemented. According to EPA, total emissions of the six principal criteria air pollutants fell by 62 percent between 1980 and 2013, with ozone concentrations falling by 33 percent over the same time frame.

Voluntary and regulatory emission reduction programs will continue to yield benefits for decades to come. Over the next twenty years, cleaner fuel rules and utility regulations are expected to produce large air quality improvements. Current emission reduction programs will continue to reduce ozone concentrations through 2030.

ACC Member Company Contributions to Cleaner Air

ACC members understand and value the importance of clean air, and we support protecting public health and the environment. Our commitment is reflected in our significant and continued progress in reducing emissions. Since 1990, ACC member companies and the broader business of chemistry have reduced nitrogen oxides by 70%, sulfur dioxide by 58%, volatile organic compounds by 87% and fine particulate emissions by 65%. These results are due to a combination of voluntary member company initiatives, such as Responsible Care®, and regulatory programs.

ACC member companies make a wide range of solutions, such as plastics and insulation products, which help save energy in vehicles, homes, and businesses. The energy savings result in lower emissions of greenhouse gases and ozone precursors such as NO_x.

A Lower Standard Could Stall Manufacturing Growth

The shale gas revolution is driving a historic expansion in American chemistry. More than $142 billion in new chemical industry investment is planned or underway, thanks to plentiful and affordable supplies of natural gas and natural gas liquids. Fully 60 percent is foreign direct investment. The 231 projects – new plants, expansions, and factory restarts – could create and support over 650,000 jobs by 2023. They will also generate increased GDP, tax revenue, and access to innovative new products.

A lower ozone standard could impede manufacturing growth in many areas of the country. On November 26, 2014, EPA proposed a more stringent standard of between 0.065 and 0.070 ppm. Much of the U.S. will be unable to meet a lower NAAQS. Manufacturing growth could slow or stop in states that find themselves in non-compliance, since facilities located in "nonattainment" areas face burdensome and extensive regulatory requirements. These rules make investment projects far more costly and complex.

To safeguard the significant planned investment in chemical manufacturing in the United States, and to ensure that the industry can create the jobs and products that foster economic growth, we need regulatory policies that do not impose unnecessary barriers to growth in our sector. EPA's proposal to lower the ozone NAAQS will impose significant burdens and hurdles on new investment.

Communities and Industry in "Nonattainment" Areas Face Significant Challenges

Currently, 222 counties covering a population of over 120 million people are classified in nonattainment with the 0.075 ppm standard. If EPA revises the standard to the lower end of the proposed range, we estimate that more than 2000 counties – urban and rural – would be in nonattainment, based on the 2011-2013 design values and modeling.

Communities designated "nonattainment" have a hard time attracting and retaining industry and sustaining economic activity and growth. Industry located in a nonattainment area face increased operating costs, permitting delays, and restrictions on building or expanding facilities. These challenges increase the "time to market" for innovative new products.

New facilities and expansions in nonattainment areas cannot proceed until emissions are offset. Offsets are not always readily available, and increase in price as they become scarce. For example, offset prices in the Houston-Galveston-Brazoria nonattainment area are more than $200,000/ton for NOx and $300,000/ton for VOC. Offset prices in southern California nonattainment areas are approaching $125,000/ton of NOx.

Even facilities that are not expanding can experience the burdens of operating in a nonattainment area. For example, in the Houston area, which is in nonattainment with the current standard, existing facilities are subject to additional controls under the Highly Reactive VOC (HRVOC) rule. Combustion units, such as boilers and ethylene crackers, must install costly SCRs and low-NOx burners. They may also lose federal highway and transit funding, as federal projects must conform with State Implementation Plans (SIPs) in order to proceed. Furthermore, facilities located in counties designated as in "severe" or "extreme" nonattainment will face significant Section 185 fees for emissions in their area, even though many of these facilities have already spent many millions of dollars to reduce emissions.

A Better Path Forward

The current ozone standard of 0.075 ppm is the most stringent ever and has not been fully implemented across the United States. EPA and states should focus on fully implementing and attaining the existing standard before contemplating a lower standard – an approach that will continue to provide necessary health protection. As the science develops further, EPA will have the opportunity to determine whether any additional actions might be warranted in the future.

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American Forest & Paper Association

Ozone NAAQS: Already Protective of Public Health

January 2015

Ask

EPA should retain the current standard of 75 parts per billion (ppb) in its final Oct. 1, 2015 rule.

