

**NEW SOURCE REVIEW PERMITTING CHALLENGES
FOR MANUFACTURING AND INFRASTRUCTURE**

HEARING
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENT
OF THE
COMMITTEE ON ENERGY AND
COMMERCE
HOUSE OF REPRESENTATIVES
ONE HUNDRED FIFTEENTH CONGRESS
SECOND SESSION

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¹ The attachment to this document can be found at: <https://docs.house.gov/meetings/IF/IF18/20180214/106852/HHRG-115-IF18-20180214-SD007.pdf>.

NEW SOURCE REVIEW PERMITTING CHALLENGES FOR MANUFACTURING AND INFRASTRUCTURE

WEDNESDAY, FEBRUARY 14, 2018

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENVIRONMENT,
COMMITTEE ON ENERGY AND COMMERCE
Washington, DC.

The subcommittee met, pursuant to call, at 2:00 p.m., in room 2123 Rayburn House Office Building, Hon. John Shimkus (chairman of the subcommittee) presiding.

Members present: Representatives Shimkus, McKinley, Olson, Johnson, Flores, Hudson, Cramer, Walberg, Carter, Walden (ex officio), Tonko, Ruiz, Peters, Green, McNerney, Dingell, Matsui, and Pallone (ex officio).

Staff present: Mike Bloomquist, Deputy Staff Director; Allie Bury, Legislative Clerk, Energy/Environment; Kelly Collins, Staff Assistant; Wyatt Ellertson, Research Associate, Energy/Environment; Margaret Tucker Fogarty, Staff Assistant; Jordan Haverly, Policy Coordinator, Environment; A.T. Johnston, Senior Policy Advisor, Energy; Ben Lieberman, Senior Counsel, Energy; Mary Martin, Deputy Chief Counsel, Energy & Environment; Dan Schneider, Press Secretary; Austin Stonebraker, Press Assistant; Hamlin Wade, Special Advisor, External Affairs; Jean Fruci, Minority Energy and Environment Policy Advisor; Caitlin Haberman, Minority Professional Staff Member; Rick Kessler, Minority Senior Advisor and Staff Director, Energy and Environment; Alexander Ratner, Minority Policy Analyst; Andrew Souvall, Minority Director of Communications, Outreach and Member Services; C.J. Young, Minority Press Secretary; and Catherine Zander, Minority Environment Fellow.

OPENING STATEMENT OF HON. JOHN SHIMKUS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Mr. SHIMKUS. The Subcommittee on the Environment will now come to order. The chair recognizes himself for 5 minutes for an opening statement.

Today's hearing examines the impact of the EPA's new source review air permitting program, commonly referred to as NSR.

Congress created this preconstruction permitting program with the goal of protecting air quality by ensuring that the use of appropriate pollution control devices on new and modified source of emissions such as power plants, factories, and industrial facilities.

As you can imagine, the NSR permitting program reaches across several industry sectors and has far-reaching impacts on America's economy and global competitiveness. For these reasons, it is incredibly important for us to ensure that the preconstruction permitting program is working effectively and efficiently.

Unfortunately, history shows that there are too many instances where New Source Review Program is anything but effective and efficient.

As we will hear from many of our witnesses today, over time the NSR program has become more costly and time consuming which not only slows economic growth but also hinders the nation's ability to modernize infrastructure.

Under the existing NSR program, it can take multiple years and millions of dollars to obtain the preconstruction air permits required to begin construction on a new facility. This significant time delay and cost burden makes it more difficult and less likely for owners to invest in new projects and facilities.

Not only is the NSR process costly and time consuming, it is also complex and uncertain. Right now, on the EPA's Web site there are nearly 700 posted guidance documents that an applicant may need to be aware of when seeking a preconstruction permit.

Companies must hire teams of lawyers just understand the requirements and processes established under the NSR program. The end result of this complexity is that companies are afraid of incorrectly interpreting NSR requirements and violating the rules that they are hesitant to pursue projects that require an NSR preconstruction permit.

In other words, the NSR program is holding back needed investment in the nation's infrastructure, industrial capacity, and manufacturing capabilities.

One particularly frustrating effect of the NSR program is that it discourages owners from carrying out projects that would improve the environmental performance of their facilities.

For example, if a company wants to perform efficiency upgrades to install new pollution control technology, they typically have to obtain a preconstruction permit through the NSR program.

However, because the NSR program is so burdensome, many owners are choosing to avoid the NSR process and facility upgrades altogether and are instead continuing to operate older, less efficient, and dirtier facilities.

Clearly, there are significant problems and shortcomings with how the NSR program is being carried out today. The goal of this hearing is to identify and understand the challenges connected to the NSR program so that we can begin considering potential reforms to improve the program.

To assist our work, we will hear today from witnesses who can explain the challenges faced by manufacturers and industry seeking to expand operations.

We will hear from a state regulator who can explain the role NSR program plays in protecting local air quality and we will also hear from NSR policy experts who can discuss options for how to reduce unnecessary NSR permitting burdens.

I am confident that through targeted changes to the NSR program we can not only reduce the unnecessary burden imposed upon

industry but also maintain and enhance the NSR program's important protections for the environment and public health.

[The prepared statement of Mr. Shimkus follows:]

PREPARED STATEMENT OF HON. JOHN SHIMKUS

Today's hearing examines the impact of the EPA's New Source Review air permitting program, commonly referred to as NSR. Congress created this preconstruction permitting program with the goal of protecting air quality by ensuring the use of appropriate pollution control devices on new and modified sources of emissions, such as power plants, factories, and industrial facilities.

As you can imagine, the NSR permitting program reaches across several industry sectors and has far reaching impacts on America's economy and global competitiveness. For these reasons, it is incredibly important for us to ensure that the preconstruction permitting program is working effectively and efficiently. Unfortunately, history shows that there are too many instances where the current NSR program is anything but effective and efficient.

As we will hear from many of our witnesses today, over time the NSR program has become more costly and time-consuming, which not only slows economic growth but also hinders the nation's ability to modernize infrastructure. Under the existing NSR program, it can take multiple years and millions of dollars to obtain the preconstruction air permits required to begin construction on a new facility. This significant time delay and cost burden makes it more difficult and less likely for owners to invest in new projects and facilities.

Not only is the NSR process costly and time-consuming, it is also complex and uncertain. Right now on the EPA's Web site, there are nearly 700 posted guidance documents that an applicant may need to be aware of when seeking a preconstruction permit. Companies must hire teams of lawyers just to understand the requirements and processes established under the NSR program. The end result of this complexity, is that companies are so afraid of incorrectly interpreting NSR requirements and violating the rules that they are hesitant to pursue projects that require an NSR preconstruction permit. In other words, the NSR program is holding back needed investment in the nation's infrastructure, industrial capacity, and manufacturing capabilities.

One particularly frustrating effect of the NSR program, is that it discourages owners from carrying out projects that would improve the environmental performance of their facilities. For example, if a company wants to perform efficiency upgrades or install new pollution control technology, they typically have to obtain a preconstruction permit through the NSR program. However, because the NSR program is so burdensome, many owners are choosing to avoid the NSR process and facility upgrades altogether, and are instead continuing to operate older, less efficient, dirtier facilities.

Clearly there are significant problems and shortcomings with how the NSR program is being carried out today. The goal of this hearing is to identify and understand the challenges connected to the NSR program so that we can begin considering potential reforms to improve the program.

To assist our work, we will hear today from witnesses who can explain the challenges faced by manufacturers and industry seeking to expand operations. We will hear from a state regulator who can explain the role the NSR program plays in protecting local air quality and we will also hear from NSR policy experts who can discuss options for how to reduce unnecessary NSR permitting burdens.

I am confident that through targeted changes to the NSR program, we can not only reduce the unnecessary burden imposed upon industry, but also maintain and enhance the NSR program's important protections for the environment and public health.

And with that, I'd like to yield—so I will turn to the minority—are you ready to go? I would like to recognize the ranking member of the subcommittee, Mr. Tonko, for 5 minutes.

OPENING STATEMENT OF HON. PAUL TONKO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. TONKO. Thank you, Mr. Chair, and thank you to our witnesses for being here today.

Today's hearing will examine EPA's new source review permitting program. As we have discussed on many occasions in this subcommittee, under the Clean Air Act, EPA is required to set health-based national ambient air quality standards, or NAAQS, for six criteria pollutants.

As more medical and scientific evidence has come to light, NAAQS have been adjusted accordingly to ensure they continue to be protective of our health.

Since the passage of the Clean Air Act, our nation has experienced the drastic reduction in these air pollutants, all while our economy has grown tremendously.

It is beyond dispute that air pollution has serious health and economic consequences. When people are sick, hospitalized, and miss school or work we are a less productive society.

The new source review program plays an important role to ensure that new and modified major sources use the appropriate pollution controls to limit emissions of criteria pollutants.

This includes the best available controlled technology and locations with relatively clean air known as prevention of significant deterioration to ensure these areas continue to maintain healthy levels of air quality.

For areas in nonattainment of a NAAQS this includes the lowest achievement emissions rate along with appropriate offsets from other existing sources. This is known as nonattainment new source review.

The Clean Air Act has been successful because it is premised on making progress over time. We have made major strides in reducing pollution as our understanding of the health risks posed by dirty air has become more sophisticated.

That is why I was pleased to see EPA's Web site recognized February as American Heart Month. EPA has some useful heart health statistics such as heart disease and stroke are the first and fourth leading causes of death in the United States.

Air pollution can affect heart health and can trigger heart attacks and strokes that cause disability and death. One in three American adults has heart or blood vessel disease and is at higher risk from air pollution.

It is critical that we acknowledge and educate people on the role air pollution plays in exacerbating heart disease, asthma, and other respiratory illnesses.

So while EPA's Web site has taken steps to connect the dots between air pollution and threats to Americans' health, the actions by Administrator Pruitt and Assistant Administrator Wehrum have been troubling.

On December 7th, Administrator Pruitt issued a memorandum with a new approach to implementation and enforcement of the new source review program.

EPA will no longer review the permanent applicant's emissions projections nor will the agency enforce against an applicant that provides invalid estimates.

In some cases, this lax attitude on enforcement will have consequences in downwind states, far away from the original permitting authority.

And while not the subject of today's hearing, another data point from January 25th, Assistant Administrator Wehrum reversed EPA's longstanding once in always in policy for major source MACT requirements.

Both decisions will review—will result, rather, in greater air pollution, and the new source review task force seems to be little more than a brainstorming session on how to evade air pollution controls rather than actually building a public record on how the program might be improved.

Progress over time means ensuring we don't backslide and, sadly, I believe the direction of this EPA will cause us to do just that.

My district and many great towns and cities across this country were built by manufacturers. But when many of those facilities were built, we didn't fully understand the consequences of dirty air. We didn't know that one in three American adults has heart or blood vessel disease and is at higher risk from air pollution.

We know better today. Our health and environmental safeguards should reflect that. We shouldn't have to ask our constituents to bear all the costs of air pollution, especially not when they are—when there are effective and well understood pollution controls.

I would urge EPA's leadership to stop going down this path and consider how the—how to best improve and preserve air quality.

So again, I thank you. I thank the witnesses for being here and helping us better understand some of the potential changes to the new source review program.

And with that, Mr. Chair, I yield back.

Mr. SHIMKUS. Gentleman yields back his time.

The chair now recognizes the chairman of the full committee, Mr. Walden for Oregon, for 5 minutes.

OPENING STATEMENT OF HON. GREG WALDEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

Mr. WALDEN. I thank the gentleman and appreciate the witnesses being here today. We look forward to your testimony.

As we all know, the purpose of the Clean Air Act is, and I quote, to protect and enhance the quality of the nation's air resources, to promote the public health and welfare and the productive capacity of its population, closed quote.

So in today's hearing, we will highlight the necessity to ensure the rules to protect and improve air quality, promote both of these core objectives.

Effective clean air regulations should allow the nation to continue to expand its manufacturing and industrial capacity. But these goals are undermined when regulatory requirements no longer reflect practical reality.

As a result, American communities are deprived of both continued environmental improvements and economic prosperity. The new source review permitting process serves as a case in point.

Permitting requirements under EPA's NSR program have evolved in complexity and confusions as the program began in the 1970s and as a result complex preconstruction planning requirements present unnecessary delays and impediments to the expansion of manufacturing and industrial facilities.

As we will hear in the testimony today, the complexity of the NSR process permitting time delays and regulatory uncertainty create powerful incentives to forego needed project upgrades even in areas that meet current air quality standards.

And for other communities NSR complexity raises costs and otherwise harms the prospects for economic expansion and increased environmental benefits.

In fact, the burdens associated with NSR can lead to communities losing the emissions benefits offered by more efficient modern technologies.

Prineville, Oregon—that’s in my district. Home to data centers for Facebook and Apple. Recently, a proposed data center expansion ran headlong into a permitting issue because of potential backup generator emissions.

A single air sampling location, just one, and restrictive air quality rules made it unclear whether or not the expansion could go forward. It was only after the city persuaded the EPA to add an additional sampling location that they were then able to resolve the issue.

That instance involved hundreds of millions of dollars in investments and hundreds of construction jobs. Multiply that by the thousands of projects waiting to take off around the nation—around the nation in response to our reformed tax structure and the urgency of addressing NSR problems becomes apparent.

I would also say that when you’re dealing with companies the capital and intellectual capacity of Facebook and Apple they are probably better positioned to challenge some of these issues.

The witnesses today, you all bring a range of perspectives on the NSR permitting process. We appreciate your willingness to help us understand the challenges of the current process and what we can do to improve upon it.

Our goal is to develop responsible targeted reforms that will provide for economic growth while maintaining the environmental protections we all agree are important. Doing this will ultimately benefit all American workers and consumers.

[The prepared statement of Mr. Walden follows:]

PREPARED STATEMENT OF HON. GREG WALDEN

The purpose of the Clean Air Act is “to protect and enhance the quality of the Nation’s air resources to promote the public health and welfare and the productive capacity of its population.”

With today’s hearing, we will highlight the necessity to ensure the rules to protect and improve air quality promote both core objectives.

Effective clean air regulations should allow the nation to continue to expand its manufacturing and industrial capacity. But these goals are undermined when regulatory requirements no longer reflect practical reality. As a result, American communities are deprived of both continued environmental improvements and economic prosperity.

The New Source Review permitting process serves as a case in point. Permitting requirements under EPA’s NSR program have evolved in complexity and confusion since the program began in the 1970s. As a result, complex pre-construction planning requirements present unnecessary delays and impediments to the expansion of manufacturing and industrial facilities.

As we will hear in testimony this morning, the complexity of the NSR process, permitting time delays, and regulatory uncertainty, create powerful incentives to forego needed project upgrades, even in areas that meet current air quality standards.

And for other communities, NSR complexity raises costs and otherwise harms the prospects for economic expansion and increased environmental benefits. In fact, the burdens associated with NSR can lead to communities losing the emissions benefits offered by more efficient modern technologies.

Prineville, Oregon in my district is home to data centers for Facebook and Apple. Recently, a proposed data center expansion ran headlong into permitting issues because of potential backup generator emissions. A single air sampling location and restrictive air quality rules made it unclear whether the expansion could go forward. It was only after the city persuaded EPA to add an additional sampling location that they were able to resolve the issue.

That instance involved hundreds of millions of dollars in investments and hundreds of construction jobs. Multiply that by the thousands of projects waiting to take off around the nation in response to our reformed tax structure and the urgency of addressing NSR problems becomes apparent.

The witnesses today will bring a range of perspectives on NSR permitting to help us examine the challenges with the current process. I'm hopeful we can begin to identify practical reforms to ensure that the NSR program serves its environmental planning purpose while still allowing for economic expansion and infrastructure modernization.

Our goal, is to develop responsible, targeted reforms that will provide for economic growth, while maintaining environmental protections. Doing this will ultimately benefit all American workers and consumers.

I know Mrs. Blackburn is hoping to have a little time but she is not here. So with that, I will yield back.

Mr. SHIMKUS. The gentleman yields back his time.

The chair now recognizes the ranking member of the full committee, the gentleman from New Jersey for 5 minutes.

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

Mr. PALLONE. Thank you, Mr. Chairman.

We are here today to discuss one of the Clean Air Act's oldest and most debated programs, the New Source Review program. It's based on a simple principle—any new facility that emits pollutants should not increase local air pollution above levels that are safe to breathe.

The NSR program ensures that we have growth in the economy and not in pollution. In December, Administrator Pruitt issued a memorandum altering longstanding NSR policy using an active case as justification for the change.

The case was U.S. vs. DTF Energy Company, or DTE Energy Company, and the December memo actually reads as if it were prepared by DTE's legal team. I can't say that comes as a complete shock to me since Bill Wehrum, the man Administrator Pruitt put in charge of the office that drafted the memo, was previously part of DTE's legal team.

The new policy is as suspect as the process used to initiate it. It will gut enforcement of the NSR program to the benefit of certain companies at the expense of the public health and companies that have cleaned up their act. The eight-page memo lays out a policy that invites polluters to skirt the law and dump tons of harmful pollution on our communities.

Essentially, it's a recipe instructing polluters how to cook the books and get out from under the need for a permit under the NSR program.

And this is certainly not a perfect program, but it has helped reduce harmful air pollution and improve public health, especially for

people living in the communities close to these facilities. All of these gains will erode rapidly if we stay on the course this administration is following.

Too many old facilities have already used loopholes to game the system and avoid cleaning up the pollution. Certainly there are challenges to those existing facilities. But the Clean Air Act never intended for them to be exempt from the NSR program forever.

Also, it's important to remember that pollution control is zero sum game. Therefore, under Administrator Pruitt's NSR scheme, states and localities will have to make those that have played by the rules achieve greater pollution reduction in order to offset the excess pollution created by businesses that EPA is essentially allowing to go unregulated.

And that's particularly outrageous to those of us who represent downwind states. We are tired of having to compensate for the lack of pollution control in neighboring states.

The EPA should not be making life easier for polluters. The agency should do its job and ensure that lax implementation and enforcement in one state doesn't burden others.

Now, Republicans argue that we need to ease the NSR program to expand manufacturing and infrastructure. But new manufacturing facilities aren't being held back by clean air requirements.

Weakening the Clean Air Act is not going to create jobs. The fact is that the so-called NSR program improvements being suggested today by my Republican friends are not new ideas. They are just a bunch of toxic old policies bundled up in a heart-shaped box as a Valentine's Day present to polluters.

Industry has been trying to get out from under this program for a long time and it looks like Scott Pruitt and the Republicans are working hard to try to grant their wish.

But make no mistake, the Valentine's Day gift from Pruitt and Republicans gives polluters all the roses and sticks the public with the thorns. We would reject these policies that will harm the public health.

Unless someone else wants my time on my side, I'll yield back, Mr. Chairman.

Mr. SHIMKUS. The gentleman yields back the balance of his time. Do you have a new writer?

Mr. PALLONE. I don't know. I—

Mr. SHIMKUS. That was pretty good.

[Laughter.]

Mr. PALLONE. —I thought it was pretty good, myself.

We now conclude with members' opening statements. The chair would like to remind members that pursuant to committee rules, all members' opening statements will be made part of the record.

We want to thank all our witnesses for being here today and taking the time to testify before the subcommittee. Today's witnesses will have the opportunity to give opening statements followed by a round of questions from the members.

Our witnesses—panelists for today's hearing will include, from my left to right, Mr. Stuart Spencer, who is associate director, Office of Air Quality, Arkansas Department of Environmental Quality, testifying on behalf of the Association of Air Pollution Control Agencies; Mr. Kevin Sunday, director of government affairs, Penn-

sylvania Chamber of Commerce Business and Industry; Mr. Paul Noe, vice president, public policy, American Forest and Paper Association and American Wood Council; Emily Hammond, Glen Earl Weston research professor of law, the George Washington University Law School; John Walke, clean air director, Natural Resources Defense Council; and a friend of ours from years past, Jeffrey Holmstead, who is a partner at Bracewell.

So with that, we'd like to begin our testimony and we will begin with Mr. Spencer. Your entire record is in the file. You have 5 minutes and you can begin.

STATEMENTS OF STUART SPENCER, ASSOCIATE DIRECTOR, ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY, OFFICE OF AIR QUALITY, ON BEHALF OF THE ASSOCIATION OF AIR POLLUTION CONTROL AGENCIES; KEVIN SUNDAY, DIRECTOR OF GOVERNMENT AFFAIRS, PENNSYLVANIA CHAMBER OF BUSINESS AND INDUSTRY; PAUL NOE, VICE PRESIDENT PUBLIC POLICY, AMERICAN FOREST AND PAPER ASSOCIATION AND AMERICAN WOOD COUNCIL; EMILY HAMMOND, GLEN EARL WESTON RESEARCH PROFESSOR OF LAW, THE GEORGE WASHINGTON UNIVERSITY LAW SCHOOL; JOHN D. WALKE, CLEAN AIR DIRECTOR, NATURAL RESOURCES DEFENSE COUNCIL; JEFFREY R. HOLMSTEAD, PARTNER, BRACEWELL LLP

STATEMENT OF STUART SPENCER

Mr. SPENCER. Thank you.

Good afternoon, Chairman Shimkus, Ranking Member Tonko, and distinguished members of the subcommittee. I appreciate the invitation to join you today to discuss the important issue of New Source Review reform.

I am here in two capacities. First, I am here as an associate director of the Arkansas Department of Environmental Quality. Our Office of Air Quality staff includes epidemiologists, engineers, ecologists, chemists, biologists, a meteorologist, and a lawyer in the primary branches of compliance, permits, policy, and planning in asbestos and enforcement.

Our primary mission is to protect and improve air quality in Arkansas while fostering responsible economic expansion opportunities.

Second, I am here as the president of the Association of Air Pollution Control Agencies, or AAPCA. AAPCA is a consensus-driven organization comprised of 45 state and local air agencies.

The AAPCA board of directors is made up of the air directors from our 20 geographically diverse member states including states with representation on this subcommittee.

As AAPCA's president, I serve on the board of the directors along with air directors from states as diverse as Wyoming, Maine, South Carolina, and Arizona, and despite the miles between our state borders, we have common goals and missions.

Today, I will be addressing a few common themes in regard to NSR reform. The first thing is practical application.

Environmental regulations should encourage necessary repair in replacement projects and should incentivize projects that improve

the safety of operations increase energy efficiency or reduce the emissions of regulated air pollutants.

The second theme is clarity. This includes removing undefined terms and exemptions such as routine maintenance and nonroutine modification from the NSR rules and guidance and replacing them with clear definitions.

A prime example would also be refining the term modification to truly mean a substantial change. An ambiguous or muddy rule inhibits planning due to its lack of certainty and therefore stifles growth and innovation.

This leads me to my final theme, modernization. NSR is outdated and cumbersome. The documents that comprise the NSR rules in the guidance take up at least two file boxes if printed out in hard copy form.

The time to reform was yesterday so I am glad we are having this conversation today.

With those themes in mind, I will speak first as the associate director of ADEQ. The Office of Air Quality implements all programs delegated by EPA Region 6 to the state of Arkansas.

Under the leadership of one of your former colleagues and now governor of Arkansas, Asa Hutchinson, and ADEQ Director Becky Keogh, Arkansas has committed to protective permitting.

This practice is essential to achieving our goals of maintaining our status as the natural state, protecting public health and the environment in our communities and promoting and sustaining economic growth.

The Arkansas NSR program follows the federal program. ADEQ believes that the NSR rules should be clear and concise to allow companies to achieve compliance and ensure that both ADEQ and our regulated community have a well-defined understanding of what is required by the program.

Arkansas believes that changes to the NSR program would support its efforts to ensure that our regulated community and the companies in our communities are in compliance with the rules and do not become subject to enforcement actions based on rule interpretations that are either not well defined or continue to evolve.

For these reasons, we appreciate that EPA intends to tackle NSR reform again. The 2002 NSR reform rule was helpful but it did not go far enough to clarify the program and provide certainty to regulators and the regulated community.

So based on these points that I've made, any efforts to modernize and reform NSR reform—NSR, particularly the upcoming EPA-directed NSR task forum discussions should address the following issues.

Number one; revise the emission increase test under NSR to match the hourly test under New Source Performance Standards—our NSPS program.

This would eliminate and streamline many of the issues with the current program. Many of the other changes could be avoided or simplified if NSR applicability was based on an increase in maximum achievable emission rates rather than annual tons.

Next, clarify the factors to be considered in determining whether a project is a routine maintenance repair or replacement activity.

Next, create an exemption from NSR for efficiency projects. The current program is a disincentive to companies undertaking projects to make their operations more efficient.

Next, codify the information in EPA Administrator Scott Pruitt's December 7th, 2018 memo that EPA will not second guess a facility's emissions projections and clearly identify the circumstances when an emissions projection will be subject to review.

Next, clarify the definition of a source in order to ensure that geographically separate sources are not artificially combined or aggregated to create a single major source for NSR purposes.

And finally, clearly identify what types of projects should be considered as changes in the method of operation.

Thank you for your time again today and I am available to answer any questions upon request.

Thank you.

[The statement of Mr. Spencer follows:]

TESTIMONY OF STUART SPENCER

ASSOCIATE DIRECTOR, ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY

PRESIDENT, ASSOCIATION OF AIR POLLUTION CONTROL AGENCIES

BEFORE THE HOUSE COMMITTEE ON ENERGY AND COMMERCE

SUBCOMMITTEE ON ENVIRONMENT

FEBRUARY 14, 2018

Good afternoon Chairman Shimkus, Ranking Member Tonko, and members of the subcommittee. I appreciate the invitation to join you today to discuss the important issue of New Source Review (NSR) reform. I'll be presenting information to you in two capacities.

First, I'm here as an Associate Director of the Arkansas Department of Environmental Quality, where I oversee seventy-five employees in the Office of Air Quality located primarily in our headquarters in North Little Rock and also throughout the state in nine regional field offices. The Office of Air Quality staff includes engineers, epidemiologists, ecologists, chemists, physicists, biologists, and attorneys in the primary branches of Compliance, Permits, and Policy and Planning, as well as the Asbestos and Enforcement sections. Our primary mission is to protect and improve air quality in Arkansas while fostering responsible economic expansion opportunities.

Second, I'm here as the President of the Association of Air Pollution Control Agencies (AAPCA). AAPCA is a consensus-driven organization comprised of forty-five state and local air agencies that focuses on assisting its members and their personnel with implementation of technical issues associated with the federal Clean Air Act. The AAPCA board of directors is made up of the Air directors from our twenty geographically diverse member states, including states with representation on this subcommittee. As AAPCA's President, I serve on the board of

directors along with Air Directors from Florida, Georgia, Kentucky, Louisiana, North Carolina, Ohio, South Carolina, Tennessee, Texas, Virginia, and West Virginia, as well as states as diverse as Wyoming and Maine. Despite the miles between our state borders, we have common goals and missions.

Today, I'll be addressing a few common themes in regard to reforming NSR. The first theme is practical application. Environmental regulations should encourage necessary repair and replacement projects and should incentivize projects that improve the safety of operations, increase energy efficiency, or reduce the emissions of regulated air pollutants. The second theme is clarity. This includes removing undefined terms and exemptions, such as "routine maintenance", from the NSR rules and guidance, and replacing them with clear definitions. A prime example would be refining the term "modification" to truly mean a substantial modification, as proposed in legislation introduced by your own Rep. Griffith. As an environmental regulator, I can tell you that an ambiguous or muddy rule is often times worse than a bad rule, because it inhibits planning due to its lack of certainty, and therefore stifles growth and innovation. This leads me into my final theme: modernization. NSR is outdated and cumbersome. It's my understanding that the documents that comprise the NSR rules and guidance take up at least two file boxes if printed out in hard copy form. The time to reform was yesterday, so I'm glad we're having this conversation today.

With those themes in mind, I'll speak first as an Associate Director of ADEQ. The Office of Air Quality implements all air programs delegated by EPA Region 6 to the State of Arkansas. These programs include the Title V program for major sources of pollutants, the New Source Performance Standards (NSPS), the National Emission Standards for Hazardous Air Pollutants (NESHAP), Prevention of Significant Deterioration, and the State Implementation

Plan (SIP). Arkansas operates a one permit or “unified” system with construction, operating, state, and federal requirements all included in the Title V permit.

Under the leadership of one of your former colleagues and now Governor of Arkansas, Asa Hutchinson, Arkansas has committed to “protective permitting”, a practice we implement at ADEQ. This practice is essential to achieving our goals of maintaining our status as “The Natural State”, protecting public health and the environment in our communities, and promoting and sustaining economic growth.

Our permits are protective in a number of ways. First, they protect the environment by establishing emissions limits, operating requirements for pollution control devices or pollution prevention activities, and monitoring and record keeping requirements. These limits and requirements are established through a combination of assessing monitoring data, modeling analyses, and other empirical evaluations. According to our most recent ADEQ State of the Air report, the ambient concentrations of most pollutants decreased during the analyzed time period. Currently, all monitoring locations in Arkansas are exhibiting design values well below national ambient air quality health-based standards for all national ambient air quality standard criteria pollutants. These achievements in air quality were realized while simultaneously significantly reducing our permit backlog: Arkansas is currently ranked in the top five nationally for timely Title V significant modifications and Title V permit renewals.

Second, our permits protect the regulated community because they drive compliance through the certainty of their permit conditions. ADEQ air permits contain clearly defined specific, plant-wide, and general requirements for all emitting sources at the facility. These requirements are clear both to the permitted facility and to ADEQ’s inspectors. It’s this clarity that facilitates compliance and triggers enforcement when appropriate.

Finally, our permits protect the investments made in infrastructure and “job-creating” businesses which rely on the permits written by permit writers at ADEQ to be defensible. The permits are taken through a deliberate and public process, and include legally binding provisions that include enforceable conditions with which the source owner/operator must comply.

I am joined today in the gallery by the ADEQ Senior Associate Director and General Counsel, Julie Linck. Under the leadership of ADEQ Director Becky Keogh and Senior Associate Director Linck, ADEQ has taken steps to reaffirm the state’s role in the collaborative process of cooperative federalism. Before the U.S Senate Environment and Public Works Committee, Director Keogh testified about the need for USEPA to move from “coercive” federal role to one which supports states proper role. In asserting our position at the table, Director Keogh has suggested that many state programs have matured and as she has repeatedly stated “at 40 years of ages, states have grown up and are ready to leave home and be given the freedom and flexibility to make a better future.” She had publicly praised the recent efforts of the United States Environmental Protection Agency’s (EPA) Administrator Scott Pruitt as he has worked to shift the relationship from parent to partnership.

We are working cooperatively with our counterparts at EPA to submit state plans and issue permits that are approvable and defensible respectively. We have asserted our place in policy setting and decision making. No longer a pawn in a coercive system of onerous federal plans, we are beginning to see movement on a number of our submissions. To borrow a phrase from Director Keogh’s colleague in Arizona, Misael Cabrera, we are working our way out of the “regional haze maze”, having recently received approval from EPA on a portion of our first planning period SIP. But navigating the “haze maze” is a topic for another day. Today, we’re here to talk about what I term “bizarre NSR”.

I use the term bizarre because the NSR rules and regulations often times demonstrably discourage rather than encourage pollution control and efficiency projects because they create a fear and disincentive in the regulated community to maintain and update aging equipment. You may recall my first theme was practical application. The EPA NSR draft guidance document is the appropriately titled 1990 “puzzle book”. This puzzle book is almost 30 years old and it has never been finalized. Most EPA guidance exists in a perpetual “draft” status, yet is relied upon and enforced by EPA staff as if it is final. It is a haphazardly-stitched quilt of rules, manuals, memos, guidance documents, and disparate applicability determinations.

ADEQ believes the NSR rules should be clear and concise in order to allow facilities to achieve compliance and ensure that both ADEQ and the regulated community have a well-defined understanding of the requirements. Changes to the NSR program would support our efforts to ensure that regulated facilities are in compliance with the rules, but do not become subject to potential enforcement actions based on divergent rule interpretations that are either ambiguous or evolving.

Both the EPA and the United States Department of Justice (DOJ) recently released guidance documents regarding NSR-related enforcement issues. ADEQ believes this new guidance is important to reorient policies toward pursuit of actual violations that create emissions increases. To date, NSR enforcement appears to be focused on what a company might have projected based on available information that, in many instances, is years or even decades old and that may not be based on actual emissions resulting from a project undertaken at a facility. Even where a facility has a clear NSR applicability process and has performed an emissions analysis in compliance with the NSR rules, there has historically been no guarantee that EPA and DOJ would not bring an enforcement action. In the same way that ADEQ ensures protective

permitting, EPA and DOJ need to move toward implementing protective policymaking that provides practicality and clarity to both the delegated regulators – the states- and the regulated community.

On that point, the guidance that EPA Administrator Pruitt issued on December 7, 2017 clarifies that EPA will not second-guess a facility's preconstruction emissions analysis. This will help ensure that both regulators and the regulated community have certainty in the process. The guidance also explains that EPA will not bring an enforcement action unless there has been an actual increase in emissions from a project. ADEQ believes this will help focus priorities on activities that have caused actual pollution increases rather than on-paper increases.

Likewise, the DOJ's January 25, 2018 memorandum prohibiting DOJ civil enforcement of noncompliance with other agencies' guidance documents has significant implications for NSR enforcement. As I've indicated, while the NSR rules are only a handful of pages, there are thousands of pages of guidance purporting to interpret the rules. Enforcement of the NSR program should not be based on guidance that can be revised over time as agency staff changes.

ADEQ welcomed the news in the Fall of 2017 that EPA Administrator Pruitt would be convening a NSR Reform Task Force. I speak both as an ADEQ Air Director and the President of AAPCA when I say we look forward to the opportunity to engage with EPA and stakeholders of interest to tackle NSR reform. The 2002 NSR Reform Rule was well-intentioned, but it did not deliver defensible clarity or certainty to the regulated community.

On the issue of reform efforts, AAPCA has submitted a number of comments in various federal dockets and has issued reports highlighting areas ripe for revisions and modifications. In June of last year, AAPCA provided to this Committee a letter containing consensus principles for Clean Air Act modernization, and a similar letter was also sent to the Senate Environment

and Public Works Subcommittee on Clean Air and Nuclear Safety. AAPCA's outlined principles included several related to permitting:

- "Maintain permitting requirements but allow facilities to be built or expanded in any area of the country as long as: (1) state or local environmental officials determine that the facility will not have a meaningful adverse impact on human health or the environment; and (2) they employ the best available technology to control their emissions."
- "Maintain state and local agency discretion in permitting decisions and clarify that permits may be challenged only for clear and significant deficiencies that would have a meaningful impact on air quality."
- "Provide for a limited exemption from Prevention of Significant Deterioration/New Source Review permitting for projects that are determined to be environmentally beneficial based upon a cumulative impacts analysis."

AAPCA also submitted comments to the docket on EPA's review of regulations that may be appropriate for repeal, replacement, or modification under Executive Order 13777 on Enforcing the Regulatory Reform Agenda. In the AAPCA's comments, specific suggestions to revisions to NSR permitting included: "removal of volatile organic compound (VOC) requirements in areas with oxides of nitrogen limits under NSR"; as well as "modifications to PSD and NSR that consider environmentally beneficial projects; and providing a clean unit exemption." AAPCA also tracked state and local agency comments on EPA's evaluation of existing regulations and produced a report in July 2017 entitled *The State of Regulatory Reform: Navigating State Perspectives on Clean Air Act Regulations Under Executive Order 13777*.

In conclusion, speaking again as an ADEQ Associate Director, any efforts to modernize and reform NSR, particularly the upcoming EPA-directed NSR Task Force discussions, should address the following issues:

1. Revise the emissions increase test under NSR to match the hourly test under NSPS.
This would eliminate many of the issues with the current program and would streamline the entire program. Many of the other changes to the program could be avoided or simplified if NSR applicability was based on an increase in maximum achievable emission rates rather than annual tons.
2. Clarify the factors to be considered in determining whether a project is a routine maintenance, repair, or replacement activity. Many of those factors apply to almost any activity undertaken at a large industrial facility and have been raised in enforcement actions to claim that maintenance activities are not routine.
3. Create an exemption from NSR for efficiency projects. The current program is a disincentive to companies undertaking projects to make their operations more efficient. An hourly emission rate test would resolve this issue.
4. Codify the information in the EPA Administrator Pruitt's December 7, 2018 memo, that EPA will not second-guess a facility's emissions projection and clearly identify the circumstances when an emissions projection will be subject to review, such as if there were errors in the calculations or where the company used the wrong significant emissions threshold.
5. Clarify the definition of a "source" in order to ensure that geographically separate facilities are not artificially combined to create a single major source for NSR purposes.

6. Define when projects need to be aggregated for NSR purposes.
7. Clearly identify what types of projects should be considered as changes in the methods of operation.

At the end of the day, I can assure you that to the best of my knowledge all state Air Directors are unified in their mission to preserve and improve air quality. This mission can and should be achieved with mindful and modern policies and, where appropriate, regulations. Thank you again for opportunity to provide testimony today. I welcome any questions you may have for me.

Summary of Stuart Spencer's Testimony

The time for meaningful New Source Review (NSR) reform is now. Environmental regulations should encourage necessary repair and replacement projects and should incentivize projects that improve the safety of operations, increase energy efficiency, or reduce the emissions of regulated air pollutants. Permitting programs should allow facilities to be built or expanded in any area of the country as long as state or local environmental officials determine that the facility will not have a meaningful adverse impact on human health or the environment and that best available technology is employed to control emissions. State and local agencies should maintain discretion in permitting decisions and permits should only be challenged for clear and significant deficiencies that would have a meaningful impact on air quality. Any reform should provide for a limited exemption from Prevention of Significant Deterioration/NSR permitting for projects that are determined to be environmentally beneficial based upon a cumulative impacts analysis. The NSR rules and guidance should remove undefined terms and exemptions, such as "routine maintenance", and replace them with clear definitions. Consequently, the factors to be considered in determining whether a project is a routine maintenance, repair, or replacement activity should be clarified. The terms "modification" should be revised and the emissions increase test under NSR should be based on an increase in maximum achievable emission rates rather than annual tons. Circumstances under which an emissions projection will be subject to review should be limited to those instances where there were errors in the calculations or where the company used the wrong significant emissions threshold. Geographically separate facilities should not be artificially combined or aggregated to create a single major source. Finally, the NSR rules should clearly identify what types of projects should be considered as changes in the methods of operation.

Mr. SHIMKUS. Thank you. Excellent.
I now turn to Mr. Kevin Sunday. You are recognized for 5 minutes.

STATEMENT OF KEVIN SUNDAY

Mr. SUNDAY. Good afternoon, Mr. Shimkus, Mr. Tonko, and members of the committee.

My name is Kevin Sunday, director of government affairs with the Pennsylvania Chamber of Business and Industry. It's an honor to appear before you today to discuss the challenges our members have had when it comes to complying with New Source Review requirements.

Our nearly 10,000 member companies are of all sizes and across all industry sectors. We, as an organization, seek stewardship of our nation's land, air, and water and we seek to provide thoughtful and balanced ways in which we can continue to reduce our environmental impacts and grow the economy.

Thanks to tax reform and the prolific supply of our natural resources in nuclear, coal, gas, oil, and renewables we have before us a generational opportunity to invest in our workforces, our infrastructure, and our future.

And we applaud the members of the House of Representatives and the United States Senate who took a bold stand for growth and sent the Tax Cut and Jobs Act to the president's desk for his signature last year, and we thank our senator, Pat Toomey, for his leadership in getting that bill through the Senate.

In the short time since that bill was enacted, employers across the country have announced plans to increase hiring and wages, and it is expected that in the near term consumer spending and economic growth will increase considerably, as much as 4 percent on an annualized basis according to the Atlanta Fed.

As the economy grows, capital is going to be repatriated and rates on employers come down. Manufacturers and businesses have a generational opportunity to secure global competitive advantage by reinvesting into their facilities, enhancing their sustainability profiles, and expand to capture a share of the growing economy, provided, of course, that regulatory obligations do not present unnecessary hurdles.

What energy means to Pennsylvania and the region is significant. We are part of an endeavor called Forge the Future, which forecasts \$60 billion in state GDP and 100,000 new jobs because of energy assets.

The Appalachian region at large including Pennsylvania, Ohio, West Virginia, and Kentucky could become a petrochemical and plastics manufacturing hub and, according to the American Chemistry Council, more than \$28 billion in economic expansion and more than 100,000 new jobs could be created should the region capitalize on an ethane storage project and secure the construction and operation of several petrochemical plants.

However, these projects too must wind through the permitting process to become reality. Our manufacturers in Pennsylvania have reported that the current NSR process is an impediment to investing in the efficiency of their operations and improve their ability to compete abroad.

Because of the costs associated with crossing NSR thresholds, companies have shelved projects that would have reduced their emissions and their operating costs.

Disputes between state and federal regulators over the interpretation and application of regulatory criteria have resulted in sizeable legal and engineering costs and left projects in limbo for months if not years.

Lenders will not sign off on financing until the revolving door of lawsuits from third party groups over the perpetually changing universe of BACT and LAER control stops spinning.

Economic growth and environmental progress depend upon a well functioning and rational regulatory system and the NSR program as it is being administered show signs of being neither.

From a land use perspective alone, it's illogical that we would have a regulatory program that would encourage building entirely new facilities, oftentimes outside the U.S., when existing mothballs—when existing plants are being mothballed and retired that could have been upgraded. And how much has the closure of large-scale manufacturers in this country led to the flat electricity demand that has so troubled the power generation and utilities sectors.

So that's why we applaud EPA Administrator Scott Pruitt and his team at EPA for the December 7th memo that clarifies how NSR requirements should be interpreted and applied.

That's a crucial first step to reform of the program and we look forward to additional progress on that front.

The National Federation of Independent Businesses yesterday came out and said a record number of small businesses believe now is a good time to expand.

We believe we can ill afford to waste this opportunity in front of us by leaving up barriers to growth. We have the opportunity to make our regulatory process more efficient, allow our companies to invest, and reduce their environmental footprint and waste less of our natural resources.

And if we don't capitalize on that opportunity, that's a failure. It's bad for business and it's bad for the environment.

Instead, let us pursue stewardship of our natural resources and secure economic growth in a thoughtful responsible manner and that starts with NSR reform.

Thank you.

[The statement of Mr. Sunday follows:]



Testimony

Submitted on behalf of the
Pennsylvania Chamber of Business and Industry

**New Source Review Permitting Challenges for Manufacturing and
Infrastructure**

Before the:
**United States House of Representatives
Committee on Energy and Commerce
Subcommittee on Environment**

Presented by:
Kevin Sunday
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Washington, DC
February 14, 2018

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Good afternoon Chairman Shimkus, Ranking Member Tonko, and members of the committee,

My name is Kevin Sunday, director of government affairs for the Pennsylvania Chamber of Business and Industry. The PA Chamber is the largest, broad-based business advocacy organization in the Commonwealth. Our nearly 10,000 members are of all sizes, crossing all industry sectors throughout Pennsylvania. All of our members are committed to the stewardship of our state and nation's land, air and water, and we seek to provide a thoughtful and balanced approach on ways we can continue to reduce our environmental impacts and grow the economy.

It is an honor to appear before you this afternoon to discuss the challenges our members, particularly those in the manufacturing and energy space, have faced in terms of securing permitting and authorizations under the New Source Review (NSR) program. NSR reform can and should be done in a manner that allows American businesses to re-establish their competitive advantage without regressing on the significant progress the country has made in reducing criteria pollutants in the past several decades. We applaud the Trump administration and EPA Administrator Pruitt for taking steps towards instituting thoughtful reform to this program – a program that to date has held back companies from growing their business, shoring up their competitiveness and even reducing their environmental footprint.

PA Chamber members have reported that the current process is an impediment to investing in the efficiency of their operations and improving their ability to compete abroad. Because of the costs associated with crossing NSR thresholds, companies have shelved projects that would have reduced emissions, lowered operating costs and provided an overall benefit to public health and the environment. Disputes between state and federal regulators over interpretation and application of regulatory criteria result in sizeable legal and engineering costs and leave projects in limbo for months, or years. Lenders will not sign off on financing until the revolving door of lawsuits from third-party groups over the perpetually changing universe of Best Achievable Control Technology (BACT) and Lowest Achievable Emissions Rate (LAER) controls stops spinning. Economic growth and environmental progress depend upon a well-functioning and rational regulatory system; the NSR program shows signs of being neither.

We also applaud the members of the United States House of Representatives and Senate for taking a bold stand for economic growth by sending the Tax Cut and Jobs Act to the President's desk for his signature late last year. In particular we thank Senator Pat Toomey for his leadership in getting the bill through the Senate. In the short time since the enactment of this legislation, employers across the country have announced plans

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to increase investment, hiring and wages. It is expected that in the short term, consumer spending and economic growth will increase considerably so – 4.0% in GDP growth on an annualized basis, according to the Federal Reserve Bank of Atlanta. As the economy grows, capital is repatriated, and rates on employers are reduced, manufacturers and businesses have a generational opportunity to secure a competitive advantage by re-investing into their facilities, enhancing their sustainability profiles and expanding to capture a share of the growing economy – provided, of course, that regulatory obligations do not present unnecessary obstacles.

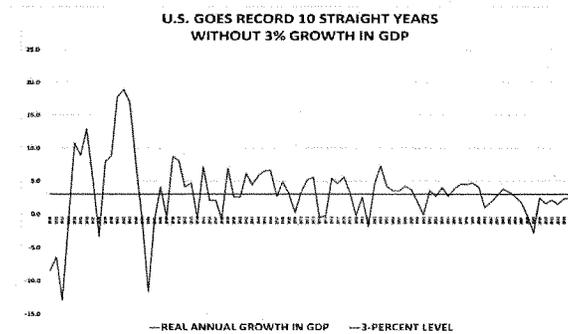
Paired with tax reform, the unprecedented output of our nation's natural resources and the strength of its diverse power generation portfolio of nuclear, coal, gas, oil and renewables has positioned this country to return to levels of GDP growth unseen in more than a decade. An energy-focused economic development strategy, as outlined in a recent report entitled *Forge the Future*, for Pennsylvania has the potential for to bring an additional \$60 billion in state GDP and more than 100,000 jobs to our state. The Appalachian region, including Pennsylvania, Ohio, West Virginia and Kentucky, could become a petrochemicals and plastic manufacturing hub – according to the American Chemistry Council, more than \$28 billion in economic expansion and more than 100,000 jobs could be created should the region capitalize on an ethane storage project and secure the construction and operation of several petrochemical plants.

We can ill afford to waste this opportunity by leaving up barriers to growth, such as unnecessarily burdensome permitting requirements as existed under previous administrations' implementation of NSR regulations. Instead, let us pursue stewardship of our natural resources and secure economic growth in a thoughtful, responsible manner.

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Tax Reform, Energy Infrastructure and the Expanded Use and Production of Domestic Natural Resources are Creating Generational Opportunity for Pennsylvania, the Appalachian Region and the United States

In an increasingly competitive global environment for capital investment, the United States' corporate tax rate increasingly became a drag on investment decisions, prior to the historic reforms made with the Tax Cut and Jobs Act of 2017. Since the previous comprehensive tax reform took place in the mid-1980's, the rest of the world spent much of the past thirty years lowering their corporate tax rates to an average considerably lower than ours, while ours stayed the same. As a result, the United States didn't just lose a competitive edge – it lost out on real growth. From 2006 to 2015, the United States achieved a dubious historic record – going ten straight years without a single year of 3% real GDP growth. The country is in need of strong economic growth in order to provide opportunity for all.



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Fortunately, the Tax Cuts and Job Act is expected to yield a boost to growth. While there are a multitude of variables impacting the nation's economic output, lowered rates for businesses and individuals is expected to result in a more productive economy. The Tax Foundation's preliminary analysis of the new tax law finds that over the next decade, GDP will increase by an average of 0.29% each year, at a total average annual rate of 2.13%, compared to an expected baseline of 1.84%.¹ While this additional 0.29% may not seem like a high number to a casual observer, even small improvements in GDP result in massive positive impacts for our nation's economy. The standard rule of thumb applied by the Congressional Budget Office is that a mere 0.1% increase in GDP yields an aggregate \$273 billion in increased economic activity over ten years.²

Another credible analysis, which incorporates the impact of international trade and global flow, anticipates the tax reform framework will raise GDP by between 3 and 5 percent and real wages by between 4 and 7 percent, which translates approximately to \$3,500 annually for the average American working household.³ Finally, most recently, the Atlanta Federal Reserve announced, in its latest forecast for the first quarter of 2018, the economy is expected to grow by a very strong 4.0% on an annualized basis.⁴

Tax reform is not the only catalyst for economic growth in Pennsylvania or the nation. The increased development and use of oil and natural gas promises significant economic gains as well, including in some sectors that are not traditionally associated with these fuel sources. Industries such as additive manufacturing, data centers, fabricated materials, glass, electronics, fiber optics, concrete, nanofibers, steel, cement, advanced manufacturing and robotics, in addition to traditional manufactured use of petrochemicals, such as ethane, polyethylene, ammonia and inorganic chemicals, all face the opportunity to secure a global competitive advantage through the use of natural gas in their fuel source for heating, power and feedstock. To what extent was in part the subject of a recent econometric study, Forge the Future. Aggressive pursuit and use of domestic natural gas results could result in an additional \$60 billion in state GDP for Pennsylvania, as it positions itself to be a national leader in manufacturing. More than 100,000 family sustaining jobs could be

¹ Preliminary Details and Analysis of the Tax Cuts and Jobs Act. Tax Foundation, Dec. 18, 2017.
<https://taxfoundation.org/final-tax-cuts-and-jobs-act-details-analysis/>

² The Budget and Economic Outlook: 2017 to 2027. Congressional Budget Office, January 2017.
https://www.cbo.gov/sites/default/files/115th-congress-2017-2018/reports/52370-outlook_o.pdf

³ Simulating the Republican "Unified Framework" Tax Plan. Seth G. Benzell, Laurence J. Kotlikoff, and Guillermo Lagarda, Oct. 17, 2017.
https://kotlikoff.net/sites/default/files/Simulating%20the%20Unified%20Framework%20Tax%20Reform%20Plan_o.pdf

⁴ GDPNow Forecast. Federal Reserve Bank of Atlanta, Feb. 6, 2018.
<https://www.frbatlanta.org/cqer/research/gdpnow.aspx>

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created, as well as hundreds of thousands of Pennsylvania families saving considerable amounts of money in home heating and electric costs.⁵

Another report, commissioned by the Pennsylvania Department of Community and Economic Development and the Team Pennsylvania Foundation, forecasted the potential for nearly \$4 billion in investment in additional opportunities for ethylene cracker plants and plastics manufacturers.⁶ These are industries that are very sensitive to both commodity price and consumer demand. As consumer spending increases domestically and abroad, and as sustained development of natural resources provides a stable, low-cost feedstock, these industries have a generational opportunity to capitalize on recent trends and to establish a global competitive advantage.

Pennsylvania is not the only state with the opportunity to see significant investment into new and expanded petrochemical and plastics manufacturing. A study conducted by the American Chemistry Council examined a hypothetical scenario in which the Appalachian region – Kentucky, Pennsylvania, West Virginia and Ohio – in total saw the build out of five ethane crackers and two propane dehydrogenation facilities, supported by a regional ethane storage hub in the next decade. The result: a total of \$36 billion in investment, more than 100,000 jobs and \$28 billion in economic expansion.⁷

Tax reform, the nation's vast energy resources, increased growth, and higher consumer spending are laying the foundations for a successful resurgence of manufacturing and for capturing a global leadership position in a wide variety of industries. However, as new facilities seek to be built and as existing facilities seek to capitalize on domestic resources or invest capital into improving the efficiency of their plants, the complex array of environmental requirements, including permitting under the New Source Review regulations, could present a barrier. Thoughtful and creative reform to NSR is needed to realize the full economic potential available to our nation; indeed such reform can and should take place in a manner that doesn't diminish the significant progress made with respect to improving air quality across the country in the past several decades.

⁵ Forge the Future: Pennsylvania's Path to an Advanced, Energy-Enabled Economy. July 2017.

<http://www.paforgethefuture.com/pdf/PA-Forge-the-Future.pdf>

⁶ Prospects to Enhance Pennsylvania's Opportunities in Petrochemical Manufacturing. IHS Markit, March 2017. https://teampa.com/wp-content/uploads/2017/03/Prospects_to_Enhance_PAs_Opportunities_in_Petrochemical_Mfng_Report_21March2017.pdf

⁷ The Potential Economic Benefits of an Appalachian Petrochemical Industry. American Chemistry Council Economics & Statistics Department, May 2017.

<https://www.americanchemistry.com/Appalachian-Petrochem-Study/>

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The New Source Review Program Is In Need of Reform

When a new industrial facility is seeking a permit to be built, or when an existing facility is seeking to expand, the project must go through the NSR and Prevention of Significant Deterioration (PSD) permitting process. The backbone of these programs are the National Ambient Air Quality Standards. NSR was established as part of the Clean Air Act to ensure that counties and regions can progress towards attaining and maintaining air quality that is protective of public health while new facilities are built and existing facilities are modified and expanded.

In practice this regulatory construct discourages expansion of existing manufacturing (and the attraction of new facilities) in non-attainment areas, despite historic improvements in air quality. In many cases, the NSR rules as applied don't allow for significant improvements to existing facilities, as they require application of the highest Clean Air Act standard, rendering projects uneconomic due to compliance costs. Most large-scale manufacturing and industrial facilities will trigger NSR thresholds for one or more NAAQS pollutant. When these facilities seek to expand their operations, they must calculate, per NSR regulations, if there will be a significant net emissions increase as a result of the modification, compared to recent operational profiles, and EPA has established that such a calculation must assume that a source will produce its maximum possible emissions every hour of every day for the duration of its existence (referred to as "potential to emit" or PTE), even though such a calculation is not representative of any facility's actual operations. Companies must then account for these emissions that will never be emitted by accepting a more stringent limit and installing costly control technology than would be necessary had the calculation on future net emissions be representative of actual future operational practice. In practice, this has discouraged companies from investing in installing cheaper and cleaner-burning burners in their boiler systems or other on-site heating and power units. In other words, modifications that increase a facility's output per unit of fuel can trigger NSR thresholds, even if the overall impact is a net environmental gain.

The costs of compliance with NSR are significant – for nonattainment areas, sources must deploy Lowest Achievable Emissions Rate (LAER) technology, which are the most expensive type of control, and/or obtain Emission Reductions Credits (ERCs) – credits which have become increasingly expensive and in short supply as NAAQS requirements have been ratcheted down in recent years. In addition to these costs, the penalties for non-compliance are massive, and the costs to defend litigation against citizen suits and environmental NGO's are also punitive. Perversely, the NSR construct encourages the wasting of resources by not encouraging facilities to make changes to become efficient.

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Regulators Are Not Applying NSR With the Flexibility that the Law Provides to Account for Changing Market Conditions

In the NSR process, an existing facility's recent output is compared to the hypothetical, 24/7 output resulting from a modification (potential actual emissions). This comparison penalizes facilities that have not been running at full capacity in the years running up to submitting its plans for NSR review. Importantly, the text of the Clean Air Act and NSR regulations allows applicants a so-called "demand growth exclusion," which allows applicants to exclude a portion of the difference between actual baseline emissions and potential actual emissions by subtracting out emission that would have been generated but for a lack of market demand. This is a useful, common sense and necessary component of a well-functioning regulatory program to allow for operational flexibility – however, during the Obama administration, the EPA took a severely restrictive view of when the demand growth exclusion can be utilized.

As a real world example, one major manufacturer in southeastern Pennsylvania saw its operations reduced over a period of a few years due to economic challenges and fuel supply issues, even to the point of being idle for a year. This period of scaled-back operations resulted in an emissions profile that became the line that, if crossed due to almost any facility modification, will trigger NSR. When new ownership took over the facility, and macroeconomic conditions changed to the benefit of the facility, management sought to make improvements to the facility to increase output and maintain viability of the facility. Such improvements would not only allow the company to increase its output and retain its workforce, but to do so in a more efficient manner with fewer emissions. The company was able to make the business case to invest in the facility and go through, at great expense, the NSR process; but for other companies in different circumstances, NSR encourages retirement and divestment from plants that could be made more efficient and productive – and keep their workforce employed.

To cite another of many examples, one PA Chamber member has reported that they cancelled a planned fuel switch to a cleaner burning fuel at their manufacturing facility because low production rates during the recession resulted in low baseline emissions. This company operates in an industry heavily exposed to construction activity. The cleaner fuel would have resulted in lower real-world emissions compared to when the facility was running full tilt prior to the recession, but because of how NSR emissions methodologies are applied, it looked like, on paper, a significant emissions increase was going to be occurring, as compared to the temporarily low production rates that occurred during the recession. This would not have been a project-driven emissions increase, and air quality and public health would have seen a net benefit from the fuel switch.