Background

- Under the Clean Air Act, EPA must update its assessment of the latest science and consider whether any changes are needed to National Ambient Air Quality Standards (NAAQS) at least every five years. EPA has significant discretion in determining what is "requisite" to protect public health when setting NAAQS.
- EPA missed its review deadline for ozone in 2013 and was sued by environmental groups, so a court has ordered EPA to propose a rule by Dec. 1, 2014 and issue a final rule by Oct. 1, 2015.
- In December 2014, EPA proposed to lower the current 75 ppb limit to between 65 and 70 ppb. It also invited comment on retaining the current standard as well as going down to 60 ppb.
- EPA's science advisors recommended that the standard be lowered to between 60 and 70 ppb based on their view of the evidence.
- The revisions could place most of the country in nonattainment, putting five times more paper and wood product mills at risk.

Analysis

- The science does not support a further tightening of the standards. EPA continues to rely on studies that reinforce their concerns while ignoring or giving little weight to negative or ambiguous studies.
- States have yet to implement the 2008 standards, which involves the designation of areas as non-attainment and then identifying additional controls from mobile and stationary sources through their State Implementation Plans.
- Air quality has gotten significantly better over the last several years and will continue to improve due to other EPA rules on the books even if the ozone NAAQS are not changed. Nitrogen oxide (NOx) and volatile organic compound (VOC) emissions from pulp, paper and wood produce mills continue to decline.
- At 65 ppb, most of the country fails to meet the standard, which would discourage economic development and job growth even in rural areas. For the paper and wood products

manufacturing industry, the costs could be hundreds of millions in new capital costs.

- EPA's own cost benefit analysis would make the ozone rule one of the most expensive air regulations ever at over $15 billion. More complete industry assessments put the economy-wide annual cost many times higher with significant energy cost increases and job losses.
- Although EPA cannot consider cost when setting the NAAQS (only during implementation), the health effect evidence has not changed significantly since EPA tightened the ozone NAAQS in 2008, so a further change is not justified.
- In some areas, reducing the precursors to ozone formation can result in ozone level actually increasing, especially in inner cities, due to ozone's complex formation chemistry.
- Constantly moving these air quality goal posts creates significant uncertainty for new mill investments that are critical to our global competitiveness.
- As EPA contemplates driving the ozone standard toward background levels, it might also be driving companies to cancel job creating projects.

The American Forest & Paper Association (AF&PA) serves to advance a sustainable U.S. pulp, paper, packaging, and wood products manufacturing industry through fact-based public policy and marketplace advocacy. AF&PA member companies make products essential for everyday life from renewable and recyclable resources and are committed to continuous improvement through the industry's sustainability initiative - Better Practices, Better Planet 2020. The forest products industry accounts for approximately 4 percent of the total U.S. manufacturing GDP, manufactures over $200 billion in products annually, and employs approximately 900,000 men and women. The industry meets a payroll of approximately $50 billion annually and is among the top 10 manufacturing sector employers in 47 states.

BETTER PRACTICES BETTER PLANET 2020

Selected Stakeholders Supporting Retention of the Existing Ozone Standard*

National & Multi-State Organizations

Aerospace Industries Association
Air Permitting Forum
Airlines for America
Aluminum Association
Alliance of Automobile Manufacturers
American Bakers Association
American Chemistry Council
American Coalition for Clean Coal Electricity
American Coatings Association
American Composites Manufacturers Association
American Coke & Coal Chemicals Institute
American Concrete Pipe Association
American Concrete Pressure Pipe Association
American Electric Power Service Corporation
American Farm Bureau Federation
American Forest & Paper Association
American Foundry Society
American Fuel & Petrochemical Manufacturers
American Highway Users Alliance
American Iron and Steel Institute
American Petroleum Institute
American Public Power Association
American Road & Transportation Builders Association
American Trucking Associations
American Wood Council
America's Natural Gas Alliance
The Association for Hose & Accessories Distribution
Association of Global Automakers
Associated Builders & Contractors
Associated General Contractors of America
Auto Care Association
Brick Industry Association
Business Roundtable
Carpet and Rug Institute
Consumer Energy Alliance
Consumer Specialty Products Association
Copper Development Association
Corn Refiners Association
Council of Industrial Boiler Owners
Deseret Generation and Transmission Cooperative
Energy Equipment and Infrastructure Alliance
Eastern Panhandle Home Builders Association
Fibre Box Association
Flexible Packaging Association
Forging Industry Association
Gas Processors Association
Gas Turbine Association
Glass Packaging Institute
Global Cold Chain Alliance
Gulf Coast Lignite Coalition
Hardwood Federation
Independent Liquid Terminals Association
Independent Lubricant Manufacturers Association
Independent Petroleum Association of America
Industrial Energy Consumers of America
Industrial Fasteners Institute
Industrial Minerals Association – North America
Institute for Economic Policy Studies, The Heritage Foundation
Institute of Shortening and Edible Oils
International Brotherhood of Boilermakers
Interstate Natural Gas Association of America
Kitchen Cabinet Manufacturers Association
Lignite Energy Council
Metal Powder Industries Federation
Metals Service Center Institute
Midwest Ozone Group
National Asphalt Pavement Association
National Association of Clean Water Agencies
National Association of Counties
National Association of Homebuilders
National Association of Manufacturers
National Association of Neighborhoods
National Association of Regional Councils
National Association of State Departments of Agriculture
National Association of Wheat Growers
National Automobile Dealers Association
National Federal of Independent Business
National League of Cities
National Lime Association
National Mining Association
National Oilseed Processors Association
National Ready Mixed Concrete Association
National Rural Electric Cooperative Association
National Waste & Recycling Association
Natural Gas Association of America
North American Die Casting Association
Packaging Corporation of America
Personal Care Products Council
Petroleum Equipment & Services Association
Petroleum Marketers Association of America
Plastics Industry Trade Association

Selected Stakeholders Supporting Retention of the Existing Ozone Standard*

Portland Cement Association
Power Transmission Distributors Association
Precision Machined Products Association
Printing Industries of America
Roof Coatings Manufacturers Association
Rubber Manufacturers Association
Small Business & Entrepreneurship Council
Southeastern Lumber Manufacturers Association
Steel Tank Institute/Steel Plate Fabricators Association
The Fertilizer Institute
Treated Wood Council
Truck and Engine Manufacturers
United Association of Journeymen & Apprentices of the Plumbing & Pipe Fitting Industry of the United States, Canada and Australia
U.S. Chamber of Commerce
U.S. Conference of Mayors
US Oil & Gas Association
Utility Air Regulatory Group
Western Agricultural Processors Association
Western Energy Alliance
Western Fuels Association, Inc.
Western State Land Commissioners Association
Western States Petroleum Association

Selected State, Local & Other Stakeholders

Alabama: Governor Robert Bentley; Alabama Attorney General Luther Strange; Alabama Department of Environmental Management; Alabama Petroleum Council; Business Council of Alabama; Coalbed Methane Association of Alabama; Manufacture Alabama; Petroleum & Convenience Marketers of Alabama; Resolute Forest Products; Jasper Lumber Company; Mobile (AL) Area Chamber of Commerce; Resolute Forest Products; Southern Company

Alaska: Alaska Trucking Association

Arizona: Governor Douglas A. Ducey; Salt River Project Agricultural Improvement and Power District; Arizona Chapter Associated General Contractors of America; Arizona's Generation & Transmission Cooperatives; Arizona Chamber of Commerce and Industry; Grand Canyon State Electric Cooperative Association; Arizona Public Service Company; Arizona Highway Users; Paul Gosar, D.D.S., U.S. Congressman; Arizona Mining Association; Arizona Rock Products Association; Peabody Energy Corporation

Arkansas: Governor Asa Hutchinson; Arkansas Attorney General Leslie Rutledge; Department of Environmental Quality; Agricultural Council of Arkansas; Arkansas Asphalt Pavement Association; Arkansas Automobile Dealers Association; Arkansas Beverage Association; Arkansas Environmental Federation; Arkansas Farm Bureau Federation; Arkansas Forestry Association; Arkansas Grocers and Retail Merchants Association; Arkansas Hospitality Association; Arkansas Independent Producers and Royalty Owners Association; Arkansas Municipal League; Arkansas Oil Marketers Association; Arkansas Petroleum Council; Arkansas State Chamber of Commerce and Associated Industries of Arkansas; Arkansas Timber Producers Association; Associated Builders and Contractors of Arkansas; John Boozman, O.D., U.S. Senator

California: California Farm Bureau, California Manufacturers and Technology Association; California Cotton Ginners and Growers Associations; Rural County Representatives of California; African American Farmers of California; Indio Chamber of Commerce; Chemical Industry Council of California; Grizzly Flats Community Services District; Grizzly Flats Fire Safe Council