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Permit Review Times and Intragovernmental Disputes over Regulatory Interpretations Add Costs and Jeopardize Projects

The time to secure permitting through NSR is extremely lengthy. PA Chamber members report a fast-tracked process takes at minimum a year. Further, the permitting process does not allow for much operational flexibility. Too often, the business world and market conditions change faster than the NSR process is able to accommodate. If operational conditions at a facility changes, the permit may need to be modified, resulting in a long period where it is unclear if the facility is in non-compliance. Administration of the NSR program has, over the past several decades, been in constant flux as various EPA Administrators issue interpretative memoranda and regional offices make different conclusions on projects with fairly similar characteristics. PA Chamber members report this has resulted in a significant amount of regulatory gray area where it is unclear if the project will be vulnerable to enforcement by federal regulators. Companies are averse to deploying the significant amount of capital to upgrade and keep viable an existing facility if the regulatory risk is too uncertain.

There is often disagreement on interpretation of NSR requirements between state and federal regulators, putting project applicants in a bind when, fairly late in the game, EPA delivers a series of comments and questions to the state on a project. Compliance with NSR and other environmental requirements has a major impact on the business planning and operational design of facilities. Financial viability of a project depends on getting timely approvals. PA Chamber members have reported that this tension between state and federal regulators, and the lack of communication to project applicants about that tension until several months into permitting discussions, is not only extremely frustrating, but costly. What may seem like a minor dispute over the calculation of future versus actual emissions can result in tens of thousands of dollars in engineering and legal fees and a resubmitted application.

Another PA Chamber member has reported that a project to switch to a cleaner burning fuel at its manufacturing facility is in jeopardy because of how regulators are interpreting NSR requirements. The project will result in considerable reductions of one criteria pollutant (SO₂), but the fuel change is triggering NSR due to a relatively small amount of increase in another criteria pollutant (NO_x). The overall public health and environmental benefits from the fuel switch are clear: there will be an overall improvement in air quality as a result. But the costs involved in complying with NSR as a result of the fuel switch may render the project uneconomical, and the company has been negotiating with regulators for more than a year.

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In most cases, lenders also will not sign off on financing a new or expanding facility until all permits are issued and all appeals are resolved. Not only can there be a protracted dispute between state and federal regulators regarding interpretation and application of regulatory criteria, but citizens' suits from third-party NGOs are common. Once this potentially multi-year process of intragovernmental disagreement and litigation with third-parties concludes, the universe of what constitutes BACT or LAER for such a project may have shifted – requiring the company to change its plans, affording NGOs the opportunity to file suit again and restricting the lenders to make a final decision on financing. This is an unfortunate and unwelcome result, given that the company proposing the new build or expansion has done everything in its power to comply with the regulations from the outset. There is room within the existing regulatory and statutory framework to provide certainty to applicants by limiting the universe of relevant BACT and LAER as it existed when a final and complete application was submitted.

Administrative Determinations Regarding Single Source Can Shunt Projects into NSR, Jeopardizing Otherwise Viable Projects

Over many years, EPA has built up a substantial body of guidance and applicability determinations that address the circumstances under which two or more facilities must be considered a single source for purposes of air permits issued under the New Source Review and Title V programs. Far from providing clarity and consistency, these determinations have created substantial uncertainty for permitted entities and in many cases have discouraged advantageous commercial relationships and new investment.

EPA purports to base its guidance on the relevant regulatory definitions, which use a three-part test consisting of whether two facilities are in the same industrial grouping, located on contiguous or adjacent properties, and are under common control. However, because adjacency and common control are not defined in the regulations, EPA guidance has established a long list of factors that it considers relevant in determining whether two otherwise separate facilities or entities must be aggregated. One of the sectors particularly affected by these determinations is the landfill sector, which has been unduly burdened by EPA's focus in recent years on the aggregation of landfills and nearby landfill gas-to-energy facilities. By their very nature, gas-to-energy facilities are entirely separate operations, with the landfill engaged in the management of waste and the gas-to-energy facility engaged in the production of energy. However, in order to be economically and operationally viable, gas-to-energy facilities must be located at or near the landfill facility. In some cases, EPA has pointed to the use of a pipeline for the conveyance of gas from the landfill to the energy facility as an indicator of adjacency. Additionally, EPA has created a presumption of common control for co-located entities, even where the two entities are not commonly owned. In support of this presumption, EPA has often concluded that the existence and terms of gas purchase agreements between the landfill and

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gas-to-energy facility are indicators of common control. Chamber members have also seen regulatory determinations to aggregate sources in the oil and gas sector in the context of permitting compressor stations, dehydration facilities, and other associated infrastructure that is not adjacent or under common control. EPA's analysis ignores the fact that an arms-length, mutually beneficial commercial contract should not be a basis for determining that two parties are under common control.

Over the past several years, there have been efforts in EPA Regions 1, 2 and 3 (and perhaps others) to push delegated state permitting agencies to evaluate whether landfills and gas-to-energy facilities should be aggregated. In most cases, the facilities were initially permitted and have been operating for many years as separate facilities (many under Title V permits). Most often, the issue comes up at Title V renewal, rather than in response to any modification at either facility. These efforts upset the settled expectation of the parties long after initial investments have been made, with the specter of future New Source Review permitting burdens applying in the future. These re-evaluations cause administrative burden and cost for permittees and no immediate benefit to the environment – in fact, single source determinations can serve to discourage future investment for fear of triggering New Source Review obligations. Further, these cases often highlight differences in approach between the EPA regions and delegated states within those regions, with EPA pressuring state agencies to carry out these evaluations which can take years to play out and may involve litigation at the state and federal level. Finally, when a single source determination is made (most often over the objection of the permittees), state permitting agencies often struggle to structure operating permits in a manner that accomplish the goals of Title V by providing compliance certainty – instead, two otherwise unrelated entities are forced into an unnatural joint permitting arrangement in which they share responsibility and risk for each other's operation. In the landfill sector, these determinations threaten to discourage the beneficial use of landfill gas as an energy resource.

Federal Agencies Have Also Pointed to NSR as a Significant Challenge to Manufacturers and the Energy Economy

PA Chamber members and the manufacturing industry writ large are not the only ones calling for reform to NSR. In a 2002 report to President George W. Bush, EPA noted that:

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As applied to existing power plants and refineries, EPA concludes that the NSR program has impeded or resulted in the cancellation of projects which would maintain and improve reliability, efficiency and safety of existing energy capacity. Such discouragement results in lost capacity, as well as lost opportunities to improve energy efficiency and reduce air pollution.⁸

In the Department of Energy's "Staff Report to the Secretary on Electricity Markets and Reliability," staff noted that, among the many pressures to power generation, the NSR had a significant impact:

The retrofit-or-retire decision for owners is also impacted by EPA's New Source Review (NSR) regulations that can affect owners' ability to enhance plant efficiency due to the delay, cost, and uncertainty associated with obtaining an NSR permit. The NSR permitting program requires stationary sources of air pollution—including factories, industrial boilers, and power plants—to get permits before construction starts, whether the unit is being newly built or modified. This is an important concern for owners considering retrofitting an existing power plant with carbon capture equipment to reduce CO2 emissions, or adding new components to improve operating efficiency. These upgrades could trigger the NSR requirements of the Clean Air Act because they would constitute a "physical change," or lead to a designation of the change as a "major modification," subjecting the unit to NSR permitting requirements.

The uncertainty stemming from NSR creates an unnecessary burden that discourages rather than encourages installation of CO2 emission control equipment and investments in efficiency because of the additional expenditures and delays associated with the permitting process. Ironically, the uncertainty surrounding NSR requirements has led to a significant lack of investment in plant and efficiency upgrades, which would otherwise lead to more efficient power generation, benefits to grid management, and reduced environmental impacts.⁹

Our energy assets are providing the opportunity for many companies to improve their sustainability footprint and reduce costs via projects like distributed solar, combined heat and power (CHP), microgrids and fuel cells. Policy barriers should not impede the deployment of these technologies, nor for potential technologies such as small modular reactors (SMRs) making use of nuclear energy on a smaller scale. However, while our energy picture continues to shift, as American ingenuity and resourcefulness is put to use, the backbone of our grid remains large-scale, centralized power plants. The PA Chamber is a supporter of markets and we believe competitive energy markets have been good for consumers. We also recognize the need to ensure

⁸ New Source Review: Report to the President. U.S. Environmental Protection Agency, June 2002.
https://www.epa.gov/sites/production/files/2015-08/documents/nsr_report_to_president.pdf

⁹ Staff Report to the Secretary on Electricity Markets and Reliability. U.S. Department of Energy, August 2017.
https://energy.gov/sites/prod/files/2017/08/f36/Staff%20Report%20on%20Electricity%20Markets%20and%20Reliability_0.pdf

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adequate capacity is available. We appreciate the Trump administration has begun a conversation, and that the independent Federal Energy Regulatory Commission and regional grid operator PJM Interconnection has continued that conversation as it relates to market design, to ensure that there are not policy barriers at work in the energy markets contributing to the premature retirement of baseload generation – nuclear, coal and otherwise.

The Recent Pruitt Memorandum is an Important First Step to Reforming NSR

On Dec. 7, 2017 EPA Administrator sent a memorandum to all regional administrators provided guidance on how sources may conduct emissions projects when going through the NSR program, and how EPA staff should evaluate those projections and handle enforcement.¹⁰ The memo is significant in that it returns application of NSR requirements closer to the plain language of the Clean Air Act and NSR regulations. It allows applicants to account for how they will actively manage future emissions and provides for more use of the demand growth exclusion, provided the applicant has complied with regulatory criteria regarding evaluation, documentation and notice without a “clear error.” The memo also includes an express prohibition on EPA staff second-guessing these analyses. EPA staff will, however, continue to evaluate if significant thresholds were crossed during five- and ten-year periods, post-project. States are free to implement a more stringent NSR program, and the memo makes clear that EPA staff should defer to state regulators’ judgments.

It is important to note that none of the contents of the memo will inhibit states’ ability to progress towards achieving and maintaining attainment of NAAQS, nor are individual companies relieved of their regulatory obligations. What the memo does do is provide more regulatory certainty to sources and to states. Less dispute between state and federal regulators means not just a streamlined permitting process for applicants, but that less public resources are being expended on intra-governmental in-fighting; more high-efficiency modifications at existing facilities also means less natural resources are being expended to produce greater economic output.

It is the sincere hope of the PA Chamber that this memo is the start of further reforms to NSR in administrative, regulatory and statutory contexts. If we have a regulatory process that could be made more efficient, so that our plants and facilities can become more efficient, and we don’t – that is a failure. Such a result is not only bad for business, it’s bad for the environment.

¹⁰ New Source Review Preconstruction Permitting Requirements: Enforceability and Use of Actual-to-Projected-Actual Applicability in Determining Major Modification Applicability. Administrator Scott Pruitt, Dec. 7, 2017. https://www.epa.gov/sites/production/files/2017-12/documents/nsr_policy_memo.12.7.17.pdf

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A year ago, the PA Chamber delivered testimony to this same subcommittee, identifying a number of recommendations to the nation's air regulatory framework that will boost the productivity and competitiveness of domestic manufacturers, and, more broadly, the economy. We are pleased that a number of these recommendations have been adopted, including the rescission of the long-standing and illogical "once in, always in" HAPS guidance and rescinding the CEQ guidance on NEPA and greenhouse gas emissions. We applaud these changes, and we look forward to working with this body and the administration on the adoption of additional pro-growth policies that do not sacrifice environmental quality.

Mr. SHIMKUS. The chair thanks you.

The chair now recognizes Mr. Paul Noe. You're recognized for 5 minutes.

STATEMENT OF PAUL NOE

Mr. NOE. Chairman Shimkus, Ranking Member Tonko, and distinguished members of the committee, on behalf of the American Forest and Paper Association and the American Wood Council, I want to thank you for the opportunity to be here to discuss the challenges posed by EPA's NSR program for the forest products industry and to provide our perspectives on how it can be improved.

This is consistent with the twin purposes of the Clean Air Act, which is to promote public health and welfare as well as the productive capacity of our nation.

Unfortunately, NSR is an outdated, inefficient, and slow regulatory approach that currently just doesn't work very well for existing sources and it's impeding modernization and growth in the U.S. manufacturing sector.

It just doesn't make sense to discourage upgrading plants already subject to a myriad of other regulatory requirements or to block beneficial projects using best controls simply due to unrealistic air quality modelling and assumptions.

Our country has made great strides in improving air quality, largely under other programs. To borrow from my friend and former EPA general counsel Don Elliott when he testified before Congress 15 years ago on the need for NSR reform, quote, "NSR is slow, costly, and ineffective, and those are the kindest things that one can say about it. It is the least successful of all the programs under the Clean Air Act."

The reality is that energy efficiency and modernization projects for existing sources are delayed, modified, or thwarted by complex NSR interpretations that have accumulated and evolved over time.

The program requires expensive but unrealistic air modelling that frequently delays projects and can cost \$100,000 or more to complete. Unreasonable permitting delays tie up investment capital and undermine the economic benefits from expansion projects.

There are many ways EPA could improve the permit process but let me focus on two key points. First, consistent with this statute, EPA should focus the NSR program on larger projects that really have a greater potential to impact air quality.

Changing the NSR applicability criteria could reduce unnecessary workload on permitting agencies and create business certainty and positive incentives without jeopardizing air quality.

For example, currently the NSR regulations use a two-step calculation process to determine if a project is subject to NSR. The emissions increases from a project are calculated first to see if they are significant before any decreases are subtracted.

This step one then step two analysis is complicated, expensive, and time consuming. By simply allowing increases and decreases to be netted projects with emissions below significant levels could proceed.

Second, once a project truly does trigger a higher level of scrutiny, EPA ought to use realistic assumptions and analytic tools, including probabilistic air quality modelling approaches.

This is needed now more than ever because there is little room for error. This is because in recent years EPA has lowered the national ambient air quality standards close to background levels.

This has left little room for permits, even in attainment areas. In the past, when NAAQS for PM or SO₂ or nitrogen dioxide were higher, if you looked at that versus the ambient level in emissions from the nearby sources and the facilities exposures, there was enough room or head room, as we call it, for a permit.

The problem seriously exacerbated by many of EPA's current policy approaches and modelling tools which significantly over predict impacts from facilities, especially when a series of unrealistic assumptions are compounded.

So it's critical that the modelling results reflect the reality of local air quality.

For example, EPA's current modelling guidelines have an expansive interpretation of where the general public must be protected from nearby plant emissions.

Rather than focussing on where people actually are, it is assumed that ambient air is anywhere a person theoretically could be such as by illegally trespassing at the facility or where the general public in reality could not be, such as standing on a railroad or a road that runs through the facility.

Overly conservative modelling analysis can lead to unverifiable and nonexistent concentration estimates that cause costly changes or cancellations of beneficial projects, even though real-world exposure to the general public around these locations is minimal, improbable, or even impossible.

Therefore, EPA should issue new guidance to update its policies for placing receptors considering natural, manmade, or jurisdictional barriers.

Although forest products mills typically are located in attainment areas with better quality, they face problems as soon as NAAQS are issued because they're immediately effective and EPA has compounded the confusion and delay by not providing implementation and modelling guidance until after the NAAQS are issued.

I don't believe Congress intended this confusion and delay when it enacted the act and I believe the U.S. is the best place in the world for a robust manufacturing sector. We have the best workers in the world.

We have created entrepreneurs and innovators. We have abundant resources. We have a strong free-market democracy and we have regulatory agencies that are capable of leading the world on sustainable regulation.

Thank you, Mr. Chairman.

[The statement of Mr. Noe follows:]



AMERICAN WOOD COUNCIL

**Testimony of Paul Noe for
American Forest & Paper Association
and American Wood Council before
House Committee on Energy and Commerce
Subcommittee on Environment
Oversight Hearing on
"New Source Review Permitting Challenges for
Manufacturing and Infrastructure"
February 14, 2018**

My name is Paul Noe, and I am the Vice President of Public Policy for the American Forest & Paper Association and American Wood Council. I want to thank the Subcommittee for the opportunity to provide the forest product industry's perspectives on the challenges posed by EPA's New Source Review Program and how it can be improved -- consistent with the twin purposes of the Clean Air Act to promote public health and welfare, as well the productive capacity of the nation.¹

The American Forest & Paper Association (AF&PA) serves to advance a sustainable U.S. pulp, paper, packaging, tissue 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 four 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 45 states.

AF&PA's sustainability initiative - *Better Practices, Better Planet 2020* - comprises one of the most extensive quantifiable sets of sustainability goals for a U.S. manufacturing industry and is the latest example of our members' proactive

¹ Clean Air Act, Sec. 101(b), 42 USC 7401(b).

commitment to the long-term success of our industry, our communities and our environment. We have long been responsible stewards of our planet's resources. We are proud to report that our members have already achieved the greenhouse gas reduction and workplace safety goals. Our member companies have also collectively made significant progress in each of the following goals: increasing paper recovery for recycling; improving energy efficiency; promoting sustainable forestry practices; and reducing water use.

The **American Wood Council (AWC)** is the voice of North American wood products manufacturing, an industry that provides approximately 400,000 men and women in the United States with family-wage jobs. AWC represents 86 percent of the structural wood products industry, and members make products that are essential to everyday life from a renewable resource that absorbs and sequesters carbon. Staff experts develop state-of-the-art engineering data, technology, and standards for wood products to assure their safe and efficient design, as well as provide information on wood design, green building, and environmental regulations. AWC also advocates for balanced government policies that affect wood products.

Overview

EPA's complex New Source Review (NSR) air permit program affects practically every major manufacturing facility in the United States, and unfortunately, it has become a significant impediment to the modernization and growth of the U.S. manufacturing sector.² U.S. air permitting and regulatory requirements are out of date, overly conservative, rigid, and time-consuming. The air quality permitting process for new and modified facilities is slow and cumbersome and relies on unrealistic modeling and assumptions, resulting in unnecessary delays, costs and impediments for projects that would benefit both our economy and our environment.

Recently, this problem has become more acute with substantial tightening of EPA's National Ambient Air Quality Standards (NAAQS) closer to ambient background levels. Simply put, when stringent NAAQS are combined with unrealistic air quality modeling and assumptions, there is little or no "headroom" for new or modified facilities in many areas to show that their residual emissions will not contribute to a violation of the NAAQS, even after the installation of the best available pollution control technology.³

² See, e.g., Art Fraas, John D. Graham, and Jeff Holmstead, "EPA's New Source Review Program: Time for Reform?," 47 E.L.R. 10026 (Jan. 2017).

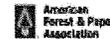
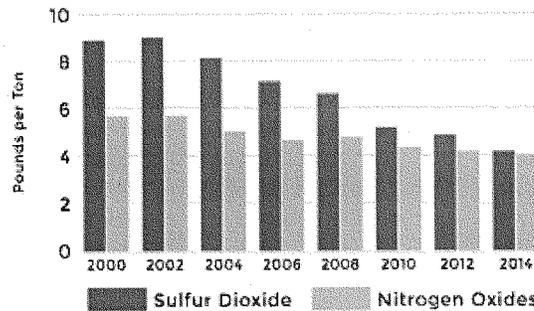
³ Id.

Manufacturing is one of the most heavily regulated sectors in the U.S. economy. Since 1981, manufacturers have been subject to over 2,200 different regulations, and almost half were from EPA.⁴ The manufacturing sector has made large investments in air quality improvements. Air quality in the U.S. has improved markedly over the past 30 years, even as the population has grown. In the pulp and paper industry, for example, SO₂ emissions have been reduced by over 50% since 2000, and NO_x emissions have been reduced by almost 30% in that same timeframe.

Pulp and Paper Mill Air Emissions Reductions

SO₂ reduced 53%, NO_x reduced 29% since 2000

PULP AND PAPER MILL SO₂ AND NO_x EMISSIONS



Source: [AF&PA 2016 Sustainability Report](#)

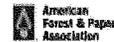
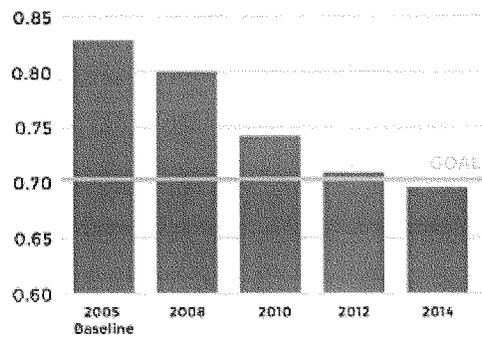
In another measure of environmental progress, AF&PA member companies have already met their voluntary Better Practices, Better Planet sustainability goal to reduce greenhouse gas emissions by 15% from a 2005 baseline -- six years ahead of schedule.

⁴ See Paul Bernstein et al., *Macroeconomic Impacts of Federal Regulation of the Manufacturing Sector* (NERA Economic Consulting & Manufacturing Alliance for Productivity and Innovation) 2012

Greenhouse Gas Reduction Goal Progress

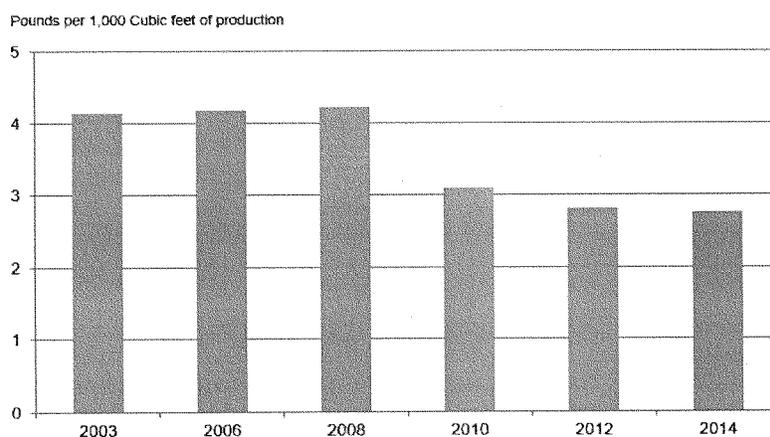
Greenhouse gas emissions intensity decreased by 16%, surpassing our goal of a 15% reduction by 2020

GREENHOUSE GAS EMISSIONS GOAL



Source: [AF&PA 2016 Sustainability Report](#)

Methanol emissions intensity, expressed in pounds per thousand cubic feet of wood products produced by AWC member companies, has declined 34% from 2008 to 2014. Formaldehyde emissions have dropped almost 60% from 2006 to 2014.

Chart 2: Methanol Releases Intensity

Source: [AWC 2016 Industry Progress Report](#)

These and other emission reductions come at a high cost. The forest products industry has invested about \$1 billion to comply with EPA's 2013 Boiler MACT regulation, and those emission reduction benefits will be reflected in future AF&PA and AWC reports. All told, several billion dollars have been spent on Clean Air Act obligations by the forest products industry in the last two decades, contributing to the impressive emissions reductions our nation has achieved.

The NSR permit program was established under the Clean Air Act in 1977 to require new facilities as well as existing facilities that undertake *significant modifications* to update their pollution control systems to current standards. Unfortunately, some important parts of NSR that are aimed at existing sources, particularly its Prevention of Significant Deterioration (PSD) program, can undermine the laudable goals of the Clean Air Act. Energy efficiency and modernization projects are being delayed or thwarted by NSR interpretations that have evolved over time. The program requires expensive emissions assessments and air modeling that frequently delays projects and can cost \$100,000 per project or more to complete. It also easily can take 12 to 18 months to obtain NSR permits, tying up investment capital and delaying the economic benefits from expansion projects. Finally, the permitting process itself can lead to lawsuits by environmental organizations—not just during NSR but again during renewal of the

facility's Title V operating permit, assuming the manufacturer actually gets the permit.

We believe there are many actions the EPA could take to improve the process that regulated entities must go through to secure air permits and comply with federal air quality regulations. This testimony focuses on several aspects of the NSR and PSD programs. Our suggested solutions to the problems identified would promote growth and jobs in domestic manufacturing industries and our economy while protecting against actual risks to the environment and public health.

The permitting program under the Clean Air Act needs a substantial re-examination since it has evolved over time in a rather haphazard and incremental manner. First, consistent with the statute, EPA should focus the NSR program on larger projects that have a greater potential to impact air quality. Changing the NSR applicability criteria could reduce unnecessary workloads on permitting agencies and create business certainty and incentives without jeopardizing air quality. Second, once a project triggers a higher level of scrutiny, EPA should use real-world assumptions and modern, realistic air quality modeling tools, including probabilistic air quality models, instead of the deterministic, upper-bound modeling assumptions currently used.

As a group, the complicated and burdensome set of air quality rules surrounding NSR and PSD permitting are a deterrent to manufacturing facility modifications and expansions. The current set of air quality permitting requirements even deters implementation of projects that would reduce emissions and/or enhance energy efficiency. Part of what makes implementing these regulations so difficult is the thousands of pages of complex, prescriptive guidance. EPA should establish a new permitting process and adjust its modeling criteria to be more reflective of actual impacts. Regulatory air quality models now have the capability to predict ambient air concentrations based on variable emissions, background, and meteorological conditions. Unfortunately, long-standing policies are obsolete and preclude the use of modern approaches that take variability into account. Simply stated, implementation of stringent new air quality standards has outpaced reliable implementation tools and appropriate guidance, which remain years behind current knowledge. EPA should address the rapidly developing air permitting gridlock by adopting more flexible policies to allow use of more realistic emissions and modeling data.⁵ In addition, states should be given more discretion

⁵ In the future, EPA also should not revise current NAAQS unless evidence shows a significant public health concern and previous NAAQS revisions have been fully implemented. Moving these multiple regulatory goal posts every five years creates significant business investment uncertainty

in running their permitting programs including advancing new tools, models and permitting approaches through guidance to the states and Regional Administrators.

New Source Review Problems and Solutions

EPA previously developed proposed rules⁶ – some were even finalized but indefinitely stayed and never implemented – that would add common sense tests for determining which projects would actually cause significant emissions increases. Such projects are subject to major source/modification permitting and their exclusion would eliminate resource-consuming reviews for routine projects and those that would not cause a significant emissions increase.

We have several suggested revisions to the NSR permitting program to address real world problems.

Actual Emissions Increase

The NSR regulations use a two-step calculation process to determine if a project is subject to NSR. This test, also known as the applicability analysis, consists of determining (1) whether the project itself produces a “significant emission increase,” and, if so, (2) whether the project’s emission increase, netted with all other emissions increases and decreases occurring at the facility during the “contemporaneous” period, results in a “significant net emissions increase.” Only if the project will result in a significant emission increase in Step 1 must the source proceed to Step 2, where the source evaluates its plant-wide emissions over a time period, usually five years preceding the proposed project.

There is significant ambiguity and confusion regarding EPA’s emissions accounting regulations that have forced companies to consider only the project’s emission *increases* in “Step 1” and ignore emission *decreases* until Step 2 after significant resources have been expended and time lost. And in Step 2, decreases are evaluated only in the “plant-wide netting” process, which looks at the plant-wide emissions increases and decreases over time. Although some projects can easily use “plant-wide netting” to demonstrate that NSR is not triggered, at a large plant with complex operations, netting is an onerous, technically challenging calculation process that is taxing on state regulators and can create substantial confusion for those trying to analyze a proposed permit.

when the air quality in the U.S. is some of the best in the world and will continue to get better under current programs and trends. A ten year NAAQS review cycle would be much more appropriate.

⁶ <https://www.epa.gov/nsr/nsr-regulatory-actions#general>.

In recent years, EPA has issued guidance documents stating that emission decreases associated with a particular project cannot be counted in the Step 1 portion of an applicability analysis. The complexity of the Step 2 analysis for many plants means that companies will simply forgo environmentally beneficial projects that involve counting decreases in order to demonstrate that NSR is not triggered. Furthermore, as pointed out in the 2006 proposed regulation preamble, the approach of only counting increases at Step 1 fails to accurately reflect the effects of a project and that NSR only be triggered for projects that actually cause a significant emissions increase.

EPA should finalize the September 14, 2006 proposal to allow accounting for the complete effects (both increases and decreases in emissions) of a project for PSD applicability analyses. This proposal stated that all emissions changes, both increases and decreases that occur within the scope of the project would get counted under "step 1" of the applicability analysis. Project netting calculations are more straightforward than facility-wide netting and the resulting regulatory change to explicitly allow project netting would let facilities receive credit for emission reductions that are achieved as part of an overall project, without introducing complexity into the program. As a stopgap measure, EPA could issue guidance interpreting the current regulations "sum of the difference" language as considering both increases and decreases in Step 1.

Contemporaneous Project Classification

Current EPA policy calls for the emissions impact of contemporaneous projects in netting transactions to be quantified using the actual-to-potential (ATP) test. This is required even if those projects relied on the actual-to-projected actual (ATPA) emissions comparison for their initial PSD applicability determination. EPA explains⁷ that this restriction on the use of the ATPA comparison for netting purposes is mandated because the amended definition of "actual emissions" in the 2002 NSR Reform rule does not apply when assessing whether a significant net emissions increase has occurred or will occur for PSD purposes.

This policy is overly conservative and restrictive. The definition of a "net emissions increase" under PSD requires that an assessment be made of the increases and decreases of contemporaneous "actual emissions"; the plain language of "actual" emissions would suggest that the net emission changes (if any) that have actually

⁷ Letter from Cheryl L. Newton, EPA Region V Air and Radiation Division Director, to Keith Baugues, Indiana Department of Environmental Management, April 4, 2011.

occurred are to be the basis of this determination. We recognize that there are some netting assessment instances where a contemporaneous project has not begun normal operations, and in those instances it seems clear that the actual increase in emissions cannot yet be defined. For these situations, the definition of “actual emissions” at 40 CFR 52.21(b)(21)(iv) (i.e., the presumption that a unit’s post-change actual emissions are equal to its potential-to-emit) would appropriately apply.

In most instances, however, the increases in emissions that actually occur as a result of projects are less than what is estimated during preconstruction review. It is overly restrictive and it does not serve any compelling purpose to require an ATP emissions comparison for projects where the actual-to-actual emissions history can be established. Accordingly, we encourage EPA to rescind the 2011 policy memo that requires the ATP emissions test for contemporaneous projects in netting transactions, and to promulgate changes to the appropriate definitions within the PSD regulations.

Project Aggregation

NSR pre-construction permitting applies to “major modifications” to existing “major sources” that result in “significant” emission increases. Most companies perform dozens of changes/projects at a plant over one to three years. While many of these are exempt from NSR because they are routine maintenance, repair and replacement projects, some do not trigger NSR because they do not individually result in a significant emissions increase. EPA, however, is concerned about companies circumventing NSR by “dividing,” “phasing” or “tiering” projects that are technically or financially interdependent.

For this concern, the agency applies its “project aggregation” policy to determine when emissions increases from multiple projects at the same major source should be aggregated or summed to determine if together they constitute a “significant” emission increase triggering “major modification” NSR. In 1993, EPA enforcement concluded that 3M had circumvented NSR permitting when it constructed four separate R&D pilot projects at its Maplewood, MN plant. “3M Maplewood” established a very restrictive four factor aggregation policy that considers time between projects, funding and consumer demand, EPA’s assessment of the economic relationship between projects, and “the overall basic purpose of the plant.”

Thus, aggregation has become a presumption for groups of projects that occur close together in time, even though from a business perspective most decisions

and projects are independent of each other. This interpretation that unrelated projects get “aggregated” regardless of their true inter-relatedness places undue permitting burdens on facilities for smaller projects that should be allowed to begin construction without added red tape.

EPA began moving down the right path when it proposed changes to the PSD regulations on September 14, 2006 involving aggregation that were finalized in January 2009. The rule described factors for distinguishing “separate” and “substantially related” projects such as “technical” and/or “economic dependence.” However, that rule was stayed by the Obama Administration and then stayed again in 2010 along with a proposal to revoke the final rule. No final action was taken on the stay and revocation. We suggest that EPA withdraw the 2010 proposal and lift the stay on the 2009 rule to make it effective and replace the “3M Maplewood” framework for unrelated projects.

Plant-wide Applicability Limits (PALs)

PAL provisions were established in the 2002 NSR Reform Rules in order to provide facilities with a simplified process for approval of physical or operational changes under the NSR rules, as long as facility-wide actual emissions remain below the PAL after the change.

The regulated community has not taken advantage of the flexibility afforded by these provisions because of unnecessary requirements that were included in the PAL regulations. Concern exists that PAL caps can be re-opened and reduced at any time. These concerns create huge uncertainty for sources. The PAL expiration and PAL renewal provisions have prevented facilities from utilizing PALs more. Some states issue separate PAL permits making the program more complicated instead of incorporating PAL provisions into the Title V permit and harmonizing monitoring requirements.

EPA can unlock the potential of PALs to reduce permitting burdens and create incentives to keep emissions at a capped level. EPA should issue guidance to clarify with permitting authorities that they should incorporate the PAL requirements into a facility’s Title V permit and that a PAL may be renewed at the same level, regardless of whether actual emissions are below the PAL level. In addition, EPA should make the PAL provisions more attractive to the regulated community by (1) clarifying there are only limited events that trigger review of the PAL cap during the PAL permit cycle, (2) encouraging states to incorporate PALs into Title V permits to establish a coordinated PAL/Title V permit, (3) harmonizing reporting and

recordkeeping to reduce administrative burden, and (4) removing penalties for terminating a PAL.

Streamlining Permitting Programs

EPA has lowered the PM_{2.5}, NO₂, and SO₂ National Ambient Air Quality Standards (NAAQS) in the last eight years. States have responsibilities to evaluate air quality data, determine which areas of their states are in non-attainment and adopt State Implementation Plans (SIPs) requiring emission reductions needed to attain the relevant standards. In addition, SIPs establish and implement regulatory programs such as PSD permitting programs to ensure that areas currently meeting the NAAQS continue to do so. In addition to requiring best available control technologies to be applied at sources seeking approval to significantly increase emissions, the SIP permitting regulations require applicants to conduct Air Quality Analyses involving application of computer models to predict how the proposed emission increases could potentially affect ambient pollutant concentrations.

Modeling results are relied on as the technical basis for judgments on whether a proposed project will protect or threaten the NAAQS. Separately, facilities must model attainment of the NAAQS through the PSD process or under state-specific programs when making a modification or building a new source that increases emissions in attainment areas. Forest Products Industry (FPI) facilities are located predominantly in attainment areas but are subject to thorough air quality reviews for projects and sometimes upon permit renewal.

Air emissions from our industry have been regulated for many years and our sources are subject to multiple types of air quality standards that are the backbone of the Clean Air Act and will remain in place. As mentioned previously, industrial boilers are subject to EPA's stringent Boiler MACT requirements⁸ while smaller boilers must comply with the 2013 Boiler Generally Achievable Control Technology (GACT) rule. All parts of pulp and paper mills are subject to the so called "Cluster Rule" that paired dramatic air emission reductions with stringent water quality limits and transformed bleaching systems at mills. In 2012 and again in 2017, EPA confirmed that the Cluster Rule had mitigated health risks to acceptable levels and that the emission control technologies deployed remain the best available. At wood product mills, the 2003 Plywood and Composite Wood Product (PCWP) MACT required 90% reductions in emissions from most presses and dryers. EPA is in the process of updating these MACT regulations and completing a separate residual

⁸ EPA is in the process of reviewing parts of the Boiler MACT regulation that could impose even more emission reductions on our facilities, and then it still has to conduct its risk and technology review.

risk and technology review (RTR) in the next couple of years that will cover additional mills. On top of these major rules, MACT regulations are in place for engines, turbines, and various coating operations at forest product mills.

For criteria pollutants, New Source Performance Standards (NSPS) for Kraft Pulp Mills and Boilers are in place and reviewed periodically. Many facilities were also subject to the Best Available Retrofit Control Technology (BART) regional haze program that reduced emissions from SO₂, NO_x, and PM that could impact visibility in nearby parks and wilderness areas. Finally, there are many SIPs that impose Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) controls on sources as a result of local air quality concerns. Occasionally, EPA imposes region-wide requirements into SIPs such as the NO_x SIP Call or interstate pollutant transport rules that can impact stationary sources in upwind states.

In the past, when the NAAQS were higher, there was sufficient margin or “headroom” between the NAAQS level vs. the ambient background levels, and the facility’s emissions plus those of surrounding sources. With that headroom, and for expediency, the Agency built multiple layers of conservatism into a NAAQS analysis. This approach was not problematic in most cases for decades. Now, however, the headroom has shrunk or disappeared as standards approach background levels (for some pollutants, the ambient background concentration is 75% or more of the NAAQS), so it is critical to carefully consider the overly-conservative assumptions and procedures required in the permitting and modeling processes. And to make matters even worse, emission offsets are limited in the rural areas where forest product mills operate.

Industry has found that many of the current policy approaches – which were initially formulated and implemented several decades ago - and deterministic, upper-bound computer modeling tools significantly over-predict impacts from their facilities, especially when results of making conservative (and often unrealistic) assumptions are compounded. Thus, the computer modelling results are overly conservative and produce unrealistic predictions of actual local air quality impacts. Let me highlight two areas where modernization of the PSD program is sorely needed.

Realistic Placement of Receptors: Ambient Air

The current computer modeling guidelines rely on the definition of “ambient air” to determine where in the vicinity of a major source the emissions impact from a project must be evaluated. At these “ambient receptors”, computer modeling is

conducted to determine if a project will cause or contribute to a predicted violation of a NAAQS or PSD Increment. Neither the NSR regulations nor the modeling guidelines define "ambient air," but instead use the definition in 40 CFR § 50.1(e) – "that portion of the atmosphere, external to buildings, to which the general public has access." Historically, EPA defined "access" as the right or ability to enter, and the "general public" to be the "community at large" in implementing its ambient air definition.⁹ In more than 40 years of implementation, EPA has issued guidance through numerous memoranda, permit determinations, and comments that expanded the original interpretation of general public and restricted its original interpretation of access. Moreover, the form of the NAAQS are now based on a probabilistic approach (e.g., 4th highest over 3 years), which is not considered within the existing ambient air definition or EPA's modeling guideline. These changes result in excessively conservative assumptions that unrealistically simulate the location, frequency, and duration of modeled exposures.

EPA's modeling guidelines, based on its ambient air policy, are excessively conservative because they go beyond the regulatory definition of ambient air. They require industry to evaluate impacts anywhere that any person could theoretically access (even by illegally trespassing) rather than considering only locations to which the general public legitimately and realistically has access. The policy also requires assessments at locations where the general public would not reasonably be exposed (e.g., on facility property, on a waterway, roadway, railway, or steep terrain) for the duration or averaging time of the current NAAQS. An overly conservative modeling analysis can lead to unverifiable and non-existing concentration estimates that can necessitate costly project changes or cancellation of beneficial projects even though possible exposure of the general public at these locations is minimal, improbable, or impossible. In practice, the unrealistic technical modeling analysis can force changes to a project's design or emissions control when true air quality impacts are minimal.

Although prior EPA ambient air policy has disregarded the frequency and duration of exposure, the current NAAQS differ from historical NAAQS in that they are inherently linked to the probability of exposure and apply over a wide range of averaging periods (i.e., 1-hour to annual), making a "one-size fits all" approach for defining receptor location under the modeling policy unreasonable and obsolete. In addition, fear of being second guessed by EPA prevents states from making

⁹ See memorandum from Walter C. Barber, Office of Air Quality Planning and Standards to Gordon M. Rapier, air and Hazardous Materials Division, Region II, "Applicability of PSD Increments over Company property," May 23, 1977.

common sense judgments about modeled receptor locations consistent with their broader overarching purpose of protecting public health.

EPA should issue new guidance to update its policies for air quality modeling to embrace the concept that site-specific circumstances should be used in placing receptors considering natural, man-made, or jurisdictional barriers that preclude exposure to the general public for a duration that might cause harm. Such policies would emphasize that permit modeling is a technical analysis as part of a PSD permit application, which is intended to balance economic growth and environmental protection. It is therefore reasonable within the decision-making process to consider the frequency and duration of potential exposures (consistent with the probabilistic form of the current NAAQS) and effective mechanisms for access restriction.

Modeling receptors should not be located where general public exposure at a site is objectively unrealistic, such as, within a plant's fence line or posted property boundary. "Access" should be interpreted such that receptors should not be placed at locations where the general public would become trespassers or would be otherwise unauthorized to be present, such as along right-of-ways. In more unique circumstances, deference should be given to state permitting agencies' authority to determine the areas necessary to include in the ambient air analysis to determine whether a particular project will cause or contribute to a modeled NAAQS or increment exceedance within their regulatory programs.

Unrealistic Modeling Assumptions

EPA's modeling guidelines have historically required excessively conservative assumptions about dispersion model inputs that frequently result in gross overestimates of a project's air quality impacts. Combined with increasingly more stringent NAAQS, this situation presents state regulatory agencies and the regulated community with complex challenges that are barriers to efficient air permitting and stifle economic growth. While EPA has acknowledged how some of its policies overstate true impacts as in the 2017 Appendix W changes, many more changes are needed.

Long-standing EPA policies for NSR implementation restrict a state agency's ability to embrace the use of approaches that address the variability of source emission rates, or that allow for the exclusion of intermittently-operated sources in certain circumstances. In addition, EPA is slow to develop and adopt new dispersion modeling tools that are superior to existing approaches for low wind conditions, building downwash, complex terrain, intermittent/variable sources, and other

challenges. Modeling techniques and implementation guidance have frequently not been available at the time new air quality standards and regulatory requirements become effective.

Although the revised 2017 Appendix W requires facilities to address ambient impacts from projects with significant increases in emissions of ozone or PM_{2.5} precursors, EPA has not fully developed adequate tools, screening techniques, and implementation guidance that are needed in order to develop a robust analysis that avoids the time and expense of single source photochemical modeling.

Finally, data-driven probabilistic methods have been embraced in other EPA programs and are equally applicable to air quality compliance demonstrations when simulating variable emission rates and representative background concentrations. State agencies can be a laboratory for innovation but they are reluctant to adopt new approaches given EPA's history of second guessing decisions.

There are several policy changes EPA could embrace to solve these modeling conundrums. First, EPA should more fully develop and finalize tools such as Significant Impact Levels (SILs) that facilities can use to perform screening level analyses and avoid the time and expense of single source photochemical modeling for projects with significant emissions increases of ozone and PM_{2.5} precursors. The modeling thresholds should be set at a sufficiently high level to exclude projects with minimal impacts.

Second, EPA should continue to incorporate data-driven, probabilistic methods into air quality analyses that simulate emission variability and representative source conditions. For example, EPA's recent revision to Appendix W for cumulative impact analyses emphasizes the use of *representative* actual emissions for non-modified emission units rather than assuming that all sources continuously and simultaneously emit at the maximum allowable short-term emission rate. EPA should expand that approach to use probabilistic modeling techniques such as EMVAP or "randomly reassigned emissions" to formulate realistic emissions inputs that conservatively account for emissions variability of new or modified sources. Implementation of these concepts into air quality compliance demonstrations for permitting can be done through changes in guidance or a revision/clarification to Appendix W.

Third, EPA should make improved dispersion modeling tools a higher priority for model development and evaluation/determination of acceptability of new models. New modeling techniques should be evaluated based on their overall performance

and the soundness of the science, not be automatically rejected based on limited cases of under-prediction.

Fourth, EPA should revise its policy to implement new air quality standards for permitting immediately upon the effective date to avoid recurring situations when modeling tools, data, and implementation guidance are not yet available.

Finally, permitting decisions made by state agencies that are based on reasonable data and sound analytical techniques should be respected without being second guessed by EPA.

Real-World Examples of Problems with NSR and PSD Program

Many industries and our own have been concerned about the NSR and PSD programs for many years. While some changes have occurred recently, the pace of change has been slow and limited. Full modernization of the air permitting program would create greater certainty to invest in American manufacturing facilities. Here are several examples of projects that would benefit from the reforms previously suggested.

1. Thermal Oil Heater Energy Reduction Project

In order to reduce energy consumption, particulate emissions, and volatile organic compounds (VOC) emissions and comply with the Boiler MACT requirements, a wood products mill proposed to route the exhaust from four thermal oil heaters into dryer burners as combustion air. The emissions from the existing thermal oil heaters were going to older style, electrified filter beds that achieved 70% particulate removal and spare parts were no longer available.

Because the heater exhaust is hotter than the incoming air used for combustion in the dryer burners, the company would burn less wood to get the same amount of heat to dry the flakes. In addition, the heater exhaust would be combined with the OSB dryer exhaust and be cleaned by a modern wet electrostatic precipitator (WESP) for particulate control and then a go through a regenerative thermal oxidizer (RTO) for VOC/HAP control. The WESP is approximately 98% efficient in removing particulate and the RTO destroys approximately 95% of the VOCs/HAPs. Additional particulate removal was estimated to be at least 20 tons per year with no changes in the other criteria pollutants.

The state claimed that since the facility had previously gone through the PSD permitting process for the heaters and the dryers *separately* and that BACT levels were established for each and that since a change was being made to where the

heater exhaust was routed, BACT had not been established for the heater exhaust going into the dryers. Consequently, EPA required the facility to go through PSD again and reestablish BACT -- regardless of whether there was a significant increase in emissions.

In addition, the state agency required the facility to aggregate in the PSD evaluation two unrelated dryer RTO replacement projects even though they had previously exempted the projects as "like kind replacements." The RTOs were old and in jeopardy of catastrophic failure. The company provided the information required in the "3M Maplewood" guidance showing the RTO replacements were not related to the heater project, but the state disagreed.

In the end, the company decided to go through the burdensome PSD analysis and aggregate the RTO projects with the heater energy efficiency project because of the looming Boiler MACT compliance deadlines and winter weather that would limit construction. The project was delayed approximately 5 months and the company spent an additional \$100K on assessment of alternative compliance options plus \$59K for state permitting fees. The delay resulted in an *increase* of 10 tons of particulate emissions and no substantive changes to the project's scope as a result of the exhaustive (and unnecessary) review. If EPA adjusted both its aggregation policy and how to account for decreases in emissions, the state could have allowed the project to proceed quickly, and the company and environment would have been better off.

2. Paper Mill – Paper Machine Restart

In response to an emerging market demand for a specific type and quality paper, the mill proposed to restart a paper machine that had previously been taken out of service. An air permit was required since the project involved extensive repairs and various equipment modifications in order to return the machine to working order. Global market conditions combined to create a very narrow time window that had to be met to ensure acceptable financial return and justify the capital investment. To meet the window of opportunity, the mill needed to obtain a permit, complete repairs and modifications and be up and running within 7 months. Since a major NSR permit would require 12-16 months to obtain, emission increases from the project had to be kept below major significance levels and qualify for a minor NSR permit. To constrain emission increases, the scope of the physical and operational changes had to remain very narrow, and production increases had to come solely from recycled fiber in order to demonstrate that virgin pulping processes and chemical recovery operations would not be "debottlenecked" (with possible emissions increase implications) or otherwise affected by the project.

While this project was successfully permitted and implemented, the company was only able to capture a portion of the financial benefits of the global market expansion. The time needed to obtain a major NSR permit prevented the company from pursuing more substantive modifications that would allow larger increases in production and possibly position the mill to capture a greater share of the expanding market. Expectations to account for emissions from unmodified, but otherwise affected process operations (i.e., “debottlenecking”) caused the company to accept new operating constraints that prevents full utilization of existing assets and restricts flexibility to be able to respond to future market opportunities. Finally, this project sets the stage for “project aggregation” discussions that will need to be evaluated and addressed in the future when the mill attempts to get a permit involving virgin pulping or chemical recovery operations, including projects focused on cost, reliability or energy related improvements.

If EPA can reduce the significant time needed to get a permit, then market opportunities like this can be realized -- especially if better emissions accounting procedures are adopted. And if EPA’s aggregation policy is fixed so only truly linked projects are added together, then long-term operating flexibility would not be sacrificed to obtain a near-term opportunity.

3. Mill Infrastructure Project

A paper mill wanted to improve mill operations by shutting down two older, inefficient smaller boilers and upgrading a newer, larger boiler to meet the same steam needs for operations. The changes would use less overall energy and not increase emissions. Rather than being able to undertake the project quickly, the company was forced by EPA through a lengthy review process, wasting several months and requiring additional consulting expenses. In the words of the company, this was “an absurd result.”

Specially, EPA -- over the objections of the state -- did not allow the mill to count reductions in emissions at the same time as the “increases” from the upgraded boiler -- which otherwise would have made the project not “significant” and would have avoided PSD review. In addition, the regulators wanted the company to look at two previous unrelated improvements to the older boilers using the “actual to projected to emit” emissions test, summed with the current change. That essentially would have suggested that emissions were increasing at the units as a result of their permanent shutdown; which is illogical.

Compared to new pre-project baseline actual emissions (BAE), the analyses projected an increase above the significance level for the pollutant. However, if only contemporaneous changes were considered, even a conservative “actual to potential to emit” test would have shown no increase and thus a minor NSR project.

Fortunately, the company and state pressed EPA to allow the netting of the actual decreases to offset the “increase” from the modified boiler under the current project, showing zero additional air emissions. The process took 18 months from beginning to end, with some time spent by the company changing the scope. EPA should change its policies and regulations to allow realistic emission accounting procedures for projects and limit considerations to contemporaneous changes to avoid these unnecessary delays, expenses, and uncertainties that hinder investments and competitiveness while not benefiting, or even harming, the environment.

4. Paper Mill – Paper Machine Conversion

The mill proposed to convert an existing paper machine from producing free sheet using bleached virgin pulp stock to producing new products that involve unbleached pulp stock. The conversion required physical modifications to the machine in addition to the installation of new ancillary equipment. The primary emissions source was the paper machine which involved negligible sources of emissions. Prior to commencing construction, the mill is required to receive authorization from the regulatory agency in the form of a construction permit. In this instance, the long lead time for constructing the new equipment necessitated the need to receive construction authorization within a few months which was not possible under the current permitting system. As a fallback, the company chose to minimize the emission impact of the affected units by committing that virgin pulp production would remain at historic levels.

This example illustrates the need to streamline the current NAAQS modeling process, which involves submittal of a dispersion modeling protocol and approval of the protocol prior to the submittal of a construction permit application even for units that are not being modified and have been previously evaluated for environmental impacts. These extra steps in the process are one part of what makes triggering major NSR permitting more time consuming than certain projects can tolerate.

In addition, the primary driver for the timing of this project is the construction lead time of emissions units with negligible emissions rates. Allowing for construction of

minor emissions sources that do not trigger NSR permitting obligations (prior to the PSD triggering modifications being approved (i.e., phased permitting)) would pave the way for a more flexible permit that still meets environmental requirements.

Finally, ambiguity in EPA's aggregation policy creates business planning uncertainty. A minor project such as this conversion might be "aggregated" with a future unrelated project such as one to improve pulp yields driven by market conditions. This puts mills in the position of second guessing themselves about the future emissions implications of decisions made today even when projects are unrelated. Finalization of the aggregation rulemaking is critical to creating a rationale permitting process where only truly linked projects are considered together.

5. Paper Mill – Paper Machine Project

The company wants to replace three existing paper machines with one new, more efficient machine. The emissions inventory and PSD applicability analysis for the project has been unnecessarily complicated given current NSR regulations and guidance. The company has spent several months on the emission analysis, when it should have only taken weeks if emissions assessments were limited to equipment being modified rather than other processes.

In addition, the company cannot account for the decrease in emissions from shutting down the existing paper machines or from limiting operation of one of the power boilers in "Step 1" of the emission analysis; only emission increases, not decreases, may be counted in Step 1. A proper accounting of the project's net emission impact should include the emission decreases associated with a project.

"Step 2" of the emissions analysis requires that the emission increases associated with contemporaneous projects be calculated using the baseline actual to potential to emit (PTE) method, even when the contemporaneous projects were evaluated using the actual-to-projected actual method, and actual emissions have not exceeded the projections. Instead, the netting analysis should include the actual emission increases from the contemporaneous projects or the actual-to-actual emission projections from the emission analysis conducted for those projects.

In the end, the project requires a federally enforceable emission limit to restrict operation of an existing power boiler. And as a result, the company cannot begin partial construction due to the need for this federally enforceable limit, delaying the start of the project. If the project had been appropriately classified as "minor"

construction would have commenced.¹⁰

In sum, waiting to begin construction of the project while a permit application is under review adds many months to the project's completion and delays the cost savings.

Other Permitting Improvements

While EPA has the clear authority under the Clean Air Act to make substantial improvements to the NSR and PSD programs, strategic changes to the statute are needed in areas where the courts have limited EPA's attempts to improve the permitting program. Here are two opportunities for Congress.

Clean Unit Exemption

As part of the New Source Reform provisions promulgated by EPA in December 2002, EPA included a new permitting applicability test for Clean Units. This provision allowed any emission unit that had been through a permitting process that resulted in Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) emission control levels (or the state equivalent) being imposed would trigger NSR only if the facility was seeking an increase in its permitted allowable emissions. At the time of its promulgation, EPA stated that this exclusion "...protects air quality, creates incentives for sources to install state-of-the-art controls, provides flexibility for sources, and promotes administrative efficiency".¹¹

However, the Clean Unit exemption was vacated by the DC Circuit Court of Appeals in June, 2005¹². The Court found that the exclusion was contrary to the Clean Air Act because it exempts certain emission units from NSR permitting on the basis of their status, rather than on the basis of changes in their actual emissions.

Nonetheless, the Clean Unit concept represents an important development for the regulated community, because when an existing facility that operates such state-

¹⁰ In addition, the NSR regulations should allow a facility to start, completely at its own risk, construction of a source or project prior to obtaining an NSR permit. Companies would find the risk of constructing an entire source too great since the permit could be denied or costly retrofits required. However, most companies would undertake currently prohibited construction activities to start a project and accelerate project benefits that could be realized.

¹¹ 67 Federal Register 80190 "Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR); Final Rule and Proposed Rule. December 31, 2002.

¹² New York v. EPA, 413 F. 3d 3, DC Circuit, June 24, 2005.

of-the-art emission control systems triggers new source review, the permitting process invariably results in minimal (if any) improvements to either existing air quality or the efficiency of the emission control systems installed on the source. A legislative change to the Clean Air Act authorizing the 2002 Clean Unit exclusion would be helpful.

Pollution Control Projects

The 2002 New Source Reform provisions exempted specific Pollution Control Projects (PCPs) from having to undergo preconstruction NSR permitting in specific situations where installation of controls targeting reduction of a specific type or family of pollutants causes a collateral and significant emission increase of an NSR regulated pollutant. The rule defined a PCP as "...any activity, set of work practices or project undertaken at an existing emissions unit that reduces emissions of air pollutants from the unit." EPA stated that one of the purposes of promulgating this PCP exemption was to remove any disincentive for industrial sources to undertake pollution control and prevention measures.

The General Provisions to EPA's New Source Performance Standards (NSPS) program specifically allows pollution control projects to be exempted from the definition of a "modification" to an existing source that might otherwise trigger the need for the source to meet new source emission standards. As the NSR and NSPS programs both utilize a fundamentally similar definition for modification, it is inappropriate for EPA to allow pollution control projects to be considered exempt for NSPS purposes yet at the same time trigger preconstruction review under the NSR program.

The PCP exemption included in the 2002 NSR Reform provisions was intended to codify in the NSR rules a very similar exclusion that EPA had made available by interpretive policy in 1994.¹³ The interpretive policy was in turn based on the explicit PCP exclusion afforded by EPA to electric utility units in 1992 (i.e., the "WEPCO rule"). The 2002 NSR Reform rule made the PCP exemption available to all source categories but at the same time contained safeguards that were intended to ensure that such projects would, on balance, be environmentally beneficial and would achieve the goals of minimizing regulatory burdens and reduce procedural delays for such projects.

¹³ "Pollution Control Projects and New Source Review (NSR) Applicability", John. S. Seitz, Director, EPA OAQPS, July 1, 1994.

The PCP exclusion was vacated by the DC Circuit of Appeals in 2005, along with the Clean Unit Exclusion. At that time, the Court reasoned that EPA lacked the authority to create blanket PCP exemptions from NSR, essentially because EPA was unable to demonstrate to the Court's satisfaction that Congress originally intended pollution control projects to be exempted from preconstruction review when the Clean Air Act was implemented.

The vacatur of the PCP exclusion discourages prompt implementation of projects whose primary purpose is either the reduction of air emissions or pollution prevention. It also creates an absurd situation for sources that are required to install emission controls in order to comply with other parts of the CAA, such as Maximum Achievable Control Technology (MACT) standards under Title III. Operation of the MACT control causes collateral increase in criteria pollutant emissions regulated under Title I and subject to preconstruction NSR permit requirements. As the regulations are currently configured, such collateral increases are required to be compared against PSD significant emission rates to determine whether the installation of the mandated emission controls constitutes a major modification subject to PSD review. This catch-22 is both counter-productive and burdensome to the regulated community. Given the court decision, a change to the Clean Air Act seems the best way to exclude pollution control projects from NSR.

Conclusion

In enacting the Clean Air Act, I do not believe that Congress intended to create such an arcane NSR permitting system using unrealistic assumptions and modeling to impede permits as manufacturers strive to grow and innovate. In fact, in response to the Department of Commerce and EPA outreach last year on impediments to U.S. manufacturing, many industries beyond forest products -- such as aerospace, mining, steel, and utilities -- highlighted NSR as ripe for reform. AF&PA and AWC urge this committee to work with EPA to improve the NSR and PSD programs so minor projects are excluded and those with significant emissions increases can use realistic assumptions and the best science in their air quality assessments.

To further the twin purposes of the Clean Air Act, our goal should be sustainable regulation -- regulation that addresses environmental and economic needs. I believe there is no better place for a robust manufacturing sector than the United States, which has highly productive workers, creative entrepreneurs and innovators, abundant resources, a strong free-market democracy, and regulatory agencies capable of leading the world on sustainable regulation.

Mr. SHIMKUS. The gentleman's time is expired.
The chair now recognizes Emily Hammond. You're recognized for 5 minutes.

STATEMENT OF EMILY HAMMOND

Ms. HAMMOND. Thank you, Chairman Shimkus, Ranking Member Tonko, and distinguished members of the subcommittee.

One year ago almost to the day, I testified before this subcommittee about the many health and environmental benefits of clean air protections and I cautioned against efforts to roll back progress achieved over decades of hard work.

Today, I urge you to scrutinize recent actions by EPA that amount to nothing short of an abnegation of the agency's statutory responsibilities and I emphasize once more that human lives and our economy are at stake.

The Clean Air Act is a technical and complex statute but two of its basic policies are straightforward. First, it is meant to clean up dirty air.

Second, it aims to keep clean air clean. By keeping in mind these first principles, it's easy to see what's wrong with EPA's current approach.

New Source Review makes sure that new or modified sources of air pollution use the right technology so that in areas where poor air quality harms human health, we can improve over time.

And in areas where air quality meets human health standards, New Source Review guards against creating a new public health problem with new uncontrolled air pollution.

But on December 7th of this past year, the same day that EPA Administrator Scott Pruitt testified to this subcommittee that EPA should not issue guidance documents, he issued a guidance document that promises to polluters that EPA won't check the work of those major polluters when they decide whether New Source Review is necessary.

This approach opens a gaping hole in the statutory design and it violates fundamental principles of good governance and legitimacy.

The president, Administrator Pruitt, and members of Congress have all spoken against the perils of overreach when agencies make major policies through nondemocratic procedures.

Yet, the December 7th guidance does just that. When an agency adopts a policy so blatantly contrary to its mandate and does so without any public input, that action lacks legitimacy.

In the words of the Supreme Court in *Heckler v. Chaney*, the agency has consciously and expressly adopted a general policy that is so extreme as to amount to an abdication of its statutory responsibilities.

This institution should hold EPA to task, not give it cover to make our air dirtier. And what is at stake? The lives of people across our country and the benefits of economic growth.

You will hear a lot from industry about the costs of clean air protections and the supposed impediments clean air poses to economic growth. But they won't tell you about the attendant benefits because the numbers are so compelling.

Between 1970 and 2011, aggregate emissions of air pollutants dropped 68 percent while the U.S. gross domestic product increased 212 percent.

During that same period, private sector jobs increased by 88 percent. Our population has increased. We have used more energy. We have built more infrastructure, all while improving our environment.

Consider as well that major regulations issued by EPA undergo a rigorous cost-benefit analysis. EPA is required to follow Office of Management and Budget accounting principles and assess both the costs and the benefits of regulations.

Many researchers have concluded that these constrained analyses vastly understate the benefits of environmental regulations. So the values I am about to describe should be understood as very conservative.

Even with this caveat, the results are compelling. A 2011 peer-reviewed study showed that the benefits of the 1990 Clean Air Act amendments and implementing regulations exceed the costs by a factor of more than 30 to 1.

The 2011 study also revealed that EPA's Clean Air Act rules saved over 164,000 lives in 2010 and are projected to save 237,000 lives in 2020.

These same rules saved millions of days of lost work and missed school and will continue to do so. Further, since EPA began regulating lead as a criteria pollutant under the NAAQS program, the median concentration of lead in the blood of children between one and 5 years old has decreased 93 percent.

These numbers speak for themselves and they demonstrate that those who would roll back clean air protections have set up a false choice. Clean air and economic growth do indeed go hand in hand.

Thank you.

[The statement of Ms. Hammond follows:]

**TESTIMONY OF EMILY HAMMOND
PROFESSOR OF LAW
THE GEORGE WASHINGTON UNIVERSITY LAW SCHOOL
BEFORE THE HOUSE COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEE ON ENVIRONMENT
FEBRUARY 14, 2018**

Thank you, Chairman Shimkus, Vice-Chairman McKinley, Ranking Member Tonko, and distinguished Members of the Subcommittee, for the opportunity to testify today at this hearing entitled “New Source Review Permitting Challenges for Manufacturing and Infrastructure.”

I am Glen Earl Weston Research Professor of Law at the George Washington University Law School, a member-scholar of the not-for-profit regulatory think-tank, the Center for Progressive Reform, and past-Chair of the Administrative Law Section of the Association of American Law Schools. I am testifying today, however, on the basis of my expertise and not as a partisan or representative of any organization. As a professor and scholar of environmental law, energy law, and administrative law, I specialize in the role of these laws in society. My work is published in the country’s top scholarly journals as well as in many books and shorter works, and I am a co-author of textbooks on both environmental law and energy law. Early in my career, I practiced environmental engineering; that experience and training inform my assessment of the role of environmental law in bettering our society.

One year ago almost to the day, I testified before this Subcommittee about the many health and environmental benefits of clean air protections, and I cautioned against efforts to roll back progress achieved over decades of hard work. Today, I urge you to scrutinize recent actions by the Environmental Protection Agency (EPA) that amount to nothing short of an abnegation of

the agency's statutory responsibilities. And I remind you once more that human lives *and* our economy are at stake.

I. EPA Should Not Be Permitted to Shirk Its Statutory Duties

The Clean Air Act (CAA) is a technical and complex statute, but two of its basic policy aims are straightforward. First, it is meant to clean up dirty air. Second, it is meant to help keep clean air clean. By keeping in mind these first principles, it is easy to see what is wrong with EPA's current approach.

A. New Source Review is a Critical Component of the Clean Air Act

The CAA directs EPA to set national ambient air quality standards (NAAQS) for criteria pollutants—those that the agency finds are reasonably anticipated to endanger public health and welfare¹—which include lead, ozone, particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide. Once the standards are set, states develop state implementation plans (SIPs), which specify how the NAAQS will be attained.² The CAA requires EPA to periodically revise its NAAQS, which helps accommodate new scientific knowledge and ensure ongoing progress in making dirty air cleaner.

A cornerstone component of the CAA permitting program is new source review (NSR). Key features of NSR help promote the twin aims of improving dirty air and maintaining relatively clean air. First, new sources of air pollution must get preconstruction permits and install either “best achievable control technology” (BACT)³ in areas with relatively clean air; or “lowest achievable emission rate” (LAER)⁴ in areas that have not attained the ambient air quality standards. Second, existing sources of air pollution were originally grandfathered into the CAA's

¹ 42 U.S.C. §§ 7408-09.

² *Id.* § 7410.

³ *Id.* § 7479(3).

⁴ *Id.* § 7501(3).

design, but Congress ensured progress over time by requiring that they, too, obtain permits when they make modifications to their facilities.⁵ As the relevant criteria imply, NSR permitting overlays technology-based standards with the quality of the air where a given source of pollution is located, enabling improvement over time and protecting against deterioration of air quality that might otherwise result from construction of new or modification of existing major sources.

From the very beginning, industry has attempted to shirk its duties to comply with NSR, and at times, EPA has been complicit. The courts have largely resolved conflicts according to the CAA's aims—upholding EPA enforcement activities against shirkers, and reining in EPA when the agency itself shirks its statutory duties.⁶

B. EPA's Irresponsible December 7 Guidance Document Is Both Bad Policy and Faulty as a Matter of Administrative Law

On the very same day that EPA Administrator Scott Pruitt testified before *this* Subcommittee that EPA should not use guidance instead of rules,⁷ he issued a guidance document of breathtaking scope (“the December 7 Guidance”).⁸ Not only does it give carte

⁵ *Id.* § 7479(2)(C); *see id.* § 7411(4) (“The term ‘modification’ means any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted.”).

⁶ *E.g.*, *Env'tl. Def. v. Duke Energy Corp.*, 549 U.S. 561 (2006) (holding EPA could apply annual emission test for NSR); *New York v. EPA*, 443 F.3d 880 (D.C. Cir. 2006) (holding EPA's industry-friendly routine maintenance exclusion, based on replacement value of equipment, violated CAA); *Wisconsin Elec. Power Co. v. EPA*, 893 F.2d 901 (7th Cir. 1990) (upholding EPA's determination that fossil-fueled power plant's replacement of major generating equipment constituted a “modification”). For further history, see Thomas O. McGarity, *When Strong Enforcement Works Better Than Weak Regulation: The EPA/DOJ New Source Review Enforcement Initiative*, 72 MD. L. REV. 1204 (2013).

⁷ *The Mission of the U.S. Environmental Protection Agency Before the H. Comm. on Energy & Commerce, Subcomm. on Env't.*, 115th Cong., Tr. II. 1264-66 (Dec. 7, 2017) (Testimony of Scott Pruitt, Administrator, EPA).

⁸ Memorandum from E. Scott Pruitt, Administrator, EPA, to Regional Administrators, Re: New Source Review Preconstruction Permitting Requirements; Enforceability and Use of the Actual-

blanche to polluters who want to ignore the NSR's preconstruction requirements, but also it was issued silently, without any opportunity for democratic process.

The December 7 Guidance tells major sources of air pollution that they need not fear enforcement if they fail to appropriately calculate projected emissions for NSR purposes. Further, EPA says it will accept polluters' "intent" to minimize pollution in the future as a reason not to require an NSR permit. And in perhaps the most telling sentence of the Guidance, EPA makes a promise to industry that is anathema to its statutory duties: "EPA does not intend to substitute its judgment for that of the owner or operator by 'second guessing' the owner or operator's emission projections."⁹

With this Guidance, EPA has decided to wholly abdicate its duties as a guardian of clean air under the NSR program. The Guidance should also be viewed in a broader context: it is yet another attempt by the Trump Administration to circumvent the Administrative Procedure Act's (APA) basic democratic procedures that work to ensure participation, deliberation, and transparency—fundamental values of good governance and legitimacy.¹⁰ The President, Administrator Pruitt, and Members of Congress have all spoken against the perils of overreach when agencies make major policies through nondemocratic procedures, yet the December 7 Guidance would do just that. When an agency adopts a policy so blatantly contrary to its mandate, and does so without any public input, that action has no legitimacy. In the words of the Supreme Court in *Heckler v. Chaney*, this agency "has consciously and expressly adopted a

to-Projected Actual Applicability Test in Determining Major Modification Applicability, Dec. 7, 2017.

⁹ *Id.* at 8.

¹⁰ *See, e.g.*, *Clean Air Council v. Pruitt*, 862 F.3d 1 (D.C. Cir. 2017) (holding arbitrary and capricious EPA's attempt to stay effective date of final rule without undertaking notice and comment rulemaking); John McQuaid, *Make America Wait Again: Trump Tries to Delay Regulations Out of Existence*, *SCI. AM.*, July 24, 2017 (discussing widespread attempts to delay final rules).

general policy that is so extreme as to amount to an abdication of its statutory responsibilities.”¹¹
This institution should hold EPA to task—not give it cover to make our air dirtier.

II. Clean Air Protections Save Lives and Promote Economic Growth

These observations are particularly urgent when viewed against what is at stake when we talk about clean air: the lives of people across our country, and the benefits of economic growth. You will hear a lot from industry about the costs of clean air protections and the supposed impediments clean air poses to economic growth, but they won’t tell you about the attendant benefits because the numbers are compelling and clearly rebut these protestations.

Between 1970 and 2011, aggregate emissions of air pollutants dropped 68% while the U.S. Gross Domestic Product (GDP) increased 212%. During that same period, private sector jobs increased by 88%.¹² Our population has increased, we have used more energy, and we have built more infrastructure—all while improving our environment.

Consider as well that rules issued by EPA undergo a rigorous cost-benefit analysis. EPA is required to follow Office of Management and Budget (OMB) accounting principles and assess both the costs and the benefits of regulations. Many researchers have concluded that these constrained analyses “vastly understate” the benefits of environmental regulations.¹³ Thus, OMB-driven cost-benefit analyses should be understood as very conservative because they

¹¹ As explained in the Court’s opinion, such abdication may overcome the ordinary presumption of nonreviewability of enforcement decisions. 470 U.S. 821, 833 n.4 (1985) (internal quotations omitted).

¹² ENVTL. PROTECTION AGENCY, THE CLEAN AIR ACT AND THE ECONOMY, at https://www.epa.gov/clean-air-act-overview/clean-air-act-and-economy#_ednref6 (last visited Feb. 15, 2016).

¹³ E.g., Elsie M. Sunderland et al., *Benefits of Regulating Hazardous Air Pollutants from Coal and Oil-Fired Utilities in the United States*, 50 ENVTL. SCI. & TECH. 2117, 2117 (Feb. 5, 2016); see generally FRANK ACKERMAN & LISA HEINZERLING, PRICELESS: ON KNOWING THE PRICE OF EVERYTHING AND THE VALUE OF NOTHING (2004).

systematically undervalue things like human life and a clean environment.¹⁴ Even with this caveat, the results are compelling. For example, OMB reported to Congress that from 2004 through 2014, the economic benefits of all of EPA's major rules exceeded the costs by a ratio of nearly 21 to 1.¹⁵

Just what are some of those conservatively estimated benefits? Air pollutants have considerable adverse health and environmental effects: ozone, for instance, is linked to respiratory illnesses, heart attacks, premature death, and negative effects on forests and crop yields.¹⁶ When people are sick, caring for ill loved ones, or dying too early, they cannot work, which is detrimental to the economy. By contrast, clean air protections offer savings:

- OMB reports that the monetized benefits of CAA regulations accounted for 80% of the benefits of all regulations analyzed for its 2015 report to Congress.¹⁷
- A 2011 peer-reviewed EPA study showed that the benefits of the 1990 CAA Amendments and implementing regulations exceed costs by a factor of more than 30 to 1.¹⁸
- The 2011 study also revealed that EPA's CAA rules saved over 164,000 lives in 2010, and are projected to save 237,000 lives in 2020.¹⁹

¹⁴ The Congressional Research Service and others have demonstrated that a September 2010 report widely cited by opponents of environmental regulations like the Small Business Administration relied on flawed methodology. Curtis W. Copeland, ANALYSIS OF AN ESTIMATE OF THE TOTAL COSTS OF FEDERAL REGULATIONS, CONG. RESEARCH SERV. NO. 7-5700 (Apr. 6, 2011). In fact, the report's authors failed to even consider regulatory benefits. *Id.* at 25; *see also* Joseph P. Tomain, *The Twin Demons of the Trump-Bannon Assault on Democracy*, CTR. FOR PROGRESSIVE REFORM 16-21 (June 2017) (providing background).

¹⁵ OFFC. OF MGMT. & BUDGET, EXECUTIVE OFFICE OF THE PRESIDENT, 2015 REPORT TO CONGRESS ON THE BENEFITS AND COSTS OF FEDERAL REGULATIONS AND AGENCY COMPLIANCE WITH THE UNFUNDED MANDATES REFORM ACT 9 (2015).

¹⁶ *See generally* Final Rule, National Ambient Air Quality Standards for Ozone, 80 Fed. Reg. 65,292 (Oct. 26, 2015).

¹⁷ OMB, *supra* note 15, at 12.

¹⁸ ENVTL. PROTECTION AGENCY, THE BENEFITS AND COSTS OF THE CLEAN AIR ACT FROM 1990 TO 2020, 7-1 (Mar. 2011).

¹⁹ *Id.* at 7-9.

- These same rules saved 13 million days of lost work and 3.2 million days of missed school in 2010. By 2020, these numbers will increase to 17 million and 5.4 million days, respectively.²⁰
- Since EPA began regulating lead as a criteria pollutant under the CAA, the median concentration of lead in the blood of children between 1 and 5 years old has decreased 93% as of 2011-12. Moreover, several studies have documented an association between reducing exposure to lead and a reduction in criminal behavior.²¹
- A study published in the proceedings of the National Academies of Sciences found the cumulative benefits to the economy of CAA air toxics regulations by 2050 to be over \$104 billion.²²

These numbers speak for themselves and demonstrate that opponents of clean air protections have set up a false choice: clean air and economic growth *do* go hand-in-hand.

III. Conclusion

EPA's effort to encourage regulated sources to escape NSR—without regard to the adverse health and environmental impacts of their emissions—would vitiate the kinds of benefits that clean air protections have provided in the past. I urge you to bring the Administrator back before this Subcommittee. Hold him to his commitment not to use guidance documents improperly, and most importantly, to his duty to ensure that our clean air protections remain strong.

²⁰ *Id.* at 5-25 (Tbl. 5-6).

²¹ *Id.* at A216.

²² Amanda Giang & Noelle E. Selin, *Benefits of mercury controls for the United States*, 113 PNAS 286 (Jan. 12, 2016).

Mr. SHIMKUS. The chair thanks the gentlelady.

And now the chair recognizes, and I mispronounce the last name—Mr. Walke. You're recognized for 5 minutes. I apologize for that.

STATEMENT OF JOHN D. WALKE

Mr. WALKE. You got my first name right so that's good. Thank you.

Thank you, Chairman Shimkus, Ranking Member Tonko, and distinguished members. My name is John Walke and I am clean air director and a senior attorney for the Natural Resources Defense Council.

Any so-called reform to the Clean Air Act's New Source Review program first should answer one simple question—will it let industry pollute more.

In my experience, unfortunately, the answer to that question is usually yes. That is the case for changes to New Source Review safeguards that industries comment—that industry commenters are seeking from the Trump administration.

That is also the case for changes sought in testimony by other witnesses at today's hearing apart from Professor Hammond's. Many of the requested changes would let industry pollute more by significantly higher amounts and in the process evade pollution controls and pollution offsets.

Insufficient political attention and concern are being given to the problems with a tax on clean air safeguards. In a 2017 Gallup poll, 67 percent of Americans favor setting higher emission standards for industry. In that same poll, 69 percent of Americans favor stronger enforcement of federal environmental regulations.

New Source Review is a Clean Air Act preconstruction permitting program that imposes cleanup requirements only when industries—industrial facilities significantly increase air pollution.

I urge you to remember that pollution increase trigger during today's hearing. Attempts to evade NSR applicability translate into the ability to increase air pollution significantly without control.

Taking evasion that would allow huge air pollution increase is reflected in two bills referred to this committee—H.R. 3127 and H.R. 3128.

Several witnesses endorse the bill and the approach contained therein, which would allow huge air pollution increases so long as a source did not increase its capacity to pollute only by exceeding an extraordinarily high maximum hourly emissions rate plucked from its past history.

One of the problems here is comparable to saying police should never fine drivers to be speeding if they don't exceed the maximum speed they have ever driven.

The second problem is even worse. By weakening the law so extremely, to ask only whether a polluting facility exceeded its maximum capacity to pollute, this concept would allow massive enormous increases in actual emissions of harmful air pollution in the real world.

Americans care about increases in actual pollution that worsens air quality and harms their health, not whether a plant exceeds its polluting capacity.

For the parents of a child being rushed to the ER due to an asthma attack caused by massive pollution increases from a nearby plant, it is not solace to tell them that the higher pollution levels that choked their daughter's breathing did not result from the plant exceeding its maximum hourly emission rate.

How bad could these pollution increases be? Well, under the Bush administration when Mr. Holmstead worked there, EPA's enforcement office calculated the weakening effect of a maximum hourly emissions rate approach.

In just one power plant example, the plant increased its toxic sulfur dioxide pollution by 13,000 tons per year without exceeding this maximum rate. That is 327 times higher than the level that the law considers significant and subject to control today.

My testimony identifies an astonishing number of coal-burning power plants that still lack air pollution—modern air pollution controls today or that are uncontrolled and these two bills and the approaches sought by some of the members of this panel would make that even worse by allowing emissions increases of thousands and even increases in excess of 10,000 tons.

No acceptable NSR reform should give an affirmative answer to the question posed at the top of this testimony—will it let industry pollute more.

This committee should reject any appeals for reform that would let industries pollute more by significantly higher amounts and in the process evade air pollution controls and pollution offsets in areas already experiencing unsafe air quality.

Americans deserve better.

Thank you.

[The statement of Mr. Walke follows:]

TESTIMONY OF JOHN D. WALKE
CLEAN AIR DIRECTOR
NATURAL RESOURCES DEFENSE COUNCIL
COMMITTEE HEARING ON "NEW SOURCE REVIEW PERMITTING CHALLENGES FOR
MANUFACTURING AND INFRASTRUCTURE"
BEFORE THE SUBCOMMITTEE ON ENVIRONMENT,
COMMITTEE ON ENVIRONMENT AND COMMERCE
U.S. HOUSE OF REPRESENTATIVES
February 14, 2018

Thank you, Chairman Shimkus and Ranking Member Tonko for the opportunity to testify today. My name is John Walke, and I am clean air director and a senior attorney for the Natural Resources Defense Council (NRDC). NRDC is a nonprofit organization of scientists, lawyers, and environmental specialists dedicated to protecting public health and the environment. Founded in 1970, NRDC has more than 1.3 million members and online activists nationwide, served from offices in New York, Washington, Los Angeles, San Francisco, Chicago, and Beijing.

I have worked at NRDC since 2000. Before that I was a Clean Air Act attorney in the Office of General Counsel for the U.S. Environmental Protection Agency (EPA). Prior to that I was an attorney in private practice where I represented corporations, industry trade associations and individuals. Having worked on air pollution issues for the entirety of my career, I have done a great deal of work relating to the New Source Review (NSR) provisions of the Clean Air Act (CAA). I believe the NSR provisions of the Act strike a responsible balance, requiring new and

modified stationary sources of air pollution to protect our nation's air quality through appropriate pollution controls and other measures. I would like to thank the subcommittee for the opportunity to testify, and I look forward to your questions.

Any proposed NSR "reform" first should answer one simple question: will it let industry pollute more? Unfortunately, the answer to that question in my experience, is usually yes. Most of the changes to the NSR safeguards that industry commenters are seeking from the Trump administration, for example, would let industry pollute more, by significantly higher amounts, and in the process, evade air pollution controls and pollution offsets.

If the answer to that question is no, other questions deserve asking: will the proposed reform make the safeguards less transparent or accountable to Americans? Will it make the protections less enforceable by regulators and citizens? Will the reform make the program more flexible or cost-effective for industry, while still fully preserving the health and environmental safeguards? Will it facilitate economic growth without harming air quality or Americans' health?

Insufficient political attention and concern are being given to the problems with *attacks* on clean air safeguards, like New Source Review. Those problems include increased air pollution; violations of national clean air health standards; greater health risks for Americans, including more asthma attacks, heart attacks, strokes and even premature deaths; more hospitalizations and missed school days for our children; hazier skies over America's national parks; reduced regulatory and public transparency and accountability for pollution increases; and amnesty from lawbreaking.

New Source Review (NSR) is a Clean Air Act pre-construction permitting program—with requirements for modern pollution controls, offsets of any remaining emissions increases, air-quality impact analyses, and public participation—that imposes those requirements only

when industrial facilities significantly *increase* emissions of regulated air pollutants like fine particulate matter (PM_{2.5}) pollution, sulfur dioxide, or precursors to smog, such as nitrogen oxides or volatile organic compounds.

Accordingly, so-called NSR “reforms” that industry lobbyists and political critics are seeking generally fall into one or more of the following categories:

(1) evasion of requirements, to allow significant emissions *increases* to occur without requiring modern pollution controls, offsets, air quality analysis or public participation;

(2) weaker requirements, to nominally meet NSR requirements but in a weaker fashion than today’s law allows—for example, worse pollution controls; pollution increases that violate national health standards; offset of more dangerous air pollution with less dangerous pollutants; increased air pollution near communities, nominally offset by pollution decreases very far from a community; and

(3) amnesty from applicable requirements, through failure to enforce those requirements or attempts to re-characterize those requirements, in a way that allows significant emissions *increases* to evade control and other safeguards.

The Trump administration has issued a deregulatory report targeting these New Source Review safeguards that flatly mischaracterizes their statutory purpose and requirements: “New Source Review (NSR) is a preconstruction permitting program intended to ensure that new and modified stationary sources of air pollution *do not significantly degrade air quality*.”¹ That characterization is erroneous and/or incomplete. The broader purposes of the NSR program (in areas meeting and not meeting national clean air health standards) include: application of best available control technology, or lowest achievable emission rate control technology; air quality

¹ U.S. EPA, *Final Report on Review of Agency Actions That Potentially Burden the Safe, Efficient Development of Domestic Energy Resources Under Executive Order 13783* (Oct. 25, 2017), at 2 (“13783 Report”).

impact analyses to ensure national health standards will not be violated in areas with safe air already; protection of air quality in national parks and wilderness areas; adoption of air quality monitoring; and offset of remaining emissions following application of LAER controls in areas with unsafe air quality, in increasing offset ratios, generally in the same nonattainment area, with some exceptions. See 42 U.S.C. § 7475 & § 7503.

EPA's 13783 Report goes on to assert that "[i]n some circumstances, the NSR process discourages the construction of new facilities or modifications of existing ones that could result in greater environmental improvements."² It is important to recognize that no evidence or data back that claim; it is sheer assertion. The 13783 Report backs neither the 'discouragement' claim nor the 'greater environmental improvements' claim with any proof or verifiable facts.

It is equally important to acknowledge that the 13783 Report credited only commenters that sought to weaken these public health and clean air safeguards. Numerous commenters opposed rolling back the safeguards, but the 13783 Report does not even deign to mention those objections and perspectives by ordinary Americans. *Id.*

Recognize too that the 13783 Report lists only industry recommendations for reforms that would result in: *increases* of harmful emissions in local communities; failures to adopt modern pollution controls that the law requires; evasion of air quality impact analyses and review by regulators and the public; and emissions trading of less dangerous air pollutants for more dangerous pollutants.³ EPA never has adopted these weakening recommendations previously, because they are unlawful and harmful to air quality and Americans' health.

I. Evasion of NSR Requirements to Allow Increases in Harmful Air Pollution That Escape Control, Offsets, Air Quality Impact Analyses & Regulatory/Public Review

² *Id.*, at 3.

³ *Id.*, at 3.

A. H.R. 3127 & 3128 Would Weaken Current Law and Allow Massive Increases in Harmful Air Pollution to Escape Control, Offsets, Air Quality Impact Analyses & Regulatory/Public Review

Two bills have been referred to the Committee on Energy and Commerce that would eviscerate the Clean Air Act’s preconstruction permitting programs for stationary sources of air pollution—H. R. 3127 and H.R. 1328. I will analyze these bills and explain their extremely harmful consequences. The Committee should not allow these irresponsible bills to become law.

1. H.R. 3127 & H.R. 3128 radically deregulate all significant increases in actual air pollution from air pollution controls unless a polluting facility exceeds an extraordinarily high level called its “maximum achievable hourly emissions rate.”

H.R. 3127 and H.R. 3128 badly fail the test of my simple question: both bills let industry pollute more, by significantly higher amounts, and in the process, evade air pollution controls. H.R. 3127 and H.R. 3128 would overturn four decades of Clean Air Act safeguards concerned with *increases in actual* emissions of harmful air pollution. The bills would replace those greater protections with a test for air pollution controls, offsets and air quality impact analysis that would apply only if a polluter ever managed to exceed, implausibly, its vastly higher *capacity* to emit air pollution, measured from some point in the plant’s past. By doing so, both bills would allow increases in actual emissions totaling hundreds or even thousands of *tons* from individual facilities to evade pollution controls, offsets, air quality analyses and regulatory/public oversight. H.R. 3127 would do so using a test for capacity increases measured by a facility’s “maximum hourly emissions rate,” while H.R. 3128 would do so using a substantially similar capacity test measuring increases in a facility’s “maximum achievable hourly emissions rate.”

The Clean Air Act—and Americans—are rightly concerned with increases in *actual* emissions of harmful air pollutants. Significant increases in actual emissions must be controlled either with Best Available Control Technology (BACT) in areas meeting national health

standards, or Lowest Achievable Emissions Rate (LAER) control technology—as well as the offset of remaining emissions increases—in areas failing to meet those health standards. H.R. 3127 and H.R. 3128 overturn the Clean Air Act’s 40-year concern with actual emissions increases, and also overturn the leading NSR federal court opinion upholding the law’s critical emissions increase requirement.⁴ The bills would allow massive increases in actual emissions of harmful air pollution, so long as a polluting facility does not exceed its maximum *capacity* to pollute, measured by its “maximum hourly emissions rate,” or “maximum achievable hourly emissions rate.”

Americans care about increases in actual air pollution that worsens air quality and harms their health, not failures to increase theoretical ‘capacity’—a facility’s maximum hourly emissions rate from the past. Both bills would sanction enormous increases in dangerous air pollutants, ensuring such increases escape control and review in the real world. For the parents of a child being rushed to the emergency room due to an asthma attack caused by massive soot pollution increases from a nearby power plant, it is no solace to tell them that the higher pollution levels that choked their daughter’s breathing did not result from the plant exceeding its “maximum hourly emissions rate.” Asthma attacks, heart attacks and strokes are brought on by higher levels of actual, harmful air pollution in the real world, regardless of whether those higher amounts are caused by increases above the artificial concept of a plant’s maximum hourly emissions rate from some point in the plant’s past.

2. What are some requirements of today’s stronger Clean Air Act that H.R. 3127 & H.R. 3128 would weaken?

⁴ *New York v. EPA*, 413 F.3d 3, 39 (D.C. Cir. 2005).

The Clean Air Act requires an existing source to undergo NSR whenever it makes a “modification,” which is defined in the statute as, *inter alia*, any physical or operational change that “increases the amount of any pollutant emitted.” CAA § 111(a)(4). In the controlling D.C. Circuit Court of Appeals decision, the Court held, “the CAA unambiguously defines ‘increases’ in terms of *actual* emissions.” 413 F.3d 3, 39 (D.C. Cir. 2005) (emphasis added). Specifically, after reviewing the various ways that the 1977 Congress chose to modify the terms “emit” and “emitted, the Court concluded that Congress was “conscious of the distinction between actual and potential emissions,” and “use[d] the term ‘emitted’ to refer to actual emissions.” *Id.*

The Court further explained that “[i]f Congress had intended for ‘increases’ in emissions to be measured in terms of potential or allowable emissions, it would have added a reference to ‘potential to emit’ or ‘emission limitations.’ The absence of such a reference must be given effect.” *Id.* at 40. The Court added, “even if the word ‘emitted’ does not by itself refer to actual emissions, the phrase ‘the amount of any air pollutant emitted’ plainly refers to actual emissions.” *Id.* (emphasis in original). *See also Alabama Power v. Costle*, 636 F.2d 323, 353 (D.C. Cir. 1979) (holding that the term “emit” is a “reference to some measure of actual emissions.”).

Both EPA and industry have rightly described measures of a facility’s potential or allowable emissions—what a facility is able to emit, its capacity to emit—in terms of the facility’s maximum hourly emissions rate, just as H.R. 3127 and H.R. 3128 do:

[A]s a practical matter, for most, if not all [electric generating units, or EGUs], the hourly rate at which the unit is actually *able* to emit is substantively equivalent to that unit’s historical *maximum* hourly emissions. That is, most, if not all EGUs will operate at their *maximum* actual physical and operational *capacity* at some point in a 5-year period. In general, highest emissions occur during the period of highest utilization. As a result, both the *maximum achievable and maximum achieved hourly emissions* increase tests allow an EGU to utilize *all of its existing capacity*, and in this aspect the hourly rate at which the unit is actually *able* to emit is substantively equivalent under both tests.

72 Fed. Reg. 26,202, 26,219/3 (May 8, 2007) (emphases added).⁵ Industry attorneys, too, understand that capacity-based maximum achievable and maximum achieved hourly tests (like in H.R. 3127 and H.R. 3128) are “potential”-based emissions increase tests.⁶ The Clean Air Act and D.C. Circuit decision in *New York v. EPA* make very clear that NSR unambiguously defines ‘increases’ in terms of actual emissions,” not a facility’s potential or capacity to emit. 413 F.3d, at 39.

3. Allowing sources to increase actual emissions so long as the source does not increase its maximum hourly emissions rate would allow massive pollution increases to evade control, offset and analysis.

Why do these difference matter? Because adopting H.R. 3127 & H.R. 3128 would severely weaken the Clean Air Act and allow enormous increase in actual, harmful air pollution to evade pollution controls, offsets, air quality impact analyses and regulatory/public oversight. EPA has recognized again and again that basing NSR only on emissions increases that exceed a facility’s higher maximum hourly emissions rate would allow changes that cause actual, significant emissions increases to evade review, pollution controls and offsets: this “could sanction greater actual emissions increases to the environment, often from older facilities, without any preconstruction review.”⁷ EPA has explained how these actual emissions increases

⁵ EPA long has recognized that maximum achievable emissions tests under NSR are a function of increases in a source’s far higher potential emissions, rather than its lower actual emissions: “The ‘achievable’ test is a measure of the ‘potential’ emissions of a source ... in the classic and historic sense of the use of that term.” Memorandum from Adam M. Kushner, Director of EPA’s Air Enforcement Division, Office of Enforcement and Compliance Assurance, to William Harnett, dated August 25, 2005, at 9 (“EPA Enforcement Memo”).

⁶ See, Joint Brief of Industry Petitioners, *New York v. EPA*, at 6 (characterizing an increase in a facility’s maximum hourly emissions rate as an increase in its existing capacity to emit); at 9 (for a project to “create ‘new’ capacity to emit,” it “must first increase an existing facility’s maximum achievable emissions rate”); at 10-11 (equating “potential to emit” with a facility’s “existing design capacity,” just like H.R. 3128); at 23 (equating a unit’s “maximum emissions rate” with its “capacity to emit”); see also, Joint Brief of Industry Intervenors, *New York v. EPA*, at 11 (“‘potential-to-potential’ test” compares “maximum emissions before a change to maximum emissions after a change.”) & 12 (linking increases in potential emissions rate to operation at full design capacity) & 13 (“increase in a major source’s “potential” emissions, *i.e.*, in the source’s maximum pre-change emissions level.”)

⁷ 67 Fed. Reg. 80,186, 80,205 (December 31, 2002). See also, *id.* (“actual emissions increases resulting from unreviewed projects could go largely undocumented until a [NSR] review is performed by a new or modified facility

would result, taking the example of a widget factory: a physical change at a facility could “allow the owner to use [a] machine at much higher levels (*e.g.*, more hours per day or week) than it had in the past. As a result, *actual emissions (measured in [tons per year]) could more than double* due to the increase in utilization even though hourly potential emissions remain the same.”⁸

It is important to realize that the highest hourly emissions rate that a source could have achieved, or has achieved, does not reflect the source’s *actual* hourly emissions, on a day-to-day basis. Indeed, in a case study undertaken by EPA’s enforcement office, “the achievable hourly emission rate was calculated to be *more than ten times higher than the average hourly emission rate in the five-year period prior to the change.*” EPA Enforcement Memo, *supra* note 5, at 3 (emphasis added). This provides some idea of the reckless magnitude of actual emissions increases that could occur by adopting the “maximum (achievable) hourly emissions rate” approaches in H.R. 3127 or H.R. 3128.

EPA’s enforcement office previously has examined the weakening effect of a “maximum achievable hourly emissions rate text” on NSR, and the enormous emissions increases that could result. Examining actual emissions data for coal-burning electric generating units (EGUs) from the EPA Clean Air Markets Division, the agency’s enforcement office concluded that a maximum hourly achievable emissions rate test would fail to control actual annual emissions *increases* of 50 tons per year (“tpy”) of SO₂ and 978 tpy of NO_x in one case study (EPA Enforcement Memo attachment, at 10); *increases* of 13,096 tpy of SO₂ in another case study (*id.* at 2); *increases* of 939 tpy of SO₂ and 1,405 tpy of NO_x in another (*id.* at 20); and *increases* of 1,700 tpy of SO₂ and 507 tpy of NO_x in a fourth case study (*id.* at 27). In one example, the annual

that ultimately must undergo review. By that time, however, a violation of an increment could have unknowingly occurred.”), *id.* (“We agree that a potential-to-potential test for major NSR applicability could lead to unreviewed increases in emissions that would be detrimental to air quality.”).

⁸ 61 Fed. Reg. 38,250, 38,269 (July 23, 1996) (emphasis added).

SO₂ emissions increase that evaded control was *over 327 times* the level that EPA considers *de minimis* and therefore exempt.⁹ These exempted emissions increase levels are significantly higher than even the major stationary source threshold for brand new power plants (100 tpy) that EPA continues to recognize should be subject to BACT and LAER. And in many cases, these uncontrolled emissions *increases* are well above the *total* SO₂ and NO_x emissions from individual power plant units that a rule like EPA's Clean Air Interstate Rule would have covered.

4. Allowing sources to increase *actual* emissions so long as the source does not increase its maximum hourly emissions rate would allow large numbers of uncontrolled or poorly controlled industrial facilities to experience massive pollution increases that evade control, offset and analysis.

One of the dirty little secret of air pollution control in the United States in 2018, nearly 50 years after the Clean Air Act was adopted, is that significant numbers of large industrial polluters remain either uncontrolled or lack state-of-the-art pollution controls for regulated air pollutants, such as sulfur dioxides or nitrogen oxides that form smog pollution. Using the most recent annual data available from EPA (2016), and focusing on coal-burning electric generating units (EGUs) in EPA's National Electric Energy Data System, NRDC identified the following numbers of EGUs that still lack state-of-the-art air pollution controls, in the form of selective catalytic reduction (SCR) or selective non-catalytic reduction (SNCR) for nitrogen oxides (NO_x); or that lack wet or dry scrubbers for sulfur dioxide (SO₂) emissions. Some of these units are uncontrolled for the relevant pollutant; others are equipped with sub-par measures like so-called "low NO_x burners."

These results show that an astonishing 390 coal-burning electric generating units lack state-of-the-art air pollution controls for nitrogen oxides, and 306 lack such controls for sulfur dioxide. The 306 uncontrolled or poorly controlled EGUs emitted an even more astonishing

⁹ *Id.*

580,070 tons per year of sulfur dioxides in 2016. The 390 uncontrolled or poorly controlled EGUs emitted 451,638 tons of nitrogen oxides in 2016. The table on the following two pages breaks those units down by state. You will notice the large geographic imbalance, with significantly higher numbers of uncontrolled or poorly controlled coal units in the Midwest and some Southeastern states. These are among the most heavily polluting coal units whose transported smog and soot pollution plague air quality in downwind states in the mid-Atlantic and Northeastern states, up into New England.

Coal-Burning Electric Generating Units That Lack State-of-the-Art Air Pollution Controls (at end of 2016)		
U.S. States	Lack SCR or SNCR for Nitrogen Oxides¹⁰	Lack Wet or Dry Scrubbers for Sulfur Dioxide
Total U.S.	390	306
Alabama	9	9
Arkansas	5	4
Arizona	10	1
California	3	4
Colorado	15	7
Connecticut	1	1
Florida	1	2
Georgia	5	2
Illinois	21	22
Indiana	23	16
Iowa	19	16
Kansas	7	4
Kentucky	22	11
Louisiana	4	6
Maine	2	2
Maryland		2
Michigan	19	23
Minnesota	13	14
Mississippi	6	7
Missouri	23	30
Montana	8	3
Nebraska	12	12

¹⁰ Selective Catalytic Reduction or Selective Non-Catalytic Reduction air pollution control devices.

Nevada	2	1
New Mexico	3	
New Hampshire		2
New York	5	4
North Carolina	12	8
North Dakota	11	3
Ohio	16	8
Oklahoma	12	11
Oregon	1	1
Pennsylvania	14	23
South Carolina	7	6
Tennessee	4	
Texas	20	17
Utah	10	2
Virginia	12	3
Washington	1	0
West Virginia	2	4
Wisconsin	13	13
Wyoming	14	2

Some of these dirty dinosaur EGUs were placed online as long ago as 1947. The average age of these dirty coal units is 48 years-old. Analysis performed by Synapse Energy Economics for NRDC reveals that “capacity factor is related to generator age, with older units operating at lower capacity factors, by roughly one percentage point for each year of age, which the memo deems a “conservatively low presumption.”¹¹ These conclusions demonstrate the motivation, desire and need for EGU owner/operators to undertake physical changes, for example, in order to replace equipment, undertake upgrades or otherwise restore decreased capacity. As EPA recognizes, this in turn provides owners with an incentive and opportunity to increase the hours

¹¹ Memo from Bruce Biewald and David White, Synapse Energy Economics, Inc., to David Hawkins, NRDC (Aug. 12, 1998), in docket for EPA’s Proposed “Supplemental Notice of Proposed Rulemaking for Prevention of Significant Deterioration and Nonattainment New Source Review: Emissions Increases for Electric Generating Units,” 72 Fed. Reg. 26,202 (May 7, 2007).

of operation and availability of the EGUs, thereby increasing total air pollution amounts into Americans communities.¹²

With the aging utility fleet of uncontrolled and poorly controlled EGUs extending into lifetimes of 50-70 years, and EGU capacity factors declining one percentage point each year, the owners/operators of these EGUs are certain to need to undertake physical changes at these units in order to keep these units running, and to restore decreased capacity. As the table shows, many of these units still lack advanced pollution controls and continue to emit at very high emissions rates. It would be irresponsible to weaken the Clean Air Act by eliminating legal constraints on huge annual emissions increases that would result from physical changes at power plants increasing hours of operation.

By ignoring the direct relationship between increases in hours of operation and total emissions increases, H.R. 3127 and H.R. 3128 would work in tandem with well-understood and inevitable industry phenomena,¹³ to create guaranteed, significant emissions increases from EGUs that increase hours of operation sufficiently to cause those emission increases. Indeed, H.R. 3127 and H.R. 3128 would have the effect of placing dirty grandfathered coal units on steroids, facilitating their ability to extend their lives and remain as dirty or become even dirtier than they were: older, uncontrolled and poorly controlled coal-burning power plant units could

¹² U.S. EPA, Technical Support Document, at 3-1; 5-3 (“We believe it is unlikely that an EGU would increase its efficiency without also increasing its operating and physical capacity,” including availability.), in docket for EPA’s Proposed “Supplemental Notice of Proposed Rulemaking for Prevention of Significant Deterioration and Nonattainment New Source Review: Emissions Increases for Electric Generating Units,” 72 Fed. Reg. 26,202 (May 7, 2007).

¹³ These phenomena include forced outages of increased number and length over time; capacity factors declining with age; economic incentives to increase availability of capitalized baseload units with low fuel costs; economic incentives to avoid the expense of advanced pollution control devices; and economic incentives to avoid installation of pollution controls where not legally obligated to do so. The U.S. is very familiar with these phenomena, industry motivations and industry legal evasions as a result of decades long NSR enforcement initiatives against coal-burning power plants. Especially against this backdrop, it would be reckless to adopt bills whose very design allows EGUs to operate more hours per year as a result of physical changes and significantly increase annual emissions of smog, soot, mercury and hazardous air pollutants.

increase actual nitrogen oxide and sulfur dioxide emissions by very significant amounts—hundreds and thousands of tons, annually. These units could extend their heavily polluting lives and remain grandfathered in perpetuity—all the while avoiding BACT/LAER controls required by an annual emissions test, evading pollution offsets in areas not meeting national health standards, analyses of actual health standard violations in areas meeting standards, and regulatory/public oversight.

It is critically important to emphasize that H.R. 3127 and H.R. 3128 do not eviscerate the clean air safeguards and obligations described above *just* for power plants. These extreme bills apply to any “stationary source,” meaning the entire universe of industrial pollution facilities regulated under the Clean Air Act: hazardous waste incinerators, oil refineries, chemical plants, lead smelters, and many hundreds of other industrial sectors and types of polluting equipment. All would be allowed to increase emissions of harmful air pollutants like nitrogen oxides, sulfur dioxide, particulate matter and lead, while evading air pollution controls, offset of remaining emissions in areas with currently unhealthy air, analysis of violations of health standards and regulatory/public oversight.

5. H.R. 3127 would additionally weaken current law and allow massive increases in harmful air pollution to escape control, offsets, air quality impact analyses & regulatory/public review.

H.R. 3127 has two additional elements that badly fail the test asking whether the bill lets industry pollute more. First, the bill outright exempts so-called “pollution control projects” that are “undertaken to reduce the emission of any pollutant”: (1) even if that project significantly increases one or more other regulated air pollutants; (2) even if that project reduces a less dangerous air pollutant while increasing more dangerous air pollutant(s) significantly; and (3) even if the project reduces one pollutant by a small amount that is substantially outweighed by

enormous increases in the amount of other air pollutants. The Clean Air Act has never allowed these harmful outcomes, and H.R. 3127 would weaken longstanding law, while also overturning the controlling D.C. Circuit Court of Appeals decision that rejected a similar Bush EPA “pollution control project” exclusion.¹⁴

Second, H.R. 3127 would outright exempt from NSR safeguards so-called “reliability projects” undertaken at any stationary source—not just power plants—to “improve[] the ability of the electric system” to meet various electricity descriptions. The bill is so sweeping in these descriptions that it would absurdly exempt the nation’s power plants from NSR clean air safeguards altogether, when plants undertake physical or operational changes that significantly increase emissions by thousands or even tens of thousands of tons per year. Indeed, this element of H.R. 3127 is so extreme and reckless that it includes *no* constraint on a stationary source’s ability to increase harmful air pollution, not even the irresponsible “maximum hourly emission rate” condition, or the single air pollutant “pollution control project” condition, in the other parts of H.R. 3127.

B. Suggested NSR “Debottlenecking” Reforms Would Allow Significant Emissions Increase to Occur Without Requiring Modern Pollution Controls, Offsets, Air Quality Impact Analysis or Regulatory/Public Oversight.

Another pollution-increasing NSR “reform” request by industry addresses what is referred to as “debottlenecking.” This is an obscure term that fails to capture the resulting hazards of the requested deregulation: letting significant increases in emissions of harmful air pollution evade state-of-the-art pollution control equipment, avoid the offset of remaining emissions in areas not meeting national health standards, ignore safeguards against health violations in areas meeting standards, and circumvent regulatory and public oversight. Industry

¹⁴ *New York v. EPA*, 413 F.3d 3 (D.C. Cir. 2005).

long has lobbied EPA to deregulate emissions increases that result from units upstream and downstream of the unit(s) being changed, even though those emissions increases either would not occur or would be unlikely in the absence of that change. In other words, there is a causal link between the change and the emissions increase that industry would like to ignore, in order to avoid the NSR pollution control obligations. In 2006, the Bush Administration EPA issued a proposed rulemaking that would have succumbed to these industry demands, entitled “Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR): Debottlenecking, Aggregation, and Project Netting,” 71 Fed. Reg. 54,235 (Sept. 14, 2006). The proposal was never adopted, for good reason, but it illustrates the harmful, real-world pollution impact exempting pollution increases from debottlenecking.

EPA proposed to deregulate significant emissions increases made possible when a change “debottlenecks” a facility, *i.e.*, when a change to one unit removes a constraint that was causing another unit at the same facility to operate below capacity. *See* 71 Fed. Reg. at 54238/1. According to EPA’s proposal, even if a “debottlenecking” change to one unit leads to increased operations—and increased emissions—at another unit, that emissions increase was not “caused” by the change, so long as “the debottlenecked unit’s post-project emissions were already authorized by a pre-existing air quality permit.” *Id.* at 54,240. In 2017, industry comments advocate for EPA to revisit this proposal, and also reveal a desire to dispense with the “causation” requirement of the 2006 proposal entirely, since it “suffers from ambiguity over whether emissions increases are ‘caused’ by the change.”¹⁵ Both the original 2006 “debottlenecking” proposal and today’s even more deregulatory industry proposals are reckless

¹⁵ Air Permitting Forum Comments on Department of Commerce, Impact of Federal Regulations on Domestic Manufacturing; Notice; Request for Information, 82 Fed. Reg. 12,786 (Mar. 7, 2017), Docket ID No. 170302221–7221–01.

and would allow harmful air pollution to increase significantly, all while evading the suite of air pollution safeguards in the Clean Air Act NSR program.

The Clean Air Act long has been concerned with “any physical change in, or change in the method of operation of, a stationary source *which increases the amount of any air pollutant emitted by such source* or which results in the emission of any air pollutant not previously emitted.” See CAA § 111(a)(4). The D.C. Circuit Court of Appeals has recognized that only increases in the amount of any air pollutant emitted by a stationary source that are entirely unrelated to a change may be excluded from consideration. *New York v. EPA*, 413 F.3d 3, 32-33 (D.C. Cir. 2005). This common sense understanding guards against the circumvention of pollution controls for emissions increases caused by and related to the change that itself increased emissions at the source.

EPA’s 2006 rulemaking proposal acknowledged—as it had to, really—that post-change emissions increases it sought to ignore and exclude *were* related to the debottlenecking change.¹⁶ EPA proposed to exempt those pollution increases anyway. But the Clean Air Act plainly does not authorize EPA to ignore emission increases made possible by a change simply by *deeming* those increases to be caused solely by some other contributing factor. Rather, any post-change emissions increase that is related to a change must be counted in determining whether the change triggers NSR, regardless of whether other factors also play a role in bringing about that increase.

EPA admitted that its 2006 deregulatory proposal “may result in fewer

¹⁶ As an example of its proposed approach, EPA described “a physical change to expand the capacity of [a] melting unit,” after which “the casting unit can operate at a higher throughput.” 71 Fed. Reg. at 54240/3. Though EPA acknowledged that it was the change to the melting unit that allowed the casting unit to operate at a higher throughput, EPA explained that under its approach, it would simply deem the emissions increase resulting from that higher throughput not to be causally linked to the change. *Id.* That explanation was plainly wrong and EPA’s conclusion was, therefore, indefensible.

projects undergoing NSR than would the current actual-to-projected-actual emissions test with its wider view of causation,” 71 Fed. Reg. at 54243/3, and “may result in sources not needing BACT/LAER review for the changed units.” *Id.* at 54,240/3. When a modification triggers NSR and a unit is required to satisfy BACT or LAER, emissions from that unit and the source are typically decreased by an amount far more than the amount that emissions would have increased if the modification had proceeded without NSR. Thus, for example, even though the projected emissions increase resulting from a planned change may only modestly exceed the NSR *de minimis* level of 40 tons per year of SO₂, say 50 tons per year, installation of up-to-date technology may reduce the source’s annual emissions by *hundreds* of tons. This outcome makes sense. After all, Congress’ intent in requiring NSR for modifications was not just to discourage sources from increasing emissions significantly, but to establish a sensible trigger for when an uncontrolled or poorly controlled unit (perhaps a unit that was grandfathered from NSR requirements initially) must install up-to-date pollution controls capable of reducing the source’s emissions substantially. Deregulatory “debottlenecking” proposals not only would allow significant emissions *increases* to evade control, such deregulation would forego hundreds of tons of emissions *reductions* that the law long has required.

II. Amnesty From New Source Review Requirements

The Trump EPA is reversing clean air enforcement positions against coal-burning power plants that EPA has taken and that federal courts have upheld not once, but twice. Moreover, the Trump administration promises EPA enforcement relief to all industrial polluters covered by the Clean Air Act’s NSR programs, thereby allowing regulated industries to increase harmful air pollution and evade modern pollution controls, offsets, air quality impact analyses, and regulatory and public oversight. These retreats, along with other reversals in EPA practices,

reflect the Trump administration granting effective amnesty from legal requirements that protect Americans and uphold the Clean Air Act.

All of these reckless steps are taken in a memorandum¹⁷ from EPA Administrator Scott Pruitt that EPA quietly released after hours on the same day that Pruitt appeared before a congressional oversight committee for the first time since taking office. He made no mention of the enforcement reversals or attacks on clean air safeguards during his testimony.

In Pruitt's memo, EPA effectively adopts the position of a coal-burning power plant defendant in a clean air enforcement case, DTE Energy, represented by the same law firm where the political head of EPA's clean air office worked before the Senate confirmed him last month. Pruitt announces EPA will exercise its "enforcement discretion" *not* to enforce the Clean Air Act against not just power plants, but all industrial polluters, that fail to properly project how much they will increase harmful air pollution following construction projects. The Trump EPA is reversing course on enforcement stances that EPA is taking in lawsuits today, including in cases where federal courts have sided with EPA and against defendant positions that the Trump EPA now adopts.

The Trump EPA enforcement retreat amounts to permission for industrial polluters to commit fraud and make false projections about their increased emissions, so long as those projections are "procedurally" adequate—even if they are substantively bogus and ultimately harmful to air quality. EPA specifically promises polluting lawbreakers it does not intend to enforce the law against failures to perform "required" air quality analysis, or failures to follow emissions calculation requirements. EPA Amnesty Memo, at 8. What's most remarkable

¹⁷ U.S. EPA, *New Source Review Preconstruction Permitting Requirements: Enforceability and Use of the Actual-to-Projected-Actual Applicability Test in Determining Major Modification Applicability* (Dec. 7, 2017) ("EPA Amnesty Memo"), https://www.epa.gov/sites/production/files/2017-12/documents/nsr_policy_memo.12.7.17.pdf.

is EPA is presently in court enforcing against Clean Air Act violations that led the Trump EPA Administrator to issue a memo saying, “Never mind. We won’t enforce against that lawbreaking from now on.”

Equally remarkable, the central promise and approach of Pruitt’s memo—that EPA will not “second guess” polluters—is precisely the approach that a federal appellate court has characterized as a straw man. In the second *U.S. v. DTE Energy* case, the federal appeals court wrote that “the focus on so-called ‘second-guessing’ is misplaced,” because obviously EPA may bring enforcement lawsuits to challenge a company’s improper emissions projections.¹⁸ The court continued by noting “the EPA definitely is not confined to a ‘surface review’ or ‘ cursory examination.’”¹⁹ The EPA Amnesty Memo confines EPA enforcement to just those indefensible failings, in a concerted political effort to obstruct EPA enforcement against companies’ improper air pollution projections. Pruitt says archly that “the court decision does not compel the EPA to pursue enforcement in such situations”; EPA won’t pursue enforcement at all, meddlesome judges.

Pruitt’s action plainly is meant to sabotage the ongoing clean air enforcement case against DTE Energy. Worse, Pruitt *openly* disavows the possibility of similar enforcement cases against other industrial polluters during the Trump administration. Pruitt promises that “EPA does not intend to pursue new enforcement cases in circumstances such as those presented in the DTE matter.” Enforcement sabotage, through and through.

It is challenging to convey to those unfamiliar with the NSR program just how reckless this Pruitt memo is. At one point, the memo “clarifies” the EPA regulations to mean that when a company projects emissions increases and follows *procedural* requirements, EPA will not

¹⁸ *U.S. v. DTE Energy*, 845 F.3d 735 (6th Cir. 2017), <https://www.leagle.com/decision/infc020170110108>.

¹⁹ *Id.*

challenge false or wrong or even fraudulent pollution projections unless there is “clear error” in application of the procedures. Forget the substance of the projections—the intended or actual air pollution increases. Nothing in the EPA Amnesty Memo says that a company’s projection of pollution increases needs to be right or even reasonable; indeed, the clear import is polluter projections need be neither.

The only example of a “clear error” exception in the EPA Amnesty Memo is applying an incorrect number in the regulations during those procedural steps; applying the right number during the procedural steps and giving that piece of paper to the government suffices, even if the company’s pollution projection is manipulated, unreasonable, wrong or it results in unlawful air pollution increases.