Colorado: Colorado Association of Commerce and Industry; Colorado Petroleum Council; Colorado BUILDS; Colorado Competitive Council; Colorado Diary Farmers; Colorado Farm Bureau Federation; Colorado Mining Association; Colorado Motor Carriers Association; Colorado Oil and Gas Association; Colorado Petroleum Association; Colorado Rural Electric Association; Colorado Wyoming Petroleum Marketers Association; Denver Metro Chamber of Commerce; Metro Denver Economic Development Corporation; Colorado Competitive Council; Peabody Energy Corporation

Selected Stakeholders Supporting Retention of the Existing Ozone Standard*

Connecticut: Connecticut Business & Industry Association; Home Builders & Remodelers Association of Connecticut; Motor Transport Association of Connecticut; Connecticut Energy Marketers; Connecticut Bus Association

District of Columbia: American Association of State Highway and Transportation Officials

Florida: Associated Industries of Florida; Florida Electric Cooperatives Association; Florida Farm Bureau Federation; Florida Fertilizer and Agrichemical Association; Florida Forestry Association; Florida Municipal Electric Association; Florida Natural Gas Association; Florida Petroleum Council; Florida Petroleum Marketers Association; Florida Trucking Association; Floridians for Better Transportation; James Madison Institute; Duke Energy Florida; Manufacturers Association of Florida; Homebuilders Association of West Florida; Tallahassee Downtown Improvement Authority; Florida Concrete and Products Association; Marpan Supply & Marpan Recycling; K&B Land and Timber; Southern Company; Rocky Randels, Mayor, Cape Canaveral; Bryant Culpepper, Commissioner, Okeechobee County

Georgia: Governor Nathan Deal; Georgia Attorney General Sam Olens; Georgia Environmental Protection Division; Georgia Agribusiness Council; Georgia Association of Convenience Stores; Georgia Association of Manufacturers; Georgia Chamber of Commerce; Georgia Chemistry Council; Georgia EMC; Georgia Farm Bureau; Georgia Mining Association; Georgia Motor Trucking Association; Georgia Oilmen's Association; Georgia Petroleum Council; Georgia Poultry Federation; Georgia Railroad Association; Metro Atlanta Chamber; Oglethorpe Power Corporation; Resolute Forest Products; Georgia Industry Environmental Coalition; Georgia Clean Air Coalition; Tom Price, M.D., U.S. Congressman; Graphic Packaging International, Inc.; Resolute Forest Products; Southern Company

Idaho: Governor C.L. "Butch" Otter; Idaho Forest Group; Mike Simpson, D.M.D., U.S. Congressman; Tammy de Weerd, Mayor, City of Meridian, Idaho; Idaho Grain Producers Association

Illinois: Chemical Industry Council of Illinois; Illinois Association of Aggregate Producers; Illinois Association of Convenience Stores; Illinois Chamber of Commerce; Illinois Environmental Regulatory Group; Illinois Manufactures Association; Illinois Petroleum Council; Illinois Petroleum Marketers Association; Peabody Energy Corporation; Lawrence Walsh, County Executive, Will County

Indiana: Governor Michael R. Pence; Indiana Department of Environmental Management; APPIAN; CountryMark; Indiana Association of Counties; Indiana Builders Association; Indiana Cast Metal Association; Indiana Chamber of Commerce; Indiana Coal Council; Indiana Farm Bureau; Indiana Manufactured House Association/RV Indiana Council; Indiana Manufacturers Association; Indiana Motor Truck Association; Indiana Oil and Gas Association; Indiana Petroleum Council; Indiana Petroleum Marketers and Convenience Store Association; Indiana Retail Council; Indiana State Building & Construction Trades Council; Indy Chamber; Kosciusko Chamber of Commerce; Duke Energy Indiana; Indiana Energy Association; Greater Lafayette Commerce; Grant County Economic Growth Council; Dick Moore, Mayor of Elkhart, IN; Larry Bucshon, M.D., U.S. Congressman; Tony Roswarski, Mayor, City of Lafayette, Indiana; Alcoa Warrick Operations; Peabody Energy Corporation; James H. Shelby, Hancock County Council; Chuck Fewell, Mayor, Greenfield; Rae Baker-Gipson, Clerk Treasurer, City of Rising Sun

Iowa: American Council of Engineering Companies; Associated General Contractors of Iowa; Iowa Engineering Society; Iowa Farm Bureau; Iowa Good Roads Association; Iowa Motor Trucking Association; Iowa Society of Land Surveyors; Master Builders of Iowa; Iowa

Selected Stakeholders Supporting Retention of the Existing Ozone Standard*

Association of Business & Industry; Hancock County Economic Development Corporation