The EPA Amnesty Memo further blesses a deregulatory invention that appears nowhere in the statute or EPA regulations, to allow polluters to exclude emissions increases and thereby reduce the chance that a facility will need to install modern pollution controls, obtain air pollution offsets, conduct air quality impact analyses or undergo regulatory/public oversight. The memo says that a “source must exercise judgement to exclude increases for which the project is not the ‘*predominant cause.*’” EPA Amnesty Memo, at 7. That italicized legal test is an invention, appearing nowhere in the Clean Air Act or EPA regulations. It grants industrial emitters an unfounded loophole to argue that actual emissions increases are not cognizable legal emissions increases based solely on the “judgment” of the self-interested source operator, and based on an invented legal test designed to allow *more* emissions increases to escape review, control, and offset. The Trump administration²⁰ and EPA’s political critics condemn agency guidance documents when it suits their purposes but, as here, this administration embraces

²⁰ U.S. Department of Justice, *Limiting Use of Agency Guidance Documents in Affirmative Civil Enforcement Cases* (Jan. 25, 2018), <https://www.justice.gov/file/1028756/download>.

deregulatory guidance documents when it furthers an agenda to grant industry amnesty from environmental violations and permission to increase harmful air pollution.

Moreover, the memo goes out of its way to reverse EPA's regulatory and enforcement practice to allow companies to purport to "manage" projected air pollution increases to prevent significant increases, but to do so in completely *unenforceable* ways. EPA to date has not recognized unenforceable industry claims about managing emissions increases, for the simple reasons that there is no way to ensure that companies have been or will be controlling pollution in the way they claim, and no way to enforce any failures to control pollution increases after the fact. Incredibly, the Pruitt memo says that the mere "intent" of a company to manage emissions increases—notwithstanding failure to do so—is good enough for government under the Trump administration. EPA Amnesty Memo at 6. This is enforcement sabotage, through and through.

This is not simply capitulation by the Trump EPA. It is abdication of EPA's law enforcement responsibilities to uphold the law against polluters that may be knowingly breaking the law, and that EPA believes may be breaking the law. Administrator Pruitt says that matters not—procedural niceties will suffice, and EPA will not "second-guess" those polluters through inquiry or disagreement.

By effectively promising industrial lawbreakers that EPA will not enforce certain Clean Air Act NSR requirements, Pruitt's memo represents a Trump administration attempt to grant amnesty from these requirements. The memo uses coded language about what EPA will "focus on" and what EPA "does not intend to pursue," to bless activities that the law considers violations. As noted, the memo even "clarifies" what the NSR regulations mean, and blesses a loophole nowhere found in the regulations, re-casting those regulations to mean something they do not say.

Pruitt's memo predictably uses boilerplate language that EPA includes in memos when the agency wants to let regulated industries rely on winked agency promises of deregulation, at the same time that EPA wishes to be immune from citizen lawsuits to uphold the law, and immune from judges reviewing improper final agency action that breaks the law. It's especially perverse for an EPA Administrator that testified²¹ in Congress in the morning against the evils of EPA guidance documents, to turn around in the evening and issue a guidance document that deregulates clean air responsibilities and promises to abdicate EPA's duty to enforce the law.

But the trouble goes well beyond that: in 2002, the Bush administration EPA weakened the clean air regulations at issue here, to insert loopholes and exemptions that let industry increase harmful air pollution significantly and evade any modern pollution controls to reduce emissions. A central author of those 2002 Bush EPA clean air rollbacks was a former industry attorney named Bill Wehrum. Mr. Wehrum left EPA to join the law firm of Hunton & Williams, where he and his colleagues represented coal-burning power plant companies. Among the power plant companies that Hunton & Williams represents is DTE Energy, the defendant in a Clean Air Act enforcement case that sought to exploit one of the loopholes Mr. Wehrum added to weaken the clean air regulations. The DTE Energy clean air enforcement case is the driving force, and the high-profile enforcement retreat, at the heart of Mr. Pruitt's memo.

As you know, Mr. Wehrum now is the political head of the Trump EPA air office tasked with carrying out these clean air regulations. Mr. Wehrum's name does not appear on the EPA Amnesty Memo. Presumably, the DTE Energy case appears on a list of matters from which Mr. Wehrum recused himself. He should have. Nevertheless, the public deserves to know what role,

²¹ U.S. House of Representatives, Energy & Commerce Committee, <https://energycommerce.house.gov/hearings/mission-u-s-environmental-protection-agency/>.

if any, Mr. Wehrum, Hunton & Williams, and/or DTE Energy played in producing this Trump administration give-away to polluting industries.

For good reason, law enforcement agencies like EPA rarely issue so-called “enforcement discretion” guidance that promises not to enforce some aspect of federal law: these promises undermine the Rule of Law and the public’s confidence in law enforcement; they threaten the concerns and rights protected by the law, such as clean air & Americans’ health; and in their worst form, these promises can suggest a sordid collusion of interests with corporations that skirt the law. As a Reagan administration EPA policy put it, enforcement discretion promises “may erode the credibility of EPA’s enforcement program by creating real or perceived inequities in the Agency’s treatment of the regulated community.” That Reagan-era enforcement policy still stands, and it is a testament to why enforcement discretion promises are highly unusual.

At EPA, there is a specific enforcement office process for issuing what are called “no [enforcement] action assurances” to specific facilities, in specific situations, based on case-specific circumstances.²² The Trump EPA has issued “no action assurances,” for example, ‘for the import of power generators to be donated for use in communities impacted by Hurricanes Harvey and Irma in Texas and Florida, to assist in recovery efforts.’ Proper EPA “no action assurances” promising the exercise of “enforcement discretion” ordinarily are issued by the highest-ranking official of EPA’s Office of Enforcement and Compliance Assurance.²³ At the very least, EPA policy dating to 1984 requires the “advance concurrence” of the enforcement office.

²² U.S. EPA, *Policy Against “No Action” Assurances* (Nov. 16, 1984), <https://www.epa.gov/sites/production/files/2013-10/documents/noactionass-mem.pdf>.

²³ See, e.g., U.S. EPA, *No Action Assurance for Import of Yamaha Generators for Hurricane Recovery Efforts in Texas and Florida* (Sept. 15, 2017), <https://response.epa.gov/sites/12382/files/yamahanaa091817.pdf>.

Pruitt's "enforcement discretion" memo represents a form of "no action assurance" that differs from any I have previously seen in several highly unusual, even unprecedented ways. First, I know of no other EPA "enforcement discretion" guidance that was issued in the middle of a pending enforcement case against a corporate defendant accused of the very failings that the agency says it will turn a blind eye to, henceforth.

Second, the added insult to injury here is federal courts twice have sided with the legal views of EPA enforcement officials prosecuting these failings, while rejecting the defendant's contrary views.

Third, I am unaware of any "enforcement discretion" promise or no action assurance signed by the EPA Administrator. Pruitt's decision to do so clearly is intended to assure corporations that EPA's enforcement retreat and grant of amnesty enjoy the highest level of political support. Amazingly, the memo even goes out of its way to trace that high level political support all the way back to President Trump. Pruitt says his memo is consistent with an agenda to "reduce burden on regulated sources in accordance with recent Presidential actions," citing a Trump executive order and memo to 'reduce regulatory burden' and 'enforce regulatory reform.'

Fourth, I offer an observation from my days working as an EPA attorney: it is extraordinary, possibly unprecedented, for EPA to issue an "enforcement discretion" assurance that omits the name of even a single official from EPA's enforcement office. Pruitt is the memo's author, the addressees are Regional Administrators, and the only two officials copied on the memo are Pruitt's chief of staff and the political deputy to the head of EPA's air office, Bill Wehrum.

An already-reckless memo ends, aptly, on a foreboding note. In the memo's last paragraph, Pruitt observes that states are approved by EPA to carry out the clean air program in

question. He goes on to say, ominously, that if EPA “later determine[s] that the [clean air program] approved [by EPA] is deficient, the EPA has authority. . . to call for a state to revise its regulations.” This none too subtle threat signals that states that fail to follow the Trump EPA rollbacks could face demands by EPA to weaken state regulations.

These outrageous Trump EPA actions raise a host of questions that Americans deserve to have answered: Were Mr. Wehrum’s former law firm, Hunton & Williams, DTE Energy or any other non-governmental parties involved with this memo or the process that led to it? What about Mr. Wehrum, or his deputy? Who helped write the memo? Did EPA’s enforcement office write it? Were they consulted about it? If so, in what capacity and when? Were EPA and Department of Justice lawyers prosecuting the case against DTE Energy and handling its appeals, involved or consulted? What about enforcement officials in EPA regional offices, where power plant cases often are prosecuted? And EPA’s Office of General Counsel—what roles, if any, did it play in this fiasco? Has EPA assessed how much harmful air pollution could increase from Administrator Pruitt’s effective grants of amnesty and abdication of law enforcement duties?

Many more questions and concerns are certain to emerge about the Trump administration’s abdication and other reckless actions described here.

Public health and environmental groups have submitted a Freedom of Information Act request to EPA and the Department of Justice to obtain all records associated with this irresponsible transaction. Congress and EPA’s Office of Inspector General also should investigate these deeply troubling actions.

Finally, an agency like EPA may not issue guidance that relieves regulated industries of legal obligations, unless the agency first undertakes notice-and-comment rulemaking that provides the public fair opportunities to comment and oppose unlawful or harmful actions. The

Trump EPA did not do this. In the meantime, nothing in the Administrator's action stops states, public health and environmental groups, and ordinary citizens from bringing enforcement lawsuits to uphold clean air protections that the Trump administration proclaims it will not.

III. Final Thoughts on Calls for NSR "Reform"

To a remarkable degree, political and industry attacks on the NSR program have trafficked in rhetoric, assertion and anecdote, unsubstantiated by verifiable evidence or facts. I am aware of no peer-reviewed studies substantiating these attacks. This dynamic is especially true when critics and opponents assert that the NSR program discourages investments and activities that would result in net environmental benefits, compared to the status quo. The Trump EPA's 13783 Report, for example, contends that "[i]n some circumstances, the NSR process discourages the construction of new facilities or modifications of existing ones that could result in greater environmental improvements."²⁴ There is not so much as a footnote or any other evidence to back this claim; it is raw assertion. Surely the burden of proof should be on interests seeking to weaken clean air, public health and environmental safeguards, before amending the Clean Air Act or EPA regulations.

The Trump Commerce Department report targeting NSR suffers from the same lack of evidence or independently verifiable facts.²⁵ It is not so much a report as a compendium of complaints and demands for deregulation. It is a litany of assertions from industry comments that themselves are self-serving contentions rather than evidence. Neither of these Trump administration documents provide any factual basis for legislation, certainly none that weakens and worsens clean air, public health and environmental protections.

²⁴ 13783 Report, at 2-3.

²⁵ See generally, U.S. Commerce Department, *Streamlining Permitting and Reducing Regulatory Burdens for Domestic Manufacturing* (Oct. 6, 2017).

Leading industry complaints about NSR fare no better on the evidentiary score. In an article entitled *EPA's New Source Review Program: Time for Reform*, co-authored by one of my co-panellists, the claim is made that “recent changes in the NO₂, SO₂, fine PM, and ozone NAAQS have further complicated the NSR process, resulting in permitting delays and, in some cases, the decision by industry to defer or cancel projects.”²⁶ Following this last inflammatory charge, the authors drop a footnote, which reads in relevant part: “For example, the Baton Rouge Area Chamber reported that four major industrial projects were either put on hold or redirected to another location after EPA proposed to revise the ozone NAAQS in December 2015.”²⁷

I read this claim when the Baton Rouge Area Chamber first made it, and invited the Chamber to substantiate that claim and to identify, publicly, the “four major industrial projects.” They refused. After other industry lobbyists took up and used this same example, repeatedly, I challenged the Baton Rouge Area Chamber to identify the four projects. Again, they refused. I have reached the conclusion that there are no such projects or, if there are, there are other factors influencing the project decisions—location, general economic conditions, tax incentives, available labor, financing, the possible list is long—and the supposed project developers are unwilling to submit their accusations blaming the Clean Air Act to the most basic scrutiny, to the point of refusing to disclose the identity of the projects or the accusing companies.

A similar phenomenon—eschewing actual evidence, relying on assertion or speculation—surrounds industry suggestions that NSR has prevented greater emissions reductions and health and environmental improvements:

²⁶ Art Fraas, John Graham & Jeff Holmstead, *EPA's New Source Review Program: Time for Reform* 47 Environmental Law Reporter 10026, 10031 (2017) (hereinafter, Fraas *et al.*); see also, *id.* at 10028 (“discussions with industry sources suggest that the cost of emissions offsets effectively prohibits the siting of major new industrial plants in certain [nonattainment] areas”).

²⁷ *Id.*, at 10031, n. 36.

- “Thus, it has arguably been more economic in some cases to continue to operate relatively old, inefficient, and high-polluting plants than to install new facilities or upgrade existing facilities with better pollution control technology.”²⁸
- “To the extent this has occurred, NSR review has had the perverse effect of delaying reductions in pollutants such as SO₂ and NO_x.”²⁹

“Arguably” and “to the extent this has occurred” provide no reasonable basis for legislation. Left unsaid in these criticisms, of course, is the reality that industrial facilities always may decrease emissions, and upgrade facilities with better pollution control technology to reduce emissions, so long as overall emissions do not increase significantly. Criticisms that lay blame with NSR for this not happening deserve to be looked behind; invariably one will find there an unmentioned objective to *increase* emissions of one or more regulated air pollutants by significant amounts, and to evade controls and other safeguards for those increases.

To its credit, the Fraas *et al.* article does not argue that the weakening reforms it advocates would achieve the same or greater health & environmental benefits. It says simply the regulatory program would still be allowed “to achieve significant environmental results,”³⁰ which of course is in the eyes of the industry reform beholders. Like many similar critiques of the NSR program, this article’s reform proposals tend to gloss over the emissions increases that the proposed reforms would allow.

Finally, it’s worth drawing attention to some of the internal inconsistencies and cross-purposes associated with competing NSR “reform” proposals. For example, the Fraas *et al.* article seeks to dispense with air pollution offsets within the same air shed—pointing to putatively more cost-effective opportunities to reduce air pollution transported from long

²⁸ Fraas, *et al.*, 47 ELR at 10030, n.27. This article cited “evidence” backing this claim in an EPA 2001 NSR report prompted by then-Vice President Cheney’s energy task force. But that EPA report itself lacks evidence to support the claim, and is itself an example of a government report simply repeating self-serving industry assertions as evidence. See U.S. EPA, New Source Review Report to the President (2002).

²⁹ *Id.* at 10030.

³⁰ *Id.*, at 10027.

distances—while rollback reforms such as H.R. 3127 and H.R. 3128 would allow large industrial polluters like coal-burning power plants to massively *increase* air pollution transported over long distances.³¹

No acceptable NSR “reform” should give an affirmative answer to the question posed at the top of this testimony: will it let industry pollute more? This Committee should reject any appeals for reforms that would let industries pollute more, by significantly higher amounts, and in the process, evade air pollution controls and pollution offsets in areas already experiencing unsafe air quality. Americans deserve better.

³¹ Fraas, *et al.*, 47 ELR at 10035.

Mr. SHIMKUS. The chair thanks the gentleman.

The chair now recognizes Mr. Holmstead for 5 minutes. Welcome back.

STATEMENT OF JEFFREY R. HOLMSTEAD

Mr. HOLMSTEAD. Thank you. Thank you for inviting me to be here today.

As some of you know, for almost 30 years I've focused my professional career on the Clean Air Act as a White House staffer, as head of the EPA Air Office, and as an attorney in private practice.

I think even that my good friend John Walke here would concede that I know a lot about the various programs that apply to major manufacturing and energy facilities.

But some of you may not be quite so aware—you might be surprised to know that there are many different Clean Air Act programs that regulate the very same pollutants from the very same facilities.

For example, SO₂ and NO_x emissions from coal-fired power plants would seem to be the pollutants of greatest concern. These pollutants from these plants are regulated under at least 14 different Clean Air Act programs—yes, 14—the acid rain program, the NO_x SIP Call, MATS, NSPS, regional haze program, the 110(a)(2)(d) good neighbor provision, Section 126, CSAPR, BART, the SO₂ NAAQS, the NO₂ NAAQS, the Ozone NAAQS, the PM_{2.5} NAAQS, and NSR.

If I had said the full names of these programs instead of the acronyms, I would have used up all of my time. Over the last 25 years, serious regulators and researchers have learned that good regulatory design makes an enormous difference and they will tell you that of these programs, some of them are much more effective than others.

Because of all of the overlapping regulatory programs, our society—you and I and all the people you represent—are paying much more than we need to pay for preserving and improving air quality.

If we take advantage of the lessons that we have learned over the last 25 years and we use the most effective approaches for reducing air pollution, we can achieve the same air quality goals that we have today at a much lower cost.

Today, we are talking about just one Clean Air Act program. As the name implies, New Source Review, this is an important program for regulating emissions from new sources.

But over the last 20 years as EPA has tried to expand it to capture as many existing sources as possible, NSR has become a convoluted, burdensome, and completely unnecessary mess.

As someone who has worked on Clean Air Act policy for almost three decades, I can say with confidence that the NSR program as it applies to existing facilities is the least successful and most counterproductive of the dozens of programs created under the Clean Air Act.

To the extent it provides environmental benefits, those same benefits can be preserved by reforming the program in a thoughtful way and by relying on other much more effective programs that regulate the same pollutants from the same facilities.

The critique offered by my friend here from NRDC is more than a bit over the top. I did a Word search last night and found 10 different places in his testimony where he says that the reforms being proposed by Congressman Griffith would allow, quote, “massive or enormous increases in harmful air pollution,” 15 places where he says the bills would allow facilities to evade pollution controls, and 11 places where he used the words reckless or irresponsible to refer to the proposed reforms.

Statements like this are just plain silly and they are demonstrably untrue. They ignore the fact that every single existing facility that is covered by the NSR program is also regulated by multiple other Clean Air Act programs—in the case of coal-fired power plants by as many as 13 other programs that regulate the very same pollutants.

Even—and I can guarantee you this—even if the NSR program disappeared completely tomorrow, there would not be a massive increase in air pollution.

In fact, there would not be any increase in air pollution at all and we would see, because of the many other programs that regulate the same pollutants from the same facilities, air pollution would continue to decrease as it has since 1990.

As I explain in my written statement, the reforms being proposed by Mr. Griffith would simply reintroduce some common sense into the NSR program and make sure that it does what it was intended to do—ensure that when a new industrial facility is built or an existing facility is significantly expanded, modern pollution controls will be used to minimize its emissions and, two, ensure that the NSR program does not make it hard for companies to keep their facilities in good working order and where possible to reduce the operating costs of these facilities by making them more efficient.

Again, I thank you for inviting me here today. I hope we can have a serious discussion about Clean Air Act policy and I look forward to answering any questions that you might have.

[The statement of Mr. Holmstead follows:]

**Testimony of Jeffrey R. Holmstead
before the
House Committee on Energy and Commerce
Subcommittee on Environment**

**Hearing on
New Source Review Permitting Challenges
for Manufacturing and Infrastructure
February 14, 2018**

Chairman Shimkus, Ranking Member Tonko, and distinguished members of the Subcommittee, thank you very much for inviting me to participate in today's hearing. My name is Jeff Holmstead. I am a partner in the law firm of Bracewell LLP and have been the head of the firm's Environmental Strategies Group (ESG) since 2006.

For almost 30 years, my professional career has been focused on policy, regulatory, and legal issues arising under the Clean Air Act. From 1989 to 1993, I served in the White House Counsel's Office as Associate Counsel to President George H.W. Bush. In that capacity I was involved in many of the discussions and debates that led to the passage of the 1990 Amendments to the Clean Air Act – and was then deeply involved in the initial efforts to implement the 1990 Amendments. From 2001 to 2005, I was the Assistant Administrator of EPA for Air and Radiation and headed the EPA Office in charge of implementing the Clean Air Act. I am well acquainted with the legal, policy, and practical issues associated with the Clean Air Act and the many regulatory and permitting programs that have been designed to protect and improve air quality in the U.S.

When not in the federal government, I have been an attorney in private practice, representing a wide variety of clients on Clean Air Act (CAA) and other environmental issues. Since I joined Bracewell in 2006, I have worked primarily with companies and trade groups in the energy and manufacturing sectors. Today, however, I am not appearing on behalf of my firm or any of my clients, and I have not submitted my testimony to anyone else for their review or approval. Instead, I speak as someone who has worked on CAA issues for many years – as a policymaker, a regulator, and an attorney in private practice representing companies who are trying to manufacture products or develop energy resources in the U.S. in an environmentally responsible manner. Based on my experience in all these roles, I can say that one particular CAA program known as New Source Review (NSR) is badly in need of reform.

Over the years, the NSR program has become a complicated mess that makes it more difficult for companies to do things that we should all want them to do – like maintaining the reliability and safety of their facilities and making them more efficient. In some parts of the country, it effectively bans the construction of new facilities even if they use state-of-the-art pollution controls and would not have a meaningful impact on the environment – and even though the communities where they would be located desperately want them to be built.

It is certainly true that the NSR program does result in environmental benefits, especially as it applies to new facilities. But these benefits can be preserved by reforming NSR in a thoughtful way that would provide regulatory certainty and dramatically reduce the burden that it imposes on U.S. businesses, workers, and consumers.

Background

The Clean Air Act has been a remarkable success. Since it was adopted in 1970 – and especially since the passage of the 1990 Amendments – air quality has dramatically improved in virtually every part of the country. Since 1970, emissions of the six common pollutants that EPA has targeted for reduction – particles (generally called particulate matter or PM), ozone, lead, carbon monoxide (CO), nitrogen dioxide (NO₂) and sulfur dioxide (SO₂) – have dropped by more than 70 percent while gross domestic product has grown more than 250 percent.

More importantly, the emissions reductions have dramatically improved the quality of the air that we breathe. Between 1990 (when the current CAA was put in place) and 2015, national concentrations of air pollutants improved 85 percent for lead, 84 percent for CO, 67 percent for SO₂, and 60 percent for NO₂.

Most important of all have been the recent reductions in concentrations of fine particles (PM_{2.5}), which EPA and many outside researchers have identified as representing the greatest risk to public health of all pollutants. Just since 2000, shortly after EPA began to regulate fine particles, daily average concentrations of fine particles have improved by more than 40 percent nationwide.

However, these very substantial emission reductions and improvements in air quality do not mean that everything about the Clean Air Act is working well. The CAA created dozens of different regulatory programs, and, using the authority of the CAA, EPA has issued hundreds of different regulations. Since 1990, when Congress last amended the CAA in a meaningful way, we have learned a great deal about regulatory policy. We now understand that some CAA programs are very effective and others are not. Some programs actually create unforeseen problems that make them counterproductive.

Because the CAA and regulations issued under the CAA have been developed over time, there are often several different regulations that apply to the same pollutants from the same facilities. Some of these programs have been very successful at reducing pollution and improving air quality cost-effectively – like the acid rain program and the various cap-and-trade programs around the country that have been modeled on it. Yet there are other CAA programs that target the same pollutants from the same facilities and impose significant costs with little benefit. Because there are so many overlapping programs, we, as a society, are paying much more than we should for preserving and improving air quality. If we take advantage of the lessons that have been learned over the last 30 years and use the most effective and efficient approaches for reducing air pollution, we can achieve our air quality goals at a much lower cost.

As noted above, I have spent almost 30 years working on and studying the various regulatory programs created under the Clean Air Act. I can say with confidence that the NSR program, as it

applies to existing facilities, is the least successful and most counterproductive of all the Clean Air Act programs. To the extent that it provides environmental benefits, those same benefits can be preserved by reforming the program in a thoughtful way and by relying on other, much more effective CAA programs that regulate the same pollutants from the same facilities.

Claims Made by NSR Proponents

Proponents of the current NSR program like to point to settlements (usually in the form of consent decrees) that have been reached over the years in a number of NSR enforcement cases. They argue that the current program should remain unchanged so that EPA enforcement officials can bring more NSR cases.

If you take the claims made in government press releases at face value, you might think that these NSR settlements have achieved large reductions in air pollution – especially from coal-fired power plants. But if you look carefully at the terms of the settlement agreements, you’ll find that most of the things that a company has agreed to do in terms of reducing pollution from its plants are things that the company is already required to do under other Clean Air Act regulations. If you look at some settlements, you’ll see that the companies are simply agreeing to do things *that they have already done*. This means that government enforcement officials, in their press releases, are claiming credit for things that have already been done or pollution reductions that would be achieved anyway – i.e., even without the settlement. And if you’re familiar with the other CAA programs that regulate the same emissions from the same facilities, you would see that all the pollution reductions that have been claimed for these NSR enforcement could be achieved by other, more cost-effective CAA programs.

Again, it is instructive to look at the NSR program as it has been imposed on the power sector. The NSR settlements that have required companies to reduce emissions from their coal-fired power plants apply almost exclusively to plants located in areas that, under other CAA programs, have “caps” on the total amount of pollution that can be emitted by the coal-fired plants in these areas. Because of the area-wide cap, a settlement requiring emission reductions from certain plants does nothing to reduce total emissions in that area. It simply ensures that they are achieved at some plants rather than others – and not necessarily where the emission reductions are most needed or where they can be achieved most cost-effectively.

The NSR Program as it Applies to New Facilities

In a recent paper published in the Environmental Law Reporter (ELR), Art Fraas (a Visiting Fellow at Resources for the Future), John Graham (the Dean of the School for Public and Environmental Affairs at Indiana University), and I discuss the NSR Program at some length and outline a number of reforms that would make it easier to build new manufacturing facilities in the U.S. as long as they use the best available technology to control their emissions. That paper, entitled “EPA’s New Source Review Program: Time for Reform?” is focused primarily on the ways in which the NSR Program applies to new facilities. Rather than summarize that paper here, I have asked that it be included in the record for this hearing. That said, I would be happy to answer questions that any members of the Subcommittee might have about it.

The NSR Program as it Applies to Existing Facilities

As the name implies, the New Source Review or NSR program was designed primarily for “new sources” of emissions (new manufacturing facilities and power plants). Before any new major source can be constructed, it must first go through a permitting process that identifies the “best available control technology” to minimize emissions from the new facility. The permit applicant must then obtain an NSR permit that requires the new facility to meet emission limits that can be achieved with that technology. The basic theory of the program is that modern pollution controls should be part of the design and construction of any new major source of emissions. The NSR program is probably the most important CAA program for controlling pollution from new sources.

The NSR program also applies to existing sources, but only if they make “major modifications” as defined under EPA regulations. Again, the theory is that, when there will be a modification to an existing plant that will significantly increase emissions, modern pollution controls should be designed into the modification. Although the NSR program is the primary regulatory tool for controlling emissions from new plants, it was *not* intended to be a key program for controlling emissions from existing facilities. As EPA stated in a 2002 Report on the NSR program:

The NSR program is by no means the primary regulatory tool to address air pollution from existing sources. The Clean Air Act provides for several other public health-driven and visibility-related control efforts: for example, the National Ambient Air Quality Standards Program implemented through enforceable State Implementation Plans, the NOX SIP Call, the Acid Rain Program, the Regional Haze Program, etc. Thus, while NSR was designed by Congress to focus particularly on sources that are newly constructed or that make major modifications, Congress provided numerous other tools for assuring that emissions from existing sources are adequately controlled.

New Source Review: A Report to the President (2002) at pp. 3-4.

The question of what is a “major modification” that triggers NSR at an existing source has been the source of much controversy and is discussed in several EPA regulations, more than a thousand pages of guidance documents and Federal Register notices, and dozens of court cases – and there is still much uncertainty about how to determine whether something is a major modification.

This is important to industry because, if a company makes a “major modification” to a facility, the cost of going through NSR, and the delays it can cause, are very substantial. In some cases, companies that have undertaken a \$500,000 project that, according to EPA, is a “major modification” have been forced to spend hundreds of millions of dollars in new control equipment. Even without the cost of new equipment, the time it takes to go through the NSR permitting process can be very long – perhaps a year on average but, in some cases, many years. Because of the cost and delays, companies are very reluctant to do anything that might trigger NSR.

Over the last 15 years, EPA enforcement officials have tried to expand the definition of major modification in an effort to capture more facilities into the NSR program. At the same time, companies have spent much more time and effort figuring out how they can maintain their facilities without triggering NSR. I know of companies that actually employ teams of people full-time to make sure that the investments they make to maintain their facilities do not trigger NSR, and companies often make suboptimal decisions about investing in their facilities because of the current NSR program. As a result, the NSR program makes it more difficult for companies to do things that we should all want them to do – like maintaining the reliability and safety of their facilities and making them more efficient.

The Emissions Increase Test

Under the statute and EPA's regulations, a major modification is a "physical change or change in the method of operations" at an existing source that will cause a "significant emission increase," which is defined as an increase in annual emissions that is greater than certain thresholds (which are different for different pollutants). As EPA has noted, this definition essentially creates a two-step test that a plant operator must use in order to determine the applicability of NSR requirements to any particular project at an existing source: "first, you will determine whether a physical or operational change will occur. If so, then you will proceed to determine whether the physical or operational change will result in an emissions increase over baseline levels." 67 Fed. Reg. 80186, 80187 (Dec. 31, 2002).

Under EPA regulations, "routine maintenance, repair, and replacement" projects are exempted from the definition of a physical change, so there has been much litigation over whether certain specific projects are "routine." But, perhaps surprisingly, there has also been much controversy over the question of how to determine if a physical or operational change will result in an emissions increase.

Another CAA program, referred to as the New Source Performance Standards or NSPS program, employs the exact same definition of the term "modification." In fact, when Congress added the NSR program to the CAA in 1977, it simply adopted the existing statutory definition of "modification" that had been used since 1970 for the NSPS program. Under the NSPS, EPA determines whether a project at a plant is a "modification" by looking at the maximum hourly emission rate of the plant before the project and comparing it to the maximum hourly emission rate of the plant after it. If a project does not increase this rate – that is, if the plant has not been changed in a way that would increase its maximum hourly emissions rate – then the project is not a modification. There is rarely any controversy about this issue because the maximum hourly emission rate is a readily available number that is based on the design of the facility.

Under the NSR program, however, EPA has adopted a very different approach for determining if a physical or operational change will cause an emissions increase – not based on plant design but on projections of future annual emissions that depend on many other factors besides the physical design of a facility. First, a company must determine its "baseline" emissions. For power plants, this is annual average emissions of the highest 2-year period of operation over the last 5 years. For other facilities, it is the highest yearly emissions during the last 10 years.

Then, a company must make a projection of what its future annual emissions will be during the 5- or 10-year period after the change (depending on the type of project being undertaken). If projected future emissions are higher than baseline emissions by more than the “significance thresholds,” then the company is allowed to subtract the amount of its projected future emissions that are unrelated to the physical change at the facility (such as increased demand for the product being produced). If projected future emissions are still higher than the “significance threshold,” then the physical change is a “major modification” that triggers NSR.

This is complicated enough, but there has been substantial controversy as to how future annual emissions should be projected. Some power companies have projected future emissions using sophisticated computer modeling techniques that they use to plan future investments – only to have EPA enforcement officials insist that they should have used another method that would have predicted higher emissions and thus that the project triggered NSR. Like virtually every other NSR issue, this has been the subject of protracted litigation.

Because of all the uncertainty and controversy caused by the “emission increase test,” it would be helpful for Congress to clarify this issue. In my view, the best approach would be to make clear that there is not a “major modification” under NSR if there is not a “modification” as defined under NSPS. Thus, companies (and EPA) would evaluate a project to determine whether it would increase the maximum hourly emission rate at the plant. If not, then the project does not trigger NSR. If so, then the project would be a modification and would then be evaluated under the current NSR test to determine whether it would be a “major modification” that would trigger NSR.

There are at least two important reasons for Congress to consider such an approach. First, it would provide much more certainty to EPA, states, and the regulated industry. As opposed to the current NSR approach, the maximum hourly emission rate is an objective measure based on the design of the facility and is easily ascertainable. As recent experience has shown, there is much subjectivity under the current approach and many different ways to project future annual emissions and then determine the amount of those emissions that are unrelated to the project being evaluated.

Second, from an environmental perspective, a one-hour test is much more meaningful because the most stringent EPA standards are based on maximum concentrations of a pollutant averaged over one hour (for SO₂ and NO₂), eight hours (for ozone and CO), and 24 hours (for PM_{2.5}). The only pollutant for which a longer “averaging time” is meaningful is lead, for which the air-quality standard is based on a 3-month average (and which has rarely, if ever, been addressed by NSR.) Simply put, in terms of protecting human health, the maximum amount of a pollutant that a facility emits in one hour is much more important than the amount it emits in a year.

Energy Efficiency Projects

I believe that Congress should also consider legislation to ensure that NSR is not an impediment to improving energy efficiency. There is much interest in reducing carbon dioxide (CO₂) emissions in the U.S. and around the world. And I believe that there is a consensus that the most cost-effective way to reduce CO₂ from existing facilities is to improve their energy efficiency – that is, to make physical or operational changes that would enable them burn less fossil fuel

(coal, oil, or natural gas) to produce a given amount of product (whether it be electricity or gasoline or widgets).

However, the current NSR program is a significant impediment to energy efficiency projects because EPA, in a number of NSR enforcement cases, has argued that energy efficiency projects trigger NSR – i.e., that an existing facility must go through the cumbersome and costly NSR permitting process before it can do such a project. I am aware that, for this reason, a number of companies have identified energy efficiency projects that they would like to undertake but have decided *not* to do them for fear of triggering NSR.

It may seem strange that EPA would take a position that actively discourages energy efficiency, but here is the theory espoused in several NSR enforcement cases against power plants: When a facility owner makes a physical or operational change at a facility to make it more energy efficient, this reduces the cost of operating the facility, because it uses less fuel per unit of production. For this reason, the more energy efficient facility would have a competitive advantage over other facilities that make the same product. As a result, the more energy efficient facility will take away business from less efficient facilities and operate longer hours. Because it operates longer hours, it will increase emissions and, as a result, the energy efficiency project triggers NSR.

If you have followed this convoluted reasoning, I think you will be outraged by it. For one thing, if a more energy efficient facility takes away business from its competitors, then it will certainly reduce total CO2 emissions – because less fuel will be burned per unit of production. As a general rule, I think we should all agree that government should adopt policies that encourage energy efficiency.

However, in its zeal to bring NSR enforcement actions, EPA has implemented the NSR program in a way that clearly makes it more difficult and costly to make energy efficiency improvements to existing plants. If Congress wants to encourage energy efficiency, it should adopt legislation to make it clear that any physical or operational change at an existing facility that makes it more energy efficient – that enables it to reduce its CO2 emissions per unit of production – does not trigger NSR.

* * * * *

Again, I very much appreciate the opportunity to appear before the Subcommittee and hope my testimony will be helpful to you as you review the New Source Review program and decide whether Congress should take action to reform it.

Mr. SHIMKUS. And I thank the gentleman for his testimony and thank you all, and you all were very punctual to the—to the dot almost and that's going to be helpful.

I recognize myself 5 minutes for the—for the opening round of questions, and Mr. Holmstead, you answered by question about how many different tools are there out there. So I don't need to ask that one.

Mr. Spencer, first, just to clarify your role for the record, you are—you are the responsible authority in your state for implementing air quality standards which includes New Source Review permitting. Is that correct?

Mr. SPENCER. Correct. Yes.

Mr. SHIMKUS. And to perform your job you rely upon engineers, scientists, and an attorney, I think you said in your—

Mr. SPENCER. I wanted to clarify. Yes, we do have one in-house in the Office of Air Quality.

Mr. SHIMKUS. But you also have engineers and scientists and—

Mr. SPENCER. Epidemiologists, meteorologists, chemists, biologists.

Mr. SHIMKUS. Given your experience, do you believe the New Source Review reforms you describe in your testimony will create a gap in protection or will result in declining air quality standards for your state, and let me add one other—will it allow industry to pollute more?

Mr. SPENCER. No and no, and I would like to acknowledge something that Mr. Holmstead said. It's important to recognize the projects or the programs that are working in tandem with each other. We have several different—we have our NAAQS SIPs that are state implementation plans that we prepare and submit to EPA that are—that indicate and acknowledge that we'll be protective of those individual criteria pollutants.

We have our regional haze plans that we submit and, as Mr. Holmstead indicated, those are specific to controlling particularly NO_x, SO₂, and PM 2.5.

So there are a number of different programs which we implement that stack up on each other to ensure that we have protective programs.

Mr. SHIMKUS. So let me go to Mr. Noe. I was struck by the example you shared where it took—and I use this many times, this example, when I've talked about this program for 20 years now—the—when it took a paper mill owner 18 months to obtain a New Source Review preconstruction permit for a project to replace two older inefficient boilers with a single larger energy efficient boiler, which uses less energy, and I want to underline this because it's in response to one of the other panellist's statements—did not result in an emissions increase.

So to you, Mr. Noe, does it really make sense that an owner has to receive a preconstruction permit just to install newer more environmentally beneficial technology, especially considering how long it takes to obtain a permit?

Mr. NOE. What we would like, Mr. Chairman, is for projects that are going to have decreases associated as well as increases, just net the increases and decreases at the start.

So if there's not really a significant net increase, why go through this onerous process and delay? If I could, I would like to give you another example where a company was going to do something that would decrease emissions but because of this way in which EPA does the math, this two-step process, it was slowed down and you basically took a longer time to get less emissions.

This was a wood products facility that essentially wanted to use better emissions control, reroute its exhaust from a unit to better emissions control. It had to do a \$100,000 study.

There was months of delay. The agency ultimately concluded this was a good thing. But there was a delay in getting a beneficial project done and more emissions because of the delay from NSR.

Mr. SHIMKUS. And I think your response was following up on my second question about affecting the development of and implementation of newer and cleaner technologies. So I don't need to ask that.

Let me go to you all, if I have time. A report conducted by Resources for the Future showed that from 2002 to 2014 the average time to obtain a prevention of significant deterioration—an NSR permit—throughout the country was 420 days.

More specifically, in certain states, during that time period the average permit time was 770 days. Do you think—and if you can get yes or no or as short as possible—do you think that is reasonable for an owner to wait one or two years on average just to obtain a preconstruction permit?

Mr. Spencer.

Mr. SPENCER. No. I can say that the permit backlog and permit issuance time frames were very important to our administration—to this current administration and we've seen that —

Mr. SHIMKUS. Quickly. Quickly. Quickly.

Mr. SPENCER. Yes. So no, that's not a reasonable time frame.

Mr. SHIMKUS. Thank you.

Mr. Sunday?

Mr. SUNDAY. No.

Mr. SHIMKUS. Mr. Noe?

Mr. NOE. Agreed.

Mr. SHIMKUS. Ms. Hammond?

Ms. HAMMOND. I agree that efficiency is important to an agency but I think taking the time is worth it to do it right.

Mr. SHIMKUS. OK.

Mr. Walke?

Mr. WALKE. I am not here defending delays. I am opposing pollution increases. So no.

Mr. SHIMKUS. OK.

Mr. Holmstead?

Mr. HOLMSTEAD. There's no reason for it to take that long.

Mr. SHIMKUS. Thank you very much.

My time is expired. The chair now recognizes the ranking member of the subcommittee, Mr. Tonko, for 5 minutes.

Mr. TONKO. Thank you, Mr. Chair.

New York has done a lot to clean up air pollution in our state but we are still facing problems that blow in from the West. We need the New Source Review program to work.

We have to make progress on air quality together as a nation because cleaning up the air is a common responsibility and we all have to do our part.

Mr. Walke, I am very concerned about the implications of Administrator Pruitt's December 7th memo for state enforcement of the New Source Review program.

I have a number of questions for you related to that memo. In your experience both as an EPA employee and as a representative for various interests on clean air issues, would you say that it is usual or unusual for the administrator of EPA to issue a memo that announces the agency's intent not to enforce a statute, regulation, or other legal requirement?

Mr. WALKE. Extraordinary, and I've never seen it before.

Mr. TONKO. So we go with unusual there.

I have the 1984 enforcement office's memo related to issuance of assurances of no enforcement that you mentioned in your testimony.

To your knowledge, has the policy in this 1984 memo issued during President Reagan's administration ever been rescinded or replaced?

Mr. WALKE. No, it has not.

Mr. TONKO. Are there provisions of the Clean Air Act or within the NSR regulations that expressly provide EPA with discretion to not enforce the requirement for a facility to provide credible estimates of their projected actual emissions in the NSR program?

Mr. WALKE. No, and to the contrary, Mr. Pruitt contravened the EPA regulations.

Mr. TONKO. Is there any credible argument that loosening the criteria for estimating projected actual emissions or foregoing enforcement of this NSR regulation would be in the public interest and therefore justify issuing an assurance of no enforcement as discussed in this memo?

Mr. WALKE. None whatsoever. Those emissions increases are what harm the public and Mr. Pruitt has granted amnesty to industries that get it wrong including badly wrong.

Mr. TONKO. Administrator Pruitt has made much of his dedication to cooperative federalism. But this memo appears to do the opposite.

Doesn't EPA's declaration that the agency will not pursue enforcement in these situations undercut states that want to enforce New Source Review standards?

Mr. WALKE. Yes. Many states will choose not to grant amnesty and the last paragraph of the memo is really coercive federalism—threatening states that don't buckle under to withdraw their program approval. Again, it's very unusual.

Mr. TONKO. Thank you.

Your written testimony refers to a cryptic warning in the memo to states that—to states to toe the line. Would you elaborate on that, please?

Mr. WALKE. Sure. So states administer the NSR program approved by EPA and states don't have to follow EPA's decisions to grant enforcement discretion or, in this case, outright amnesty across the board.

Mr. Pruitt's memo seems to anticipate that and says in the very final paragraph in what's not even a very subtle veiled threat that EPA has the ability to withdraw its approval from states that don't conform to the understanding of the program that EPA has.

And a memo like this, this is clearly a threat of coercive federalism to remove approval from states that don't follow this amnesty approach.

Mr. TONKO. Thank you.

As administrator of this agency, Mr. Pruitt is supposed to uphold and enforce the law, not subvert it. This program is supposed to clean up the air and bring older facilities up to modern pollution standards.

The people that I represent need a functioning program. For us, cooperative federalism means that EPA is a partner in enforcement, not a partner in sidestepping the law and creating more pollution.

Ms. Hammond, is there anything you want to add about the December 7th memo? Do you think if a polluter believes EPA will not check their work it incentivizes applicants to underestimate their emissions projections?

Ms. HAMMOND. Absolutely. It incentivizes the kind of gaming that we've seen throughout the entire history of this program. Over and over again we see polluting industries, especially old dirty coal, looking for loopholes and this just opens that wider.

Mr. TONKO. EPA's leaders often speak about the rule of law. That phrase takes an outsized role in the EPA's latest budget request.

For Mr. Walke or Ms. Hammond, can you help us understand how EPA is upholding its rule of law commitment by shirking its responsibilities to enforce the Clean Air Act as outlined in the administrator's December 7th memo?

Mr. WALKE. Well, the president's budget now twice has proposed historically high cuts to EPA's enforcement program. Thankfully, Congress did not follow suit the first time.

I hope they will not this time. But what we have seen is an enforcement amnesty memo issued by the administrator himself that does not contain the name of any enforcement official on it, and as I detail in my testimony there's some very serious concerns about the process that resulted in that amnesty.

Mr. TONKO. Ms. Hammond, anything?

Ms. HAMMOND. Yes. Just the further point that when an agency uses a guidance document to set binding policy, that evades the rule of law set forth in the Administrative Procedure Act. So we have that further problem as well.

Mr. TONKO. Thank you.

Mr. Chair, I yield back and thank you for your—

Mr. SHIMKUS. Gentleman yields back his time.

The chair now recognizes the vice chair of the subcommittee, Mr. McKinley, for 5 minutes.

Mr. MCKINLEY. Thank you, Mr. Chairman.

I've been listening to testimony about this for now seven years in Congress and I think one of the conclusions I am hoping we will come to is that the—something's broken, because we are hearing some strong push back from both sides.

But I am—I feel like a couple of you up there are unwilling to recognize that the system may need some modification. Is that fair to say, Mr. Walke?

Mr. WALKE. No, sir.

Mr. MCKINLEY. You don't think it needs modification?

Mr. WALKE. We are happy to discuss modifications that don't result in pollution increases. But that's what's before this committee.

Mr. MCKINLEY. Well, no one's talking about increasing pollution

Mr. WALKE. I was answering your question, Congressman.

Mr. MCKINLEY. That's what I just—and thank you on that. But, you know, I just feel that in many respects the previous administrations have used—have weaponized the EPA's rule on NSR and it's delayed, cost grief and—I spent my career in the engineering field and many of them in power plants getting these permits and I saw the delay, the delay and delay and the costs that were associated with those, and it was unnecessary. But I believe their—the intent was to try to slow walk the project so it didn't happen.

So I am first trying to recognize or get people to—the system, it's broken. It needs modification. Been talking about, I think, Mr. Holmstead, you said 15 years ago they were talking about making modifications to it.

I don't know why we haven't during this—is this just because we've got people with their head in the sand? There's a problem here associated with this issue and we need to have an adult conversation instead of saying no and trying to focus on a distraction that none of us in the engineering field or in the energy generation want to have this problem or increased emissions.

But I am afraid that what's going to happen is that we are going to close down more and more of our power plants and as a result—with this delay and the fear of the unknown of our power plants and we are going to reach into that issue that we've been talking about for now the last two years has been about grid reliability and resiliency.

When we have more and more—since the Polar Vortex of 2014, we've had 82 coal-fired power plants shut down. I know during this last winter that many of our gas and coal-fired power plants were under advisory about that there was maybe a shut down because of the lack of supply, particularly in gas.

So I am very concerned that we are continuing to focus on something where we should be able to cooperate and get something accomplished.

So, Mr. Holmstead, I've seen you just be very frustrated with this. You and I have had numbers of conversations about this.

Can you give us some direction or advice? Because I applaud what Morgan Griffith is trying to do is to have an adult conversation and address this issue.

So, Mr. Holmstead, do you have some thoughts about how? Because I thought Mr. Spencer laid out a good plan. I thought Sunday did as well on that. But what's your perspective? What should we be doing to resolve the differences?

Mr. HOLMSTEAD. I think we should just be having an honest conversation about how all of the Clean Air Act programs work together. I can't tell you how many times someone who's criticized a

reform says that, you know, you're tearing at the heart of the Clean Air Act.

As far as I know, the Clean Air Act must have 30 different hearts because no matter you try to reform, you know, you're tearing at the heart of the Clean Air Act.

Look, there are—air pollution control is enormously important. The benefits of controlling air pollution are very significant.

No one is talking about increasing pollution. There's no such thing as a massive increase that would occur even if we eliminated it.

Come on, let's have a serious conversation about this and that's the frustrating part. Let's be honest with each other about how these programs work and how some of them don't.

Mr. MCKINLEY. Thank you.

Speaker—Chairman, I yield back.

Mr. SHIMKUS. Gentleman yields back his time.

The chair now recognizes the ranking member of the full committee, Mr. Pallone, for 5 minutes.

Mr. PALLONE. Thank you, Mr. Chairman.

My questions are of Mr. Walke and I am going to continue where my colleague, Representative Tonko, left off. I have also serious concerns about Administrator Pruitt's December 7th memo.

In your written testimony, you discuss a number of concerns with the memo and I want to explore that you did not mention in your written testimony.

I understand that several circuit courts have now rendered decisions that limit EPA's authority to enforce New Source Review violations by upholding a statute of limitation of 5 years from the time the first violation occurs.

Is that correct? Yes or no.

Mr. WALKE. Yes.

Mr. PALLONE. The December 7th memo states that EPA will not take enforcement actions against any facility operator in relation to preconstruction permit requirements under the New Source Review program and these requirements include estimating projected actual emissions, determining whether they need a permit or not, and any other actions that are required before a construction project is initiated and completed.

Administrator Druitt justifies this in part by initiating a policy that defers consideration of enforcement actions until the agency sees the actual emissions "during the 5- or 10-year record keeping or reporting period after," the project in question has been completed and the facility resumes operation.

So, Mr. Walke, am I correct in my concern that deferring enforcement to this post-construction period places any enforcement action past the 5-year statute of limitations being upheld by the circuit courts? Again, yes or no.

Mr. WALKE. Absolutely. Yes, you are—have a right to be concerned.

Mr. PALLONE. Thank you.

So it appears that Administrator Pruitt has ensured that the agency will never act because the time period for action designated in the memo will always be beyond the statute of limitations.

Any action taken by the agency deferred until this time period would very likely be overturned by the courts. So Mr. Walke, again, do I have that right, yes or no?

Mr. WALKE. One hundred percent right.

Mr. PALLONE. OK. It doesn't seem likely to me that these circuit court decisions would be unknown or overlooked by the administrator or by Mr. Wehrum, the Air Office chief who came on board at the agency about one month before this memo appeared. What do you think about that? That's not a yes or no.

Mr. WALKE. I can guarantee you Mr. Wehrum is aware of those cases.

Mr. PALLONE. OK. So the next thing is, look, the bottom line is the policy Mr. Pruitt is pushing in the December 7th memo is inconsistent with the law, in my opinion, and clearly will allow any facility owner that wants to get around the NSR program to do so and that's terrible public policy and will commit us to many more tons of harmful pollution and, in my opinion, it should be rescinded immediately.

So I just have a few more questions on this memo and its relationship to the policy memo from the Reagan administration mentioned by Mr. Tonko.

Hasn't it been longstanding established EPA policy and direction to all agency personnel not to give either written or oral assurances to regulated parties that EPA will not take an enforcement action if a violation occurs?

Mr. WALKE. Yes, and Mr. Pruitt's memo directly contradicts a memo dating to the Reagan administration that lays out very specific criteria for no action assurances that he did not follow.

Mr. PALLONE. OK. However, I am aware that there are cases in which EPA has provided assurances of no action to regulated parties.

But these are in special narrowly-tailored circumstances and with limited time periods often associated with emergencies such as in the aftermath of a catastrophic storm like Hurricane Maria, for example.

So is that correct?

Mr. WALKE. Yes. They are very short lived, directed to specific companies, and not broad grants of amnesty like Mr. Pruitt's memo.

Mr. PALLONE. All right.

So does the DTE Energy case or any other situation described in this memo fit within the narrow circumstances that warrant an enforcement holiday?

Mr. WALKE. It does not fit within EPA's policy.

Mr. PALLONE. All right. So Mr. Walke, I have another question related to the administrator December 7th memo. The memo appears to create a new exclusion for emissions increases based on a facility operator's intent to manage emissions increases once a project is completed.

Now, how is such emissions management to be measured, if that's the case?

Mr. WALKE. We never know because they don't have to self-report. If it's done after 5 years, EPA cannot enforce. It's completely

trusting the source with a promise that EPA will not second guess whatever they decide.

Mr. PALLONE. So if a facility operator intends to manage emissions but then does not manage them, how would this failure be documented? Could EPA enforce this policy?

Mr. WALKE. EPA would never know about it. It won't be documented because the memo doesn't require it and, indeed, the EPA will probably never find out about it and the emissions increases will go uncontrolled.

Mr. PALLONE. All right.

Thank you so much. Thank you, Mr. Chairman.

Mr. SHIMKUS. Gentleman yields back his time.

The chair recognizes the gentleman from Texas, Mr. Flores, for 5 minutes.

Mr. FLORES. Thank you, Mr. Chairman. I appreciate the panel and their enlightened testimony today.

Mr. Spencer, I am going to start with you. You support the administration's recent guideline memo on NSR permitting which clarifies that the EPA will not second guess a facility reconstruction emissions analysis.

And so explain for me—for the committee what was the problem with the second guessing and why this memo is helpful for states' work on NSR permitting.

Mr. Holmstead, I will follow up with you on this as well.

Mr. SPENCER. I think that the clarification was needed and it doesn't necessarily create a blanket exemption from the responsibility that facilities have.

I think that there should be some accountability such as if there is an error in a calculation that's clear if their companies use a wrong significant emissions threshold. And so there are backstops for that kind of empirical data to be provided that would ensure that the calculations that have been submitted by the company are in fact accurate.

Mr. FLORES. OK.

Mr. Holmstead, do you have any additional comments?

Mr. HOLMSTEAD. Yes. This whole situation shows that—why this—why this program is so broken. Here's what happened.

The company used a very sophisticated modelling technique that has been approved by, you know, other regulators to estimate its future emissions and it showed that there wouldn't be an emissions increase.

EPA brought an enforcement action and they said you didn't do it right—you should use this methodology. Methodology that EPA enforcement officials wanted to use always showed every project would cause an emissions increase.

So you have these two different ways of projecting out 5 years into the future and it's so subjective and we have so much litigation over it that's why we just need to use the simple engineering technique of saying look, what is your—what is your hourly emission rate.

That's what we do in other programs. That's knowable, that's ascertainable, and instead we have these kind of ridiculous fights, and what makes this particularly ridiculous is that case was brought more than 5 years ago.

So we now have 5 years of data showing that the plant actually decreased its emissions. But EPA is insisting that they should have predicted an increase and we know that whatever EPA was—turned out to be wrong because emissions have actually gone down.

Mr. FLORES. OK. That leads me to into my next—a follow-up question for you and Mr. Noe and Mr. Sunday.

An important component of the NSR program focuses on how an owner must calculate the anticipated emissions increase associated with the potential project which determines whether or not an owner is required to obtain an NSR reconstruction permit.

So my questions are this. Did the NSR program's rules on emission accounting typically result in a calculated emissions value that accurately reflects the true emissions increase?

Do you want—do you want to waive off to somebody else?

Mr. HOLMSTEAD. No. I would just say there is not an approved EPA method for predicting and that's one of the problems.

And because every circumstance is so different and because future emissions depends so much on things that are completely out of the control of the plant owner it's kind of a fool's errand to be saying that you can predict with accuracy what your emissions are going to be next year and year after.

And we ought not to be putting people in the position to do that and one of the problems is there is no approved method for doing this.

Mr. FLORES. Now, does—do you think that the current NSR emissions projections are overestimating the actual change in emissions?

Mr. HOLMSTEAD. Certainly, the current approach is better than the way it used to work. But, again, it creates all kind of uncertainty and problems and it ought to be fixed.

Mr. FLORES. OK.

Mr. Noe, do the NSR program's rules on emissions accounting typically result in a calculated emissions value that accurately reflects a true emissions increase?

Mr. NOE. My sense is not and—

Mr. FLORES. Oh, microphone. I am sorry. Yes.

Mr. NOE. My sense, Congressman, is no and we'd like a simpler way to do the math that allows you to move quickly if you don't have a significant emissions increase.

Mr. FLORES. OK.

Mr. Sunday, same question.

Mr. SUNDAY. No. In general, our facilities are obligated to account for emissions that they're never going to produce.

Mr. FLORES. OK. All right.

I yield back the balance of my time. Thank you.

Mr. SHIMKUS. Gentleman yields back his time.

The chair now recognizes the gentleman from California, Mr. McNerney, for 5 minutes.

Mr. MCNERNEY. Well, I thank the chairman.

Mr. Walke, sometimes it's hard to see the negative consequences of deregulation, especially if they sound reasonable.

In this case, industry recommended that to improve the NSR program, we should allow owners of a facility to avoid the requirements of the NSR program if they improve facility energy efficiency

or if they invest in a project for pollution prevention or pollution control simply on those bases.

What's wrong with that argument?

Mr. WALKE. Congressman, you have to look behind the labels. We all support energy efficiency projects that decrease emissions. Mr. McKinley said so.

But these energy efficiency projects, the way the label is misused will allow and result in emissions increases. That's the only way that the New Source Review requirements apply.

The same is true for the pollution control project label. If they just reduced emissions, NSR requirements would not apply. Instead, they increase emissions.

So the labels are very important and the requirements only apply when pollution increases. They do so in both examples that you provided as used by industry.

Mr. MCNERNEY. I think that was pretty clear. Thank you.

Mr. WALKE. Thank you.

Mr. MCNERNEY. Ms. Hammond, it's clear that the Clean Air Act has driven innovation and the U.S. economy has continued to grow and innovation has continued to thrive.

Is there any evidence that the cost of pollution controls are so high that we've seen massive layoffs and loss of revenue?

Ms. HAMMOND. The studies that I am aware of suggest that do the extent companies do have to change their business plans because of Clean Air Act controls, it's not that.

It's market conditions that they're responding to and, indeed, that's the case with coal, most certainly. And in fact, with New Source Review we are often talking about these very old, very dirty coal-fired power plants and what you don't hear is that in most jurisdictions these power plants can recover the cost of pollution control technology from their ratepayers. So they're not even asking shareholders to bear those costs.

Mr. MCNERNEY. So is there any evidence that current regulations have caused a reduction in economic growth?

Ms. HAMMOND. No, and in fact, the opposite is true.

Mr. MCNERNEY. Well, industry claims that the NSR program has stifled innovation and discouraged investment in technologies, new factories, and renovations that would deliver significant benefits.

Is there any evidence for that claim?

Ms. HAMMOND. No, and in fact, pollution control technology is itself a business and there are many small businesses that benefit from developing those technologies.

So you can also add that to the list of more generalized economic benefits that we see.

Mr. MCNERNEY. Geez, you're getting ahead of me. I was going to bring that up.

Manufacturing gets left out of the conversation. American domestic manufacturing does get left out of the conversation—manufacturers that produce pollution control equipment.

And a report from 2013 states that the market for these systems was expected to grow to \$78 billion a year by 2019 and a 2017 report expects the market to grow to \$92 billion by 2022, and more than 75 percent of that growth is overseas and continues to grow as other countries invest in pollution control equipment, and these

are medium to small-sized private businesses located throughout the country.

Would you anticipate the economic impact of these companies and their employees to be if the air quality protections are deregulated and unenforced?

Ms. HAMMOND. Indeed, they will suffer in that case.

Mr. MCNERNEY. So do you believe, based on facts and economic realities, that there is a choice between environmental control and regulation on the one hand and economic prosperity on the other hand?

Ms. HAMMOND. No. It's a false choice. They go together. We see over and over again the clean air is good for the economy. It's good for health. People can go to school. They can work. We prosper with clean air.

Mr. MCNERNEY. OK.

Mr. Holmstead, I am going to throw you a bone here. You talked about good regulatory design. What do you mean by that?

Mr. HOLMSTEAD. I mean trying to find the most effective, the most cost-effective ways of reaching our air pollution goals.

Mr. MCNERNEY. Is there an academic model for good regulatory—

Mr. HOLMSTEAD. Yes. There are academic studies that look at all kinds of regulatory programs and in particular—I will say this. The way we have regulated cars and fuels has been very successful. That's probably been the most successful part of the Clean Air Act.

But if you look at these so-called stationary sources, the programs that have been most cost effective, where we have the highest rates of compliance, are these cap and trade programs where an overall cap is set.

That really started with the acid rain program. There's been a number of programs that are built upon that—the NO_x SIP Call, the Care Program, CSAPR, state programs, and those programs are very cost effective and very effective at reducing pollution.

Mr. MCNERNEY. So we shouldn't just deregulate everything?

Mr. HOLMSTEAD. No, no, no. No one's—

Mr. MCNERNEY. And that's what I—what I hear a lot.

Mr. HOLMSTEAD. No, no, no. No.

Mr. MCNERNEY. Not from you, necessarily.

Mr. HOLMSTEAD. So I think what we need to do is just let's figure out the most cost effective ways of achieving our air pollution goals. That's what I—I mean, I agree about all the benefits of reducing air pollution. Let's just do it in the most cost effective way.

Mr. MCNERNEY. OK. Thank you.

I yield back, Mr. Chairman.

Mr. SHIMKUS. I apologize to my Republican colleagues for letting my Democratic colleague go so long.

But the chair now recognizes the gentleman from Michigan, Mr. Walberg, for 5 minutes.

Mr. WALBERG. Thank you, Mr. Chairman. Thanks to the witness team here as well. Appreciate your involvement.

Mr. Noe, you have highlighted a couple of improvements to the NSR and PSD programs in your testimony. Given your description of how broken the program is, are there any other reforms you

think are critical to streamlining the permitting process while protecting the environment, which we all agree on?

Mr. NOE. Thank you, Congressman.

I think there's a couple I want to mention quickly. First of all, EPA presumes that emissions from multiple projects at a plant over several years should be aggregated when determining significance for NSR applicability.

They believe the projects are connected economically if they serve the basic purpose of the plant even if they incur many years apart or undertaken for very different business reasons and by themselves are minor.

Once those emissions are added together, NSR can potentially be triggered with its heavy burdens and delays and we believe the EPA should only add together emissions from projects that are truly linked. So that's one example.

A second is EPA's PSD modelling guidelines historically have required excessively conservative assumptions about dispersion model inputs that frequently result in gross over estimates of a project's air quality impacts and regulatory air quality models have the capability to calculate ambient air concentrations based on variable emissions background and modern probabilistic tools and meteorological conditions.

So rather than assuming, for example, that the facility is going to be running at maximum levels, all the other nearby sources are going to be running 24/7 at maximum potential level and that they ought to look at the distributions of the emissions in a probabilistic way.

And EPA can address this rapidly-developing permit gridlock by having more flexible policies that actually reflect the realistic emissions and the realistic modelling.

Mr. WALBERG. Rather than always the worst case scenario?

Mr. NOE. Yes, sir.

Mr. WALBERG. What other Clean Air Act obligations does the forest products industry face?

Mr. NOE. You know, we have a whole bunch of regulations that we are covered by. Jeff gave you some examples with power plants.

For us, let me just give you some of the major ones. So for hazardous air pollutants, EPA's MACT program has targeted pulp and paper operations, wood product driers and presses, industrial boilers and coating operations where emissions have reduced as much as 92 percent.

For criteria pollutants that are regulated by the NAAQS, those criteria pollutants have been dramatically reduced through a regulatory action such as the NOx SIP Call regional haze program and state efforts to implement the NAAQS through state implementation plans.

For example, our SO2 emissions are down by over 50 percent since the year 2000.

Mr. WALBERG. OK. Thank you.

Mr. Holmstead, you were involved at the EPA in the early 2000s, have, as you said, three decades of experience on NSR reform.

As a former EPA official, speaking from that experience, why has EPA over the past 28 years had so much difficulty finalizing NSR guidance documents?

Mr. HOLMSTEAD. Well, I think some of the controversy you have seen here gives you a hint at why that is.

Mr. WALBERG. I am not egging you on. I am just—

Mr. HOLMSTEAD. No. But, you know, part of the problem here is that this NSR program has become primarily an enforcement program. We refer to it as a permitting program but when it comes to existing sources, it's become the program where EPA puts almost all of its money when it comes to enforcement. A huge percentage of the budget for EPA enforcement and DOJ enforcement goes to NSR.

They love this program because they believe that if they just look long enough they can find NSR violations wherever they look and they don't want to give up that weapon because if we actually made the program more sensible so it really was a fair and predictable regulatory program you wouldn't be able to bring all these lawsuits.

And that—I mean, I am being pretty candid here but that I think is the main reason why we haven't been able to reform the program.

Mr. WALBERG. Kind of target rich.

To the extent court decisions and litigation have contributed to this, what's the cure to ensure regulatory certainty?

Mr. HOLMSTEAD. Boy, if we could just have some narrow thoughtful legislative reforms, I mean, that's the best way to take care of it.

Mr. WALBERG. To get the job done and do it in the least restrictive but most efficient way?

Mr. HOLMSTEAD. Yes, sir.

Mr. WALBERG. OK. Thank you. I yield back.

Mr. SHIMKUS. Gentleman's time is expired.

The chair now recognizes the gentleman from Texas, Mr. Olson, for 5 minutes.

Mr. OLSON. I thank the chair, and welcome to our six witnesses. A special welcome to you, Mr. Noe. I am a fellow paper guy. My dad got a Ph.D. in paper chemistry from the Institute of Paper Chemistry when it was in Appleton, Wisconsin in 1967—a long, long time ago.

He spent over 30 years working for Champion International, now became International Paper. He worked at mills in Ohio, North Carolina, Alabama, and Texas.

And your association has members all across America. As to the members of Region 6—Texas, Arkansas, New Mexico, Oklahoma, and Louisiana by their new regional administrator, Ann Idsal, and she has already said that she sees major differences between the regions in terms of enforcement of some of these things involving the NSR.

My question is, as you deal with EPA's regional differences in the offices, do you see these differences and how they impact your members of your association?

Mr. NOE. Yes, Congressman. We—our members do see these differences and, you know, there is, unfortunately, a lot of confusion with the NSR program.

I can't tell you how complicated it is and, honestly, I've literally been in discussions with some of the best lawyers you could find

anywhere and people get into debates and I've seen examples where none of them can figure it out and they maybe defer to one in the room.

I mean, this is just not how our government should work where things are that complicated and where the law might be different based not only on what region in the country you're in but who actually is the person dealing with your permit. That's just not the way a democracy ought to work. That's not the way a good regulatory process should work.

Mr. OLSON. So there's lots of uncertainty in that process, correct?

Mr. NOE. Yes, sir.

Mr. OLSON. Another question—a crucial step in any construction project, probably the most crucial step is to obtain necessary financing—the money.

Have you members had a hard time getting project financing due to uncertainty like multiple standards in multiple regions of the EPA and time delays caused by the NSR process?

Mr. NOE. I think any time there's regulatory uncertainty that creates business uncertainty. It creates risk. So it does impede projects from going forward.

Mr. OLSON. Mr. Sunday, how about you? Difficulty getting permitting process with all the financial stuff as well?

Mr. SUNDAY. Yes. If you're going into the debt markets or to do private financing, the lender is not going to give the revenue or capital until all appeals are settled.

And so what we've seen is perpetual litigation by third party groups where the permit goes through the process. There's a challenge. They go through the court. Now the universe of controls is different. Lender is still not giving the capital. We go through the litigation again. So it really hangs up the process because we can't get that clear path to yes.

Mr. OLSON. One question for you, Mr. Spencer. In your testimony, you describe some of the issues with the NSR in terms of enforcement.

Specifically, you said, and I quote this, "It's important to reorient policies toward pursuit of actual violations that create emissions increases," end quote.

I assume the NSR was involved with pursuing actual violations and you say we have to reorient that process. Can you explain that more—elaborate on why you made that statement?

Mr. SPENCER. Yes. Thank you, Congressman.

I have been dying to say bizarre NSR all day long. So I got that into the record.

I wrote down a few phrases here—unintended consequences, perverse incentives, absurd results—and those are terms I've heard more in my practice with Clean Air Act regulations and enforcement than I've heard in my entire career.

And so I think what you're looking at is something that Mr. Holmstead alluded to earlier. When you have a facility that has engaged in an emissions projection but the reality of the situation is that time had advanced since that projection was made and there has been no actual increase.

And so as a state regulator, when we exercise our enforcement ability, we are looking for actual events—actual emission violation events.

Mr. OLSON. One final question. From your perspectives, does EPA's memo of December 7th improve the reorientation of the NSR? Is that what you tried to do? I am sorry, the NSR.

Mr. SPENCER. Yes. I would agree with that.

Mr. OLSON. OK.

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

Mr. SHIMKUS. The gentleman yields back.

The chair now recognizes the gentleman from Georgia, Mr. Carter, for 5 minutes.

Mr. CARTER. Thank you, Mr. Chairman.

Mr. Noe, I too—I grew up in the South where paper mills are plentiful. In fact, my dad worked in a paper mill. He didn't have a degree.

He was just a laborer. He worked in a paper mill for over 35 years and the best thing he ever did for me after my freshman year in college was to put me to work on a broke beater. Do you know what a broke beater is?

Mr. NOE. I—I am not sure.

Mr. CARTER. Well, it's at the end of the process. It's where all the excess paper goes and you—

Mr. NOE. The broke comes out. Yes.

Mr. CARTER. Yes, and you just take it and you assemble it and you put it back and then you recycle it, per se. But I can tell you that it was as close to hell as I've ever been.

[Laughter.]

I have never been that close. But it may—I could not get to school quick enough. I could not get back to school and study hard quick enough, I will tell you that. It was a life lesson.

Air quality was important to us. People would visit us and they would say, "What's that smell?" And we'd say, "That's money you smell," because that's what it was for us.

But it is important and I understand that. But I want to try to understand. Tell me what project netting is. What essentially is that?

Mr. NOE. So, basically, what we want to make sure we have is a system when we do the math and we look at a project to see if it results in a significant emissions increase. If it does, then by all means, let's go through the heightened scrutiny. Let's put on best controls if that's indeed the case.

But when we do the math, let's look at the increases and decreases together so we don't wind up getting the project gummed up in the works, delayed, spend hundreds of thousands of dollars on consultant studies just to get to the obvious answer that when there's not a real significant emission increase we should be putting into NSR. We ought to go forward with the project because these beneficial projects.

And one point I would like to make is, you know, I think one thing that's being lost is when a regulatory program inhibits efficiency improvements at one facility. It's doing that all around the country for a bunch of them.

So when we have demand X to meet, we are going to do it as a nation in a more inefficient and higher-polluting way. When we can get these efficiency improvements in by nature we are going to have not only less CO₂ but other pollutants as well.

Mr. CARTER. OK. You know, I've heard the process. Tell me—tell me how we reform the process. Tell me what we'd do differently from what we are doing now that makes it practical and sensible because that's what we all want to get to.

Mr. NOE. Sure. And some of the things I've mentioned these are things EPA can do either through guidance or through rule making. There are some things Congress can do. Mr. Holmstead mentioned some of them.

Ones I would like to highlight is we would like to ensure that clean units have legislative support. So, in other words, an emission unit that's been through the permitting process, to have best controls put on it—that that ought to be only an increase in the units permitted allowable emissions would trigger NSR.

For pollution control projects, those need legislative support and they're excluded under the New Source Performance Standards program. It makes sense to do the same thing in the NSR program, we believe.

Mr. CARTER. Right. Right.

Well, Mr. Noe, I want to—I want to thank you and I want to thank you for what the paper industry did for me and for my family.

It provided us a living.

Mr. NOE. Well, Congressman, if I could just briefly thank you and Mr. Olson and I am glad to hear you have a connection to the industry. Our workers are up here visiting many of your offices this week.

Mr. CARTER. Yes, they are.

Mr. NOE. I hope you get to meet them. And you know these are very proud hardworking people—

Mr. CARTER. Absolutely.

Mr. NOE. —and they're not asking for anything from any of you other than the right to compete in this country. They can beat anyone in the world as long as they are given a playing field that's workable.

No one is here asking you to take controls off projects that ought to have emissions controls. We just don't want the delay and the unnecessary red tape that is gumming up our modernization.

Mr. CARTER. Thank you, Mr. Noe.

Mr. Chairman, I yield back.

Mr. SHIMKUS. Gentleman yields back his time and the chair now recognizes the gentleman, if he's ready, the gentleman from Texas. Do you want me to go to—all right. The gentleman is recognized for 5 minutes.

Mr. GREEN. Thank you, Mr. Chairman. I am thanking you and the ranking member for holding the hearing today on the New Source Review and I would also like to thank our panellists.

I come from an area—a very urban area in Houston. We have issues. We have 5 refineries and more chemical plants than I can count.

This is a question for, I think, everyone on there. Many stakeholders have noted that the substantial delays for air permits under the New Source Review program delays two years or even longer.

My question is are the delays for issuing the permits the fault or the EPA or the state agencies that are administering the program?

Mr. SPENCER. Since I am with a state agency I am going to say it's EPA's fault.

[Laughter.]

No, I think that, as we've indicated in our testimony, certainty adds to the process of being able to issue timely permits. So the more certainty we have and clearing up the muddied guidance documents, applicability determinations, court cases, the better, and more efficient permits we can issue.

Mr. GREEN. Anybody else?

Mr. NOE. We'd like to say, Congressman, what we'd like to see happen to streamline the process is just make sure that we get the—sort the wheat from the chaff. The truly significant projects with significant increases ought to go through NSR. They ought to put on controls.

But for these minor projects, why gum them up in the works with these consultant studies that take all this time and money and delaying these projects from going forward?

So we'd like to streamline the process. I believe EPA could do that.

Mr. WALKE. Congressman, the permits in this country are issued primarily and overwhelmingly by the states, and it's the—it's, frankly, a lack of resources and capacity at the state level that's responsible for most of the permitting delays.

There was a good Houston Chronicle article about a week or two ago in which a Texas regulator said exactly that about issuing air permits in Texas.

Now, the Trump administration yesterday just proposed a 33 percent cut to the state and tribal air grants, which are the moneys from Congress responsible for issuing permits in a timely fashion.

So we've got cross purposes and I expect that our friends at AAPCA and the National Association of Clean Air Agencies would like to see Congress fully fund them so they can issue permits on time. We all want to see that.

Mr. GREEN. I was involved in a permit a few years ago because right now we are seeing in east Harris County, particularly along the Gulf Coast, expansion of chemical plants just because of the low price of natural gas, and the delay in the permits were a combination. And I would call EPA and say, oK, tell me what's going on. It was for Exxon Mobil in Baytown—huge expansion of their chemical facility—jobs and everything else.

And so sometimes it's both sides. It's both the Feds and the—because at that case it delayed it a little bit because there was—I didn't know the EPA, Mr. Chairman, had an appeals process within their agency and when I was told by the deputy EPA administrator he said, oh, we got a good result—I mean, we got a good brief and it'll go to this group.

I said, “Well, who are they? I want to do a letter to them.” And he said, “Oh, no, they’re all EPA administrators.” I said, “Well, how long will that happen?” He said, “It will take a few months,” and it took six months to get through that EPA appeals board. So, you know, which didn’t do anything to it. Just delayed it six months.

Why are there long waits for air permits in industry-friendly states like Texas? Could delays from the state agencies be a result of the budget cuts? And I think you answered that.

Earlier this week, President Trump’s 2019 budget proposed a 25 percent cut in EPA and reduced the EPA’s workforce by over 3,000 employees and I think it’s already answered that if you believe these cuts in EPA will improve air permitting times, I don’t know if you can do it with less—do it faster with less people. Is that possible?

Mr. WALKE. I don’t see how it’s humanly possible, and you’re right, that it’s EPA and states contributing and the Trump budget proposes cuts to both.

Mr. GREEN. OK.

Thank you, Mr. Chairman. I yield back.

Mr. SHIMKUS. The gentleman yields back his time.

The chair now recognizes the very patient, although he’s not a member of the subcommittee, Mr. Griffith, for 5 minutes.

Mr. GRIFFITH. Mr. Chairman, I am just very appreciative to be here as we discuss this issue, which is very near and dear to my heart.

I will say that I appreciated somebody saying that what we need is narrow thoughtful regulatory reform. I believe that was you, Mr. Holmstead, and I am attempting that with my bills and open to suggestions and, you know, I am looking in my file here—all kinds of changes and rewrites and so forth, and that’s what we are trying to do is just have a narrow thoughtful regulatory reform that works right.

And it comes about because, as some people say, you know, there’s a lot of people out there that want to see this thing work. We all want clean air.

Mr. Noe mentioned his industry. They were out in the hallway. I had to step out right at the beginning just to say hi because I have probably a couple thousand employees at West Rock at two different facilities in my district and it’s important.

Likewise, I thought we’d touched on maybe part of the problem in Ms. Hammond’s comments earlier when she was talking about putting on controls at coal-fired power plants and she said the plants can—agencies or the power companies can pass—and I am going to—I hope I get it right but it’s pretty close—can pass the cost on to the ratepayers so it doesn’t cost their shareholders anything.

That’s the problem. It’s the ratepayers who get it. And so I received—I thought it was interesting—exactly two weeks ago I received a series of texts from a friend of mine in the district and it said, “Just opened my AEP bill.”

She gives me the numbers and I calculated it. It’s 70 percent higher than what she said her highest bill was last year. She goes on to say, “We can handle it but many are suffering. Do you think

we can get it turned around?” Big subject on Facebook. Everyone is panicking.

So when we do regulations that—you know, maybe it doesn't affect the shareholder. But most of my constituents in southwest Virginia aren't shareholders. They're ratepayers, and it's easy to sit here in Washington where people have big incomes and say, well, we are just going to pass this on to the ratepayer.

But when you're dealing with a lot of folks who have modest means, we can handle it. I can handle it. This lady who wrote me can handle it. But many in my district are suffering and we have to come up with reasonable reform that makes sense, where we don't open up for pollution but we do make sense.

And I am going to give you another example. I got a furniture manufacturer in my district and I haven't been there in a couple years now so maybe they fixed it somehow.

But Mr. Noe mentioned earlier about the confusion on the law, and he had a loop in his conveyer belt that was about half the size of this room and there was nothing there. It was just a big loop.

And he said, “I bet you wonder why we have that,” and I said, “Yes, I do.” And he said, “It's because if we change this—this was once a part of our paint system and if we change it, we have to get permission from the EPA in advance. So we built these ramps to go over it and we just leave it there and it just runs off here into the middle of nowhere and back.”

That's what we are trying to fix. It is—you know, that's the one I can understand best. Some of you all can talk about all the different controls and different improvements at the—at the big power plants.

But I know that it also deals with things like conveyer belts and the end result if we don't get it right, and we haven't, is a 70 percent increase and the people back home having to pay for their electricity.

All right. Got that off my chest. I appreciate you all's patience on that.

I do think that we can work together to get this done. Mr. Holmstead, you had some concerns that you raised earlier and I understand in the written testimony that Mr. Walke claims that when you were head of the EPA Air Office back in 2002 the Bush administration weakened the clean air regulations at issue here to insert loopholes and exemptions that let industry increase harmful air pollutants significantly and evade any modern pollution controls. Would you like to respond?

Mr. HOLMSTEAD. Thank you.

What you just read indicates part of the problem here, and just in terms of the honesty of the debate.

So that was a quote from my friend's testimony who said that the Bush administration weakened them to insert loopholes and exemptions that let industry increase harmful pollution significantly and evade any modern pollution controls.

I don't know how anyone can say that. That was 2002. You go on EPA's Web site. You do a search and you see where emissions have gone since 2002 and all of these pollutants that we are talking about have been reduced by about 35 percent since 2002.

So we did do some important reforms that I think made the—made the program better. We didn't let industry increase harmful pollution significantly.

We tried to do things in a thoughtful way, and that's part of the problem here.

Mr. GRIFFITH. And I appreciate that and I appreciate the opportunity to be with you all today and appreciate everybody's testimony.

And what I appreciate most is that two of you who completely disagree—Mr. Holmstead and Mr. Walke—are sitting side by side and that's the way it's supposed to be in America.

We can disagree. We can have battles of ideas. But we don't have to be completely disagreeable or get so angry that we can't sit at the table together.

Thank you for that and appreciate your testimony. I yield back.

Mr. SHIMKUS. The gentleman yields back his time.

Seeing no further members wishing to ask questions for the first panel I would like to thank you for being here and joining us today.

Before we conclude, I would like to ask unanimous consent to submit the following documents for the record.

We have a letter on the EPA's NSR program. We have this article, "EPA's New Source Review Program: Time for Reform?"—Mark Fraas, John Graham, and a guy named Jeff Holmstead.

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

And pursuant to committee rules, I remind members they have 10 business days to submit additional questions for the record and I ask the witnesses to submit their responses within 10 business days upon receipt of the questions.

Without objection, the subcommittee is adjourned and I would encourage my colleagues to get downstairs for our markup.

[Whereupon, at 3:54 p.m., the committee was adjourned.]

[Material submitted for inclusion in the record follows:]



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

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MEMORANDUM

To: William Harnett, Director
IPTID/OAQPS

From: Adam M. Kushner, Director 
AED/OECA

Subject: Air Enforcement Division's Comments on the Draft New Source Review Clean
Air Interstate Rule (August 24, 2005 draft)

Date: August 25, 2005

The Air Enforcement Division (AED) has reviewed the draft New Source Review Clean Air Interstate Rule (August 24, 2005 draft) and has significant concerns about the test proposed and the positions taken in this proposed rule. The proposed rule will adversely impact our enforcement cases and is largely unenforceable as written. AED's concerns are outlined in more detail below.

AED received the latest (and substantially revised) draft of the proposed rule on August 24th. The proposed rule represents a significant departure from heretofore applied New Source Review (NSR) emissions tests for electric generating units (EGUs). We are diligently working to assess the impact the proposed rule will have on both the filed cases as well as our ability to bring future enforcement actions, as appropriate. In addition, we are assessing the relative enforceability of the proposed rule as drafted. While we have completed a good deal of work (which we share below), our work to assess the impact of the rule continues. We will be certain to share with you the additional work we perform as it becomes available.

We will not restate our prior general comments on earlier drafts of the proposed rule as contained in our memoranda of June 30, 2005 and August 18, 2005. However, to the extent that the latest proposed draft of the rule does not reflect those comments, we again request that such comments be addressed in subsequent drafts of the proposed rule. Thank you for the opportunity to comment on this draft and I look forward to discussing these matters with you.

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The Emissions Tests

We stated in the draft rule that one of its purposes is to ensure that existing sources that increase their operating capacity be subject to major NSR permitting. In the section of the draft rule entitled "Significant Emission Rates," OAR states:

By eliminating the use of a significant rate, we balance the differences in these tests, and focus permitting authority resources on reviewing all changes that result in increases in existing capacity. We believe that this result is consistent with our interpretation of Congressional intent in that it assures that, at a minimum, capacity increases undergo major NSR review.

See Draft Rule at p. 23.¹

To assess whether the proposed alternative applicability test(s) in the rule in fact preserve EPA's stated intention to capture modifications that increase emissions as a result of an increase of capacity, AED analyzed emissions data obtained from EPA's Clean Air Markets Division from units with known capacity increases. AED evaluated such data both pre- and post-change. The changes selected for analysis were based on data availability. The results of our analysis are set forth in Attachment A to this memorandum.

As currently written, the draft rule sets forth two possible methods that an EGU could apply in assessing whether or not a change would trigger major NSR. As we understand the "achievable" emissions test proposal, an EGU must obtain a major NSR permit if the modification to be made increases the maximum achievable hourly emissions.² To apply the proposed test, an EGU would first select a maximum achievable hourly emission rate that could have been obtained within the five years before the change. It would then project what the maximum achievable hourly emission rate could be after the change. If the projection shows that the change would cause an increase in the maximum achievable hourly emission rate, the source would trigger major NSR and would need to apply for and obtain a pre-construction permit before performing the change.

AED believes that a utility would have many ways to show that a particular capacity is or was theoretically achievable, which makes analysis of the impact of the test difficult and application of the test largely unenforceable. Because most of the information and data that might inform application of the test would be solely in the possession of the EGU (under the draft

¹ As noted elsewhere in this memorandum, AED believes that conflating the emissions test for triggering NSR with the NSPS emissions test is contrary to Congressional intent. See *State of New York v. EPA*, Slip op. at pp. 9-11, 24-26.

² Compare Definition of "major emitting facility" at CAA Section 169 (1) ("stationary sources which emit or have the potential to emit, one hundred tons per year or more.")

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proposal as written), a permitting authority would have exceedingly difficult time assessing whether or not a change at an EGU in fact triggered NSR. Thus, this theoretical achievable test creates a subjective test leading to a "battle of the experts," and consequently greatly handicaps the efficient administration of a meaningful pre-construction permitting program. The proposed test will make it difficult for both a utility and the regulators to assess the compliance status of an EGU.

An illustration of the problems associated with such a test is contained in our analysis of a project at Case Study # 2. See Attachment A page 12. See Attachment A. In this example, a reasonable theoretical "achievable" emission rate was calculated using the methodology described in this memorandum. Using this method, the achievable hourly emission rate was calculated to be more than ten times higher than the average hourly emission rate in the five-year period prior to the change. Comparison of this baseline to a calculated maximum achievable emission rate after the change would make meaningful analysis of the change impossible, because the achievable emission rate is not a clear indicator of capacity. Any increase in capacity or emissions caused by this change would not register because the comparison takes place at a level 10 times higher than representative emission rates of the unit.

In addition, because NSR is a pre-construction permitting program, the unit would retain the ability to apply for a limit at this achievable hourly rate. Since the rate is not based on representative emissions and is not indicative of capacity, a source could increase capacity significantly and still not exceed the limit. Because the analyses in the attachment were performed using actual operating data, and, presumably, the rule would not restrict the calculation of achievable emissions, we would expect a source to calculate achievable emission rates higher than those in these examples by using theoretical heat rates or emission rates, exacerbating the enforceability problem.

Because of the difficulties associated with anticipating all of the arguments which a utility could make as to what is or is not "achievable," AED used actual maximum historical emissions coupled with maximum heat rate data to analyze the "achievable" test. AED believes that this approach is more conservative, and consequently probative of the practical implications of the proposed "achievable" test (i.e., it has a better chance of triggering the NSR pre-construction permitting requirements) than applying the "achievable" test to determine what emission rates were potentially or theoretically "achievable."

For each case study, the baseline level is represented as a horizontal line across the graph. The maximum achievable hourly baseline represented in the attached case studies were calculated using the maximum heat rate, expressed in mmbtu/hr, multiplied by the maximum emission rate, expressed in lbs/mmbtu, within the years prior to the change, but no earlier than 5 years before the

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modification.³ Significantly, these two input values (heat rate and emission rate) may not have been (and are not typically in the real world) temporally coincidental. AED believes that the draft rule allows such an interpretation, although we strongly suggest that there would be no basis for characterizing such an approach as representative of operations of an EGU either prior or subsequent to a change.

AED further understands that we are proposing to seek comment on an alternative emissions test that would use an "achieved" baseline calculated by using the maximum hourly emission rate, in lbs/hr, in the 5 years prior to the change. As we understand this proposal, an EGU must obtain a major NSR permit if the change is projected to cause an emissions increase above an actually achieved maximum hourly emission rate. An EGU would first select a maximum achieved hourly emission rate that occurred within the five years before the change. It would then project what the maximum hourly emission rate could be after the change. If the projection showed that the change would cause an increase in the hourly emission rate, the source would need to obtain a major NSR permit before performing the change.

The achieved baselines represented in the attached case studies set forth in Attachment A, were selected as the maximum hourly emission rate, expressed in lbs/hr, within the years prior to the change, but no earlier than 5 years before the modification. No calculation of this baseline was necessary because the CAMD data contain these values.⁴ As with our previous analysis, AED compared the baseline level to actual emission rates that occurred after the change to identify any hourly emissions rates which exceeded the baseline level.

³ Data collected by the Clean Air Markets Division's is available for the calendar year beginning in 1995. As a consequence, where a change occurred before 2000, less than five years of emissions data was available to be used in determining baseline emissions. Please also note that for some units, we have identified a very small subset of hourly data which is clearly outside a reasonable operational range, which we attribute to data substitution, continuous emission monitor malfunction or other reasons. There was probably no need for CAMD to address these data issues in that the acid rain program evaluates EGU performance on an annual, not hourly, basis. For this subset we have applied a data correction factor which eliminated the extreme 0.1% of heat rate data points only. After application of this correction factor, all the data seemed to fall within reasonable operating parameters. *See e.g.*, Comanche analysis at Attachment A. As noted above and elsewhere in this memorandum, the proposed rule does not allow for any data correction nor does it have any requirement that the maximum achievable hourly rate or emission rate be representative of operating conditions.

⁴ Note that the preamble states that these two baselines should be similar. As illustrated in the attached graphs, this is not the case. The analysis of this "achieved" proposal contains the same data limitations noted above.

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The attached analysis shows that even where we have known capacity increases, the proposed test and the test for which EPA seeks comments, does not fulfill the stated intent of the proposed regulation. Consequently, one can only conclude from application of the so-called “achievable” test that no “change” causing an emissions increase (capacity or otherwise) at an EGU would trigger NSR requiring the source to seek a pre-construction permit from its permitting authority and install pollution controls. Moreover, one can only conclude from application of the so-called “achieved” test that only under the rarest of operational circumstances would a “change” causing an emissions increase (capacity or otherwise) at an EGU trigger NSR requiring the source to seek a pre-construction permit.

Specific Comments on Proposed Rule

The following are AED’s specific comments to the August 24, 2005 draft rule:

- Language: Pages 3, 11: “The revised applicability test is the same as that in the New Source Performance Standards Program under CAA Section 111.”
- Comment: We suggest that you modify the sentence as follows: “The revised applicability test is the same as that for the emissions test for the New Source Performance Standards Program.” The modified sentence emphasizes that it is the emissions aspect of the new source performance standards (NSPS) program applicability test only that is being purportedly adopted for purposes of measuring emissions increases in the NSR program. Such an approach will give us a better chance of disentangling the proposed rule from the issues raised in the *Duke* and *New York* matters, while minimizing collateral and unintentional adverse impacts on the NSPS program for other non-EGU sources. We believe, however, a better approach would be to not tinker with the NSR test at all. Nonetheless, should a decision be made to alter the NSR applicability test for EGUs we suggest that a new and distinct NSR rate-based test be developed that, at a minimum, in fact captures emission increases that are the result of unit expansions and design changes. We suggest that the proposed rule be conformed in its entirety to conform to this recommendation.
- Language: Pages 3 and 11: “we are proposing to compare the *maximum hourly emissions achievable* at that unit during the past five years to the maximum hourly emissions achievable at that unit after the change . . .” Compare to page 16: “by comparing the pre-change *maximum achievable actual hourly emission rate* to the post-change maximum achievable actual hourly emission rate assuming the source is operating at its maximum operating capacity.
- Comment: The language used to identify the test should be referenced consistently

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throughout the draft rule. Based on the language offered it is difficult to discern whether OAR intends to propose a “maximum achievable hourly emission rate” test or a “maximum achievable *actual* hourly emission rate” test. AED prefers the latter formulation.

- Language: Page 12: “There is little additional benefit to be gained by applying the requirements of the major NSR program to existing sources that modify without changing their current operating capacity.”
- Comment: As discussed in detail above in the Section of this memorandum entitled “The Emissions Test,” the “achievable” test offered by OAR in the draft rule is not triggered by an increase in “current operating capacity,” and the “achieved” test is triggered only in rare instances.
- Language Page 12: “We designed these regulatory systems [cap-and-trade] to encourage reductions from the higher, less efficient emitters . . .” *See also* p. 37
- Comment: While it may be true that the intent of EPA in fashioning the cap-and-trade programs over the years is to encourage reductions from the higher, less efficient emitters, and while in fact it may be the case that some utilities have elected to install controls on those dirtier plants, our experience demonstrates that in fact many “higher, less efficient emitters” have not been controlled.
- Language: Page 11: “[f]or existing EGUs, we are proposing to compare the maximum hourly emissions achievable at that unit during the past five years to the maximum hourly emissions achievable at that unit after the change to determine NSR applicability.
Page 21: “As a practical matter, little difference exists between our proposed maximum achievable hourly emissions test and this [achieved] alternative. Both approaches provide a measure of a source’s actual emissions.”
- Comments: As noted above in the Section of this memorandum entitled “The Emissions Test,” it is unclear how a maximum hourly emissions achievable test would be applied in practice, as there are many ways one could formulate such a test or demonstrate what is “achievable.” Consequently, it is difficult to compare the two tests and the question remains as to how either test measures actual emissions when neither consider hours of operation.

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As written the draft rule would permit a utility to rely on *any* "maximum hourly achievable emissions" to both establish an emissions baseline and to project its emissions post change. This is problematic because the rule fails to proscribe that the maximum hourly achievable emissions be representative of typical operating conditions and be representative of good air pollution control practices. Failure to establish data standards will afford a utility an opportunity to rely on artificially high, non-representative emissions data. For this reason, application of any test should require that the data used by a utility be representative of typical operating conditions and good air pollution control practices.

The stated intent of the rule is to capture emissions increases that are the result of modifications that are caused by an increase in design capacity. We have two overarching concerns with these statements. First, an increase in achievable or achieved emissions is not in and of itself and indicator of an increase in capacity. Second, the emissions impact from recapturing lost utilization or through life extension projects are equal to (and in many instances) greater than emissions increases that may result from capacity and expansion projects. Thus, there is no rational basis for establishing a test that excludes emissions increases associated with boiler changes that are intended to recapture lost utilization or extend the life of a unit. Third, as proposed, and as demonstrated in Attachment A, NSR is not necessarily triggered where *are* capacity increases, notwithstanding significant emission increases.

Language: Page 13: "Once the Court's opinion is entered into the record (what's correct terminology for this)"

Comment: There is no mention that EPA is seeking reconsideration of either or both the *Duke* and/or *New York v. EPA* decisions. In addition, the summaries of both decisions contained on pages 75-77 is inaccurate as it is incomplete. Given the pendency of both decisions, it is unwise to comment on either decision at this time in a way that may hurt our chances in either case, should an appeal be granted.

The discussion of the D.C. Circuit's decision in *Alabama Power* on pages 78-79 of the proposed rule also re-characterizes that decision in a way that is contrary to one of the central holdings of the D.C. Circuit in that case. In *Alabama Power*, the D.C. Circuit remanded an EPA regulation exempting changes below a certain size from PSD coverage, finding that EPA could grant only limited exemptions from the permitting requirements of the Act. *Alabama Power*, 636 F.2d at 400. The discussion of the *Alabama Power* decision on pages 78-79 of the proposed rule glosses over the fundamental point that exemptions to the term modification should be narrowly construed. The D.C. Circuit also noted that the Act would

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clearly require “grandfathered” industries to undergo PSD review if they made modifications, even though this would be costly and inconvenient: “If these plants increase pollution, they will generally need a permit. Exceptions to this rule will occur when the increases are *de minimis*, and when the increases are offset by contemporaneous decreases of pollutants. . . .” 636 F. 2d at 400.

Language: Footnote 2

Comment: There are many instances in the draft rule (including footnote 2) where the drafting of the rule appears incomplete. AED reserves its comments on those portions of the draft until such language is offered for review.

Language: Page 15, “Unlike our NSPS regulations, our major NSR regulations do not contain a specific definition of the term “modification.”

Comment: While perhaps technically correct, it is misleading to say that the NSR regulations do not contain a definition of “modification” when in fact we have been effectively arguing to the contrary in our briefs in the various court proceedings at which the issue has been joined. We suggest revising this statement to comport with what has been stated in our filed briefs, which reflects the consensus amongst all the interested EPA offices.

Language: Page 20 and the paragraph that follows: “[w]e are not proposing to change the types of physical or operational changes regulated by the major NSR program.”

Comment: While it is true that the draft rule does not in fact re-define what physical or operational changes are modifications for NSR purposes, the effect of the rule is to make very few, if any, changes modifications that trigger NSR.

Language: Page 21: “The pre-change maximum actual hourly emission rate would be the *average rate* at which the EGU actually emitted the pollutant within the 5-year period immediately before the physical or operational change.”

Comment: This language describes the “slightly revised” version of the proposed maximum achievable hourly emissions test, based on assessing an emission unit’s historical maximum hourly emissions. First, “average rate” is a new term and needs to be defined to be enforceable. Second, see comments below regarding enforceability generally of these proposals (*i.e.*, lack of record keeping/reporting requirements, discussion of prospective only effect of the new test). Third, see comments above, in the context of discussing the proposed “achievable” regarding the need to ensure that a source relies on data that is typical of its operations and representative of good

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air pollution control practices. The same concerns are at issue with respect to the proposed "achieved" test.

Language: Page 21: "Both approaches provide a measure of a source's actual emissions."

Comment: The "achievable" test is a measure of the "potential" emissions of a source (and not an accurate one at that) in the classic and historic sense of the use of that term. Unless the draft rule incorporates standards regarding representativeness of data and data correction, neither the "achievable" or "achieved" test can be characterized as an accurate measure of actual emissions as a source would be able to inflate its baseline or change its practices to ensure that NSR was never triggered.

Moreover, the draft proposed rule should indicate explicitly that EPA is considering whether the NSPS test is an "actuals" test in the sense meant by the D.C. Circuit in NY v. EPA. The proposed rule should further highlight that EPA is taking comment on that particular issue. Doing so (rather than indicating or implying that EPA has already so decided) will (1) make the rule more defensible by defusing criticism that EPA without explanation (i.e., arbitrarily and capriciously) reversed course from the position expressed in the enforcement briefs (in Duke most notably) and (2) keep the Fourth Circuit (and other courts with pending enforcement actions) from accusing EPA of being duplicitous (or at least minimize that chance). Taking a definitive position in a proposal rather than in a final rule is not necessary, and we fail to see how it gains us anything rather than merely inviting attack in both the inevitable petitions for review and the pending enforcement actions.

Adjustments could be made in this vein to page 21 (for instance, taking out the sentence "Both approaches provide a measure of a source's actual emissions.") and the paragraph on pages 82-83 (the paragraph beginning "As we explained in the statutory and regulatory background section, we codified the maximum hourly emissions test in the NSPS program as a way of measuring actual emissions to the atmosphere."). We could there include a sentence or a footnote stating: "For such reasons, some parties have suggested that the NSPS test measures 'actual' emissions in the sense meant by the D.C. Circuit in New York v. EPA. We invite comment on that issue." Gratuitous references to the NSPS test being an "actuals" test (e.g., on page 16, in the repeated phrase "maximum achievable actual hourly emission rate") should also be removed.

Language: Page 22: We are concerned that adopting this alternative approach would undermine some of secondary policy objectives supporting this proposal. We stated that two of our goals for this proposal are to streamline the regulatory requirements applying to EGUs by allowing EGUs to apply the same test for

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measuring emissions increases from modifications under both the NSPS program and NSR program, and to provide some nationwide consistency in the emissions calculation procedures in light of the Fourth Circuit's decision in Duke.

Comment: These goals are not met under either an achievable or achieved test because: 1) the proposed NSR emissions test does not accurately reflect the current NSPS emissions test; 2) the proposed NSR test and the current NSPS test are not the same because differences will still remain in application of the term "modification" as recognized on page 20 of the draft proposed rule; 3) the proposed new NSR emissions test and the current NSPS emissions test will still be different for PM and CO after promulgation of this rule.

Language: Page 23, and seriatim: The use of the term "significant rates," "significant emissions rate."

Comment: The draft rule is unclear by what is meant by "significant emissions rates." The discussion appears to distinguish between "significant rates" and "significant thresholds" but the loose use of those terms causes the discussion to be confusing.

Consistent with the stated intent of the rule, in AED's view, no significance threshold (level) should attach to emissions increases associated with an increase in design capacity.

Language: Page 28: "We believe that implementing our proposed maximum achievable hourly emissions rate test for EGUs offers significant benefits over the existing actual-to-projected actuals emissions test" and the paragraph that follows.

Comment: Since as written NSR would never be triggered it is fair to say that the so-called "alternative applicability test" would reduce the administrative burdens.

Language: Page 29, "It reduces record keeping and reporting burdens on sources because compliance will no longer rely on synthesizing emissions data into rolling average emissions."

Comment: The referenced statement is unclear. This is the only instance in the entire proposal where either record keeping or reporting requirements are discussed. The proposal does not put any obligation on the source to maintain records to support a claim that it has not triggered NSR. Significantly, enforcement and enforcement impacts of the proposed rule are not addressed *at all* in the proposal. Absent record keeping and reporting requirements the rule is effectively unenforceable. *See State of New York v. EPA*. Further, the records that an EGU maintains that would bear on a

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determination of whether NSR is triggered as a result of a change is no different under the current test than under the proposed test. Moreover, a sources obligation to maintain such records exists independent of the NSR program. For example, hourly data and annual emissions for SO₂ and NO_x are recorded and reported by a source to EPA in order to comply with Title IV and now CAIR. Similarly, records of changes made to a unit are recorded and reported independent of the NSR program -- i.e., for, *inter alia*, the IRS and public utility commissions.

Language: Page 29: The draft rule does not state that it is intended to apply to prospective conduct only.

Comment: We again urge you to include in the proposed rule the same language that was inserted into the equipment replacement proposal regarding enforcement and that the proposal does not affect past/future conduct (and associated liabilities) of the source. In addition, we must insist that we review the proposed language to ensure that it addresses our concerns. We recite some of the relevant ERP language below with conforming changes noted in brackets:

Today's rule provides revisions to the major NSR program to specify [a new emissions test that will become applicable] in the future. As recognized by the U.S. Supreme Court, an agency may not promulgate retroactive rules absent express congressional authority. See *Bowen v. Georgetown Univ. Hosp.*, 488 U.S. 204, 208, 102 L. Ed. 2d 493, 109 S. Ct. 468 (1988). The CAA contains no such expressed grant of authority, and we do not intend by our actions today to create retroactive applicability for today's rule. 42 U.S.C. 7401 et seq. Today's rule applies only to conduct that occurs after the rule's effective date. None of today's rule revisions apply to any changes that are the subject of existing enforcement actions that the Agency has brought and none constitute a defense thereto. Furthermore, prior applicability determinations on major modifications that result in control requirements in an NSR permit that currently applies to a source remain valid and enforceable as to that source. [Once effective,] if you subsequently undertake an activity that does not meet the applicable provisions of these new [provisions] and do not obtain a preconstruction permit if you are required to do so, you will be subject to any applicable enforcement provisions (including the possibility of citizens' suits) under the applicable sections of the CAA. Sanctions for violations of these provisions may include monetary penalties of up to \$27,500 per day of violation, as well as the possibility of injunctive relief, which may include the requirement to install air pollution controls.

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- Language: Page 29: "The CMA Exhibit B Settlement Agreement" approach.
- Comment: We have not reviewed the referenced settlement agreement and consequently we are unclear of its terms. Please forward a copy of the settlement agreement at the earliest possible opportunity.
- Language: Page 41: "These analyses [by economists] assert that NSR requirements allow existing sources to operate under less stringent emissions standards than new sources."
- Comment: Prior to EPA's coal-fired enforcement initiative few, if any, EGUs sought NSR pre-construction permits because of the industry-wide held view (rightly or wrongly) that changes to their boilers (no matter the magnitude) were routine and therefore exempt. However, in recent years many sources (both existing and new) have sought and obtained NSR permits. A review of those permits, the control requirements, and the emission limits required indicates that existing sources are operating under (in many instances) as, or more, stringent standards than new sources. We also note that much of the literature that is relied upon to support the efficiency and stringency arguments pre-date the coal-fired enforcement initiative.
- Language: Page 54, Relationship of BART and CAIR, and discussion about non-CAIR units not subject to BART
- Comment: There are several reasons why we believe that extending the alternative test to non-CAIR units and relying on BART to do so is misplaced. CAIR has a regional emission cap backstop for both NO_x and SO₂, BART does not. BART applies only to facilities constructed between 1962 and 1977, and only those that directly impact Class 1 areas. All non-CAIR EGUs constructed prior to 1962 or after 1977 would be receiving the benefit of the proposed new rule, but would not have the BART or CAIR backstop. BART applies to all major sources of NO_x and SO₂ (26 major source categories) and is not limited to just EGUs, creating arguments for other non-EGU sources to argue that the NSR alternative emissions test should apply to them. CAIR assumes NO_x-controlled units will meet a presumptive limit of 0.05 lb/mmBtu and a regional limit of 0.125 lb/mmBtu in 2015. BART presumes that subject units will meet a presumptive limit between 0.15 - 0.62 lb/mmBtu for NO_x and does not require a regional or national rate limit or ton cap. CAIR assumes SO₂-controlled units will have removal efficiencies of approximately 98%. BART assumes SO₂-controlled units will have removal efficiencies of between 90-95%, or even lower if using low sulfur coal. We have stated in the CAIR rule that BART is

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not as effective as CAIR in obtaining emission reductions. Finally, NSR requires BACT or LAER at a source where there is a modification, but neither CAIR nor BART require the same.

- Language: Pages 61-62, discussions about how CAIR and BART programs are expected to protect local air quality.
- Comment: This issue is never really addressed. There is considerable discussion as to how CAIR will improve air quality throughout the Eastern United States, and there is little doubt that the emissions reductions that will be realized from implementation of CAIR represent a dramatic improvement from existing emissions levels. However, CAIR does not require a source to install BACT/LAER-type controls to meet its CAIR obligations (although out of necessity it may have to). Moreover, in the instance where a source might install BACT/LAER-type of controls there is nothing in CAIR that would require a source to operate those controls at BACT/LAER-levels or to even operate such equipment at all times. This is an issue because as we acknowledge in the CAIR rule making package and preamble some areas will remain in non-attainment even after full implementation of CAIR. Thus, we believe that NSR remains an important tool in ensuring that the Clean Air Act's air quality objectives are achieved, and once achieved maintained (as envisioned by Congress). For this reason, and as discussed above, we believe that so-called applicability test(s) as proposed does not comport with Congressional intent and should be revised consistent with the concerns reflected in the comments in this memorandum in the section entitled "The Emissions Test."
- Language: Page 63, fn. 37: "As explained above, such new sources may take the form either of entirely new facilities or expanded or modified facilities, or of expanded or modified operations which result in substantially increased pollution. . . ."
Page 64, "we interpret the Congressional history to show that at a minimum, Congress was concerned about regulating new sources of emissions caused by expanding or modifying the existing capacity of operations, as the following two statements indicate . . ."
- Comment: This notion is fatal to our cases to the extent "expanded" is measured from design capacity or capacity at the time of original placement into service or original permitting. This also appears to be inconsistent with the D.C. Circuit decision in *Alabama Power*. This is Duke's, and every other Defendant's, favorite defense in the NSR enforcement cases: we have not expanded capacity and, consequently, NSR was not triggered. The views expressed in the draft rule are inconsistent with the D.C. Circuit's decision in *Alabama Power*, wherein the court rejected the idea that Congress intended to cover only physical changes that resulted in increased

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operating capacity. The court noted that the legislative history indicates that one Senator thought this was the proper scope, but that Congress rejected this notion. The D.C. Circuit stated: "Describing the scope of the senate bill, Senator Buckley stated 'No significant deterioration' is a policy that has no effect on existing sources, unless a source undertakes a major expansion program. . . ." When this debate took place, the statutory language did not apply PSD preconstruction review to source "modification." In November 1977, the Senate and House passed technical amendments, one of which had the effect of defining "construction" to include "modifications." It was this new language that had the effect of overriding Senator Buckley's interpretation of the meaning of 'no significant deterioration.'" *Alabama Power*, 636 F.2d 323, 400 (D.C. Cir. 1979). We suggest that all references to expanded and congressional intent as to the NSPS be deleted.

Language: Page 68: "However, since the NSPS test is based on actual operating capacity rather than design capacity, we believe that the potential-to-potential terminology can be misleading, and prefer the name 'maximum achievable hourly emission rate' . . ."

Comment: As demonstrated in "The Emissions Test" section of this memorandum, the proposed achievable test does not reflect emissions at operating capacity or even during typical operating conditions. Moreover, there is little ability for the permitting authority to meaningfully distinguish between operating and design capacity particularly where a utility conflates the two to support an inflated baseline.

Language: Page 76-77: *Duke Energy* discussion.

Comment: See discussion above regarding characterization of the status of the decision and EPA's request for rehearing *en banc*.

Language: Page 88, "In a 2003 (cite RMMR) rule, we articulate our position that activities designed to promote safety, reliability and efficiency of emissions units should not be subject to major NSR, yet it is often these types of projects that raise questions as whether post-change emissions are related to a change."

Comment: The ERP rationale should not be re-stated here without also acknowledging that the rule has been stayed. We suggest you delete this sentence altogether.

Language: "Major NSR Program"

Comment: Need to expressly and plainly state that the draft rule would be prospective only. As discussed above, we suggest lifting the "prospective only" language from the ERP and inserting it in the draft rule.

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Conclusion

Thank you for the opportunity to comment on the draft rule. We believe that a good deal of additional work and analysis should be done before finalizing the proposed rule and making it available for public comment. Not only does the text of the preamble itself need to be revised to better identify what we are specifically proposing, but the impact of the proposed rule needs to be better understood. As you can see from our analysis, the proposed test(s) do not reflect the stated intent of the proposed rule -- *i.e.*, to have an increase in emissions associated with an increase in operating capacity trigger NSR pre-construction permitting requirements.

ARTICLES

EPA's New Source Review Program: Time for Reform?

by Art Fraas, John D. Graham,
and Jeff Holmstead

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Summary

This Article examines the complex CAA program known as new source review (NSR), which affects virtually every major manufacturing facility and power plant in the United States. The NSR program provides important health and environmental benefits but has become a significant impediment to the growth and modernization of the U.S. manufacturing sector. Because of a new, more stringent air quality standard for ozone, the resulting changes in the NSR program may effectively prevent industrial development in some parts of the country. The authors propose administrative reforms that EPA could take to address some of the major concerns about NSR while still maintaining the environmental benefits of the program: (1) replace current deterministic, upper-bound modeling requirements with a probabilistic approach to air quality modeling; (2) expand the pool of emission reduction credits that may be used to offset emissions from new or expanded facilities; and (3) take actions to facilitate NSR permitting when there are changes to national ambient air quality standards. The authors also offer two potential statutory reforms.

The administrations of both George W. Bush and Barack Obama recognized that manufacturing is one of the most heavily regulated sectors in the U.S. economy. Since 1981, manufacturers have become subject to more than 2,200 unique regulations, almost one-half attributable to one federal agency, the U.S. Environmental Protection Agency (EPA).¹ Both administrations also sought to streamline existing federal regulations that apply to the manufacturing sector in order to reduce economic burdens that threaten the competitiveness of U.S. manufacturing. However, a recent report by the Regulatory Studies Center at George Washington University found that the retrospective reviews of manufacturing regulations under both presidential administrations have had limited impact. Indeed, some of the retrospective reviews appear to have led to greater rather than diminished regulatory burdens.²

EPA's new source review (NSR) program is of special interest because it affects virtually every major manufacturing facility and power plant in the United States—and any company that might want to build such a facility in the future.³ In this Article, we discuss the major concerns about the NSR program that have been raised by industry and the policy community, and also highlight the expanding burdens of the program resulting from increasingly stringent national ambient air quality standards (NAAQS). However, since the NSR program is also recognized as a source of significant environmental benefits, the simple option of deregulation does not seem to be particularly promising. We argue that creative regulatory reforms can accomplish most or all of the anticipated environmental benefits at considerably reduced cost to the regulated industry and the U.S. economy.

Authors' Note: This Article was originally prepared as a working paper by Art Fraas and John Graham for discussion among academics and industry professionals at a workshop at Indiana University on October 29, 2015, in Indianapolis, Indiana. Financial support was provided to the two working paper authors by Indiana University through funds raised from individual philanthropists interested in a revival of U.S. manufacturing. We are grateful for the comments provided on earlier drafts by Lynn Hutchinson and Nathan Richardson and the research assistance of James (Hunter) Odom. The views expressed are entirely those of the authors.

1. PAUL BERNSTEIN ET AL., *MACROECONOMIC IMPACTS OF FEDERAL REGULATION OF THE MANUFACTURING SECTOR* (NERA Economic Consulting & Manufacturers Alliance for Productivity and Innovation 2012).
2. Sofie Miller, *EPA's Retrospective Review of Regulation: Will It Reduce Manufacturing Burdens?*, 14 *ENGAGE* 4-14 (2013), available at <http://www.fed-soc.org/publications/detail/epas-retrospective-review-of-regulations-will-it-reduce-manufacturing-burdens>.
3. NATIONAL RESEARCH COUNCIL, *NEW SOURCE REVIEW FOR STATIONARY SOURCES OF AIR POLLUTION* 68-76 (2006).

We start with a brief summary of certain key features of the Clean Air Act (CAA) and a brief discussion of how the NSR program fits within the structure of the Act. We then identify aspects of the current NSR regulatory approach that are likely to impose increasing costs on manufacturers in the near future. We propose options for regulatory reform that are designed to streamline and modernize regulatory requirements and reduce regulatory costs, while still allowing the regulatory program to achieve significant environmental results. We recognize that reforms that can be adopted through executive action are more likely to occur than those that require new legislation by the U.S. Congress, but we also outline two variants of a potentially promising legislative reform that could replace the existing case-by-case NSR review process with a system of economic incentives.

I. Background

A. NAAQS

The CAA requires that EPA establish NAAQS for certain pollutants known as “criteria pollutants”: pollutants that come from a variety of sources, are widespread in many geographic areas, and “reasonably may be expected to endanger public health or welfare.”⁴ EPA has identified and set NAAQS for six such pollutants, including ozone and particulate matter (PM). The statutory language requires primary health-based NAAQS to be set at levels “which in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health.”⁵ This requirement has yielded an underlying health science based on an increasingly sophisticated set of studies focused on sensitive subpopulations and more subtle health endpoints.

The CAA also requires EPA review of NAAQS every five years.⁶ Although EPA has not been able to meet the five-year deadline in recent years, environmental groups have used litigation effectively to force EPA into what amounts to almost continuous review of NAAQS, especially NAAQS for ozone and PM. The result has been a series of more stringent standards over the past decade. And given the focus on sensitive subpopulations and more subtle health effects, it appears likely that there will be continuing pressure to ratchet down NAAQS even further in future years.

Since 2009, EPA has set more stringent NAAQS for four of the six criteria pollutants: nitrogen dioxide (NO₂), sulfur dioxide (SO₂), PM, and ozone. These NAAQS impose substantial costs on the U.S. economy and, in particular, on the manufacturing sector. For the recently revised ozone NAAQS, for example, EPA estimated annual costs of \$1.4 billion (not including the cost in California, which faces a particularly difficult challenge in reducing ozone levels), but some experts believe that the cost will be much higher.