Kansas: Governor Sam Brownback; Kansas Attorney General Derek Schmidt; Division of Environment, Kansas Department of Health and Environment; Greater Kansas City Chamber of Commerce; Kansas Agribusiness Retailers Association; Kansas Chamber of Commerce; Kansas Ethanol Processors Association; Kansas Farm Bureau; Kansas Grain & Feed Association; Kansas Independent Oil & Gas Association; Kansas Industrial Council; Kansas Petroleum Council; Sunflower Electric Power Corporation; Wichita Metro Area Chamber of Commerce; Topeka Home Builders Association; Flint Hills Area Home Builders Association; Wichita Area Metropolitan Planning Organization

Kentucky: Governor Steven L. Beshear; Kentucky Attorney General Jack Conway; Kentucky Department of Environmental Protection; Kentucky Association of Manufacturers; Kentucky Chamber of Commerce; Kentucky Chemical Industry Council; Kentucky Farm Bureau; Kentucky League of Cities; Kentucky Oil and Gas Association; Kentucky Petroleum Marketers Association; Duke Energy Kentucky; East Kentucky Power Cooperative; Northern Kentucky Chamber of Commerce; Sonoco Products Company in Henderson, Kentucky; East Kentucky Power Cooperative; Rand Paul, M.D., U.S. Senator; Maurice Lucas, Judge Executive, Breckinridge County; Jody Jenkins, Judge Executive, Union County, Kentucky

Louisiana: Governor Bobby Jindal; Louisiana Attorney General James "Buddy" Caldwell; Louisiana Department of Environmental Quality; Louisiana Department of Economic Development; Baton Rouge Area Chamber; Bay City Chamber of Commerce; Bossier Chamber of Commerce; South Central Industrial Association; Houma-Terrebonne Chamber of Commerce; Port of New Orleans; Louisiana Home Builders Association; Greater Lafourche Port Commission; Bayou Industrial Group; Ports Association of Louisiana; Cornerstone Chemical Company; Thibodaux Chamber of Commerce; Louisiana Association of Business & Industry; Chamber Southwest Louisiana; Committee of 100; East Feliciana Chamber of Commerce; East Feliciana Parish Economic Development District; East St. Tammany Chamber of Commerce; Greater New Orleans, Inc.; Greater Shreveport Chamber of Commerce; Iberville Chamber of Commerce; Jefferson Chamber of Commerce; Livingston Economic Development Council; Minden South Webster Chamber of Commerce; Monroe Chamber of Commerce; North Louisiana Economic Partnership; The Central Louisiana Chamber of Commerce; West Baton Rouge Chamber of Commerce; Baton Rouge Clean Air Coalition; Bill Cassidy, M.D., U.S. Senator, Charles W. Boustany, Jr., M.D., U.S. Congressman; John C. Fleming, M.D., U.S. Congressman; Ralph Abraham, M.D., U.S. Congressman; Garret Graves, U.S. Congressman; South Central Planning & Development Commission; Imperial Calcasieu Regional Planning & Development Commission; LA 1 Coalition; East Baton Rouge Parish Council; Lafourche Parish Council; Council of the Parish of St. James

Maine: Governor Paul R. LePage; Maine State Chamber of Commerce

Maryland: Maryland Farm Bureau; Maryland Motor Truck Association; Maryland Petroleum Council; Mid-Atlantic Petroleum Distributors Association; Service Station Dealers of America and Allied Trades; Tire Industry Association; WMDA Service Station and Automotive Repair Association; Andy Harris, M.D., U.S. Congressman

Massachusetts: Independent Oil Marketers Association of New England; Massachusetts Energy Marketers Association; Massachusetts Petroleum Council; Retailers Association of Massachusetts

Michigan: Governor Rick Snyder; Michigan Department of Environmental Quality; State Senate Majority Leader Arlan B. Meekhof; Michigan Chemistry Council; Michigan Electric and Gas Association; Michigan Farm Bureau;

Selected Stakeholders Supporting Retention of the Existing Ozone Standard*

Michigan Laborers Union; Michigan Manufacturers Association; Michigan Oil and Gas Association; Michigan Petroleum Association; Michigan Petroleum Council; Michigan Trucking Association; Grand Rapids Chamber of Commerce; Foundry Association of Michigan; Southeast Michigan Council of Governments; Lake Superior Community Partnership; Dan Benishek, M.D., U.S. Congressman; Grand Rapids Area Chamber; Jack E. Kirksey, Mayor, Office of the Mayor, City of Livonia; Ben Frederick, Mayor, City of Owosso