Some major metropolitan areas such as Los Angeles, Houston, and the East Coast megalopolis have had a continuous classification as “nonattainment” (NA) for the ozone and fine PM NAAQS.⁷ These areas face continuing pressure to reduce emissions from the transportation and manufacturing sectors and severe restrictions on the siting of major new sources. Other large cities find that, with the lowering of NAAQS, they are in NA again (after spending years to meet an earlier standard) and must adopt even more stringent emissions controls for their manufacturing, commercial, and transportation sources.⁸ In addition, as discussed below, the continuing ratcheting downward of NAAQS is making it increasingly difficult to site major new manufacturing sources.

Studies of the historical effect of the CAA on economic activity report significant economic costs in NA areas.⁹ For example, Michael Greenstone estimated that, as compared to attainment counties in the United States, NA counties lost \$37 billion in capital, \$75 billion of economic production (in 1987 dollars), and 590,000 jobs during the period from 1972 to 1987.¹⁰ In a more recent study, Greenstone et al. estimated a significant decline in total factor productivity for pollutant-intensive plants in NA areas.¹¹ They report that this decline in productivity translates into a loss of

7. While classified as nonattainment areas, the air quality in these areas is better than the NAAQS for a significant number of days in the year.

8. To be sure, additional health and welfare benefits are associated with more stringent NAAQS. In the case of ozone, EPA estimates that benefits increase significantly with successively more stringent standards. And even net benefits (benefits minus costs) arguably increase with the more stringent ozone standards. This result is largely driven on the benefit side by the substantial additional reductions in premature mortality with successively more stringent ozone NAAQS. On the cost side, EPA assumes that the cost of needed emissions reductions will be capped at \$15,000 per ton, arguing that technological innovation and the ability of states and local governments to delay unreasonably costly measures will mitigate the cost of NAAQS.

9. Michael Greenstone, *The Impacts of Environmental Regulations on Industrial Activity: Evidence From the 1970 and 1977 Clean Air Act Amendments and the Census of Manufactures*, 110 J. POL. ECON. 1175-1219 (2002); J. Vernon Henderson, *Effects of Air Quality Regulation*, 86 AM. ECON. REV. 789-813 (1996); John A. List et al., *Effects of Environmental Regulations on Manufacturing Plant Births: Evidence From a Propensity Score Matching Estimator*, 85 REV. ECON. & STAT. 944-52 (2003).

10. Greenstone, *supra* note 9, at 1176.

11. MICHAEL GREENSTONE ET AL., *THE EFFECTS OF ENVIRONMENTAL REGULATION ON THE COMPETITIVENESS OF U.S. MANUFACTURING* (NBER Working Paper Series No. 18392, National Bureau of Economic Research 2012), available at <http://www.nber.org/papers/w18392.pdf>.

4. 42 U.S.C. §§7401-7671q, §7408; ELR STAT. CAA §§101-618, §108.

5. 42 U.S.C. §7209. Secondary standards are required to protect welfare; EPA has generally set welfare standards at the same level as the primary health NAAQS.

6. *Id.*

\$450 billion for manufacturing plants in NA areas during the 1972 to 1993 period of study.¹²

While these studies suggest a substantial shift of pollution-intensive industry away from NA areas in the United States, these studies may simply reflect a shift of activity within the United States from NA areas to attainment areas. In other words, although the CAA has clearly imposed significant economic costs on NA areas, it may have created commensurate economic gains in manufacturing activity and employment in attainment areas.

Unfortunately, relatively few studies in the economic literature evaluate the effect of environmental regulation on the competitiveness of the U.S. manufacturing sector as a whole. A variety of other factors likely play an important—even dominant—role in decisions on whether to locate in the United States versus another country. These factors include, for example, access to (and cost of) important factors of production, transportation costs, existing investment in facilities and infrastructure, tax considerations, and exchange rate effects.

Any empirical evaluation of the effect of environmental regulations is difficult to do because it must account for these other factors in teasing out any regulatory effect. Only a few studies have attempted to do it. This limited empirical literature suggests that environmental regulation has been a relatively minor factor in decisions as to whether manufacturing plants will be located in the United States or another country.¹³ On the basis of this limited set of studies, Joseph Aldy and William Pizer have suggested that the adverse effect of CAA requirements in shifting economic activity and jobs away from NA areas to “clean” areas within the United States has been more important than the effects in terms of forcing this economic activity offshore to countries with less stringent environmental requirements.¹⁴

However, these economic studies have looked at the past history of the CAA in the decades before 2000. With the substantial tightening of NAAQS in more recent years, the difficulty of siting or expanding major manufacturing facilities in the United States may have created a more significant incentive to shift industrial activity to other countries with less burdensome regulatory requirements.

B. New Source Review

The CAA requires that, before a company can construct a new industrial facility or expand an existing facility in the United States, it must first go through the NSR permit-

ting process and obtain a permit that, among other things, ensures that the new or expanded facility will employ up-to-date pollution control technology. The NSR program creates somewhat different requirements depending on whether the facility is located in an attainment area (an area that meets NAAQS or is unclassifiable due to the lack of data) or an NA area (an area that does not meet the NAAQS).

In NA areas, new plants and major modifications to existing plants are required to meet the lowest achievable emission rate (LAER), meaning that the plants must install state-of-the-art pollution controls in order to match or exceed the emission rate achieved by the lowest-emitting similar facility in the country. In addition, they must obtain pollution “offsets” from other facilities in the same area. These requirements reportedly make it difficult or even impossible to site new plants in certain NA areas.¹⁵

In particular, discussions with industry sources suggest that the cost of emissions offsets effectively prohibits the siting of major new industrial plants in certain NA areas. The idea behind offsets is that, in order to build a new industrial facility in an NA area, a company must pay someone else to reduce emissions in that same area by an amount that exceeds the emissions that will come from the new facility. Depending on the area, it must obtain offsets that are between 10% and 50% greater than the projected emissions from the new facility.

Not surprisingly, offsets cannot be created on the basis of actions already required by EPA or state regulations. To be counted as an offset, an emissions reduction must go beyond what is required by law. But for more than 40 years, EPA and states have been looking for every conceivable way to reduce emissions related to ozone. In many areas, all the cost-effective emissions reductions have been mandated by regulation. Where any reductions can be made, they are very expensive.

For example, the Houston area, especially near the Houston Ship Channel, has numerous industrial facilities, but they are generally well-controlled. Because there is so much industry, it is possible to purchase offsets, but they are very expensive. Houston-area offset prices vary from \$150,000 to \$200,000 per ton for volatile organic compounds (VOCs) and \$80,000 to \$100,000 per ton for nitrogen oxide (NO_x).¹⁶ Even a relatively small facility with state-of-the-art controls will emit more than 100 tons per year of these pollutants. The so-called “offset ratio” in the Houston area is 1.4 to 1, meaning that the new facility would need to offset 140% of its projected emissions. Thus, even if the new facility will emit only 100 tons per year of NO_x and VOCs, the company trying to build it

12. GREENSTONE ET AL., *supra* note 11, at 2.

13. Adam B. Jaffe et al., *Environmental Regulation and the Competitiveness of U.S. Manufacturing: What Does the Evidence Tell Us?*, 33 J. ECON. LITERATURE 132-63 (1995); Arik Levinson & M. Scott Taylor, *Unmaking the Pollution Haven Effect*, 49 INT'L ECON. REV. 223-54 (2008).

14. JOSEPH E. ALDY & WILLIAM A. PIZER, *THE COMPETITIVENESS IMPACTS OF CLIMATE CHANGE MITIGATION POLICIES* (NBER Working Paper 17705, 2011), available at <http://www.nber.org/papers/w17705>. See also Bruce G. Carruthers & Naomi R. Lamoreaux, *Regulatory Races: The Effects of Jurisdictional Competition on Regulatory Standards*, 54 J. ECON. LITERATURE 52-97 (2016).

15. Existing plants in these areas may also find it difficult to make major modifications.

16. MIKE TAYLOR, *UPDATE ON SCARCITY OF HOUSTON-GALVESTON-BRAZORIA (HGB) EMISSION REDUCTION CREDITS (ERCs) AND ALLOWANCES, AND USE OF NO_x ERCs FOR VOC ERCs* (2014), available at <http://www.awma-gcc.org/docs/Sept2014Presn.pdf>; TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ), *TRADE REPORT* (2015), available at www.tceq.texas.gov/assets/public/implementation/air/banking/reports/eccrtradereport.pdf.

would need to purchase 140 tons of NO_x offsets and 140 tons of VOC offsets. At current offset prices, this means an upfront cost of \$32 million to \$52 million just to purchase emissions offsets.

In the South Coast NA area in California, average offset prices in 2014 were \$23,500 per ton for VOCs and \$63,000 per ton for NO_x.¹⁷ Table 1 provides reported prices and quantities for major areas in California. In addition, the quantities involved in these emissions offset transactions

for any pollutant; and (2) even if projected emissions will not violate NAAQS, they will not result in an increase in ambient concentrations of any pollutant that exceeds the allowable PSD “increments” set by the CAA.¹⁹

The requirement to show that emissions from a new facility will not “cause or contribute” to a violation of any NAAQS will be more challenging now that the ozone standard has been lowered from 75 to 70 parts per billion (ppb), because many areas of the country that have always

Table 1. 2014 California Offset Prices for Emission Reduction Credits (\$/ton)

	VOC (\$/ton)	VOC (tons)	NO _x (\$/ton)	NO _x (tons)
Bay Area	\$1,200-\$9,500 [\$6,196]	212	\$14,500-\$15,000 [\$14,643]	73
San Joaquin	\$900-\$6,000 [\$3,877]	255	\$18,000-\$44,000 [\$36,519]	177
Santa Barbara	\$125,000	0.06	\$125,000	0.56
South Coast	\$7,400-\$32,880 [\$23,462]	26	\$63,014	5.5
Ventura	\$15,000-\$70,000 [\$50,938]	21		

Source: CALIFORNIA AIR RESOURCES BOARD (CARB), EMISSION REDUCTION OFFSET TRANSACTION COSTS: SUMMARY REPORT FOR 2014 (2015), available at <http://www.arb.ca.gov/nsr/erco/erct14.pdf>. Brackets denote average (mean) price.

are relatively small compared with the emissions from a new major source coming into an NA area.¹⁸ If the applicant does not have a facility in the NA area that it can readily control (or tear down) to provide offsets, then emissions offsets for five or more years in the future are reportedly hard or even impossible to find.

More stringent NAAQS standards will also have an important effect on the siting of new sources in attainment areas. Under the “prevention of significant deterioration” (PSD) provisions of the CAA, new plants and major modifications in attainment areas must also go through a pre-construction permitting process. This process requires that these plants:

- Adopt the best available control technology (BACT) to control all pollutants (not just criteria pollutants) that are regulated under the CAA. BACT is sometimes no different from LAER but may be less stringent, and less costly, for certain types of facilities.
- Provide an analysis of the effect of anticipated plant emissions on ambient air quality, including both pre-construction monitoring of air quality in the area and air quality modeling of the effect of the plant emissions on ambient air quality.

To obtain a permit, the permit applicant must show, to the satisfaction of the permitting authority (generally the state environmental agency), that (1) projected emissions from the new plant will not result in changes in ambient air quality that would cause the area to exceed NAAQS

been in attainment do not meet the new standard. Until these areas are designated as NA areas, a permit applicant would need to show that the proposed plant will not “contribute to” a violation of the new standard, which would appear to be impossible in or near areas that are already in violation of the standard. EPA has said that it intends to create at least two options that would address this concern: (1) by setting certain de minimis emissions thresholds below which a new facility would be deemed not to “contribute” to a violation of the NAAQS; or (2) by allowing the permit applicant to purchase offsets.

Given the history of CAA regulation, it is likely that these options, when finalized by EPA, will be challenged in court. Even if they pass muster in the courts, it remains to be seen whether either of these options will be practically viable—especially for large industrial facilities.²⁰ If not, it will not be possible to build or expand a new industrial facility in certain areas, even if the facility would use state-of-the-art technology to control its emissions and even if the local community desperately wants it to be built.

II. Analyses of the NSR Program

A. Costs of the NSR Process and Permitting Delays

In a 2001 report on NSR, EPA observed that the permit application process can involve up to five different stages: preparation of a permit application; agency determination of application “completeness” (a process that may include extensive discussion between the applicant and permitting officials and the preparation and submission of additional information); public notice and comment on a draft

19. The CAA established PSD increments for PM and SO₂ for the three classes of attainment areas: Class I (pristine), Class II (intermediate), and Class III (growth). EPA has established PSD increments for the other conventional pollutants through rulemaking.

20. For example, it appears that a number of rural areas may exceed the new 70 ppb ozone standard—not because of local emissions, but because of background ozone and pollution transported from distant sources. Some areas have no local stationary sources and thus no way to generate offsets that can be used by new plants. In such cases, the offset requirement will impose a de facto ban on most types of industrial development.

17. CALIFORNIA AIR RESOURCES BOARD, EMISSION REDUCTION OFFSET TRANSACTION COSTS: SUMMARY REPORT FOR 2014 (2015), available at <http://www.arb.ca.gov/nsr/erco/erct14.pdf>.

18. NSR generally applies to sources emitting 100 tons/year of a precursor ozone pollutant.

permit; issuance of a final permit along with response to comments; and administrative and judicial appeals.²¹ This same report notes that “most developers describe [NSR] permitting as an extremely complex and time-consuming process.”²² A recent comment filed by an industry coalition stated: “Sources generally invest years in engineering, design and assessment studies before submitting a permit application for a major source. Even under optimistic conditions, it can take at least two years from the beginning of the frontend engineering work until public notice of the draft permit is published.”²³

The NSR process imposes direct costs in terms of the time and resources required to prepare the permit application and to provide responses to questions and issues that arise in the permitting process. The uncertainty and delay that attend the permitting process may impose additional costs, including financial costs and penalties.²⁴ The opportunity costs associated with delays or cancellation of projects include the additional production forgone and, in some cases, forgone emissions reductions from retrofitted facilities. In addition, the potential for long delays and the uncertainty that attends the NSR process could lead to suboptimal decisions in upgrading existing capacity and installing new capacity.²⁵

Some economists and industry representatives have argued that the focus of NSR on preconstruction review of new or modified plants, and the attendant significant costs associated with the NSR program, have penalized the construction of new plants and the retrofit of existing plants—resulting in a “new source bias.”²⁶ Thus, it has arguably been more economic in some cases to continue to operate relatively old, inefficient, and high-polluting plants than to

install new facilities or upgrade existing facilities with better pollutant control technology.²⁷ To the extent this has occurred, NSR review has had the perverse effect of delaying reductions in pollutants such as SO₂ and NO_x.²⁸

B. The Time Needed to Obtain an NSR Permit

Under the CAA, EPA and other permitting agencies are required to either grant or deny an NSR permit within one year of receiving a permit application, but there is no practical way to enforce this deadline, and the permitting process often takes longer—sometimes much longer—than a year. A 2015 Resources for the Future discussion paper provides a snapshot of the NSR process from the date EPA or state authorities notify applicants that the NSR application is complete to the issuance of the final permit.²⁹ During the period from 2002 to 2014, the nationwide average time to obtain an NSR permit for coal- and natural gas-fired electric generating units (EGUs) and refineries was roughly 14 months.³⁰ This represents a substantial increase in average processing time for NSR permits compared with the reported permitting times for the 1997-2001 period. The distributions are skewed—median values are less than the mean—with some projects requiring substantially longer to obtain NSR approval.³¹ In addition, there was a significant variation across EPA regions in the processing time required for approval of new natural gas-fired EGUs—from seven months for Region 7 (Iowa, Kansas, Mississippi, and Nebraska) to 19 months for Region 9 (Arizona, California, and Nevada).

The data also show substantial year-to-year variation in processing times, with markedly longer processing times during the 2003-2005 and 2009-2011 periods (Table 2). The increase in permitting time during the 2003-2005 period may reflect the uncertainty in the NSR program

21. U.S. EPA, NSR 90-DAY REVIEW BACKGROUND PAPER 5 (2001).

22. *Id.* at 11.

23. SHANNON BROOME & BOB MOREHOUSE, COMMENTS OF THE AIR PERMITTING FORUM: NATIONAL AMBIENT AIR QUALITY STANDARDS FOR OZONE (2015), available at <https://www.regulations.gov/#documentDetail;D=EPA-HQ-OAR-2008-0699-3578>.

24. U.S. EPA, *supra* note 21, at 11. “Permitting (including required public hearings and comment processes) can be costly not only because of the time and human resources involved, but also because of uncertainty and delay.” “Delay, for example, can cause a developer to miss advantageous financial circumstances when interest and equity costs are low.” *Id.* at 11. In addition, the applicants may have penalty clauses associated with delays in the start of construction in their contracts with engineering and construction firms. According to industry sources, these penalties can be as much as \$35,000 to \$40,000 per day.

25. These time-cost considerations may be particularly important in the petroleum refining industry, where the National Petroleum Council claims that “the most critical factor in the U.S. refining industry’s ability to meet new fuel requirements in a timely manner is the ability to obtain permits.” *Id.* at 44. ARCHIE W. DUNHAM ET AL., U.S. PETROLEUM REFINING: ASSESSING THE ANTIQUITY AND AFFORDABILITY OF CLEANER FUELS (National Petroleum Council 2000). EPA’s 2001 background report also cites statements by several oil company executives claiming that the NSR process impedes the U.S. refinery industry’s capacity to expand. See U.S. EPA, *supra* note 21, at 44.

26. Howard K. Gruenspecht & Robert N. Stavins, *New Source Review Under the Clean Air Act: Ripe for Review*, 147 RESOURCES 19, 20-21 (2002). See also U.S. EPA, *supra* note 21, at 18, 29. The direct costs to add pollution controls at existing facilities are often significantly greater than the corresponding control cost for a new plant, because pollution controls can be incorporated in the initial design of a new facility, whereas compatibility problems and space constraints at existing facilities often complicate the retrofit of controls at these facilities.

27. EPA’s 2001 NSR report found some evidence to support this argument, reporting that NSR for existing sources “has impeded or resulted in the cancellation of projects which would maintain and improve reliability, efficiency, and safety of existing energy capacity.” U.S. EPA, *New Source Review: Report to the President 1* (2002), available at https://www.epa.gov/sites/production/files/2015-08/documents/us_report_to_president.pdf (cited by NATIONAL ACADEMY OF SCIENCES, *NEW SOURCE REVIEW FOR STATIONARY SOURCES OF AIR POLLUTION 45* (National Academies Press 2006)).

28. U.S. EPA, *Clean Air Act Requirements and History*, <https://www.epa.gov/clean-air-act-overview/clean-air-act-requirements-and-history> (last visited Nov 15, 2016). To be sure, supporters of the current NSR program argue that NSR review yields important reductions in the covered pollutants. For example, EPA’s 2001 NSR report estimated that PSD BACT permitting during 1997-1999 avoided 1.4 million tons per year in conventional pollutant emissions (largely reductions in SO₂ and NO_x emissions). U.S. EPA, *supra* note 21, at 8. See also RICHARD L. REYSZ & JACK LIENKE, *STRUGGLING FOR AIR: POWER PLANTS AND THE “WAR ON COAL”* (Oxford University Press 2016).

29. ARTHUR FRAAS ET AL., EPA’S NEW SOURCE REVIEW PROGRAM: EVIDENCE ON PROCESSING TIME (Resources for the Future 2015).

30. The difference in processing times between NA and attainment areas was small and not statistically significant. These data are taken from EPA’s RACT/BACT/LAER Clearinghouse (RBLC). EPA staff believe only one-half of the approved NSR projects are reported to the RBLC database.

31. However, the clearinghouse database had few entries for new plants in recent years—only one additional NSR permit for a new coal-fired plant in 2012 and no additional permits for coal-fired plants in 2013 and 2014.

due to the U.S. Court of Appeals for the District of Columbia (D.C.) Circuit review of EPA's 2002 and 2003 revisions to the program.³² The longer processing times during the 2009-2011 period may reflect a transition as the Obama Administration put its climate policy in place (meaning that sources for the first time had to use BACT to control their carbon dioxide emissions) and as sources faced new air quality modeling requirements with EPA's revision of the NO₂, SO₂, and fine PM NAAQS. During the 2010-2014 period, for example, one-third of the combined cycle plants received NSR permits after processing delays by the state or EPA permitting authorities ranging from more than one year—the statutory deadline for action—to three years.³³

III. Historical Concerns About the NSR Program

A. Delays Caused by Regulatory Overlap

For NSR, several different layers of government are likely to be involved. Where EPA has approved the state implementation plan (SIP) provisions for NSR, the state is the primary permitting authority. However, under EPA regulations, EPA retains authority over air quality modeling, and the states may be required to consult with the EPA region (and EPA headquarters in some cases) on modeling issues.³⁴

In states that have not obtained EPA SIP approval for their NSR process, EPA is the permitting authority. In most of these states, EPA has delegated the NSR process

Table 2. Average Permitting Time for Natural Gas EGUs (Including PSD and NA Areas)

Year	All natural gas		New permits		Additions		Modifications	
	Mean	Number	Mean	Number	Mean	Number	Mean	Number
2002	321	73	324	47	299	25	769	1
2003	379	64	362	36	406	27	267	1
2004	612	46	521	27	829	13	551	6
2005	463	27	665	15	124	3	241	9
2006	290	23	355	6	286	11	231	6
2007	343	24	371	16	393	3	223	5
2008	377	21	384	3	715	4	278	14
2009	409	33	439	25	364	5	233	3
2010	468	24	554	14	372	5	321	5
2011	436	21	587	8	415	5	297	8
2012	268	31	245	14	223	11	403	6
2013	225	26	270	11	228	7	161	8
2014	235	3	—	0	—	0	235	3
Average	384	416	411	222	391	119	293	75

to the states (meaning that state officials take the administrative steps to process permit applications) but retains ultimate permitting authority and must be consulted on all substantive issues, including modeling, the selection of BACT, emissions limits, and monitoring and record-keeping requirements. In a relatively few cases, a state has refused to do NSR for one or more pollutants, and in these cases, EPA issues the NSR permit.³⁵

B. Changes in NAAQS: Problems in Transition and Lack of Timely EPA Guidance

The recent changes in the NO₂, SO₂, fine PM, and ozone NAAQS have further complicated the NSR process, resulting in permitting delays and, in some cases, the decision by industry to defer or cancel projects.³⁶ New or revised NAAQS must be addressed immediately in the NSR permit process, even before EPA makes formal designations as to which areas of the country are in attainment or NA with the new standard.³⁷

As a result, the new NAAQS can have an immediate impact on pending permit applications.³⁸ Even if a permit

32. The D.C. Circuit largely upheld EPA's 2002 revisions to its NSR program in *June 2005*. *New York v. Environmental Prot. Agency*, 413 F.3d 3, 35 ELR 20135 (D.C. Cir. 2005). On Dec. 24, 2003, however, the D.C. Circuit blocked the 2003 NSR rule revising the routine maintenance, repair, and replacement provisions from going into effect until the court reached a final decision. In *New York II*, the D.C. Circuit held that the 2003 NSR revision was invalid. *New York v. Environmental Prot. Agency*, 443 F.3d 880, 36 ELR 20056 (D.C. Cir. 2006).

33. Section 165(c) of the CAA requires completion of NSR within one year of the completeness determination. Combined cycle EGUs are the "cream of the crop" in terms of low-cost, efficient, clean generation of electricity. ARTHUR FRAAS ET AL., *supra* note 29, at 2. *See also* ARTHUR FRAAS & JOHN D. GRAHAM, *REGULATORY REFORMS TO NURTURE THE RESURGENCE OF THE US MANUFACTURING SECTOR 20* (working paper 2015), <https://spea.judiana.edu/doc/research/manufacturing-initiative/fraas-graham-2015.pdf>.

34. 40 C.F.R. §51 app. W (2005).

35. For example, EPA issued NSR permits for greenhouse gas emissions in Texas from 2010-2014, while the TCEQ issued NSR permits for the other regulated NSR pollutants.

36. For example, the Baton Rouge Area Chamber reported that four major industrial projects were either put on hold or redirected to another location after EPA proposed to revise the ozone NAAQS in December 2015. Baton Rouge has monitored ozone levels of 72 ppb, a level above EPA's revised standard of 70 ppb. Baton Rouge Area Chamber, BRAC Public Policy Commentary: Eighteen of Twenty Top-Performing Metro Economies at Risk From New Ozone Standards (Mar. 2, 2015), http://www.brac.org/brac/news_detail.asp?article=1947.

37. *See* *Sierra Club v. Environmental Prot. Agency*, 762 F.3d 971 (9th Cir. 2014).

38. In some cases, EPA has adopted a grandfathering provision that applies to permit applications that EPA or the state permitting authority found to be

application has been pending for months or years and the permit applicant has shown that the new facility will not cause or contribute to the violation of any NAAQS, EPA has often required the permit applicant to redo its modeling analysis using the new standard.

In some cases, this has proven difficult, costly, and rife with delays because EPA's practice has been to adopt a revised, more stringent NAAQS and begin work on implementation and modeling guidance only after adopting the newly revised NAAQS. Although EPA staff have claimed that state environmental agencies know how to proceed when a NAAQS is changed, the state agencies have disagreed in comments to the Agency, and have sometimes delayed action on permit applications until EPA issues the necessary guidance.³⁹

In the case of EPA's 2010 revision of the NO₂ NAAQS, for example, EPA adopted stringent one-hour primary standards—the 98th percentile one-hour daily maximum averaged over three years—to supplement the existing annual standard. Shortly after the one-hour NO₂ NAAQS was issued, EPA put out a memorandum stating that anyone with a pending permit application—even with applications that had been pending for several years—would need to redo a modeling analysis to demonstrate that projected plant emissions would not cause or contribute to a violation of the new one-hour NO₂ NAAQS.⁴⁰

However, the adoption of the short-term NO₂ standard greatly complicated the air quality modeling that new sources were required to provide in obtaining an NSR permit. The standard air quality models in place incorporate overly conservative assumptions for modeling single source effects on ambient NO₂ levels. This over-conservatism was not a problem with the annual NO₂ NAAQS but, with the new, stringent one-hour NO₂ NAAQS, it effectively prevented showing that these new plants would not cause or contribute to NA.⁴¹

It appears that EPA did not fully anticipate these issues, but Agency officials have been working through the modeling issues raised by the short-term one-hour NO₂ NAAQS ever since it was adopted. A year after setting the revised NO₂ NAAQS, EPA provided initial guidance on some of the modeling issues (e.g., the treatment of intermittent, auxiliary sources) and additional flexibility in terms of modeling the cumulative effect of other sources within the region. But EPA still has not provided the modeling tools that, according to many state environmental officials, should have been in place before the new standard was adopted. EPA finally issued a notice of proposed rulemaking in July 2015 to address these remaining issues—five years after promulgating the one-hour NO₂ NAAQS—and a final rule is expected in the next few months.⁴²

The Avenal Power Center, one of the combined cycle projects affected by the 2010 NO₂ NAAQS revision, provides a stark lesson in the obstacle course associated with the NSR permitting process. Avenal was a proposed state-of-the-art combined cycle electric generating project to be located in California, and an EPA regional office was the permitting authority. EPA's Region 9 notified Avenal that its NSR permit application was complete on March 19, 2008.

On February 9, 2010, EPA revised the NO₂ NAAQS by adopting a new stringent one-hour NO₂ standard to supplement the existing annual NO₂ NAAQS, and EPA took the position that the Avenal developers were now required to show that it would not cause or contribute to a violation of the one-hour NO₂ NAAQS. The developers submitted a new modeling analysis to demonstrate compliance with the new standard, but EPA said it could not determine whether it was acceptable because the Agency had not yet adopted a new modeling protocol for use with the one-hour standard.

On March 9, 2010, two years after Region 9 found that its NSR application was complete, Avenal filed suit in federal district court charging that EPA had failed to act within one year as required by §165(c) of the CAA.⁴³ The developers took the position that, because EPA had been legally required to take final action on the permit application well before the new one-hour standard was even proposed, it should not be required to redo its permit application to demonstrate compliance with the new standard. In January 2011, after briefing and oral argument on these issues but before the court reached a decision, EPA informed the court that it had decided to grandfather certain PSD applications, including the Avenal application, from the NSR requirement that projects meet the one-hour

³⁸ "complete" before the new standard was established. U.S. EPA, National Ambient Air Quality Standards for Ozone, 80 Fed. Reg. 65291, 65431-34 (Oct. 26, 2015). In such cases, permit applicants are not required to redo their modeling under the new standard. Importantly, EPA did adopt this type of grandfathering approach under the new ozone standard—although not for the earlier revisions to the NO₂, SO₂, and PM standards.

³⁹ For example, in the case of the proposed ozone NAAQS, the Association of Air Pollution Control Agencies (AAPCA) reports that 26 state agencies raised background ozone as an achievability or implementation challenge, and 21 of these states reported concerns and limitations with the tools identified by EPA for permitting or regulatory relief. AAPCA, STATE ENVIRONMENTAL AGENCY PERSPECTIVES ON BACKGROUND OZONE REGULATORY RELIEF (2015), available at http://www.cesg.org/aapca_site/documents/AAPCASurvey-StateEnvironmentalAgencyPerspectivesonBackgroundOzoneandRegulatoryRelief-June2015.pdf; Dylan Brown et al., *Air Pollution: Strong Opinions, Shaky Data in Arguments Over Permitting*, GREENWIRE, May 14, 2015, <http://www.enews.net/stories/1060018570>. In the final ozone NAAQS, EPA acknowledges that it received comments from states and organizations requesting that the Agency issue implementation rules and guidance in a timely manner. 80 Fed. Reg. at 65435.

⁴⁰ Memorandum from Stephen D. Page, in Air Division Directors and Deputies Regions I-X (Apr. 1, 2010) (on file with EPA), available at <https://www.epa.gov/sites/production/files/2015-07/documents/psdnaaqs.pdf>.

EPA identifies these de minimis levels as ozone significant impact levels and model emission rates for precursors.

⁴¹ Similar problems also arose with EPA's promulgation of a one-hour SO₂ NAAQS in June 2010. For a case study of one plant's problems with

the SO₂ NAAQS, see Ashley Jones, Presentation at the 10th Modeling Conference, Challenges With Modeling for the 1-hr SO₂ NAAQS Standard: An Aluminum Plant Case Study (Mar. 15, 2012), available at https://www3.epa.gov/ttn/scram/10thmodconf/presentations/3-24-Challenges_with_Modeling_1hr_SO2_NAAQS-An_Aluminum_Plant_Case_Study_03-15-12.pdf.

⁴² EPA proposed its revisions to the guideline on July 29, 2015 (80 Fed. Reg. 45339, 45346-49). The existing guideline is published as 40 C.F.R. §51 app. W (2005).

⁴³ Jeff Holmstead, one of the authors of this Article, represented the plaintiff in this case.

NO₂, NAAQS, and explained that it would request comments on its grandfathering proposal.

On May 26, 2011, the court issued an order requiring EPA to take final action on the NSR permit within 60 days (i.e., by August 27, 2011). The EPA regional office issued the NSR permit to Avenal one day later, on May 27, but this did not constitute final action because of the possibility for opponents of the project to appeal the permit to EPA's Environmental Appeals Board (EAB). Project opponents did appeal to the EAB in early June, submitting four petitions seeking a review of the permit.

On August 18, 2011, the EAB issued its decision, declining to review the permit given the time constraints imposed by the district court order requiring the Agency to make a final permit decision by August 27. The environmental opponents of Avenal also filed suit with the U.S. Court of Appeals for the Ninth Circuit. The Ninth Circuit agreed with the environmental groups that Avenal must show that it would not cause or contribute to a violation of the one-hour NO₂ NAAQS.⁴⁴ It appears that, after the Ninth Circuit decision, Avenal decided not to go forward with the project.

IV. Heightened NSR Concerns Under the New Ozone Standard

The new ozone standard illustrates some of the difficulties that arise when EPA adopts a new standard before deciding how it should be implemented. There are several areas of concern with siting new sources under NSR given the interaction with the revised ozone NAAQS, including the effect of modeling requirements, the difficulty of securing needed emissions offsets, and the issues associated with the adoption of a standard at or near background levels of ozone.

A. Modeling Requirements

In the past, EPA's approach has been to "assess the ozone impacts of an individual source . . . on a case-by-case basis in consultation with the appropriate EPA Regional Office and/or permit reviewing authority."⁴⁵ There has not been a "preferred or recommended analytical technique or modeling system,"⁴⁶ and analyses of single-source effects for NSR have usually involved only a qualitative assessment (although in a few cases, applicants have been required to use sophisticated chemical transport modeling).

In its July 2015 proposal to revise its Guideline on Air Quality Modeling, EPA asserts that advances in photochemical modeling have reached the point where it is reasonable to identify specific air quality models appropriate for use in assessing the ozone effects of individual

sources seeking an NSR permit. As a result, EPA states that it plans to require more rigorous single-source modeling for ozone under the PSD permitting program.⁴⁶ Thus, a qualitative evaluation will no longer be sufficient, and new sources must provide air quality modeling to show that the plant will not cause or contribute to a violation of the new ozone NAAQS.

If the final air quality modeling rule—expected in the next few months—retains a requirement for single-source modeling for the ozone NAAQS, nothing will be in place in terms of clear direction on the specific modeling required. New sources and the permitting authorities will face continuing uncertainty about the modeling required to demonstrate that plant emissions will not cause or contribute to a violation of the ozone NAAQS. Coupled with the more stringent ozone standard, the new modeling requirements for ozone will likely create a significant new challenge for many companies seeking to build new manufacturing plants or industrial facilities in the United States. The bottom line is that new sources will be in a kind of limbo.

EPA has suggested that it will address this concern in part by creating a new *de minimis* exemption for proposed sources whose emissions are too low to have a meaningful impact on ozone formation. However, EPA does not yet have anything in place to help identify *de minimis* sources that would be exempt from modeling requirements. Instead, in its recent air quality modeling proposal, EPA explains that it will undertake a new rulemaking that will provide a technical basis to identify emissions levels and ambient impacts that would not be expected to contribute significantly to ambient ozone levels.⁴⁷ EPA has set a schedule for this rulemaking that will take at least another two years—substantially lagging behind last October's change to the ozone NAAQS.

B. Finding Emissions Offsets in PSD Areas

As noted above, EPA policy allows new sources in PSD areas to use emissions offsets to address cases where the plant emissions would cause or contribute to a violation of NAAQS. In theory, this would provide an option for sources located in areas that meet the prior ozone standard of 75 ppb but have monitored levels that exceed the new 70 ppb standard. Until these areas are designated as NA (a process that takes several years), sources located in these areas will be subject to the PSD provisions for NSR, including the requirement that sources show that they will not cause or contribute to a violation of the new ozone NAAQS. Since monitored levels in these areas exceed the new standard, the only recourse these sources may have is to obtain emissions offsets.

44. *Sierra Club v. Environmental Prot. Agency*, 762 F.3d 971 (9th Cir. 2014).
45. Memorandum from Tyler J. Fox to the Proposed Regulatory Docket No. EPA-HQ-OAR-2015-0310 (June 30, 2015) (on file with EPA), available at https://www3.epa.gov/ttn/scram/11thmodcon/20150630-Ozone_Docket_Memo.pdf.

46. 80 Fed. Reg. at 45346. In 2012, EPA granted a Sierra Club petition and committed to undertake a rulemaking to evaluate whether updates to the guideline are warranted and, if so, to incorporate new analytical techniques in the guideline for ozone and fine PM.

47. Memorandum from Tyler J. Fox, *supra* note 45.

The problem, however, is that these areas will not have the arrangements in place to generate offsets for several years. History has shown that it takes several years for an area to develop the institutional arrangements necessary for the generation of acceptable offsets. EPA does, at least in theory, allow offsets from other areas under certain circumstances, but the opportunity to use these “trades” across areas has historically been constrained by EPA. In particular, the applicant must demonstrate a “net air quality benefit” across the region—a showing that must be made through detailed computer modeling to EPA’s satisfaction. Some commenters on the ozone NAAQS proposal highlighted the difficulty of obtaining EPA approval of such trades.⁴⁸ Finally, it should be noted that rural areas with ozone levels exceeding 70 ppb that do not have any other controllable sources may never be able to generate the needed emissions offsets. As a result, the recent ozone NAAQS may effectively ban the construction of new sources in these rural areas.

C. Dealing With Background Ozone

In the case of the recent ozone NAAQS, the new 70 ppb standard likely approaches background levels in some areas of the United States, leaving little “headroom” for new manufacturing facilities in terms of showing that their residual emissions, even after installing the best available pollution control technology, will not violate the ozone NAAQS. Recent research has found that stratospheric intrusions and long-range transport—particularly in western states—have resulted in daily maximum eight-hour ozone levels of 70 ppb or more.⁴⁹ With the ozone NAAQS at or below background, sources will find it impossible to show that they will not “contribute to” a violation of the standard.

EPA has argued that stratospheric intrusions can be dealt with through its exceptional events policy, which allows EPA to disregard exceedances of a NAAQS caused by certain types of exceptional events. However, states that

have tried to use the policy in the past claim that it has been extremely difficult, costly, and time-consuming to get EPA recognition of any exceptional events—perhaps in part because EPA has established a high hurdle for accepting state claims of exceptional events. In any event, the existing rule sets restrictive requirements for such claims, in part by requiring the affected states to show a “clear causal relationship” between the measured level and the event that has affected air quality in the area.

This requirement necessitates extensive monitoring and modeling to establish a clear causal relationship in a context where there continue to be significant questions about the accuracy of ozone air quality modeling. Further, the state must show that the exceedance is in excess of normal historical fluctuations. It is not clear that states will be able to meet these restrictive conditions because little historical data exist on such intrusions. In the final ozone rule, EPA signaled that it intended to complete revisions to the Exceptional Events Rule and guidance document before October 2016.⁵⁰

In October 2016, EPA issued revisions to its existing Exceptional Events Rule as promised. The rule addresses some of the issues raised by stakeholders since promulgation of the current rule in 2007, with the objective of providing clarity on the criteria needed to prove an exceptional event and increasing the administrative efficiency of the process. Unlike existing EPA policy, however, the rule restricts the scope of the Exceptional Events Rule to specific regulatory actions, such as the designation of areas subject to a NAAQS as attainment or NA and determinations of attainment of a NAAQS by NA areas. EPA explains in the preamble that it is preparing a guidance document to address the exclusion of data for other applications, such as NSR.⁵¹ EPA has not announced a schedule for issuing such a guidance document and, if history is a guide, there may be uncertainty for many years about ways in which exceptional events will affect the NSR program.

V. Potential Administrative Reforms

Past efforts to reform the NSR program have largely focused on changes that would ease the burden on existing sources by reducing the number of projects and activities that would be treated as major modifications of an existing source that require an NSR permit. For example, the most recent changes—issued in 2002—allow the use of projected future actual emissions, rather than potential emissions, in measuring emissions increases; a longer look-back period in selecting the baseline against which future projected actual emissions are compared; and a new program referred to as the plantwide applicability limitations (PAL) program, which creates an incentive for sources to

48. For example, the South Carolina agency in charge of implementing the CAA commented:

One result of recent emission control measures is that there are minimal potential offsets available for any potential major new source review projects in future nonattainment areas. Unless the EPA broadens its acceptance of offset opportunities, most, if not all future offsets may only be obtained from closed facilities. In practical terms, the opening of a new business means the closure of another business.

See Letter from South Carolina Department of Health and Environmental Control to U.S. Environmental Protection Agency (Mar. 17, 2015), http://www.scdhec.gov/HomeAndEnvironment/Docs/NAAQS/15_Ozone_Comment_20150317a_hp.pdf; BSOOME & MOREHOUSE, *supra* note 23.

49. Meiyun Lin et al., *Springtime High Surface Ozone Events Over the Western United States: Quantifying the Role of Stratospheric Intrusions*, 117 J. GEOPHYSICAL RES.: ATMOSPHERES (2012), available at <http://onlinelibrary.wiley.com/doi/10.1029/2012JD018151/abstract>; Allen S. Lefohn et al., *Quantifying the Importance of Stratospheric-Tropospheric Transport on Surface Ozone Concentrations at High- and Low-Elevation Monitoring Sites in the United States*, 62 ATMOSPHERIC ENV'T 646, 646-56 (2012); ALLEN S. LEFOHN ET AL., BACKGROUND OZONE AND ITS IMPORTANCE IN RELATION TO THE HEALTH RISK AND EXPOSURE ASSESSMENT FOR OZONE ASSESSMENT DOCUMENT 7 (2014).

50. U.S. EPA, *supra* note 38, at 80 Fed. Reg. 65437.

51. 81 Fed. Reg. 68229-30 (Oct. 3, 2016).

reduce their emissions as a strategy for avoiding NSR in the future.⁵²

There certainly is merit in exploring additional NSR reforms for existing sources, but this Article is primarily focused on the ways in which the current NSR program may impede construction of new facilities, even with state-of-the-art emission controls. Below, we discuss a set of reforms designed to address these issues and to make the NSR program more sensible when it comes to new sources.

A. A More Realistic Approach for Air Quality Modeling

EPA's current modeling guidance requires deterministic air quality models using the maximum allowable emissions rate and the maximum allowable operating conditions for each averaging time.⁵³ It also requires the use of modeling assumptions that yield the maximum impact on air quality in calculating background, including the effect of other sources in the area. However, sources typically operate well below their maximum allowable emission rates, and it would be highly unusual for all the sources in an area to be emitting at their highest allowable rates at the same time—and during a period when weather conditions would maximize the ambient impacts of their emissions. As a result, EPA's current modeling guidance substantially overstates the ambient air quality effects of a potential new source.

One solution to the over-conservatism of the current approach would be to adopt a probabilistic modeling approach. Adoption of probabilistic methods would allow the use of distributions to reflect the variability in actual emissions, meteorology, and background. One common approach is to use Monte Carlo analysis to combine the information from the various probability distributions to provide an estimate (in the form of a distribution) of the effect on air quality. Thus, probabilistic analysis provides information on the variability and uncertainty in the estimated air quality effects and on the extent to which current deterministic modeling requirements overestimate the actual air quality impacts of a new source.

Adoption of probabilistic air quality modeling approaches would be particularly appropriate with the statistical form adopted for the short-term NAAQS.⁵⁴ Where

a short-term NAAQS has been established to protect a sensitive subpopulation, it might also be possible to use probabilistic modeling to predict the likelihood that a member of such a subpopulation might be present and potentially exposed to peak concentrations caused by unusual circumstances related to weather or emission events.

Obviously, in order for probabilistic modeling to be helpful, EPA must indicate a receptivity to such modeling. But the Agency should also provide guidance on what probabilistic cutpoint must be met when making a determination that a new source will not contribute to adverse air quality impacts. EPA is already using probabilistic modeling to various degrees in other programs, so it should be feasible to develop guidance for appropriate use of such modeling in the NSR program.

B. Reforms to the Offset Program

The statutory offset requirements for the NSR program were established in 1977 and were based on the assumption that, if an area was in NA, the problem was largely caused by local industrial sources that needed to install pollution controls. Therefore, if a company wanted to locate a new facility in that area, it could pay for pollution controls at another facility and thus obtain the emissions reduction credits it would need to offset emissions from the new facility.

Although this may be the case in some areas of the country, it is not the case in many others—especially when it comes to ozone. With the lowering of the ozone standard to 70 ppb, it appears that a number of rural areas will become NA areas, including areas that currently have no industrial facilities at all. In such areas, violations of the ozone standard are typically caused by a combination of natural background, motor vehicles that travel through the area, and pollution transported from long distances. Here, no offsets are available and, depending on how the offset program is implemented, the offset requirement may well serve as an effective prohibition on the construction of any industrial facilities.

The other scenario in which the offset requirement may effectively ban new industrial facilities arises from the fact that some areas of the country have been very aggressive over many years in their regulatory efforts to reduce ozone levels. It may be true, as some critics suggest, that some of these areas did not take aggressive regulatory action until passage of the 1990 CAA Amendments, but states with persistent ozone problems have spent the past 25 years looking for every conceivable way to reduce emissions related to ozone. In these areas, all the cost-effective emissions reductions (and some very costly ones as well) have already been mandated by regulation, and EPA does not allow such emissions reductions to be used as offsets. Where there are any offsets to be had in these areas, they are very expensive and often make it economically infeasible to locate any

52. 67 Fed. Reg. 80189 (Dec. 31, 2002). In 2005, the D.C. Circuit upheld these provisions—but rejected two other provisions intended to ease the burden of NSR for existing plants. *New York v. Environmental Prot. Agency*, No. 02-1387, 35 ELR 20135 (D.C. Cir. 2005) (*New York I*). The D.C. Circuit also turned down a separate 2003 EPA rule—the “Safe Harbor Rule”—in 2006. *New York v. Environmental Prot. Agency*, 443 F.3d 880, 883, 36 ELR 20056 (D.C. Cir. 2006) (*New York II*).

53. This means the modeling must reflect allowable operating conditions as set out by “federally enforceable emission limits, operating level, and operating factor” for each pollutant and averaging time. U.S. EPA, *NEW SOURCE REVIEW WORKSHOP MANUAL C.44-45* (draft 1990). Similar language in EPA’s rule revising its Guideline on Air Quality Models requires the use of the operating conditions causing the “maximum ground-level concentrations.” 70 C.F.R. §51.

54. The one-hour NO₂ and 24-hour fine PM NAAQS require areas to meet the 98th percentile averaged over three years; the one-hour SO₂ NAAQS requires areas to meet the 99th percentile averaged over three years. The

ozone NAAQS requires that areas not exceed 70 ppb for the average fourth high eight-hour ozone level over three years.

new industrial facility in the area, even a relatively small facility with state-of-the-art pollution controls.

Fortunately, potential administrative reforms would help address both concerns—rural areas where no offsets are available and heavily regulated areas where offsets, if they are available at all, are very costly. First, the CAA allows the developer of a proposed new facility to obtain offsets from another area (i.e., an area outside the NA area where the new facility will be located) as long as (1) the other area is also in NA and has “an equal or higher nonattainment classification” and (2) emissions from the other area contribute to NA in the area in which the new source will be located. Historically, it has been very difficult to obtain permission to use out-of-area offsets because EPA and states have required extensive modeling studies to show that emissions from the offset-producing area contribute to pollution levels that exceed NAAQS in the area in which the new facility is to be located. Industry representatives also report that, even where such modeling has been done, EPA has been reluctant to approve it.

However, advances in our understanding of air pollution have shown that ozone and fine PM (often referred to as PM_{2.5}) are more a regional issue than a local issue, and that elevated levels of these pollutants in a particular area are caused in part by emissions from many other areas, including some that are very distant. This finding—based on EPA modeling studies showing that there is long-range transport of emissions that contribute to ozone and fine PM NA—is the basis for EPA’s recent Cross-State Air Pollution Rule. The Rule required substantial emissions reductions from power plants in 28 states because EPA has found that they contribute to ozone and fine PM NA in other states.

Thus, instead of requiring case-by-case modeling studies to justify the use of out-of-area offsets, EPA and states could in many cases rely on the long-range transport studies that EPA has already done to show that emissions from 28 states contribute to ozone and fine PM NA in many other states. Even where EPA has not already done such modeling, companies seeking to rely on out-of-area offsets should be able to employ similar studies to justify the use of such offsets. This reform would not address all the concerns about current offset requirements, but it would significantly expand the pool of potential offsets in many parts of the country (especially in rural areas) while still achieving the program’s environmental goals.

Unfortunately, the use of out-of-area offsets may not be an option for some heavily regulated areas such as the South Coast Air Quality Management District (SCAQMD) and the San Joaquin Valley in California because of the requirement that such offsets must come from an area that has “an equal or higher nonattainment classification.” For the purposes of ozone, there are five different NA classifications—marginal, moderate, serious, severe, and extreme—and a developer who might want to build or expand a facility in an extreme area like SCAQMD would be able to use

out-of-area offsets only from another extreme area, where offsets will also be very costly and may not be available.

Even in these areas, however, other reforms to the offset program may expand the pool of offsets and allow the development of some new manufacturing facilities. For example, EPA has historically insisted that emissions reductions required by regulation may not be used as offsets. This may be true when it comes to regulations promulgated by EPA, but states are also required to adopt their own sets of regulations, SIPs, to show how they will come into attainment. If an area wanted to preserve the option of attracting new manufacturing facilities, it could be allowed to set aside some of its SIP emissions reductions to be used as offsets, as long as the SIP shows that other reductions would allow the area to continue making reasonable further progress toward attainment.

As discussed above, a number of studies have shown that NA areas have lower levels of economic growth than attainment areas. This is likely caused, to a large extent, by current offset requirements, which have been developed over many years in a series of restrictive EPA policies and guidance documents. It may be time, especially in light of the new ozone standard, to revisit these requirements to ensure that they strike the right balance between improving air quality and allowing continued economic growth in NA areas.

C. Adoption of a Consistent Treatment for Pending Permit Applications

EPA has been inconsistent in its treatment of NSR permit applications that are pending when a new NAAQS comes into effect. Before 2010, it appears that such decisions were generally made on an ad hoc basis by individual state agencies. Some would require permit applicants to redo their air quality modeling to show compliance with a new standard, but others believed that this approach was not required. In their view, if an applicant had done the necessary modeling to show compliance with the standards in place when the permit application was submitted, no additional air quality modeling was required.

EPA did not address this issue when it adopted its one-hour NO₂ standard in 2010, but it became a point of contention between several permit applicants and environmental groups that were opposing their proposed projects. In response, EPA said that it did have authority to grandfather pending permit applications whenever a new or revised NAAQS was adopted, so applicants would not need to redo their air quality studies based on the standard. However, the Agency said, because it did not explicitly include a grandfathering provision as part of the new NO₂ NAAQS, all applicants with pending permit applications were required to do another air quality study to show that emissions from their proposed projects would not cause or contribute to a violation of the new standard.

Perhaps, because of the problems that this created for many permits that were pending back in 2010, the Agency did include an explicit grandfathering provision as part of the 2015 ozone standard. The Agency could easily adopt this approach in connection with any future NAAQS revisions and grandfather those NSR applications that are reasonably complete before the new NAAQS comes into effect as a part of its final rule. In its ozone NAAQS proposal, EPA is already moving in this direction. It could also extend this approach to protect applicants for projects that are proposed for attainment areas, as long as their applications are complete before the area is designated NA.

Without this type of protection, project opponents will have an incentive to delay the permitting process as long as possible in the hope that the area will be designated NA before a final permit can be issued. A more consistent grandfathering approach would ensure that companies do not spend years trying to obtain a PSD permit, only to reach the end of the process and find they now need to get an NA NSR permit (with offsets that may not be available) rather than a PSD permit.

D. *Timely Issuance of Implementation Rules and Modeling Guidance*

As mentioned earlier, one of the most important reforms EPA could make is simply to make sure that the necessary implementation rules, guidance, and air quality models are already in place when a revised NAAQS comes into effect. This would require a commitment of EPA resources that the Agency has so far not been willing to make, but it certainly could be done.

Part of the problem may be that the nuts and bolts of implementing a new standard are not terribly “sexy.” The most senior EPA officials, those who are politically appointed, understand that they will be in place for only a few years, and they generally want to spend their time and attention on higher-profile issues. When it comes to NAAQS, they receive praise from the environmental community for lowering the standards, but not for the difficult task of actually figuring out how a lower standard can be implemented. It is rare to have political leaders at EPA, either Republican or Democratic, who want to make their mark on the world by dealing with air quality modeling and the arcane world of offsets.

On the other hand, it would be relatively simple to address this issue with a basic structural reform at EPA. The Agency already has a well-established process for reviewing NAAQS—a process that normally takes several years. At present, this process does not involve key stakeholders involved in implementing the NSR permitting program. The NAAQS review process should be structured so that by the end of the process, the necessary implementation rules and modeling guidance have also been finalized. This simple step would address many of the concerns that have arisen over the past few years.

VI. Potential Statutory Reforms

A. *A Narrow Fix: Emissions Fees in Lieu of Offset Requirements*

Current modeling and offset requirements may be the most significant regulatory impediment to the development of new and expanded manufacturing plants in the United States. In attainment areas, more stringent NAAQS coupled with conservative models and modeling assumptions make it difficult (and sometimes impossible) for a permit applicant to show that a new facility will not “cause or contribute to” a violation of any NAAQS. Even where it may be possible to make such a showing, the process is uncertain, lengthy, and burdensome.

When a new or expanded source in an attainment area cannot make such a showing, it must obtain emissions offsets in order to obtain a permit. In this sense, it is treated just like a facility in an NA area. In either case, a new facility may not be built unless the permit applicant can obtain sufficient pollution offsets. However, as outlined above, offsets are not available in many areas, and in areas where they are available, they can be prohibitively costly.

We propose a narrow statutory reform that could address these issues while still obtaining most or perhaps even more of the environmental benefits of the current program: allow permit applicants to pay emissions fees in lieu of meeting the current offset requirements, and require the state or local environmental agency to use these fees to pay for or subsidize emissions reductions that the agency believes will do the most good in terms of reducing environmental risks.⁵⁵

Depending on the size of the fee, states may or may not be able to obtain the emission offsets required by the current NSR program, but they may be able to obtain even more because they could seek emissions reductions from a much broader range of sources than allowed under the current program. Current EPA practice favors offsets that come from other industrial sources—not from “mobile sources” (including cars, trucks, and construction equipment) and not from “area sources” (such as dry cleaners, auto body shops, and other paint and coating operations). Our proposal would have emissions fees paid into a fund that would be under the control of the state or local environmental agency, which could use the proceeds to finance emissions reductions and other air quality programs. In some cases, this might include subsidizing diesel retrofits or other emissions reductions from mobile or area sources

55. Both California and Texas run Clean Air Investment Funds (the Carl Moyer Memorial Air Quality Standards Attainment Program and the Texas Emission Reduction Plan (TERP), respectively) that have proven effective in implementing novel emission reduction approaches. For example, the Carl Moyer Program provides grants to owners of heavy-duty vehicles to replace older heavy-duty engines with new and cleaner engines, and to install electric idling-reduction equipment. The TERP has funded alternative fuel and natural gas fueling stations, among other projects. See <https://www.arb.ca.gov/msprog/moyer/moyer.htm> and <https://www.tceq.texas.gov/airquality/terp>.

that can be more important in terms of improving ambient air quality than traditional offsets.

In some cases, states could use their existing regulatory authority to obtain emissions reductions that could be used as offsets. Under current law, existing sources do not necessarily have an incentive to make even cost-effective emissions reductions because (1) they do not have to pay for their emissions and (2) they may want to “hoard” potential reductions to offset future emission increases.⁵⁶ As a result, existing plants have an incentive to retain any potential reductions to support their own plans for plant expansion, instead of generating emission offsets for a new plant.⁵⁷ States could use their existing regulatory authority to obtain such reductions and create offsets that could be used by anyone seeking to build a new source (or expand an existing one).

Under the approach that we are proposing, a new or expanded facility would still need to obtain a permit to ensure that it will be built with modern pollution control technology—BACT in attainment areas and LAER technology in NA areas—but instead of obtaining offsets, it would make a payment to the state or local environmental agency based on its projected emissions. We anticipate that such per-ton emissions fees would be different for different pollutants based on the “reasonable cost” of a technology-based level of control. Some examples of identifying a “reasonable” control cost include the following:

- Section 185 of the CAA (adopted in 1990), which established an emissions fee of \$5,000 per ton adjusted annually by the Consumer Price Index. In 2013, the fee was \$9,400 per ton for NO_x and VOC emissions for severe and extreme NA areas.
- EPA’s regulatory impact analysis for the recently adopted ozone standard, which used a control cost of \$15,000 per ton as a reasonable estimate of the highest per-ton cost that would be necessary for the cost of “unknown” controls required to meet the current ozone NAAQS.

We anticipate that these numbers (\$9,400–\$15,000 per ton) would be at the upper end of the range of potential emissions fees, since they reflect the projected cost of obtaining emissions reductions in the areas with the most serious air quality problems.

B. Broader Structural Reform: Emissions Fees in Lieu of NSR

A more sweeping statutory reform could replace the entire NSR permitting program with a system of industrial emissions fees. The fees could be based on the projected per-ton cost of controlling different pollutants, or they could

instead be damage-based. Damage-based fees could vary based on geographic location, insofar as reasonable estimates of damages are available. Different fees would be applied to different pollutants, based on the best available knowledge of their relative toxicity to human health and the environment. Emissions near population centers would likely be assessed a higher fee than emissions in rural areas.⁵⁸

A virtue of emissions fees compared with the NSR process is that companies can build the fees into their cost structures, creating a clear economic incentive to control or modify their production processes to reduce emissions. Because the fee is automatic, it circumvents all the costly preparations and delays associated with NSR and reduces the power of EPA and state officials over specific companies involved in new construction or in the upgrade or repair of existing facilities. With emissions fees, the company does not face any uncertainty about how the regulator will react to a facility that is new or undergoing repair and maintenance. With NSR, there is considerable uncertainty as to how state or EPA officials will define the NSR obligation for a specific facility. And it is this regulatory uncertainty that may discourage a company from making investments in new facilities. Note that an emissions fee could also be extended to apply to existing sources, removing new source bias.