Minnesota: Iron Mining Association of Minnesota; Associated General Contractors of Minnesota; Cooperative Network of Minnesota; Mining Minnesota; Minnesota AgriGrowth Council; Minnesota Chamber of Commerce; Minnesota Petroleum Council; Minnesota Petroleum Marketers Association; Minnesota Trucking Association; Minnesota Power; Metalcasters of Minnesota; Otter Tail Power Company; Michael Beard, Scott County Commissioner

Mississippi: Governor Phil Bryant; Mississippi Department of Environmental Quality; Mississippi Municipal League; Mississippi Gulf Coast Business Council; South Mississippi Electric Power Association; Mississippi Manufacturers Association; Gulf Regional Planning Commission; Board of Supervisors, Jackson County, Mississippi; Desoto County Board of Supervisors, Mississippi; Harrison County Development Commission; Resolute Forest Products; Southern Company; Jackson County Board of Supervisors

Missouri: Lt. Governor Peter Kinder; American Chemistry Council of Missouri; American Council of Engineering Companies of Missouri; Associated General Contractors of Missouri; Associated Industries of Missouri; Association of Missouri Electric Cooperatives; County Commissioners Association of Missouri; Missouri Association of Counties; Missouri Chamber of Commerce; Missouri Chapter of Freedom of the Road Riders; Missouri Energy Development Association; Missouri Farm Bureau; Missouri Limestone Association; Missouri Municipal League; Missouri Petroleum Council; Missouri Petroleum Marketers & Convenience Store Association; Missouri Public Utility Alliance; Missouri Retailers Association; Missouri Society of Professional Engineers; Missouri Trucking Association; SITE Improvement Association; Hancock County Port & Harbor Commission; City Utilities of Springfield, Missouri; Home Builders Association of Greater Kansas City; Regulatory Environmental Group for Missouri; Creative School Zone; Ozarks Transportation Organization; Empire District Electric Company; Peabody Energy Corporation; Atchison County Commission; Travis Elfrink, Presiding Commissioner, Bollinger County; Jim Honey, Commissioner, Jasper County; Platte County Commission; Jamie Burger, Scott County Presiding Commissioner

Montana: Montana Attorney General Tim Fox; Montana-Dakota Utilities Co.; Montana Chamber of Commerce; Board of Commissioners, County of Stillwater; Board of County Commissioners, Yellowstone County; Board of County Commissioners, Carbon County; Peabody Energy Corporation; Board of Commissioners, Big Horn County; Board of County Commissioners, Carbon County; County Commission, Musselshell County; Rosebud County Commissioners; Board of Commissioners, County of Stillwater; Yellowstone County Commissioners

Nebraska: Governor Pete Ricketts; Nebraska Attorney General Douglas Peterson; Nebraska Department of Environmental Quality; Nebraska State Department of Roads; Nebraska State Chamber of Commerce & Industry; Nebraska Petroleum Marketers & Convenience Store Association; Greater Omaha Chamber of Commerce; Nebraska Public Power District; Norfolk Area Chamber of Commerce; Nebraska State Home Builders Association

Nevada: Nevada Mining Association; Southern Nevada Home Builders Association; Nevada Manufacturers Association; Reno-Sparks-

Selected Stakeholders Supporting Retention of the Existing Ozone Standard*

Northern Nevada Chamber of Commerce; Nevada Trucking Association

New Hampshire: Monadnock Paper Mills, Inc.; Pearl & Sons Farm LLC; Ken Merrifield, Mayor, City of Franklin

New Jersey: Chemistry Council of New Jersey; New Jersey Business & Industry Association; New Jersey State Chamber of Commerce; New Jersey Association of Counties; New Jersey Environment & Economic Development (NJ SEED); New Jersey Petroleum Council; Sonoco Products Company in Dayton, New Jersey

New Mexico: Governor Susana Martinez; New Mexico Oil and Gas Association; Rio Grande Foundation; New Mexico Association of Commerce & Industry; Peabody Energy Corporation; Concho Resources Inc.

New York: Associated General Contractors of New York; Business Council of New York State; New York State Petroleum Council

North Carolina: Carolinas Associated General Contractors; North Carolina Aggregates Association; North Carolina Chamber; North Carolina Farm Bureau; North Carolina Homebuilders Association; North Carolina Manufacturers Alliance; North Carolina Petroleum & Convenience Marketers Association; North Carolina Petroleum Council; North Carolina Retail Merchants Association; Duke Energy Carolinas; Roanoke Valley Chamber of Commerce; Renee Ellmers, R.N., U.S. Congresswoman; Southern Company; Skip Watkins, County Commissioner, New Hanover County; J. David Williams, Chairman, Pender County Board of Commissioners; Rowan County Board of Commissioners

North Dakota: North Dakota Attorney General Wayne Stenehjem; North Dakota Department of Health; Lignite Energy Council; Bismarck-Mandan Chamber of Commerce; North Dakota Petroleum Council; Montana-Dakota Utilities Co.; North Dakota Chamber of Commerce; Otter Tail Power Company

Ohio: Ohio Lt. Governor Mary Taylor; Ohio Attorney General Mike DeWine; Ohio Environmental Protection Agency (Appendices A-F and G-I); API Ohio; Ohio Chamber of Commerce; Ohio Coal Association; Ohio Contractors Association; Ohio Home Builders Association; Ohio Licensed Beverage Association; Ohio Oil & Gas Association; Ohio Spirits Association; Ohio Cast Metals Association; Duke Energy Ohio; FirstEnergy Corp.; Ohio Manufacturers' Association; Ohio Municipal Electric Association; Cincinnati Chamber; Brad Wenstrup, D.P.M., U.S. Congressman; Buckeye Power

Oklahoma: Governor Mary Fallin; Oklahoma Attorney General Scott Pruitt; Association of Central Oklahoma Governments; Indian Nations Council of Governments; State Chamber of Oklahoma; Environmental Federation of Oklahoma; Association of Central Oklahoma Governments; Oklahoma Oil & Gas Association; Webco Industries

Oregon: Associated Oregon Industries

Pennsylvania: Associated Pennsylvania Constructors; Associated Petroleum Industries of Pennsylvania; Chester County Chamber of Business and Industry; Greater Johnstown/Cambria County Chamber of Commerce; Greater Philadelphia Hispanic Chamber of Commerce; Greater Pittsburgh Chamber of Commerce; Marcellus Shale Coalition; Maritime Exchange for the Delaware River and Bay; Pennsylvania Aggregates and Concrete Association; Pennsylvania Asphalt Pavement Association; Pennsylvania Business Council; Pennsylvania Chamber of Business and Industry; Pennsylvania Chemical Industry Council; Pennsylvania Coal Alliance; Pennsylvania Food Merchants Association; Pennsylvania Independent Oil and Gas Association; Pennsylvania Manufacturers Association; Pennsylvania Motor Truck Association; Pennsylvania Petroleum Association; Manufacture & Business Association; Pennsylvania Waste Industries Association; Pennsylvania Foundry Association; Tim Murphy, PhD., U.S. Congressman;

Selected Stakeholders Supporting Retention of the Existing Ozone Standard*

Pennsylvania Farm Bureau; Johnston Area Regional Industries; Mission Critical Solutions LLC; Beaver County Board of Commissioners; Somerset County Board of Commissioners; Harlan G. Shober, Jr., Commissioner, Washington County

Puerto Rico: Puerto Rico Manufacturers Association

Rhode Island: Rhode Island Manufacturers Association

South Carolina: Governor Nikki Haley; South Carolina Attorney General Alan Wilson; South Carolina Department of Health and Environmental Control; Homebuilders Association of South Carolina; South Carolina Alliance to Fix Our Roads; South Carolina Association of Counties; South Carolina Chamber of Commerce; South Carolina Department of Commerce; South Carolina Forestry Association; South Carolina Manufacturer's Alliance; South Carolina Petroleum Marketers Association; South Carolina Trucking Association; South Carolina Retail Association; South Carolina Petroleum Council; Duke Energy Carolinas; Charleston Metro Chamber of Commerce; Homebuilders Association of Anderson; Torrey Rush, Chairman, Richland County Council; Charleston Chamber of Commerce; Home Builders Association of Greenville; Resolute Forest Products; Joshua P. Stokes, Councilman, Town of James Island; Stanley S. Pasley, Supervisor/Chairman, Williamsburg County Government

South Dakota: Governor Dennis Daugaard; South Dakota Department of Environment and Natural Resources; South Dakota Chamber of Commerce and Industry; South Dakota Electric Utility Companies; Montana-Dakota Utilities Co.; Home Builders Association of the Sioux Empire; South Dakota Farm Bureau; Otter Tail Power Company