However, there are important barriers and hurdles to implementing an emissions fee approach. First, a growing body of scientific evidence calls into question a key assumption of the CAA: that there is a “safe” amount of pollution that can be established by environmental science. While a threshold dose for adverse effects seems likely for each individual, there is a wide range of susceptibility to adverse effects, considering the differences among healthy adults, senior citizens, asthmatics, children, and people with cardiopulmonary problems. If the safe population dose threshold is defined as the safe dose for the most susceptible individual, then the population threshold may be very close to zero or background levels.

As a result, the environmental community may oppose the adoption of an emissions fee approach in place of NSR modeling requirements to ensure protection of air quality, out of their concern for the adequacy of protection of public health. On the other hand, some environmental groups are simply looking for the most effective way to reduce emissions, and they may see emissions fees as more effective than an NSR program that is politicized, fragmented, and under constant litigation.

56. Plants do pay nominal Title V fees based on their emissions.

57. This asymmetry between the grandfathering of emissions for existing plants while new plants must obtain emission offsets serves as an important weight in terms of cleaner new firms buying out the dirtier existing plants in NA areas.

58. In fact, current estimates suggest a substantial variation in damages from one location to another. Further, the damage estimates even vary significantly across locations within the same urban area, by season, and even by time of day. Neal Funn et al., *The Influence of Location, Source, and Emission Type in Estimates of the Human Health Benefits of Reducing a Ton of Air Pollution*, 2 AIR QUALITY, ATMOSPHERE & HEALTH 169, 169-76 (2009); Nicholas Z. Muller & Robert Mendelsohn, *Efficient Pollution Regulation: Getting the Prices Right*, 99 AM. ECON. REV. 1714, 1714-39 (2009); Arthur Fraas & Randall Lutier, *Efficient Pollution Regulation: Getting the Prices Right: Comment*, 102 AM. ECON. REV. 602, 602-07 (2012).

To the extent that fees would be based on estimated damages, an emissions fee approach would require a rigorous benefit analysis. While EPA has developed benefit estimates for the ozone and fine PM NAAQS pollutants, debate is ongoing (and controversial) over the uncertainty in EPA's estimates of the health effects of ozone and PM exposure.⁵⁹ In particular, considerable uncertainty exists in the estimated health effects associated with exposures at the low ambient levels of ozone and fine PM that characterize U.S. air quality. Even EPA acknowledges significant uncertainty associated with mortality estimates for exposures at the low ambient levels of ozone and fine PM that are present in the United States.⁶⁰ Nonetheless, EPA knows how to use tools of uncertainty analysis and those tools could be applied to help develop appropriate emissions fees.

Second, current NSR requirements are designed to protect against short- and long-term violations of the several NAAQS. However, there is substantial seasonal, day-to-day (and even hourly) variability in the effect of emissions from a major plant on ambient air quality. This variability arises from variations in such factors as background emissions and meteorological conditions. As a result, a fixed emissions fee may approximate the effect of emissions in terms of long-term average ambient air concentrations of pollutants such as ozone and fine PM, but such fees would have to vary substantially on a day-to-day (and even hourly) basis across different locations within an urban area to track the daily effect of plant emissions on air quality and the associated air pollution damages.

Thus, a stable annual emissions fee would only rarely be "right" on a day-to-day (or hourly) basis in protecting against short-term violations of NAAQS and in reflecting the damages of plant emissions. A short-term, variable emissions fee responding to variations in meteorological and atmospheric conditions would more closely approximate (although still imperfectly) the damage effects of emissions from a major facility, but implementation of such a variable fee would be challenging. The variability in the fee would also give up some of the "certainty" advantages that would accompany a stable long-term emissions fee.

Nonetheless, with modern computer technology and "big data" systems, a variable emissions fee may be feasible and could prove to be less administratively onerous for industry and EPA than the current NSR program.

59. NATIONAL RESEARCH COUNCIL, ESTIMATING THE PUBLIC HEALTH BENEFITS OF PROPOSED AIR POLLUTION REGULATIONS (National Academies Press 2002); Arthur Fraas, *The Treatment of Uncertainty in EPA's Analysis of Air Pollution Rules: A Status Report*, 2 J. BENEFIT COST ANALYSIS 1, 1-27 (2011); Kerry Krutilla et al., *Uncertainty in the Cost-Effectiveness of Federal Air Quality Regulations*, 6 J. BENEFIT COST ANALYSIS 66, 66-111 (2015); Neal Fann et al., *Letter in Response to Fraas & Lutter Article: Uncertain Benefits Estimates for Reductions in Fine Particle Concentrations*, 33 RISK ANALYSIS 755, 755-56 (2013); Arthur Fraas & Randall Lutter, *Uncertain Benefits Estimates for Reductions in Fine Particle Concentrations*, 33 RISK ANALYSIS 434, 434-49 (2013); Arthur Fraas & Randall Lutter, *Reply to Letter by Fann, Lamson, Anenberg, and Hubbell Regarding Fraas & Lutter Article: Uncertain Benefits Estimates for Reductions in Fine Particle Concentrations*, 33 RISK ANALYSIS 757, 757-59 (2013).

60. Krutilla et al., *supra* note 59.

Clearly, however, it would have to be structured in a way that provides certainty and predictability for source owners, perhaps by limiting the range in which the fee can fluctuate and setting the fee far enough in advance that they can plan their operations based on the amount of the fee.

The air chemistry associated with NO_x emissions is particularly complicated. The resulting non-convexity in the relationship between reductions in NO_x emissions and ambient ozone and fine PM levels yields negative benefits in some major metropolitan areas. In other words, reducing NO_x emissions can actually make air quality worse in some areas. As a result, it is not clear how best to implement an emissions fee program for NO_x emissions in these major urban areas.⁶¹ However, such modeling difficulties are also a conundrum in the command-and-control approach to NSR that EPA is now implementing.

Third, an emissions-fee approach will require that covered facilities estimate or monitor their emissions of multiple pollutants on a continuing basis. Much of this information is already reported by companies to state environmental agencies, EPA, or both. Since companies would know that under this new approach, fees would be charged for emissions, they would have an additional incentive to understate their emissions to EPA. A rigorous EPA enforcement system—with substantial penalties for false reporting—will be required to ensure the integrity of reported emissions.

Although intensive monitoring and enforcement programs are feasible for major manufacturing plants (the kinds of sources subject to the NSR program), these intensive programs would not be feasible for the large number of smaller stationary/area sources and the transportation programs required to achieve and maintain air quality that meets NAAQS. Thus, for these smaller sources, something like the current CAA processes to implement NAAQS (e.g., SIPs) will continue to be necessary.

VII. Conclusion

The NSR program has become a significant impediment to the construction and expansion of manufacturing facilities in the United States. With increasingly stringent NAAQS, and especially under the new ozone standard, it may effectively prevent industrial development in some parts of the country. We have identified several administrative actions that EPA could take to address these issues while still maintaining the environmental benefits of the program.

We start with two reforms that would be beneficial even if none of the NAAQS is revised again. First, EPA could adopt a probabilistic approach to air quality modeling to replace its current deterministic, upper-bound modeling requirements. Such an approach would more

61. Fann et al., *supra* note 58; Muller & Mendelsohn, *supra* note 58; Arthur Fraas & Randall Lutter, *Do Some NO_x Emissions Have Negative Environmental Damages? Evidence and Implications for Policy*, 45 ENVTL. SCI. & TECH. 7613, 7613-14 (2011); Fraas & Lutter, *supra* note 58.

accurately predict the air quality impacts of a new or expanded facility and thus make it easier to obtain permits for new and expanded facilities in attainment areas. Second, EPA could adopt reforms that would expand the pool of offsets and allow more clean development in both attainment and NA areas while preserving the program's environmental benefits.

We also recommend two simple reforms that would explicitly address the NSR issues that arise when a NAAQS is revised. First, EPA should revise its regulation to clarify that permit requirements and standards will be based on the date a complete permit application is submitted (which is within the control of the permit applicant) and not on the date the permit is actually issued (which may be years later and is solely within the control of the permitting authority). Second, the Agency should adopt internal staffing reforms to ensure that the necessary implementation rules, guidance, and air quality models are already in place when a revised NAAQS comes into effect.

Additionally, we offer two potential statutory reforms. The first would be fairly narrow but would significantly improve the NSR program by allowing permit applicants to pay emissions fees in lieu of meeting the current offset requirements. These fees would go into a fund that the state or local environmental agency would use to pay for or subsidize emissions reductions that the agency believes will do the most good in terms of reducing environmental risks.

Finally, we note that a more fundamental reform would be to change the statute and replace the NSR program for major manufacturing facilities with a system of emissions fees for each of the NSR pollutants. By monitoring emissions, each company would know its financial responsibility for pollution and could take steps to reduce or prevent emissions and thereby avoid fees. Such an approach would eliminate the uncertainty and unpredictability of the NSR process and encourage the expansion of existing manufacturing plants and the construction of new ones.

Appendix: Chronology for PSD Application for Footprint Power Salem Harbor Development LP Gas-Fired Combined Cycle EGU (630 MW)

Initial application	Dec. 21, 2012
Additional information submitted	Apr. 12, 2013
	June 10, 2013
	June 18, 2013
	Aug. 6, 2013
	Aug. 20, 2013
	Sept. 4, 2013
	Sept. 9, 2013
Draft PSD permit issued for public comment	Sept. 9, 2013
Public hearing	Oct. 10, 2013
Public comment extended	Nov. 1, 2013
Revised General Electric (GE) guarantee	Nov. 1, 2013
Response to EPA & other comments; emissions update with additional GE guarantee	Dec. 11, 2013
Additional letter on startup/shutdown	Jan. 10, 2014
Additional air quality monitoring for PM, & updated emissions rates for carbon monoxide & sulfuric acid	Jan. 16-21, 2014
Draft final permit issued	Jan. 30, 2014
Petition submitted to EAB	Mar. 3, 2014
Petition denied	Sept. 2, 2014
Final permit issued	Sept. 11, 2014

GREG WALDEN, OREGON
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FIFTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (202) 225-2327
Minority (202) 225-3641

March 9, 2018

Mr. Stuart Spencer
Associate Director
ADEQ, Office of Air Quality
5301 Northshore Drive
Little Rock, AR 72118

Dear Mr. Spencer:

Thank you for appearing before the Subcommittee on Environment on February 14, 2018, to testify at the hearing entitled "New Source Review Permitting Challenges for Manufacturing and Infrastructure."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Friday, March 23, 2018. Your responses should be mailed to Kelly Collins, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to kelly.collins@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



John Shimkus
Chairman
Subcommittee on Environment

cc: The Honorable Paul Tonko, Ranking Member, Subcommittee on Environment

Attachment



A R K A N S A S
Department of Environmental Quality

March 23, 2018

Kelly Collins
Legislative Clerk
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

RE: Responses to Additional Questions for the Record

Dear Ms. Collins:

On February 14, 2018, I testified before the House of Representative's Committee on Energy and Commerce's Subcommittee on Environment at the hearing entitled "New Source Review Permitting Challenges for Manufacturing and Infrastructure." On March 9, 2018, the Subcommittee Chairman, the Honorable John Shimkus, caused to be delivered to me additional questions for the record. I have enclosed herewith my responses to the questions tendered to me.

Thank you again for the opportunity to present testimony before the Subcommittee and for the opportunity to supplement my testimony with the enclosed answers to the Subcommittee Members' questions.

Sincerely,

A solid black rectangular box redacts the handwritten signature of Stuart Spencer.

Stuart Spencer
Associate Director, Office of Air Quality

Enc.

Witness Stuart Spencer's Responses to Additional Questions for the RecordThe Honorable John Shimkus

1.a. As an environmental regulator, I can tell you that complexity can breed uncertainty. Uncertainty can in turn have a chilling effect on projects that could otherwise improve a facility's efficiency and emission rates. We need guidance documents, rules, and - where appropriate - targeted legislation, that is clear and precise enough to encourage the facilities in our regulated communities to invest in modernization projects without fear of tripping or triggering cumbersome New Source Review (NSR). I am pleased that the U.S. Environmental Protection Agency (EPA) has recently taken steps to clarify its positions on key NSR issues. On December 7, 2017, the EPA Administrator Scott Pruitt (Administrator Pruitt) released a memorandum in which he relayed that the EPA would no longer "second guess" a company's estimate of future pollution levels under its NSR regulations before retrofitting a plant. Administrator Pruitt indicated this move would diminish regulatory uncertainty. I agree. It is a positive step.

On March 13, 2018, Administrator Pruitt issued another memorandum on NSR reform, this one re-interpreting "project netting". This latest memorandum marks an important shift in the EPA's methodology for calculating whether a project will result in a significant emissions increase at Step 1 of the NSR applicability analysis. Relying on certain rule language and regulatory and legislative history, the EPA found that under its current NSR regulations, both emissions increases and decreases resulting from a proposed project may be considered in Step 1 of the NSR analysis, in what the agency now calls "project emissions accounting"— "i.e., taking account of the true emissions impacts of the project itself." The effect of both of these EPA-

issued memoranda is positive, in that it helps provide needed guidance, clarity, and certainty to the application of the NSR program.

2. As I referenced in my answer number 1.a. above, Administrator Pruitt issued a memorandum on NSR project emissions accounting on March 13, 2018. This memorandum is a positive step in addressing the statement I made in my testimony that the NSR rules often times discourage rather than encourage pollution control and efficiency projects. In the March memorandum, the EPA stated that its prior interpretation of “project netting” had the effect of blocking certain projects and significantly delaying others, “even though those projects would not have resulted in a significant emissions increase” if considering both emissions increase and decreases at Step 1 of the analysis (underline added). Within the memorandum, Administrator Pruitt stated, “The EPA recognizes that because of the complexities associated with doing multi-year contemporaneous netting under Step 2 at a large facility, some companies may have been dissuaded from undertaking some projects,” even if those projects may have resulted in increased efficiency and reduced emissions. I am encouraged that the EPA is taking steps to address this issue. Hopefully this will help promote additional pollution control and efficiency projects.

3.a. The term “cooperative federalism” has been referenced often in the past several years in regard to the relationship between the EPA and state environmental protection agencies. ADEQ Director Becky Keogh testified before the U.S Senate Environment and Public Works Committee that the prior administration of the EPA was demonstrably more coercive than cooperative in nature, where states were being made to be more pawns than partners. The states have supported a shift to cooperative federalism, a priority of the current administration, from a “coercive” federal role to one which supports the states’ proper role. I’m happy to report that the dynamic is changing. The EPA/state relationship is becoming more collaborative. That is the

key to improving the interaction between the federal government and the states: meaningful and early engagement and input in a truly collaborative fashion. The states are, in most instances, delegated to implement nearly all Clean Air Act programs. The EPA should recognize that the states have on-the-ground experience with regulating the facilities within their borders and defer to them and their expertise in appropriate instances on important permitting and planning issues.

4. As I suggested in my testimony, the terms “modification” and “routine maintenance, repair, and replacement” (RMRR) need to be clarified in order to allow regulated facilities to proceed with plant improvement and maintenance projects with more certainty. This proposed certainty is called into question when rules are muddy and open to interpretation. This in turn leads to a host of unanswered questions, including on issues such as how long a plant may operate under its existing air permit without having to renew and/or update its emissions control systems to current state-of-the-art technology. These questions are especially pertinent in regard to power plants. That particular industry sector wrestles with the question of when an upgrade or maintenance project at a power plant is significant enough to require a retrofit.

I have been encouraged by the memoranda the EPA issued in December 2017 and March 2018. I hope the EPA takes up the issue of clarifying what constitutes a RMRR project in a future memorandum and that the EPA engages the states on this issue when it sets meetings associated with its announced NSR Task Force.

5. Yes it would. In responding to this question, I defer largely to my fellow witness, Mr. Jeff Holmstead, because I agree wholeheartedly with his assessment. As he stated in page 5 of his witness statement, “Under the NSPS, EPA determines whether a project at a plant is a ‘modification’ by looking at the maximum hourly emission rate of the plant before the project

and comparing it to the maximum hourly emission rate of the plant after it. If a project does not increase this rate – that is, if the plant has not been changed in a way that would increase its maximum hourly emissions rate – then the project is not a modification. There is rarely any controversy about this issue because the maximum hourly emission rate is a readily available number that is based on the design of the facility.”

Mr. Holmstead goes on to say on page 6 of his witness statement, “Because of all the uncertainty and controversy caused by the “emission increase test,” [under NSR] it would be helpful for Congress to clarify this issue. In my view, the best approach would be to make clear that there is not a “major modification” under NSR if there is not a “modification” as defined under NSPS. Thus, companies (and EPA) would evaluate a project to determine whether it would increase the maximum hourly emission rate at the plant. If not, then the project does not trigger NSR. If so, then the project would be a modification and would then be evaluated under the current NSR test to determine whether it would be a “major modification” that would trigger NSR. There are at least two important reasons for Congress to consider such an approach. First, it would provide much more certainty to EPA, states, and the regulated industry. As opposed to the current NSR approach, the maximum hourly emission rate is an objective measure based on the design of the facility and is easily ascertainable. As recent experience has shown, there is much subjectivity under the current approach and many different ways to project future annual emissions and then determine the amount of those emissions that are unrelated to the project being evaluated. Second, from an environmental perspective, a one-hour test is much more meaningful because the most stringent EPA standards are based on maximum concentrations of a pollutant averaged over one hour (for SO₂ and NO₂), eight hours (for ozone and CO), and 24 hours (for PM_{2.5}). The only pollutant for which a longer “averaging time” is meaningful is lead, for which the air-

quality standard is based on a 3-month average (and which has rarely, if ever, been addressed by NSR.) Simply put, in terms of protecting human health, the maximum amount of a pollutant that a facility emits in one hour is much more important than the amount it emits in a year.”

I could not agree more with the points Mr. Holmstead makes. The following fix is simple and protective of the environment:

1. Evaluate a project to determine whether it would increase the maximum hourly emission rate at the plant.
 - a. If not, then the project does not trigger NSR.
 - b. If so, then the project would be a modification and would then be evaluated under the current NSR test to determine whether it would be a “major modification” that would trigger NSR.

6. Yes it has. Moreover, there has been relatively little controversy associated with the NSPS program, because, as Mr. Holmstead stated in his written statement, the maximum hourly emission rate is a readily available number that is based on the design of the facility. If a project does not increase this rate – that is, if the plant has not been changed in a way that would increase its maximum hourly emissions rate – then the project is not a modification.
 - 6.a. Yes it would. Please see response number 6 above.

7. No I do not. First, I believe the NSPS hourly emissions rate test would be protective, because, as stated by Mr. Holmstead on page 6 of his witness statement, “in terms of protecting human health, the maximum amount of a pollutant that a facility emits in one hour is much more important than the amount it emits in a year.” Second, states are required to maintain a robust ambient air monitoring network to ascertain the design value of criteria pollutants throughout

their geographical boundaries. If, in spite of the safeguards present in facility permits, a monitor in an area or areas of a state were to violate a particular National Ambient Air Quality Standard (NAAQS) value, then steps could be taken in a State Implementation Plan (SIP) to address control of that pollutant. In order for this to occur, the state regulator would first need to determine if point sources were the primary contributors to the NAAQS violation, as opposed to non-anthropogenic sources or exempt categories (i.e., post-crop agricultural activities). If that was determined to be the case, a SIP addressing specific pollutant-emitting activities at regulated sources within a certain segment of the state would then be appropriate

The Honorable David B. McKinley

1. Yes I do. Please see response number 4 to the Honorable Shimkus's question above.
2. Please see response number 4 to the Honorable Shimkus's question above. Additionally, RMRR was not explicitly defined until the proposed Equipment Replacement Provision (ERP) of the final RMRR rule promulgated on August 27, 2003. The ERP was ultimately struck down. Thus, the need still exists to create a viable exemption, either through rulemaking or via an amendment to the Clean Air Act, to define the circumstances when RMRR activities will not trip or trigger NSR requirements.

Review for a new source is fairly clear. The "modification" definition is where the issue gets muddy. A modification is any physical change or change in the method of operation. Regulated facilities look to EPA's RMRR exclusion for guidance. Although RMRR is a listed NSR exclusion, the courts will generally assess five factors when determining whether or not a project is routine or non-routine. These factors are:

- a. The nature of the project;

- b. The extent of the project;
- c. The purpose of the project;
- d. The frequency of the project; and
- e. The cost of the project.

These factors are open to disparate judicial interpretation, as has been demonstrated in the outcome of court cases around the country on the RMRR issue. The EPA should endeavor to create industry-specific RMRR exemptions that account for criteria like those listed in a. – e. above. An amendment to the Clean Air Act to that effect would be an even stronger step to take to clarify the issue.

The Honorable H. Morgan Griffith

1. Yes it would. Please see response numbers 5, 6, 6.a., and 7 to the Honorable Shimkus's questions above.
2. Yes it would. Please see response numbers 5, 6, 6.a., and 7 to the Honorable Shimkus's questions above.
3. The EPA has already undertaken efforts to clarify and re-interpret issues of NSR applicability and implementation via the issuance of recent memoranda. Please see response numbers 1.a. and 2 to the Honorable Shimkus's questions above. While these memoranda are valuable to the regulated community and to the states in that they provide additional certainty as to how the EPA intends to implement components of the NSR program, they do not provide the durability and enforceability of a rule or regulation. I believe that the EPA does have the authority to undertake rulemaking to memorialize its latest efforts at clarifications to NSR.

4. Yes it would. As stated in my response directly above, I do believe that the EPA has the authority to promulgate regulatory revisions to the NSR program. That being said, Congressional action would be more impactful and longstanding in its effect.

The Honorable Frank Pallone, Jr.

1. For your review, I am providing the following link to the Arkansas Pollution Control and Ecology Commission's website:

<https://www.adeg.state.ar.us/commission/agenda.aspx>

Once you click on the link above, you will be able to access Commission meeting agendas with attachments. The attachments include the Arkansas Department of Environmental Quality's monthly permits report. The report includes a description of permits issued by the Office of Air Quality. The list includes all types of permit actions, including initial permits, major modifications, minor modifications, registrations, and administrative amendment. Each action includes a permit number and permit issuance date. Specific information regarding each permitted facility may also be located at the following on the following ADEQ website page:

<https://www.adeg.state.ar.us/home/pdssq/pds.aspx>

2. The definition of "modification" is the same under the NSR and NSPS programs. The analysis under the NSPS program is simple: the EPA determines whether a facility's project is a "modification" by looking at the maximum hourly emission rate of the plant before the project and comparing it to the maximum hourly emission rate of the plant after it. If a project does not increase this rate, then the project is not a modification. The analysis under the NSR program is much more cumbersome and complex. Fortunately, the EPA recently released a guidance

memorandum on March 13, 2018 regarding “project emissions accounting”. This memorandum memorializes the EPA interpretation that current NSR regulations provide that emissions decreases as well as increases are to be considered in Step 1 of the NSR applicability process, provided they are part of a single project. Thus, although there have historically been frequent instances where a “modification” under the NSPS program has not translated to a “modification” under the NSR program and vice versa, the EPA’s March 2018 memorandum will help true-up the initial accounting of “increases” so that only those true major modification projects will trip NSR review. Any increase in emissions should be offset and balanced with decreases, if they are part of the same project, in order to produce a true accounting for a particular project.

3. As stated in my response directly above, any increase in emissions should be offset and balanced with decreases, if they are part of the same project, in order to produce a true accounting for a particular project. Only after that accounting is done can the actual emissions impact be appropriately characterized.

4. As stated in my response number 3 directly above, any increase in emissions should be offset and balanced with decreases, if they are part of the same project, in order to produce a true accounting for a particular project. Only after that accounting is done can the actual emissions impact be appropriately characterized.

GREG WALDEN, OREGON
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FIFTEENTH CONGRESS
Congress of the United States
House of Representatives

COMMITTEE ON ENERGY AND COMMERCE

2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115

Majority (202) 225-2527
Minority (202) 225-3641

March 9, 2018

Mr. Kevin Sunday
Director of Government Affairs
Pennsylvania Chamber of Business and Industry
417 Walnut Street
Harrisburg, PA 17101

Dear Mr. Sunday:

Thank you for appearing before the Subcommittee on Environment on February 14, 2018, to testify at the hearing entitled "New Source Review Permitting Challenges for Manufacturing and Infrastructure."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Friday, March 23, 2018. Your responses should be mailed to Kelly Collins, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to kelly.collins@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



John Shimkus
Chairman
Subcommittee on Environment

cc: The Honorable Paul Tonko, Ranking Member, Subcommittee on Environment

Attachment



The Honorable John Shimkus
 C/O United States House of Representatives
 Committee on Energy and Commerce
 Subcommittee on Environment
 2125 Rayburn Office Building
 Washington, DC 20515-6115

March 20, 2018

RE: "New Source Review Permitting Challenges for Manufacturing and Infrastructure" Hearing and Questions for the Record

Mr. Shimkus,

Thank you for the honor and opportunity to testify before your subcommittee on Feb. 14 regarding "New Source Review Permitting Challenges for Manufacturing and Infrastructure." Reforms to this program are necessary to secure the vitality and vibrancy of our nation's economy and competitiveness and can (and should) be done in a way that not only does not unwind the significant and documented progress this country has made in improving air quality, but furthers that progress as the economy expands. As I and other panelists noted at the hearing and in submitted testimony, policy changes that allow businesses the certainty to proceed with efficiency upgrades and facility improvements will yield a net positive environmental benefit.

Please find below responses to your Questions for the Record, as written in your March 9, 2018 letter.

Will you explain the various costs that an owner experiences when complying with the NSR program?

The costs associated with NSR compliance can be placed on a wide spectrum. On the low end, in cases where there is not disagreement with and among state and federal air regulators and where third-party NGO's do not litigate, large companies may be able to handle permitting obligations using in-house managers, resources and staff. In such an ideal case, the company could also utilize expected line-items from a project's business plan to pay for the costs of goods and services paid for the construction and installation of the controls or equipment to comply with the rate. But more common, particularly for small or mid-sized manufacturers or in cases where there are disputes with and among regulators and where third-party NGO's litigate, are expenditures totaling tens of thousands to hundreds of thousands for legal, consulting and engineering fees. Equipment costs can total into the millions of dollars, and, depending on the company's compliance strategy and availability of such credits, the securing and retirement of Emission Reduction Credits can also result in six to seven-figure expenditures.

Discussions pertaining to compliance costs should also not exclude consideration of circumstances in which protracted periods of time spent wading through the NSR permitting process result in a company failing to capitalize on a market opportunity or being unable to scale or alter production schedules. In these cases, the company may well have lost out on tens of millions of dollars in revenue.

Which industries or manufacturing are most affected by NSR permitting issues?

NSR permitting affects a wide swath of industries, including manufacturers in petrochemical, pulp and paper, glass, cement and asphalt, landfills, refining and power generation sectors. In addition, in certain cases, distributed power generation and heating projects to provide heat and power to data centers, hospitals, educational campuses, and financial institutions may also be subjected to NSR permitting.

I am told that the complexity of the NSR program makes it difficult for facility owners to understand and comply with NSR requirements. Can you provide a few examples of how the NSR program is unnecessarily complex or unclear?

In some cases, there is dispute among state and federal regulators regarding the interpretation or application of regulatory criteria, such as the methodologies applicable to calculating potential future emissions. Our members have reported that, in addition to disputes between state and federal regulators, EPA staff who work in separate permitting and State Implementation Plan teams will make separate and in some cases contradictory demands on projects in order to secure permits and SIP modifications.

There have also been, over the past several decades, multiple and conflicting administrative memoranda from EPA re-interpreting key regulatory criteria for the so-called "demand growth exclusion" and single source aggregation.

Most challenging to businesses is the lack of a precise (and consistently applied) definition of routine maintenance, repair and modification. While the Clean Air Act provides exemption for NSR permitting for projects undergoing routine maintenance, repair and modification, EPA interpretation and a host of court cases have resulted in considerable ambiguity over when activity at existing sources will be subject to NSR permitting requirements. This tension must be resolved, and could in part do so via an EPA rulemaking to define routine maintenance, repair and modification. It could also be done by Congress answering the question in statute and making clear where it was ever the legislative's intention to establish policy that encourages the retirement and shutdown of existing manufacturing plants and, in their place, the building of new facilities outside the country's borders.

In closing, the PA Chamber endorses and supports legislative, regulatory and administrative remedies that will reform NSR in a thoughtful manner. Thank you for the opportunity to testify and for your leadership on this issue.

Sincerely,



Kevin Sunday
Director of Government Affairs

GREG WALDEN, OREGON
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FIFTEENTH CONGRESS
Congress of the United States
House of Representatives

COMMITTEE ON ENERGY AND COMMERCE

2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115

Majority (202) 225-2927
Minority (202) 225-3641

March 9, 2018

Mr. Paul Noe
Vice President Public Policy
American Forest and Paper Association
and American Wood Council
1101 K Street, N.W.
Washington, DC 20005

Dear Mr. Noe:

Thank you for appearing before the Subcommittee on Environment on February 14, 2018, to testify at the hearing entitled "New Source Review Permitting Challenges for Manufacturing and Infrastructure."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Friday, March 23, 2018. Your responses should be mailed to Kelly Collins, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to kelly.collins@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



John Shimkus
Chairman
Subcommittee on Environment

cc: The Honorable Paul Tonko, Ranking Member, Subcommittee on Environment

Attachment



March 23, 2018

Representative John Shimkus
House Energy & Commerce Committee
Chairman Subcommittee on Environment
2125 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Shimkus:

Attached please find the response from the American Forest & Paper Association and the American Wood Council to the additional questions for the record from the February 14, 2018, Subcommittee on Environment's hearing entitled "New Source Review Permitting Challenges for Manufacturing Infrastructure".

Please let us know if there is any additional information we can provide. We greatly appreciate the opportunity to testify before the Committee on this important matter.

Sincerely,

Paul Noe
Vice President, Public Policy

Response from the American Forest & Paper Association and the American Wood Council to the additional questions for the record from the February 14, 2018, Subcommittee on Environment's hearing entitled "New Source Review Permitting Challenges for Manufacturing Infrastructure".

Shimkus

Q1: Will you explain the various costs that an owner experiences when complying with the NSR program?

A1: There are many different costs that an owner can and does encounter when complying with the NSR program. The magnitude of these costs varies based on the complexity of the facility and the project. Because the requirements of the NSR program are so complex, it is common for owners to engage a consultant to conduct emissions calculations and the PSD applicability analysis, conduct the modeling analysis, prepare the permit application, and perform emissions testing. Whether a consultant is engaged or not, the major cost components associated with complying with the program are carrying out these pre-application studies, preparing the permit application itself, and responding to agency comments on the submittal. Additionally, there are costs involved with complying with new or revised emission limits, which typically involve capital and operational costs for new emissions controls and emissions monitoring equipment.

Owners sometimes incur costs associated with having to reconfigure or modify existing or planned equipment if the dispersion modeling or BACT analysis indicates that the project as originally designed may not be able to comply with emission standards. Reconfiguration costs are also incurred if the permit review agency will not accept flexible approaches or reasonable interpretations of guidance. Owners also incur costs associated with delays (e.g., market share impacts or energy/operational costs) while waiting for a PSD permit to be issued. Finally, there can be many lost opportunity costs if a project cannot be permitted on time or at all. These opportunity costs can include lost business opportunities for the company, lost job opportunities for workers, lost products for customers, lost tax revenue for the community, and diminished competitiveness of the facility, which can place its future viability at risk.

Q2: I am told that the complexity of the NSR program makes it difficult for facility owners to understand and comply with NSR requirements. Can you provide a few examples of how the NSR program is unnecessarily complex or unclear?

A2: There are 695 documents that span 40 years and multiple administrations on EPA's NSR policy and guidance website¹. These many documents reflect changes in

¹ <https://www.epa.gov/nsr/new-source-review-policy-and-guidance-document-index>

EPA policy interpretations and guidance over time. This large and cumbersome body of guidance is challenging to navigate even for state and local regulatory agencies. Accordingly, there are differences in policies/interpretations between states and regions, creating an uneven playing field across the United States for sources trying to get NSR permits in a timely manner for strategic projects. The policies pertaining to what constitutes "ambient air" constitute one example of the complexity of the program. A very simple definition of what "ambient air" means has over time evolved into a very stringent set of policy documents pertaining to how computer-based air dispersion modeling is to be conducted under NSR. The same project can have a different permitting path from state to state, so there is little certainty in how to permit most projects prior to having a detailed pre-application meeting with the permitting agency, and even after the application is submitted. Particularly for larger projects, the permitting agency will often ask for additional information or analyses during their review because they want to see additional detail that was not contemplated in the facility's original permitting plan.

Q3: Currently, pollution control projects are considered exempt from the NSPS but are not exempt from the NSR program, meaning that an owner must receive an NSR permit to carry out a pollution control project. Can you explain why it would be beneficial to exempt pollution control projects from having to obtain an NSR preconstruction permit?

A3: The purpose of a pollution control project (PCP) is to reduce air emissions. Exempting PCPs from NSR review allows such environmentally beneficial projects to proceed quickly and efficiently. Because PCPs are not currently exempt from NSR, however, facilities that want to install more efficient pollution controls, switch to cleaner fuels, and make modifications to improve energy efficiency must go through the NSR permitting process. In many cases, the inflexible and overly conservative nature of the NSR process forces such beneficial projects to trigger PSD review. In this way, the current NSR permitting program creates a disincentive for companies to pursue PCP and/or energy efficiency improvement projects because the process results in delay and increased costs in implementing the project and could result in an environmentally beneficial project not moving forward at all. Particularly at times when capital resources are limited, companies often choose investment options with greater capital returns than PCPs because the permitting process would impose additional onerous requirements beyond the original goal of the project or could eliminate or significantly diminish any return on investment. Providing an exemption for PCP and energy efficiency projects from NSR would benefit the environment because it would encourage facilities to implement such environmentally and otherwise beneficial projects.

Q4: Do current NSR program regulations make it more difficult for owners to carry out maintenance, repair, or replacement activities aimed at maintaining or improving safety or reliability? Please explain.

A4: There is conflicting guidance on what constitutes routine maintenance, repair or replacement (RMRR) projects, so typically owners must obtain concurrence beforehand from permitting agency that a particular project is RMRR. If the agency does not agree, or if carrying out the maintenance activity could result in a small increase in a facility's utilization due to improved reliability, a permit application must be prepared and a revised permit obtained. Concerns about triggering NSR review can lead to major maintenance being deferred in favor of small "band-aids" that do not trigger NSR but also may not result in as effective reliability or safety improvements as more comprehensive maintenance would.

As a result of technological advances to process equipment, many times routine repair projects implement improved, more efficient technology that does not technically qualify as a "like kind" replacement and may not increase emissions, but nonetheless is required to be evaluated as a modification under the NSR program requirements. Routine repair projects that improve reliability are beneficial because they reduce the occurrence of excess emissions related to malfunctions and improve reliability or safety, and the NSR program should encourage facilities to make these improvements.

Q5: Would reforming the NSR program to use a maximum hourly emission rate test clear some of the confusion and uncertainty surrounding the NSR program? Please explain.

A5: Yes, reforming the NSR program to use a maximum hourly emission rate test would make PSD applicability calculations much easier and more straightforward. For a complex facility, NSR applicability assessments typically involve very complex annual emissions calculations using Microsoft Excel workbooks. Permitting agencies often question the post-project emissions projections and frequently require the facility to track its annual emissions against the projection following the project, creating an additional annual recordkeeping and reporting exercise. A maximum hourly emission rate test applied to just the modified emission unit(s) would be much easier to understand in concept and practical to implement, resulting in quicker preparation and review of permit applications or applicability determination requests.

Hudson

Q1: Do you agree that NSR may actually hinder a company that wants to reduce emissions? What should be the federal response to encourage investment in these new technologies while making sure they are adequately scrutinized?

A1: Yes, the complicated and overly cumbersome NSR process currently serves as a disincentive for the regulated community to undertake projects that have a primary purpose of reducing emissions or improving the energy efficiency of their processes. Production efficiency improvements (“debottlenecking”) changes are also discouraged. The permitting system should reward technology-advancing improvements, particularly those that reduce reliance on energy and raw materials and provide innovative products and new markets. Projections of a particular project’s environmental impacts should use realistic, easily verified metrics (actual to future actual or current potential to future potential emissions comparisons).

Pallone

Q1: Please identify all instances that you are aware of, during your tenure with the AF&PA and the AWC, in which a member company’s facility or facilities undertook a “modification” as defined under EPA’s NSPS regulations, and triggered the obligation to comply with the applicable standards of an NSPS. Please be specific concerning the facility or facilities, locations and date ranges to allow the Committee to examine those instances.

A1: AF&PA and AWC advocate on broad policy issues and are not involved in individual member NSPS permitting actions. Our members are potentially subject to several NSPS, including regulations addressing emissions from Kraft pulp mills, industrial boilers, storage of volatile organic liquids, and reciprocating and spark ignition engines. Projects that trigger NSPS include installation of new equipment and production capacity increase modifications to existing covered equipment within the individual source categories. Many of the larger individual facilities of our member companies are subject to NSPS requirements for several categories of their production equipment. Specific examples of potential projects that might trigger NSPS applicability could be replacement of a smelt dissolving tank, a physical modification to a recovery furnace that allows an increase in throughput, installation of a new pulping line, or a replacement of an older boiler with a new, more efficient boiler.

Q2: Do you agree that under today’s PSD and nonattainment NSR regulations, a non-exempt physical change at a stationary source could increase its actual annual emissions and be considered a “modification,” and not increase its hourly potential to emit and therefore not be considered an NSPS modification? Would you consider this to be an increase in air pollution?

A2: There are many examples of situations where a source is required by the NSR provisions to assess the emission impacts associated with increased annual utilization even when its maximum hourly emission rates will not increase. As an NSPS modification only occurs when an affected source’s hourly emission rate increases, an

annual increase without an hourly increase from an existing source would not constitute a modification under the NSPS program. Whether the change constitutes a modification under the NSR program would depend on the magnitude of the net emissions increase.

An example is where the non-exempt physical change occurs to non-emitting equipment such as steam turbines, pumps, or heat exchangers. Under the NSR program, the impact of such changes on a stationary source's annual emissions are required to be evaluated even if the changes have no impact on the maximum hourly emission rates of individual emission units. Sources subject to NSR typically must make a demonstration through computer-based air dispersion modeling that a project's significant emissions increases will not cause or contribute to a violation of the NAAQS. However, as noted in the answer to your next question, if a source is increasing actual emissions but not potential emissions, the facility may have already demonstrated compliance with the NAAQS based on its potential emissions.

The NSPS program is a set of technology-based standards that apply to specific categories of stationary sources that EPA has concluded may cause air pollution that could endanger public health or welfare. By requiring new or modified sources in these categories to employ the latest pollution control technologies, the NSPS program ensures that new and modified sources are less polluting than older ones. And when the market demand for specific products is met by these more efficient facilities, the emissions to produce those products goes down. In doing so, the NSPS program also reduces impacts to the environment.

Q3: Do you consider an increase in annual pollution emissions even, if hourly potential emissions do not increase, to be "an increase in air pollution?"

Q4: Do you consider an increase in annual pollution emissions, even if a maximum hourly emission rate does not increase, to be "an increase in air pollution?"

A3 & A4: We agree that annual pollutant emission increases constitute "increases in air pollution," as that term is used in the context of the NSR program, even if a source's hourly potential or maximum hourly emission rates do not increase. The most common example of an annual emission increase occurring without a corresponding increase in hourly emissions is when a source's annual utilization rate increases due to higher demand for the source's products as a result of overall expansion of the economy.

However, such annual increases do not automatically translate to a violation of an air quality standard or requirement, or otherwise endanger public health. While the NSR regulations were designed to allow for economic expansion to occur, the reality is that economic expansion can cause concurrent increases in air emissions from industrial

and electric utility sources. NSR is intended to ensure that economic growth and prosperity can occur while protecting air quality.

Outside of the federal NSR program, there are additional regulatory safeguards. For example, individual state regulatory agencies have the ability to consider the impact of a particular source or group of sources on ambient air quality by requiring that dispersion modeling be conducted to demonstrate NAAQS compliance as part of the Title V operating permit renewal process.

Finally, there are many instances where annual increases in emissions are projected to occur in the context of the NSR program at sources where the equipment has already been permitted and the projected increases will not exceed existing permit conditions. Often in these situations, the impact to the environment of operating this equipment at its current maximum capacity has already been assessed through computer-based air dispersion modeling.

GREG WALDEN, OREGON
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FIFTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
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March 9, 2018

Ms. Emily Hammond
Glen Earl Weston Research Professor of Law
The George Washington University Law School
2000 H Street, N.W.
Washington, DC 20052

Dear Ms. Hammond:

Thank you for appearing before the Subcommittee on Environment on February 14, 2018, to testify at the hearing entitled "New Source Review Permitting Challenges for Manufacturing and Infrastructure."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Friday, March 23, 2018. Your responses should be mailed to Kelly Collins, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to kelly.collins@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



John Shimkus
Chairman
Subcommittee on Environment

cc: The Honorable Paul Tonko, Ranking Member, Subcommittee on Environment

Attachment



The Honorable John Shimkus
 Chairman, Subcommittee on Environment
 Committee on Energy and Commerce
 Congress of the United States
 House of Representatives
 2125 Rayburn House Office Building
 Washington, DC 20515

Attn.: Kelly Collins, Legislative Clerk
via Email

March 23, 2018

Dear Chairman Shimkus:

Thank you for the opportunity to testify at the February 14, 2018 hearing entitled “New Source Review Permitting Challenges for Manufacturing and Infrastructure.” This letter responds to the additional question from the Honorable Frank Pallone, Jr., which states: “Rep. Griffith questioned your earlier comment regarding the costs of pollution control technology, but did not give you an opportunity to respond.” The question thereafter inquires about the benefits and costs of New Source Review.

My response is as follows:

I strongly disagree with Mr. Griffith’s characterization of my testimony as it relates to the worries of Southwest Virginians. Indeed, I am from Mr. Griffith’s district, and am especially concerned that air pollution from facilities that attempt to evade New Source Review imposes significant costs not just on people from the Southern Appalachian region, but on citizens across the nation. The bill that Mr. Griffith has sponsored, H.R. 3127, would permit massive increases in air pollution by allowing major sources of pollution to evade New Source Review through a mathematical sleight-of-hand.¹

The costs of pollution control should not be understood as costs at all, but rather, a partial means of ensuring that polluters pay for harms they cause, rather than imposing those costs on others. Air pollution is a negative externality costing Americans billions of dollars, as my written testimony documents. The benefits of curbing air pollution exceed the costs by a ratio of more than 30 to 1.² These benefits include hundreds of thousands of lives saved, millions of individuals’ ability to work, and millions of children’s ability to attend school. Any myopic focus on costs of pollution control technology alone represents yet another sleight-of-hand that should not serve as the foundation for policymaking.

¹ See JOEL EISEN, EMILY HAMMOND, ET AL., ENERGY, ECONOMICS, AND THE ENVIRONMENT 266 (4th ed. 2015) (illustrating why accounting for emissions on an hourly basis undercounts total
² ENVTL. PROTECTION AGENCY, THE BENEFITS AND COSTS OF THE CLEAN AIR ACT FROM 1990 TO 2020, 7-1 (Mar. 2011).

I appreciate the opportunity to provide this response and would be happy to respond to any additional questions.

Sincerely yours,

[REDACTED]

Emily Hammond
Glen Earl Weston Research Professor of Law

[REDACTED]
[REDACTED]

GREG WALDEN, OREGON
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FIFTEENTH CONGRESS
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March 9, 2018

Mr. John D. Walke
Clean Air Director
Natural Resources Defense Council
1152 15th Street, N.W.; Suite 300
Washington, DC 20005

Dear Mr. Walke:

Thank you for appearing before the Subcommittee on Environment on February 14, 2018, to testify at the hearing entitled "New Source Review Permitting Challenges for Manufacturing and Infrastructure."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Friday, March 23, 2018. Your responses should be mailed to Kelly Collins, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to kelly.collins@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



John Shimkus
Chairman
Subcommittee on Environment

cc: The Honorable Paul Tonko, Ranking Member, Subcommittee on Environment

Attachment

The Honorable John Shimkus

1. Seeing that you do not support reforming the NSR program to include a maximum hourly emission rate test, do you believe that the maximum hourly emission rate test used under the EPA's New Source Performance Standards has not been successful. Please explain.

Response: I believe that the maximum hourly emission rate test used under the EPA's New Source Performance Standards has not been successful.

A maximum hourly emission rate test measures increases in an emissions unit's potential emissions rate, rather than its actual emissions rate.¹ Accordingly, changes at a facility that do not increase a unit's potential emissions rate may nonetheless increase *actual* harmful air pollutants by very significant amounts and evade air pollution control equipment; avoid air quality impact analyses; escape need for emissions offsets in areas experiencing unsafe air ("nonattainment" areas); worsen local and air quality; and harm public health. Experience with EPA's new source review ("NSR") regulatory and enforcement activities have demonstrated that power plants, for example, have increased actual harmful air pollution by thousands and even tens of thousands of tons, without increasing an emissions unit's maximum hourly emissions rate. Indeed, the NSPS hourly emissions rate test is so extreme and unprotective, that existing

¹ See, e.g., 68 Fed. Reg. 61,248,61,272 (Oct. 27, 2003) ("The NSPS program requires a change to result in an increase in the hourly *potential to emit* of the facility. 40 CFR 60.14(a)-(b). In contrast, under NSR, we require an increase in annual emissions. E.g., 40 CFR 51.165(a)(1)(x).") (emphasis added). Numerous industry statements confirm that maximum hourly emissions rate tests are "potential"-based emissions increase tests. See Joint Brief of Industry Petitioners, *New York v. EPA*, 431 F.3d 801 (D.C. Cir. 2005) ("*New York I*") at 6 (characterizing an increase in a facility's maximum hourly emissions rate as an increase in its existing capacity to emit, and recognizing that to be a modification under NSPS regulations); at 8 (the NSPS modification provision applies to "activities that increase a unit's 'potential' emission rate"); at 9 (for a project to "create 'new' capacity to emit," it "must first increase an existing facility's maximum achievable emissions rate"); *id.* ("Activity that increases an existing facility's maximum achievable emissions rate is referred to hereinafter as 'NSPS modification activity.'"); at 10-11 (equating "potential to emit" with a facility's "existing design capacity."); at 23 (equating a unit "maximum emissions rate" with its "capacity to emit"); at 26 (NSPS regulatory "'modification' is a physical or operational-method change that creates new pollution capacity – i.e., that increases an existing unit's *maximum emissions rate*" (emphasis in original); *id.* (equating the preceding test to a change that "increases the *potential emission rate*" of a regulated pollutant") (emphasis in original); see also Joint Brief of Industry Intervenors, *New York I*, at 3 (Alleging that "EPA established a regulatory definition of "modification" [under NSPS], which provided that the determination of whether an emissions increase occurs is made by reviewing whether maximum emissions after a change would be greater than maximum emissions at full capacity before the change, *i.e.*, a "potential-to-potential" test. 40 C.F.R. § 60.14; see 67 FR 80,199 (2002)."); & at 11 ("'potential-to-potential' test" compares "maximum emissions before a change to maximum emissions after a change.") & 12 (linking increases in potential emissions rate to operation at full design capacity) & 13 ("increase in a major source's "potential" emissions, *i.e.*, in the source's maximum pre-change emissions level.")

stationary sources could *increase* emissions by orders of magnitude higher than the 100 and 250 ton per year thresholds that Congress specified for *entire* major stationary sources under the Clean Air Act. Clean Air Act § 169(1). Were the NSR program to use the same potential-based, maximum hourly emission rate test employed in the NSPS program, these increases of thousands to tens of thousands of tons of harmful air pollution would evade review, cleanup, and offset, and worsen air quality and public health.

EPA has concluded repeatedly that an hourly emissions test would allow changes that cause actual emission increases to evade review. For example, in 1996, EPA explained that it did not intend to adopt an hourly emissions increase test supported by industry, because:

For example, assume the emissions unit at the widget factory that is emitting 10 pounds an hour but has historically operated at 40 percent capacity due at first to operating cost, but with age, reduced efficiency and reliability. Under the Exhibit B alternative, the owner could modernize the unit, thus lowering the operating costs and increasing efficiency and reliability. *This change will allow the owner to use the machine at much higher levels (e.g., more hours per day or week) than it had in the past. As a result, actual emissions (measured in tpy) could more than double due to the increase in utilization even though hourly potential emissions remain the same.*

61 Fed. Reg. 38,250, 38,269 (July 23, 1996) (emphasis added). Likewise, when the Bush Administration EPA squarely rejected industry's proposed hourly emissions test in 2002, the agency explained that an hourly test "could sanction greater actual emissions increases to the environment, often from older facilities, without any preconstruction review." 67 Fed. Reg. 80,185, 80,205 (December 31, 2002). *See also, id.* ("actual emissions increases resulting from unreviewed projects could go largely undocumented until a [Prevention of Significant Deterioration ("PSD")] review is performed by a new or modified facility that ultimately must undergo review. By that time, however, a violation of an [air quality] increment could have unknowingly occurred."), *id.* ("We agree that a potential-to-potential test for major NSR applicability could lead to unreviewed increases in emissions that would be detrimental to air quality.").

One significant problem with the hourly emissions rate test concerns the vast gulf between actual and allowable emissions in areas that EPA studied. As EPA found following its analysis of Texas and Illinois emissions data:

The results of the Texas and Illinois analysis indicate that typical source operation frequently does result in actual emissions that are substantially below allowable emissions levels. In these two States, actual emissions represent from 30 to 86 percent of the allowable emissions, depending on source category and pollutant.

61 Fed. Reg. at 38,270; see generally "Results of Data Gathering and Analysis Activities for the CMA Exhibit B Settlement Agreement," Prepared for Dennis Crumpler, U.S. EPA, by Radian Corporation (Nov. 1988), Appendix F. In other words, the delta between actual and allowable emissions under an hourly potential test for NSR would allow individual sources to increase actual emissions by more than a factor of three without triggering NSR.

These data are significant because there was no instance in EPA's analysis in which an electric generating unit ("EGU") would not have been allowed to increase its hourly or annual emissions by at least 50% under an hourly emissions rate test. Again, this is due solely to the delta between actual and allowable emissions, without regard to additional emissions increases that might be allowed from abusive netting or offset practices. Fifty percent increases were on the low end under EPA's study, however, with emissions increases over 100% and 200% more the norm. EPA included this study in the docket for a 2002 Bush EPA NSR rulemaking that rejected an hourly emissions test for NSR.

In 2005, EPA issued a proposed rulemaking, entitled "Prevention of Significant Deterioration, Nonattainment New Source Review, and New Source Performance Standards: Emissions Test for Electric Generating Units," proposing hourly emissions rate approaches for NSR. See 70 Fed. Reg. 61,081 (October 20, 2005). Section IV.F of the proposal contained a section entitled "Benefits of Maximum Achievable Hourly Emissions Test." See *id.* at 61,093. The most glaring characteristic of this section is the fact that not even EPA itself could ascribe a single air quality or public health-related benefit to its proposed maximum hourly emissions rate tests. For the most sweeping revision to the way that emissions increases are calculated under the NSR and NSPS programs, it was highly revealing that EPA identified only air quality disbenefits. Instead of public health or air quality benefits, EPA described benefits that redound entirely in favor of industry and against Americans' health and environment: the agency claimed the proposals will "promote the safety, reliability and efficiency of EGUs," and improve facilities' "productive capacity." *Id.* at 61,094.

EPA conducted a briefing for the public about the 2005 NSR proposal on October 14th 2005 in the EPA headquarters building at Ariel Rios. I attended that briefing. At this briefing, I posed a series of questions to agency officials about the 2005 proposal, the 2002 NSR analysis discussed above, any new analysis conducted by EPA since then in support of its proposal, and the agency's regulatory experience with the NSPS modification provision. I relate my questions and the responses by the agency's officials here.

I asked the EPA officials whether the agency had conducted any new analysis or data gathering similar to the 2002 NSR analysis examined here, to determine what the gap might be for EGUs between actual emissions, and allowable emissions under an hourly emissions rate test. The EPA official admitted that the agency had not.² I have confirmed that there was no such analysis or data in the 2005 docket apart from the 2002 analysis, which showed very substantial gaps between actual and allowable emissions for EGUs.

I asked the EPA officials whether the agency knew what the average or typical delta was between actual and allowable emissions for EGUs. The EPA official admitted that the agency did not know. I asked whether the agency had evaluated the issue with respect to any power

² Unless otherwise noted, the responses to these questions were all provided by Mr. William Harnett, who participated in the briefing by telephone from North Carolina. At the time, Mr. Harnett was the Director of the Information Transfer and Program Integration Division in the Office of Air Quality Planning and Standards, Office of Air & Radiation, Environmental Protection Agency.

plants and, if so, for how many. The EPA official admitted that the agency had evaluated none. I confirmed that there was no such analysis or data in the 2005 docket apart from the 2002 analysis.

I asked the EPA officials whether the agency had conducted any analysis to refute the data and conclusions underlying the 2002 analysis. The EPA official admitted that the agency had not. I confirmed that there is no such analysis or data in the 2005 docket apart from the 2002 analysis.

Considering that the agency was proposing to extend the NSPS hourly emissions modification test to EGUs under the NSR program, I asked the EPA officials whether the agency knew how many NSPS modifications had been undertaken by power plants over the lifetime of the program. The EPA official admitted that the agency did not evaluate this issue. I asked the EPA officials how many modifications the agency projected under the NSR program if any one of the proposals were adopted. The EPA official admitted that the agency did not evaluate this issue. I confirmed that there was no analysis or data in the 2005 docket concerning these questions.

I asked the EPA officials whether the agency was aware of *any* instance of a power plant having triggered the NSPS modification provision during the lifetime of the program. The officials declined to respond. Following my insistence, the officials still refused to respond. I confirmed that there is no analysis or data in the 2005 docket disclosing any instance of a modification by an EGU triggering the NSPS modification provision.

EPA well knows that maximum achievable emissions tests are a function of potential emissions—that are rarely if ever exceeded: “[t]he ‘achievable’ test is a measure of the ‘potential’ emissions of a source ... in the classic and historic sense of the use of that term.” Memorandum from Adam M. Kushner, Director of EPA’s Air Enforcement Division, Office of Enforcement and Compliance Assurance, to William Harnett, dated August 25, 2005, at 9 (hereinafter “EPA Enforcement Memo.”). In a case study undertaken by EPA’s enforcement office, “the achievable hourly emission rate was calculated to be *more than ten times higher* than the average hourly emission rate in the five-year period prior to the change.” EPA Enforcement Memo at 3 (emphasis added).

A series of utility industry case studies accompanying the EPA Enforcement Memo, as well as the Memo itself, confirm that hourly emissions rate approaches would result in actual annual emissions increases wildly in excess of existing NSR “significant” emission thresholds. See, e.g., 40 C.F.R. §52.21(b)(23)(identifying “significant” emissions increase thresholds for “modifications” in attainment areas, such as 40 tons per year for NO_x and SO₂). Examining actual emissions data for EGUs from the Clean Air Markets Division, the EPA enforcement office concluded that the maximum hourly achievable emissions rate test proposed in 2005 would have failed to control actual annual emissions increases of 50 tpy of SO₂ and 978 tpy of NO_x in one case study (EPA Enforcement Memo attachment, at 10); 13,096 tpy of SO₂ in another case study (*id.* at 2); 939 tpy of SO₂ and 1,405 tpy of NO_x in another (*id.* at 20); and 1,700 tpy of SO₂ and 507 tpy of NO_x in a fourth case study (*id.* at 27). See also EPA Enforcement Memo at 3.