Tennessee: Greater Tennessee Chapter - Associated Builders and Contractors Inc.; Tennessee Chamber of Commerce & Industry; Tennessee Fuel and Convenience Store Association; Tennessee Oil and Gas Association; Tennessee Petroleum Council; Tennessee Road Builders Association; Louisiana-Pacific Corporation (Headquartered in Nashville); Tennessee Manufacturers Association; Scott DesJarlais, M.D., U.S. Congressman, Phil Roe, M.D., U.S. Congressman; Knoxville Chamber of Commerce; Resolute Forest Products; International Union of Elevator Constructors (Nashville Chapter); Tennessee Prescribed Fire Council; Verso Corporation

Texas: Governor Greg Abbott; Texas Commission on Environmental Quality; Texas Department of Transportation; Texas Oil and Gas Association; 8-Hour Ozone SIP Coalition; Texas Association of Business and Industry; Greater Houston Partnership; Plano Chamber of Commerce; Lubbock Chamber of Commerce; Midland Texas Chamber of Commerce; Greater Beaumont Chamber of Commerce; Longview Chamber of Commerce; Grapevine Chamber of Commerce; Sandy Creek Services; Lower Colorado River Authority (Texas-based energy and water provider); Port of Corpus Christi; Texas Pipeline Association; Bay Area Houston Transportation Partnership; Texas Chemistry Council; Baytown Chamber of Commerce; Granbury Chamber of Commerce; Bay City Chamber of Commerce & Agriculture; Palacios Chamber of Commerce; Washington County Chamber of Commerce; Texas Cast Metals Association (TCMA); Texas Cotton Ginners' Association; Dallas Regional Chamber; Best Southwest Chamber Partnership; Frisco Chamber of Commerce; Brian Babin, D.D.S., U.S. Congressman; Michael Burgess, M.D., U.S. Congressman; Texas Farm Bureau; Angleton Chamber of Commerce; Port Industries of Corpus Christi; Corpus Christi Regional Economic Development Corporation; Texas Association of Manufacturers; Southern Company; Concho Resources Inc.

Utah: State Department of Agriculture and Food; Utah Mining Association; Michael J. McKee, Chairman, Uintah County Commission, Utah; Utah Manufacturers Association

Selected Stakeholders Supporting Retention of the Existing Ozone Standard*

Vermont: Associated Industries of Vermont

Virginia: Virginia Chamber of Commerce; Virginia Manufacturers Association; Virginia Agribusiness Council; Virginia Farm Bureau Federation; Virginia Forest Products Association; Virginia Oil and Gas Association; Virginia Petroleum Convenience and Grocery Association (VPCGA); Virginia Petroleum Council; Loudoun County Chamber of Commerce; Virginia Trucking Association; MeadWestvaco

Washington: Association of Washington Business, Washington State's Chamber of Commerce; Clearwater Paper Corporation

West Virginia: Governor Earl Ray Tomblin; West Virginia Attorney General Patrick Morrisey; West Virginia Division of Air Quality; West Virginia Department of Environmental Protection; West Virginia Manufacturers Association; West Virginia Chamber of Commerce; Resolute Forest Products' manufacturing operation in Fairmont, West Virginia; Resolute Forest Products

Wisconsin: Governor Scott Walker; Wisconsin Attorney General Brad D. Schimel; Aggregate Producers of Wisconsin; Associated General Contractors Association; Cooperative Network of Wisconsin; Midwest Food Processers Association; Milwaukee Metro Association of Commerce; Petroleum Marketers & Convenience Stores Association; Transportation Builders Association; Transportation Development Association of Wisconsin; Wisconsin Auto & Truck Dealers Association; Wisconsin Engine Manufacturers & Distributors Association; Wisconsin Grocers Association; Wisconsin Housing Alliance; Wisconsin Industrial Energy Group; Wisconsin Manufacturers & Commerce; Wisconsin Motor Carriers Association; Wisconsin Paper Council; Wisconsin Petroleum Council

Wyoming: Governor Matthew H. Mead; Wyoming Department of Environmental Quality; Petroleum Association of Wyoming; Wyoming Mining Association; John Barrasso, M.D., U.S. Senator; Peabody Energy Corporation; Sweetwater County Board of County Commissioners

**Prepared by the Majority Staff of the Committee on Energy and Commerce. The list is based on public comments submitted by organizations and other stakeholders to the Environmental Protection Agency (EPA) in response to its proposal to lower the existing primary ozone standard of 75 parts per billion (ppb), established in 2008, to a level in the range of 65 ppb to 70 ppb. In addition, the list is also based on direct submissions to the Executive Branch from stakeholders. EPA's rulemaking docket is available at http://www.regulations.gov/#!docketDetail;D=EPA-HQ-OAR-2008-0699.*

Updated: July 13, 2015