In the 13,096 tpy example, the annual SO₂ emissions increase that escapes control is over 327 times the “significant” emissions threshold for SO₂. As discussed elsewhere, these exempted pollution increase levels are significantly higher than even the major stationary source threshold for new power plants (100 tpy), that EPA continues to recognize should be subject to Best Available Control Technology (“BACT”) and Lowest Achievable Emissions Rate (“LAER”). And in many cases, these uncontrolled emissions *increases* are well above the *total* SO₂ and NO_x emissions from EGUs that EPA’s Clean Air Interstate Rule would have covered in 2020. In the case study, even though sulfur dioxide emissions increased by 13,096 tons per year, the maximum achievable hourly rate did not increase.³ *Id.* Attachment to EPA Enforcement Memo, at 2 (Case Study #1) (emphasis added). Based on this analysis, the EPA enforcement office found that “one can only conclude from application of the so-called ‘achievable’ test that *no ‘change’ causing an emissions increase . . . at an EGU would trigger NSR. . . .*” *Id.* at 5 (emphasis added).

The enforcement office also found that these changes would have produced annual emissions increases well in excess of the “significant” emissions thresholds under a maximum hourly achieved emissions rate test. See EPA Enforcement Memo attachment at 5, 8, 14, 18, 22, 25, 29 & 32). Had SO₂ controls been installed, in contrast, the EGU’s *total emissions* – not just the emissions increase magnitude – were assumed to be reduced by 95%. For NO_x controls, the assumed reduction was to a BACT level of 0.100 lb/MMBtu. See, *e.g., id.* at 6, 9.

Similarly, experience with EPA’s NSR enforcement cases against coal-fired EGUs demonstrate the enormous levels of SO₂, NO_x and PM emissions increases that would escape control under a maximum achievable hourly emissions rate test. These levels are well in excess of the regulatory significant emissions increase levels, representing in some instances nearly 530 *times* the significance thresholds.

For example, maximum hourly emissions rate tests would have exempted the \$23 million equipment replacement project undertaken by TVA at Unit 1 of its Cumberland plant, since that project did not experience an increase in maximum achievable or maximum achieved hourly emissions rates. Final Order on Reconsideration in *In re Tennessee Valley Authority*, (EPA Environmental Appeals Board, September 15, 2000). That projected resulted in an NO_x emissions increase of 21,187 tpy—nearly one-and-one-half times the total amount of NO_x emitted annually by all sources in the District of Columbia. 21,187 tpy of NO_x is approximately 530 times the 40 tpy NO_x “significant” emissions threshold for modifications, and nearly 212 times the 100 tpy statutory threshold for new “major emitting facilities.” CAA § 169(1). See 68 Fed. Reg. at 61,272 (“500 tpy is far above any level EPA has ever thought justifiable as *de minimis*. *E.g.,* 40 CFR § 51.166(b)(23)(i). (definition of “significant”).”)

Analysis of the NSR enforcement cases against coal-fired power plants reveals that *none* of those cases would have been viable under maximum hourly emission rate approaches; indeed, that is precisely why industry was relying upon their hourly-potential emissions increase defenses to avoid liability. See EPA Enforcement Mem. at 13 (“This is Duke’s, and every other

³ The enforcement office used actual operating data to perform the case study analyses. EPA Enforcement Memo, at 3.

Defendant's, favorite defense in the NSR enforcement cases: we have not expanded capacity and, consequently, NSR was not triggered.") That is also why the government stipulated that the projects at issue in the Duke Energy NSR enforcement case would not have "caused an increase in the maximum hourly rate of emissions at any of Duke's units."⁴ Tens of thousands of tons of illegal NO_x and SO₂ emissions increases were at issue in the Duke Energy case, and all of those increases would have been permissible under maximum hourly emission rate approaches —since EPA was not contending there was any maximum hourly rate increase, and was instead alleging significant net emissions increases in actual, annual emissions (the PSD/NSR test) at the units from modifications that resulted in the units' post-change, increased utilization. Thus, it's easy to see why the enforcement office conclude that basing emissions increases only upon increases in maximum hourly emission rates would be "fatal" to its enforcement cases. See EPA Enforcement Memo, at 13.

Finally, the enforcement office concluded that application of the maximum hourly achievable emissions rate test would be "largely unenforceable." *Id.* at 2. Their analysis found the baseline "achievable" level to be so high that very few changes increasing emissions substantially could possibly result in emissions levels that would surpass it. For example, the enforcement office's first power plant case study found the achievable hourly emission rate to be more than *ten times higher* than the average hourly emission rate in the five-year period prior to the change. *Id.* (emphasis added). Thus, unless the utility were to increase its actual emissions *by an order of magnitude*, it would not be considered a regulated modification under NSR. In the case study, even though sulfur dioxide emissions *increased by 13,096 tons per year*, the maximum achievable hourly rate did not increase. *Id.* Attach. A to EPA Enforcement Memo, at 2 (Case Study #1). Based on this analysis, the enforcement office found that "one can only conclude from application of the so-called 'achievable' test that *no 'change' causing an emissions increase . . . at an EGU would trigger NSR . . .*" *Id.* at 5 (emphasis added).

In its 2005 NSR proposal, and a subsequent 2007 supplemental NSR proposal to adopt an hourly emissions rate test, 72 Fed. Reg. 26,202 (May 7, 2007), the administrative records for both proposals failed to identify a single instance in which an EGU owner/operator *would* install controls, or would *need* to install controls, under any of the proposed hourly emissions rate tests, when the owner/operator would not also *need* to install controls under the annual test. The NSPS hourly emissions rate test is so extreme and, therefore, ineffective, that in the real world industrial sources simply do not experience hourly potential emissions increases in a manner that would trigger NSPS controls for existing sources. Extending this NSPS approach to the NSR modification program would thwart the very purposes of the NSR program, result in substantial emissions increases, worsen air quality and harm Americans' health. See EPA, Respondent Brief in *New York v. EPA*, D.C. Cir. Case No. 02-1387 (Aug. 9, 2004), at 74 ("the purpose of New Source Review is to require that facilities making changes that increase their emissions meet emission limits that reflect state-of-the-art control technology, analyze the increased emissions from their facilities to ensure that they will not adversely affect air quality, and, in nonattainment areas, offset their emissions increases with emission reduction credits.")

⁴ *United States v. Duke Energy Corp.*, Civil Action No. 1:00 CV 1262 Order and Final Judgment, at 2 (M.D.N.C. April 15, 2004).

For all of these reasons, as well as others discussed in comments submitted to EPA on the agency's 2005, 2007 and 2018 NSR proposals, I believe that the maximum hourly emission rate test used under the EPA's New Source Performance Standards has not been successful.

The Honorable Frank Pallone

1. Did EPA conduct any sort of public health study or analysis of the changes proposed in the December 7th Memo?

There is no public indication, of which I am aware, that the EPA conducted any sort of public health study or analysis of the changes in the December 7th Memo. The Memo does not say that EPA conducted any study or analysis, nor did any EPA spokesperson say so when the Memo was released. There is no evidence of any public health study or analysis in any regulatory docket, for the Memo or otherwise.

2. Did EPA take into account the disproportionate impact air pollution has on the most vulnerable among us; children, minority communities or outdoor workers?

There is no public indication, of which I am aware, that the EPA took into account the disproportionate impact air pollution has on the most vulnerable among us. The Memo does not say that EPA took this into account, nor did any EPA spokesperson say so when the Memo was released. There is no evidence of EPA taking this into account in any regulatory docket, for the Memo or otherwise.

3. Mr. Holmstead's written statement said that the best approach would be to make clear that there is not a 'major modification' under NSR is there is not a 'modification' as defined under NSPS. Thus, companies (and EPA) would evaluate a project to determine whether it would increase the maximum hourly emission rate at the plant. If not, then the project does not trigger NSR."

Do you agree? Please explain.

I disagree, for all the reasons explained at length in my response, above, to the question from the Honorable John Shimkus.

I agree, instead, with the position and action taken by Mr. Holmstead and the Bush administration EPA in 2002, when Mr. Holmstead headed the agency's Office of Air & Radiation. There, EPA rejected use of a maximum hourly emission rate test for the NSR program because it "could sanction greater actual emissions increases to the environment, often from older facilities, without any preconstruction review." 67 Fed. Reg. 80,185, 80,205 (December 31, 2002). That approach allowed emissions increases to be calculated based on "the unit's pre-change and post-change potential emissions, measured in terms of hourly emissions." *Id.* at

80,205. EPA's analysis "showed that typical source operation frequently does result in actual emissions that are below allowable emission levels," *id.*, meaning very significant increases in actual emissions could result without exceeding allowable emission levels. *See also, id.* ("actual emissions increases resulting from unreviewed projects could go largely undocumented until a [Prevention of Significant Deterioration] ("PSD") review is performed by a new or modified facility that ultimately must undergo review. By that time, however, a violation of an [air quality] increment could have unknowingly occurred."); *id.* ("We agree that a potential-to-potential test for major NSR applicability could lead to unreviewed increases in emissions that would be detrimental to air quality.").

Mr. Holmstead and the Bush administration EPA understood that these unreviewed emissions increases run counter to the purposes of the NSR program. In EPA's August 2004 response to the legal challenges to the 2002 NSR rule revisions, for instance, EPA concedes that "the purpose of the NSR provisions is . . . to limit emissions *increases* resulting from physical or operational changes." *See* EPA, Respondent Brief in *New York v. EPA*, D.C. Cir. Case No. 02-1387 (Aug. 9, 2004), at 73-74 (emphasis in original); *see also id.*, at 74 ("the purpose of New Source Review is to require that facilities making changes that increase their emissions meet emission limits that reflect state-of-the-art control technology, analyze the increased emissions from their facilities to ensure that they will not adversely affect air quality, and, in nonattainment areas, offset their emissions increases with emission reduction credits.") EPA "also expressed concern about the environmental consequences associated with the Exhibit B provisions. For one, you could modernize your aging facilities (restoring lost efficiency and reliability while lowering operating costs) without undergoing preconstruction review, while increasing annual pollution levels as long as hourly potential emissions did not change." 67 Fed. Reg. at 80,205.

Indeed, in the context of the 2002 NSR rulemaking, EPA itself recognized that focusing the program on increases in potential hourly emissions would not adequately protect so-called pollution "increments," as required by the Clean Air Act. For example, in the rulemaking proposal, the agency observed:

Finally, one of the most troubling side effects of [a potential-to-potential hourly emissions test] is that it could ultimately stymie major new source growth by allowing unreviewed increases of emissions from modifications of existing sources to consume all available increment in PSD areas. After the minor source baseline date has been established in an area, all increases, whether subject to major NSR or not, consume increment. As illustrated in the example above, under the [the potential-to-potential hourly emissions] test an old grandfathered source could experience a "significant" net increase in annual actual emissions, yet it would not necessarily be subject to review. Since increment consumption after the minor source baseline date is calculated based on actual emissions increases, the "minor" modification of the grandfathered source would still consume increment. If a major new source with state-of-the-art emission controls proposes to locate in an area in which the increment has been consumed in this manner, it would be barred from building unless and until the increment problem was resolved. At the same time, older plants would continue to be able to make changes resulting in significant unreviewed, and possibly uncontrolled, actual emission increases.

61 Fed. Reg. 38,250, 38,270 (Jul. 23, 1996). And later, in its Technical Support Document for the 2002 NSR Rule, EPA continued in a similar vein:

In the preamble, we discussed our concerns about the environmental effects that could result from the general use of an applicability test based on the CMA Exhibit B approach. We indicated that the approach, based on increases in hourly potential emissions, could result in unreviewed emissions increases on a tons per year basis from modifications of existing sources consuming all available increment in PSD areas. ... We continue to believe that the "actual-to-projected actual" test – and not the CMA Exhibit B test – is the more appropriate method for measuring actual emissions increases that result from a physical or operational change, while not counting for applicability purposes....

With regard to the comment that the CMA Exhibit B approach would not have an impact on increment consumption because permitting, emissions inventories, and SIP's consider potential emissions, we believe that this conclusion overlooks the fact that the regulatory increment consumption process is based on changes in "actual emissions." PSD increment analyses performed with potential emissions tend to be screening analyses, which are accepted if the results show that no violations will result. Hence, while many analyses may be done initially with potential or allowable emissions, PSD applicants always have the ability to perform a more refined analysis should the initial analysis reveal problems meeting the increment. That is, actual emissions increases ultimately may need to be (and in some cases have been) used to determine whether an increment is being violated. This is one reason why we believe that it is important to retain an applicability process that triggers NSR on the basis of actual emissions increases.

Technical Support Document for the Prevention of Significant Deterioration and Nonattainment Area New Source Review Regulations, Nov. 2002, Docket No. A-90-37, at I-6-9.

It is also instructive to know about the emissions impact analysis that Mr. Holmstead and the Bush EPA included in the docket for the 2002 Bush EPA NSR rulemaking that rejected an hourly emissions test for NSR. There was no instance in EPA's analysis in which an electric generating unit ("EGU") would *not* have been allowed to increase its hourly or annual emissions by at least 50% under an hourly emissions rate test. Fifty percent increases were on the low end under EPA's study, however, with emissions increases over 100% and 200% more the norm.

EPA and Mr. Holmstead included this study in the docket for the 2002 NSR rulemaking, and offered no agency criticism of the data or its conclusions. The agency similarly relied upon the study to support its 2002 final rule, rightly rejecting a maximum hourly emissions rate approach. EPA provided no *other* data to contradict the emission's impact data or conclusions—either in the docket for the 2002 rulemaking *or at any time since then*. The only data in the possession of the agency thus belie any suggestion that emissions would not be allowed to increase very significantly, using a maximum hourly emissions rate test instead of the current PSD/NSR test, based on increases in actual, annual emissions to the environment. Allowing actual, annual emissions to increase by a factor of many times even the major stationary source thresholds plainly allows significantly greater environmental and public health hazards to occur than under the prevailing PSD/NSR emissions increase test for modifications.

4. Would this approach allow companies to increase actual air pollution and escape air pollution controls and offsets, when that increased air pollution could require air pollution controls and offsets under the Clean Air Act for “modifications” today?

Absolutely yes, for reasons explained at length in my response, above, to the question from the Honorable John Shimkus. That response mentioned actual examples identified by EPA itself in which a *single emissions unit* could have increased annual SO₂ emissions by 13,096 tons per year under a maximum hourly emissions rate approach now supported by Mr. Holmstead. Another project identified by EPA that would have escaped air pollution controls and offsets under a maximum hourly emissions rate test resulted in smog-forming nitrogen oxides (NO_x) emissions increase of 21,187 tons per year—nearly one-and-one-half times the total amount of NO_x emitted annually by all sources in the District of Columbia. My response above discusses numerous other examples where companies could increase actual air pollution and escape air pollution controls and offsets, when that increased air pollution would require air pollution controls and offsets under the Clean Air Act for “modifications” today.

5. Would this approach allow companies to increase actual air pollution and escape air pollution controls and offsets, when that increased air pollution could require air pollution controls and offsets under PSD/NSR regulations for “modifications” today?

Absolutely yes, for reasons explained at length in my response, above, to the question from the Honorable John Shimkus, as well as responses to prior questions from the Honorable Frank Pallone.

6. Please identify differences that EPA says exist between “modifications” under the NSPS and NSR regulatory programs. Be specific concerning the air pollution increases that EPA says are permissible, or that require air pollution controls and/or emission limitations, under the two programs.

I begin by describing some of the differences between the NSPS and NSR regulatory programs, quoting excerpts from recent comments submitted by NRDC and other public interest groups to EPA, opposing a 2018 rulemaking proposal⁵ to eviscerate the NSR modification program for EGUs.

Congress enacted the Clean Air Act’s NSR program in 1977, in order to limit air pollution beyond what had until that time been achieved by the NSPS. That program had not proven as successful at curbing air pollution as had been expected, and the NSR permitting requirements were added to minimize actual pollution emissions increases from new and modified sources. While Congress included a “grandfathering” exemption for existing sources, that exemption was not intended to be permanent, but rather existing

⁵ “Emission Guidelines for Greenhouse Gas Emissions From Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program,” 83 Fed. Reg. 44,746 (Aug. 31, 2018).

sources were to be brought into the NSR program at the point when they made changes that would “increase emissions.”⁶

As the Seventh Circuit stated in its *WEPCO* decision:

Members of the House recognized that “building control technology into new plants at the time of construction will plainly be less costly than [sic] requiring retrofit when pollution control ceilings are reached.” H.R. Rep. No. 294, 95th Cong., 1st Sess. 185, reprinted in 1977 U.S. Code Cong. & Admin. News at 1264. But Congress did not permanently exempt existing plants from these requirements; section 7411(a)(2) provides that existing plants that have been modified are subject to the Clean Air Act programs at issue here.⁷

In fact, beyond balancing the goals of cleaner air for the nation with reduced disruption for older facilities, the modification trigger was, to the Seventh Circuit, a means of “forcing” investment in cleaning the nation’s airsheds:

Congress intended to stimulate the advancement of pollution control technology. See, e.g., S. Rep. No. 91-1196, 91st Cong., 2d Sess. 17 (1970) (“Standards of performance should provide an incentive for industries to work toward constant improvement in techniques for preventing and controlling emissions from stationary sources. . . .”). The development of emissions control systems is not furthered if operators could, without exposure to the standards of the 1977 Amendments, increase production (and pollution) through the extensive replacement of deteriorated generating systems.⁸

The NSR program thus was added as an additional layer of protection, beyond the NSPS, in order to limit or prevent actual emissions increases to a degree greater than had been achieved by the NSPS alone, and to ensure that advances in pollution control since the NSPS was established, and any source-specific pollution control opportunities would be captured. NSPS establishes national pollution limits for categories of sources, established based on an EPA determination of the best system of emissions reduction. NSR is source-specific, to ensure that a source that has potential to adversely impact air quality is required to control its actual annual emissions. Under the current Proposal, however, changes that significantly increase emissions would be exempt from NSR requirements. The Proposal addresses increases in maximum hourly emission rates, but does not limit total emissions or protect NAAQS or PSD increments. It is clear that due to the massive emissions increases that are allowed to result from the proposed rule, this exemption does not in any way comport with the ambient air quality protection purposes of the statute’s NSR provisions.

⁶ *Alabama Power Co. v. Costle*, 636 F.2d 323, 350, 400 (D.C. Cir. 1979).

⁷ *WEPCO*, 893 F.2d 901, 909 (7th Cir. 1990) (emphasis added).

⁸ *Id.* at 909-10 (citations omitted).

Congress was directing additional air pollution control when it adopted the NSR program. The different focus of the two programs led EPA to conclude that there must be a stronger legal basis for the Agency to promulgate exemptions to the NSR program than the fact that exemptions existed in the NSPS program:

The PSD review is a tool for air quality management and comprehensive consideration of increases of any pollutant regulated under the Act. The NSPS exemption is inconsistent with this approach. ... The fact that both programs use the definition of modification contained in section 111 of the Act is not, in itself, sufficient to prove that Congress intended the NSPS exemptions then in effect would automatically be [sic] incorporated into PSD. ... Apparently the only legislative history on the subject is a remark that Congress intended to conform the meaning of "modification" for PSD purposes to "other parts of the act [(1233 Cong. Rec. H11957)]. Given the distinct differences between the NSR regulatory processes promulgated in response to the 1977 amendments and the preexisting NSPS regulations defining "modification," it seems clear that Congress desired to conform the usage of that term only in the broad sense.⁹

The NSPS program, introduced in the 1970 amendments to the Clean Air Act, grew out of Congressional concern that the state planning process then in effect "was insufficient by itself to achieve the goal of protecting and *improving* air quality."¹⁰

By 1977, however, states had made little headway in the battle for clean air. Congress recognized that the existing NSPS program was not sufficient either to clean the air in the most polluted areas of the country, or to keep the air clean in areas that currently complied with ambient air quality standards. In addition to strengthening the NSPS program, Congress determined that "[s]ome mechanism [was] needed to assure that before new and expanded facilities are permitted, a State demonstrate that these facilities can be accommodated within its overall plan to provide for attainment of air quality standards."¹¹ Accordingly, Congress adopted the NSR program.¹²

At the heart of NSR is a preconstruction review and permitting program that was rejected as part of NSPS in 1970 because it was viewed as "overly elaborate and would

⁹ Memorandum from Gerald A. Emison, Director, Office of Air Quality and Planning, U.S. EPA, to Director, Air Management Divisions, Regions I, III, V, and IX[;] Director, Air and Waste Management Division Region II[;] Director, Air Pesticides, and Toxic Management Division Region IV and VI[;] [and] Director, Air and Toxics Division Regions VII, VIII, and X, "Prevention of Significant Deterioration (PSD) Definition of 'Modification,'" at 2-3 (July 7, 1986).

¹⁰ *ASARCO v. EPA*, 578 F.2d 319, 327 (D.C. Cir. 1978) (emphasis in original).

¹¹ S. Rep. No 95-127, *55 (May 10, 1977).

¹² 42 U.S.C. §§ 7470-7479 (Prevention of Significant Deterioration); 7501-7515 (nonattainment areas).

impose a heavy and unnecessary burden on both the Government and industry.”¹³ Among other things, the preconstruction permit requires a case-by-case determination of BACT (or LAER if the source is locating in a nonattainment area) rather than the automatic application of NSPS, and a demonstration that emissions from the source will not cause or contribute to the deterioration of air quality.

In addition, Congress chose to place much greater emphasis on public health and impacts on air quality, and less emphasis on economic feasibility, in designing the NSR program. For example, in the Conference Committee Report for the 1977 Amendments, in a discussion of the LAER requirement for the NSR program, the Committee stated that “[i]n determining whether an emission rate is achievable, cost will have to be taken into account, but cost factors in the nonattainment context will have somewhat less weight than in determining new source performance standards under section 111. Of course, health considerations are of primary importance.”¹⁴

Although Congress incorporated the statutory NSPS definition of modification into the NSR program, EPA appropriately adopted different definitions of modification in order to comply with the different statutory purposes of the two programs. Under NSPS, EPA measures an “increase [in] the [emission rate] of any air pollutant” for the purpose of determining whether a modification has occurred in terms of hourly emission rate increases in order to be consistent with the program's industry-wide focus.¹⁵ Under the NSR definition of modification, by contrast, emissions increases are measured in terms of total annual emissions, in order to be consistent with the NSR program's local and ambient air quality-based purpose.¹⁶

Courts have long recognized the different purposes and requirements of the NSR and NSPS programs, and have rejected attempts to import provisions and rationales from one program to the other. In *Alabama Power*, the D.C. Circuit upheld EPA's application of the “bubble concept” to calculate emission increases in NSR, after having rejected its use in the NSPS program.¹⁷ As the Court explained: “EPA has latitude to adopt definitions of the component terms of ‘source’ that are different in scope from those that may be employed for NSPS and other clean air programs, due to differences in the purpose and structure of the two programs.”¹⁸

¹³ 91 Cong. Senate Debates 1970, at 42490 (letter from Secretary of Health, Education and Welfare).

¹⁴ 95 Cong. Conf. Report H. Rept. 564, 175 (Aug. 3, 1977). See also House Rep. No. 95-294, *214-15.

¹⁵ 40 C.F.R. § 60.14(a), (b).

¹⁶ *Id.* § 51.165(v), (vi). See 57 Fed. Reg. 32314, 32316 (July 21, 1992) (Emissions increase component of modification definition differs under NSPS and NSR, reflecting distinct purposes of the two programs).

¹⁷ 636 F.2d 323 (D.C. Cir. 1979). See also *ASARCO v. EPA*, 578 F.2d 319 (D.C. Cir. 1978).

¹⁸ *Id.* at 397-98. See also *Potomac Elec. Power Co. v. EPA*, 650 F.2d 509, 518 (4th Cir. 1981) (upholding EPA's different construction of the definition of “stationary source” based on “a

In *WEPCO*, the Seventh Circuit observed that by 1977 the NSPS program, with its focus on hourly rates of emissions, had resulted in “only varying degrees of success in controlling pollution in different parts of the country.”¹⁹ Consequently, Congress added the PSD program, “concerned with increases in total annual emissions” from major sources of pollution rather than its hourly rate of emissions, and ensuring that sources “in relatively unpolluted areas would not allow a decline of air quality”²⁰ Likewise, the Ninth Circuit has, on at least two occasions, rejected attempts to import provisions and rationales from one program to the other. As stated in *Citizens for Clean Air v. EPA*: “While the NSPS program and the PSD are both interrelated parts of a comprehensive federal legislative effort to protect and enhance this national’s air quality, the *two programs play different roles in achieving that broad general goal.*”²¹

As the Seventh Circuit has observed:

To determine whether a physical change constitutes a modification for purposes of NSPS, the EPA must determine whether the change increases the facility’s *hourly rate* of emission. . . . For PSD purposes, current EPA regulations provide that an increase in the *total amount* of emissions activates the modification provisions of the regulations.²²

Likewise, in the preamble to its *WEPCO* rule, EPA pointed to the difference in how the emissions increase is measured as the primary distinguishing characteristic between the two programs: “[The] two-step test for determining whether activities at an existing facility constitute a modification subject to new source requirements . . . [branches apart at the emissions increase step,] reflecting the fundamental distinctions between the . . . NSPS *and the air quality-based provisions of NSR.*”²³

Accordingly, because of NSR’s focus on a source’s location and its potential effect on air quality and the environment, the source’s hours of operation and overall annual emissions are key factors in determining whether NSR is triggered. Under an NSPS hourly emissions rate approach, a physical change to a source can result in an increase in hours of operation or an increase in production, and accordingly a significant increase in emissions, and still escape NSR.²⁴

significant difference between the PSD and NSPS programs,” noting the emphasis in PSD on new air emissions).

¹⁹ *WEPCO*, 893 F.2d at 904.

²⁰ *Id.*

²¹ 959 F.2d 839, 849 (9th Cir. 1992)(emphasis added).

²² *WEPCO*, 893 F.2d at 905 (citations omitted, emphasis in original).

²³ 57 Fed. Reg. 32,314, 32316 (July 21, 1992) (emphasis added).

²⁴ Joint Comments of Environmental and Public Health Organizations on the New Source Review Regulatory Changes Proposed With EPA’s Proposed Emission Guidelines for Greenhouse Gas Emissions From Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program, Docket No. EPA-HQ-OAR-2017-0355 (Oct. 31, 2018).

I turn now to the air pollution increases that EPA regulations deem permissible, or that require air pollution controls and/or emission limitations, under the two programs. EPA has established regulatory “significance thresholds,” describing the level of actual tons per year increases of air pollutants above which impacts will not be *de minimis* in nature, and therefore would trigger NSR. See 40 C.F.R. § 52.21(b)(23)(i), (establishing 40 tons per year significance thresholds for NO_x and SO₂, for example). In *Alabama Power Co. v. Costle*, the D.C. Circuit Court of Appeals, while recognizing the NSR program’s focus on minimizing actual annual emissions increases, indicated EPA could (upon making specified rigorous showings) define levels of actual (tons per year) emissions increases which would produce no regulatory benefit under the statute. See *Alabama Power*, 636 F.2d at 360-61, 400 (describing that authority to craft *de minimis* exemption is potentially available “when the burdens of regulation yield a gain of trivial or no value. That implied authority is not available for a situation where the regulatory function does provide benefits, in the sense of furthering the regulatory objectives, but the agency concludes that the acknowledged benefits are exceeded by the costs.”).

Moreover, in the 1990 Clean Air Act amendments, Congress adopted a special *de minimis* rule for sources that emit volatile organic compounds, and couched that rule as well in terms of tons per year increases. See CAA § 182(c)(6), 42 U.S.C. § 7511a(c)(6) (discussing NSR applicability in areas classified as severe for ozone non-attainment). Specifically, that provision states:

The new source review provisions under this part shall ensure that increased emissions of volatile organic compounds resulting from any physical change in, or change in the method of operation of, a stationary source located in the [serious nonattainment] area shall not be considered *de minimis* for purposes of determining the applicability of the permit requirements established by this chapter unless the increase in net emissions of such air pollutant from such source *does not exceed 25 tons when aggregated with all other net increases in emissions from the source over any period of 5 consecutive calendar years which includes the calendar year in which such increase occurred.*²⁵

Immediately following that provision, Congress adopted another provision creating a “special rule for modifications of sources emitting less than 100 tons,” which applies whenever such a source makes a change “except for a *de minimis* increase” as established in § 182(c)(6), 42 U.S.C. § 7511a(c)(6). See CAA § 182(c)(7), 42 U.S.C. § 7511a(c)(7). Thus, the applicability of this provision depends on whether a change would lead to more than a *de minimis* increase, which § 182(c)(6), 42 U.S.C. § 7511a(c)(6) defines in terms of the annual tonnage increase resulting from a planned change. *Id.* The same is true for § 182(c)(8), 42 U.S.C. § 7511a(c)(8), which establishes a “special rule for modifications of sources emitting 100 tons or more.” These provisions confirm that Congress understood, and intended that NSR would focus on annual actual emissions, not hourly emissions or output.

By contrast, as discussed at length in my response, above, to the question from the Honorable John Shimkus, the NSPS hourly emissions rate test for modifications would allow, and has allowed, actual, annual emissions increases of thousands or tens of thousands of tons per

²⁵ 42 U.S.C. § 7511(c)(6)(emphasis added).

year. So long as an emissions unit's relevant hourly emissions rate is not exceeded under the NSPS test, air quality may deteriorate by many thousands of tons per year because a physical change to a source can result in an increase in hours of operation or an increase in production, and thereby escape air pollution controls or other pollution mitigation measures.

In his oral statement, Mr. Holmstead said "even if the NSR program disappeared completely tomorrow," that "there would not be any increase in air pollution at all." Do you agree? Please explain.

7. I disagree. Mr. Holmstead's statement is badly, demonstrably wrong.

First, Mr. Holmstead himself acknowledged repeatedly as Assistant Administrator for EPA's Office of Air & Radiation during the Bush administration that merely *weakening* the NSR program, much less eliminating it, would result in increased air pollution. In a 2002 Bush EPA rule issued by Mr. Holmstead's Office of Air & Radiation, EPA rejected use of a grossly weaker maximum hourly emission rate test for the NSR program because it "could sanction greater actual emissions increases to the environment, often from older facilities, without any preconstruction review." 67 Fed. Reg. 80,186, 80,205 (December 31, 2002). This maximum hourly emission rate test is comparable to the deregulatory approaches in H.R. 3127 and H.R. 3128 that I criticized extensively in my February 14, 2018 testimony.²⁶ See also 83 Fed. Reg. 44, 746 (Aug. 31, 2018) (proposing maximum hourly emission increases tests for NSR for EGUs & pretending they are authorized by the current statute).

Mr. Holmstead's air office also confirmed that "typical source operation frequently does result in actual emissions that are below allowable emission levels," 67 Fed. Reg. at 80,205, meaning very significant increases in actual emissions could result without exceeding allowable emission levels. *See also, id.* ("*actual emissions increases* resulting from unreviewed projects could go largely undocumented until a [Prevention of Significant Deterioration] ("PSD") review is performed by a new or modified facility that ultimately must undergo review. By that time, however, a *violation of an [air quality] increment* could have unknowingly occurred.") (emphases added); *id.* ("We agree that a potential-to-potential test for major NSR applicability could lead to *unreviewed increases in emissions that would be detrimental to air quality.*") (emphasis added). The Bush EPA "also expressed concern about the environmental consequences associated with the Exhibit B [maximum hourly emission rate] provisions. For one, you could modernize your aging facilities (restoring lost efficiency and reliability while lowering operating costs) without undergoing preconstruction review, while *increasing annual pollution levels* as long as hourly potential emissions did not change." 67 Fed. Reg. at 80,205 (emphasis added).

²⁶ Testimony of John D. Walke, Clean Air Director, before the Subcommittee on Environment, Committee on Environment and Commerce, U.S. House of Representatives, Feb. 14, 2018, available at <https://docs.house.gov/meetings/IF/IF18/20180214/106852/HHRG-115-IF18-Wstate-WalkeJ-20180214.pdf>.

In the proposal that preceded the final 2002 NSR rule, the Bush administration EPA had quoted an earlier agency notice capturing concerns over the emissions increases that could result from the maximum hourly emission rate test: “Finally, one of the most troubling side effects of [a potential-to-potential hourly emissions test] is that it could ultimately stymie major new source growth by allowing *unreviewed increases of emissions* from modifications of existing sources to consume all available increment in PSD areas. . . . If a major new source with state-of-the-art emission controls proposes to locate in an area in which the increment has been consumed in this manner, it would be barred from building unless and until the increment problem was resolved. At the same time, older plants would continue to be able to make changes resulting in *significant unreviewed, and possibly uncontrolled, actual emission increases.*” 61 Fed. Reg. at 38,270 (Jul. 23, 1996) (emphasis added).

Second, for the 2002 EPA NSR rulemaking, Mr. Holmstead’s air office performed an emissions impact analysis that was included in the docket for the final rule.²⁷ There was no instance in EPA’s analysis in which an electric generating unit (“EGU”) would *not* have been allowed to increase its hourly or annual emissions by at least 50% under an hourly emissions rate test. Fifty percent increases were on the low end under EPA’s study, however, with emissions increases over 100% and 200% more the norm. *Id.*

Third, as discussed at length in my response, above, to the question from the Honorable John Shimkus, weakening the NSR emissions increase test with the NSPS hourly emissions rate test would allow, and has allowed, actual, annual emissions increases of thousands or tens of thousands of tons per year. The Bush EPA enforcement office, for example, concluded that emissions increases totaling tens to hundreds of thousands of tons from the coal-fired power plants found to have violated NSR would have been *permissible* under a deregulatory hourly emission rate test for NSR. See EPA Enforcement Memo, at 13; *see also supra* responses to question from the Honorable John Shimkus.

Moreover, the Bush EPA enforcement office confirmed that deregulatory hourly emission rate approaches for NSR would result in actual annual emissions increases ranging from 50 tons per year of SO₂ emissions at the low end, up to *13,096 tpy* of SO₂ in another case study, based upon actual emissions data for EGUs from the Clean Air Markets Division, in EPA’s Office of Air & Radiation. See EPA Enforcement Memo at 3, and Memo attachment at 2, 10, 20 & 27. A deregulatory hourly emission rate NSR test would have allowed NO_x emissions increases of 21,187 tpy by the \$23 million equipment replacement project undertaken by TVA at Unit 1 of its Cumberland plant that violated today’s stronger NSR safeguards. See Final Order on Reconsideration in *In re Tennessee Valley Authority*, (EPA Environmental Appeals Board, September 15, 2000).

Fourth, when the Bush EPA issued a 2007 supplemental proposal for a deregulatory hourly emissions rate test for NSR, the proposal’s Technical Support Document (“TSD”) found

²⁷ Environmental Groups’ Comments on EPA’s Proposed “Supplemental Notice of Proposed Rulemaking for Prevention of Significant Deterioration and Nonattainment New Source Review: Emissions Increases for Electric Generating Units,” 72 Fed. Reg. 26,202 (May 7, 2007), Docket ID No. EPA-HQ-OAR2005-0163, pp. 142-146.

that multiple counties across the United States would experience emissions increases in excess of NSR “significance” thresholds for “modifications” at EGUs under the test. Table 5.3 of the 2007 NSR Proposal TSD found that: 40 counties would experience SO₂ emissions increases between 40 and 1,000 tpy; 9 counties would experience SO₂ emissions increases between 1,000 and 3,000 tpy; and 4 counties would experience SO₂ emissions increases between 3,000 and 34,276 tpy. 2007 NSR Proposal TSD at 5-7. The picture for NO_x was much the same: 30 counties would experience NO_x emissions increases between 40 and 1,000 tpy, and 5 counties would experience NO_x emissions increases between 1,000 and 3,098 tpy. *Id.* at Table 5.4

Notably, neither Mr. Holmstead’s written or oral testimony explained what laws, regulations, emissions limits or standards would prevent any increases in air pollution from *every* emissions unit, or even *any* emissions units, at each major stationary source in the U.S. subject to the NSR and PSD programs. The burden lies with anyone making such a claim, erroneous as it is, to demonstrate with particularity, and comprehensively, what laws, regulations, emissions limits or standards would prevent increases in air pollution from every PSD/NSR-covered emissions unit “if the NSR program disappeared completely tomorrow.” As noted, Mr. Holmstead’s testimony did not even attempt to do so.

The reasons for this failure are obvious: the very structure and requirements of federal, state and local clean air laws do not restrict all increases in air pollution. Few if any emissions units at major stationary sources are subject to hard caps on total annual emissions tied to current emissions levels, that would guarantee “there would not be any increase in air pollution at all” “even if the NSR program disappeared completely tomorrow.” No federal Clean Air Act standards impose hard caps on emissions in the manner just described; to the extent that there are caps on annual emissions from individual major stationary sources under some federal standards, like the Cross State Air Pollution Rule, facility operators may purchase and trade allowances to exceed even those so-called ‘caps’ with actual emissions increases. Nor do State Implementation Plans or individual federal, state or local permits cap total emissions to prevent any and all increases in actual, annual air pollution above current levels. These regulatory tools generally limit emissions *rates*, rather than prohibiting any increases in air pollution, meaning that physical and operational changes would be allowed to result in significant emissions increases “if the NSR program disappeared completely tomorrow.”

For these reasons and many more, Mr. Holmstead’s statement is wrong.

8. In light of your testimony, how do you understand Mr. Holmstead’s statement that “there would not be any increase in air pollution at all” even if the NSR program disappeared completely tomorrow”? Please explain.

As explained in my responses to the prior question, I believe Mr. Holmstead’s statement to be wrong and simply not defensible. The statement contradicts numerous statements and conclusions by the Bush Administration EPA both while Mr. Holmstead headed the air office, as well as statements and analyses by EPA before and after Mr. Holmstead was in the administration. The burden lies on someone making such a sweeping, comprehensive statement to back it up, with particularity, but Mr. Holmstead did not do so in either his written or oral

statement. Ordinarily, I would have understood such a statement to be simply rhetorical, in the context of an oral response to a hearing question; but Mr. Holmstead's statement represented both a factual and legal conclusion about the state of U.S. clean air regulation "if the NSR program disappeared completely tomorrow." On both grounds, the statement is wrong and not defensible for the reasons touched upon in my responses to Question 7. I do not recall Mr. Holmstead offering any further explanation for his statement to allow it to be understood better.

9. Would Mr. Holmstead's support for the approach to "modification" used in the NSPS program allow increases in actual air pollution levels from facilities subject, or potentially subject, to the PSD/NSR program?

Absolutely yes, for the reasons discussed at length in my responses, above, to the question from the Honorable John Shimkus, as well as my responses to questions 3, 6 and 7 from The Honorable Frank Pallone.

Mr. Holmstead suggested that there would not be any increase in air pollution "because of the many other programs that regulate the same pollutants from the same facilities."

10. Do you agree?

No, I disagree strongly, for the reasons discussed in my responses to Question 7, above.

11. If the NSR program disappeared from EPA regulations and the Clean Air Act, are there laws and regulations, in place, at the state and/or federal levels, that would prevent any and all stationary sources in the U.S. from experiencing "any increases in air pollution at all," that would otherwise be regulated by NSR?

No, for the reasons discussed at length in my responses, above, to the question from the Honorable John Shimkus, as well as my responses to questions 3, 6, 7 and 8 from The Honorable Frank Pallone. Having been a Clean Air Act attorney for nearly 25 years, I have never heard any government official, or attorney in private, public or public interest practice even suggest that there are "laws and regulations, in place, at the state and/or federal levels, that would prevent any and all stationary sources in the U.S. from experiencing 'any increases at all,' that would otherwise be regulated by NSR." I am not aware of any such laws or regulations, certainly not those that "would prevent any and all stationary sources in the U.S. from experiencing 'any increases at all,' that would otherwise be regulated by NSR."

GREG WALDEN, OREGON
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

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March 9, 2018

Mr. Jeffrey R. Holmstead
Partner
Bracewell LLP
2001 M Street, N.W.; Suite 900
Washington, DC 20036

Dear Mr. Holmstead:

Thank you for appearing before the Subcommittee on Environment on February 14, 2018, to testify at the hearing entitled "New Source Review Permitting Challenges for Manufacturing and Infrastructure."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Friday, March 23, 2018. Your responses should be mailed to Kelly Collins, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to kelly.collins@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



John Shimkus
Chairman
Subcommittee on Environment

cc: The Honorable Paul Tonko, Ranking Member, Subcommittee on Environment

Attachment

Questions from the Honorable John Shimkus

1. **Currently, pollution control projects are considered exempt from the New Source Performance Standards (NSPS) but are not exempt from the NSR program, meaning that an owner must receive an NSR permit to carry out a pollution control project.**

- a. **Can you explain why it would be beneficial to exempt pollution control projects from having to obtain an NSR preconstruction permit?**

The NSR process is long, cumbersome, and often very costly. As a result, facility owners try to avoid it whenever they can. In some cases, it would be in their interest to carry out pollution control projects, but they choose not to do so because they do not want to trigger NSR. If there were an NSR exemption for pollution control projects (as there already is for NSPS), it would remove this disincentive, and we would see more facilities carrying out such projects – especially energy efficiency projects that would reduce CO2 emissions.

2. **In your testimony you note that EPA enforcement officials have tried to expand the definition of major modification in order capture more facilities in the NSR program.**

- a. **What are the potential penalties or costs if a company does not correctly comply with NSR requirements?**

If EPA takes the position that a facility has not complied with NSR, the potential costs to the facility owner are enormous.

By statute, EPA may impose fines of more than \$95,000 per day for Clean Air Act violations. EPA has taken the position that, if a facility should have gone through NSR before undertaking a project but failed to do so, the Agency can fine the facility owner \$95,000 per day for every day it has operated since the project was started. For a project that was done 3 years ago, this means potential fines of more than \$100 million.

In addition, EPA has in a number of cases argued that, even when a facility has undertaken a relatively minor project, it triggered NSR and now needs to install new and very costly pollution control equipment. In cases involving power plants, EPA has often argued that component replacements costing a few million dollars have triggered the need for the plant to install pollution control equipment costing several hundred million dollars.

- b. **As a general matter, should the enforcement office be expanding definitions or should that be the role of the policy office?**

The policy office should be establishing clear definitions based on congressional intent and sound public policy. The enforcement office should simply be enforcing those definitions – not expanding them. One of the main problems with NSR is that EPA's position on key issues has been announced in enforcement actions and not through the regulatory process. As a result, EPA's position on what constitutes a major modification is based on the desire to bring

enforcement cases, not what makes sense from a policy perspective. This is not the way any regulatory program should work.

- c. **Also, can you explain how this fits with the statutory goals of the NSR program and whether this is a result of unclear guidance.**

The NSR program was designed to ensure that when someone builds a new major source or expands the capacity of an existing major source, the new or modified source will use the modern pollution equipment to control its emissions. Over the years, EPA has tried to expand this program to force existing facilities to go through NSR even when they simply replace components with identical components. This has discouraged plants from doing things that we should want them to do – such as improving reliability or energy efficiency. This is not consistent with the goals of the NSR program.

3. **Do current NSR program regulations make it more difficult for owners to carry out maintenance, repair, or replacement activities aimed at maintaining or improving safety or reliability? Please explain.**

Yes. In numerous enforcement cases, EPA has argued that facility owners should have gone through the cumbersome and costly NSR permitting process before undertaking projects to improve the reliability or safety of their plants. Seeing these enforcement actions, facility owners sometimes forgo energy efficiency projects and make suboptimal decisions when it comes to improving the reliability of their plants because of concerns about triggering NSR.

4. **Do you have concerns that revising the NSR program to match the maximum hourly test under NSPS could create a scenario where a modification carried out at an existing facility could result in higher levels of annual pollution which air regulators would not have the ability to regulate or address? Please explain.**

Absolutely not. There are many different Clean Air Act programs that give EPA and state and local regulators the authority – and the obligation – to protect air quality by regulating existing sources of air pollution. Regardless of whether a plant carries out a modification, regulators have authority and an obligation to impose more stringent emission limitations on plants to protect public health and prevent other types of environmental harm.

Questions from the Honorable David B. McKinley

One of the more frustrating aspects of EPA's NSR program is uncertainty surrounding the exemption for "Routine Maintenance, Repair and Replacement" -or RMRR – at existing sources. What falls under the RMRR exemption has been left up to case-by-case- interpretations by the EPA and various states, leaving utilities constantly second-guessing whether or not a change at a facility will open themselves up to lawsuit or EPA enforcement action.

1. **If there was greater certainty surrounding the RMRR exemption, do you believe that utilities and other manufacturers would be more likely to take actions at their facilities to improve efficiency and to reduce pollution?**

Yes. I am aware of a number of instances in which a company was considering a project that would have reduced emissions but chose not to undertake it because of concerns about triggering NSR. There is no question that facility owners would take actions to improve the efficiency of their facilities if there were clear and sensible rules about RMRR. It would be even better if Congress passed legislation to make it clear that energy efficiency and pollution control projects do not trigger NSR.

2. **What actions could the EPA take to clarify and standardize what qualifies as RMRR to encourage these common-sense actions?**

In my view, EPA could and should provide industry specific guidance about the projects that are routinely done to maintain existing facilities. In some industries, there is now a great deal of information about such projects. Even if EPA cannot provide a definitive list of all the projects that qualify as RMRR, it can certainly provide a list that would cover the vast majority of such projects for many industries.

Even so, I firmly believe that Congress should make certain key NSR reforms through legislation to provide long-term certainty. In my view, the most important reforms are addressed in the bills introduced by Congressman Griffith.

Questions from the Honorable Richard Hudson

1. **In your written testimony, you cite how the NSR program is the primary regulatory tool for controlling emissions from new plants, but it was not intended to be a key program for existing facilities. Could you elaborate on this and discuss what tools are better suited to regulate emissions from existing facilities?**

There are many different Clean Air Act programs that regulate the same pollutants from the same facilities. For example, emissions from existing coal-fired power plants are regulated under at least 14 different Clean Air Act programs:

- Acid Rain
- NOx SIP Call
- MATS
- NSPS
- Regional Haze
- Section 126
- CSAPR (and the CSAPR Update)
- BART
- The CSAPR update
- The SO₂ NAAQS
- The NO₂ NAAQS

The Ozone NAAQS
 The PM2.5 NAAQS
 NSR

Over the last 25 years, regulators and policy analysts have learned a lot about regulatory policy and design and will tell you that some of these programs are much more effective than others. When it comes to reducing emissions from existing facilities, NSR is certainly the least effective and most counterproductive. Emissions from existing facilities have decreased dramatically since 1990, but very little of this decrease can be attributed to NSR. Yet it has made it much harder to maintain and improve the reliability and efficiency of existing plants.

2. **When existing facilities conduct "major modifications" they trigger NSR. As we have heard from others already, there can be a significant cost and time associated with this. In your experience, do you think this label has been applied appropriately to facilities that seek to make modifications to their facilities? What standards would you like to see included in the "major modifications" category?**

Until the mid-1990s, the definition of a "major modification" was generally appropriate. But over the last 20 years, EPA has tried to expand it to capture as many existing sources as possible, and the NSR program has become a convoluted, burdensome, and completely unnecessary mess. I believe that the reforms being proposed by Mr. Griffith would simply re-introduce some common sense into the NSR program and make sure that it does what it was intended to do:

1. Ensure that, when a new industrial facility is built or an existing facility is significantly expanded, modern pollution controls will be used to minimize its emissions; and
2. Ensure that the NSR program does not make it hard for companies to keep their facilities in good working order and, where possible, to reduce the operating cost of these facilities by making them more efficient.

Questions from the Honorable H. Morgan Griffith

The goal of the NSR program is to regulate emissions at new sources and at existing sources undertaking major physical or operational changes, rather than regulating projects that simply maintain or improve upon existing plant operations. And the Clean Air Act attempts to make that distinction by defining an NSR modification as any physical change which "increases the amount of any air pollutant emitted by such source. . . ."

However, EPA's current interpretation of this language -which looks at emissions on an annual basis - could, for example, trigger NSR for a power plant simply because it can operate more often or reliably after the changes.

1. **Wouldn't it make more sense, and still advance the goals of the Clean Air Act, for EPA to instead measure a change in emissions on an hourly basis -to actually capture those modifications that should be considered new sources of emissions?**

Yes. Because of the uncertainty and controversy caused by the current annual-actual-to-projected-actual “emission increase test,” it would be helpful for Congress to clarify this issue. In my view, the best approach would be to make clear that there is not a “major modification” under NSR if there is not a “modification” as defined under NSPS. Thus, companies (and EPA) would evaluate a project to determine whether it would increase the maximum hourly emission rate at the plant. If not, then the project does not trigger NSR. If so, then the project would be a modification and would then be evaluated under the current NSR test to determine whether it would be a “major modification” that would trigger NSR.

There are at least two important reasons for Congress to consider such an approach. First, it would provide much more certainty to EPA, states, and the regulated industry. As opposed to the current NSR approach, the maximum hourly emission rate is an objective measure based on the design of the facility and is easily ascertainable. As recent experience has shown, there is much subjectivity under the current approach and many different ways to project future annual emissions and then determine the amount of those emissions that are unrelated to the project being evaluated.

Second, from an environmental perspective, a one-hour test is much more meaningful because the most stringent EPA standards are based on maximum concentrations of a pollutant averaged over one hour (for SO₂ and NO₂), eight hours (for ozone and CO), and 24 hours (for PM_{2.5}). The only pollutant for which a longer “averaging time” is meaningful is lead, for which the air-quality standard is based on a 3-month average (and which has rarely, if ever, been addressed by NSR.) Simply put, in terms of protecting human health, the maximum amount of a pollutant that a facility emits in one hour is much more important than the amount it emits in a year.

2. Would making this change to an hourly emission test provide greater certainty to power plants and manufacturers, while still ensuring that modifications that actually do increase emissions go through the NSR permitting process?

Yes. Congress should provide certainty by making it clear that, for purposes of NSR, a change increases emissions only if it will increase the maximum hourly emissions rate of the facility. This ensures that increases in capacity (as evidenced by maximum hourly emissions) would still be required to go through the NSR permitting process.

3. Do you believe that EPA has the ability to address this issue through regulation?

Yes. The Supreme Court has made it clear that EPA has discretion under the Clean Air Act to define the term “emissions increase” based on hourly emissions or annual emissions. However, if EPA issues a regulation to change the current test to an hourly emissions test, a future EPA could probably change it back again.

4. Would statutory direction from Congress provide greater, long-term certainty?

As my prior answer suggests, I believe it would be much better for Congress to adopt legislation to ensure that an hourly emissions test is used to determine whether a change to an existing source would cause an emissions increase. In my view, this is only way to provide long-term certainty.

Questions from the Honorable Frank Pallone, Jr.

- 1. Do you agree that under today's PSD and nonattainment NSR regulations, a non-exempt physical change at a stationary source could increase its actual annual emissions and be considered a "modification," and not increase its hourly potential to emit and therefore not be considered an NSPS modification?**

Yes, but I do not believe that this is a concern for the reasons discussed below.

Your question suggests that increases in annual emissions at a facility should trigger NSR, regardless of whether there is an increase in the facility's maximum hourly emission rate (*i.e.*, its capacity). But even under the current NSR program, a facility is usually allowed to increase its annual emissions – even dramatically – without triggering NSR. If a facility is not increasing its capacity, an increase in its annual emissions is not a concern because the facility is already subject to a number of regulatory requirements that are designed to ensure that air quality is protected when the facility is operating at full capacity. For any facility covered by the NSR program, these requirements are incorporated into its operating permit.

In some cases, a permit will limit a facility's annual emissions, but this is unusual because regulators and air quality experts are primarily concerned about air quality problems that are caused by pollutants that are emitted over a short period of time – an hour, 8 hours, or 24 hours. From an air quality perspective, hourly emissions are much more important than annual emissions. As a result, most permit limits are set in terms of a maximum allowable hourly emission rate (or a rate per unit of production, such as lbs/MMbtu.). Of course an hourly limit also limits the emissions that a facility can emit over any longer time period, including a year.

Annual emissions from stationary sources increase and decrease all the time for business reasons. Most often, emissions will increase at a facility because it wants to increase production in response to market demand for the product it produces, whether it be electricity, or steel, or widgets. Increased demand at a particular facility is often caused by an overall increase in demand for the product being produced at such facilities, but it also caused by the closure or curtailment of other facilities making the same product.

The only time an increase in annual emission implicates NSR is when the increase is caused by a non-routine physical change at the facility, and there has been enormous controversy and uncertainty over what is "routine" and how to determine whether a change will actually cause an emissions increase. Because of this uncertainty, companies are often reluctant to do things that we should want them to do – like improve their efficiency, safety or reliability. By adopting an hourly emissions test, so that a facility would trigger NSR only if it increases its capacity, Congress would ensure that NSR is triggered only when it makes sense to require a facility to go through the long NSR permitting process.

Permit limits are based on a variety of different regulatory requirements, but the main underlying reason is to protect air quality – to ensure that emissions from a facility, even when combined

with emissions from many other different types of "sources" (industrial facilities, cars, trucks, etc.) do not cause unhealthy levels of pollution in the air. If any particular facility or group of facilities is causing unhealthy levels of pollution, then local, state, and federal regulators are required to take action (usually by imposing more stringent regulatory requirements on them) to remedy the problem – regardless of whether there has been or will be an NSR or NSPS modification at any of the facilities involved.

As noted above, facilities increase their annual emissions all the time for business reasons – perhaps because total demand for a product has increased or because other competing facilities have closed down. Unless a facility has increased its capacity (which can be measured in terms of its maximum hourly emission rate), there is often no truly objective way to determine whether a particular physical change has caused an increase in annual emissions or whether the increase was caused by something else. There have been dozens – perhaps hundreds – of cases where this issue has been the subject of protracted litigation.

Even more difficult is that, under NSR, a facility must predict, before undertaking a project, whether its emissions will increase after a change and, if so, whether any part of that increase is caused by the change. There have actually been several cases where (1) a facility predicted that a change would not cause an increase in annual emissions; (2) years passed after the change and there was never an increase in annual emissions; and (3) EPA enforcement officials nevertheless brought an enforcement action based on a claim that the facility "should have" predicted that the change would cause an increase in annual emissions even though such a prediction clearly would have been incorrect.

Determining whether a particular change at a facility would cause an increase in a facility's maximum hourly emissions is a more objective test, and there is rarely any controversy about it because it's a straightforward engineering question. As noted above, in terms of protecting air quality and human health, hourly emissions are also much more relevant than annual emissions.

1. **Do you agree that under today's PSD and nonattainment NSR regulations, a non-exempt physical change at a stationary source could increase its actual annual emissions and be considered a "modification," and not increase its hourly potential to emit and therefore not be considered an NSPS modification?**

- a. **Would you consider this to be an increase in air pollution?**

Yes, but not necessarily a concern.

2. **Do you consider an increase in annual pollution emissions even, if hourly potential emissions do not increase, to be "an increase in air pollution"?**

Yes, but not necessarily a concern. It is important to note that the current NSR program does not prevent facilities from increasing their annual emissions, and such increases fairly often. Thankfully, we have many other Clean Air Act programs that are designed to ensure that an increase in annual emissions from any particular facility does not cause unhealthy levels of air pollution.

3. Do you consider an increase in annual pollution emissions, even if a maximum hourly emission rate does not increase, to be "an increase in air pollution"?

Yes, but not necessarily a concern. It is important to note that the NSR program does not prevent facilities from increasing their annual emissions, and such increases happen fairly often. Thankfully, we have many other Clean Air Act programs that are designed to ensure that an increase in annual emissions from any particular facility does not cause unhealthy levels of air pollution.

In your oral statement, you stated that: "Even -and I can guarantee you this - even if the NSR program disappeared completely tomorrow, there would not be a massive increase in air pollution. In fact, there would not be any increase in air pollution at all and we would see, because of the many other programs that regulate the same pollutants from the same facilities, air pollution would continue to decrease as it has since 1990.

I am very confident that these statement are correct.

4. Is it your contention that for each stationary source in the United States subject, or potentially subject, to the PSD/NSR program, there are "other programs" that would prevent there from being "any increases in air pollution" from any or all of these sources "if the NSR program disappeared completely tomorrow"?

I did not say that, if the NSR program disappeared completely tomorrow, there would not be any increase in air pollution from any source. But no one who understands the Clean Air Act would ever say that, with the current NSR program, there would not be any increase in air pollution from any source.

As explained above, the current NSR program does *not* prevent facilities from increasing their emissions. Because most facilities do not operate at full capacity, they can increase their production (and thus increase emissions) without triggering NSR. A facility triggers NSR only if (1) it makes a non-routine change and (2) this change (and not an increase in demand) would cause an increase in annual emissions.

Even if a facility *does* trigger NSR, this does not necessarily mean that it will decrease its annual emissions. The NSR program is designed to ensure that new facilities and facilities that undergo major modifications will be well-controlled. If a facility increases its capacity and thus must go through NSR, it can still increase its emissions, but it must use the best available control technology to minimize the emissions increase.

Nor do other Clean Air Act programs ensure that there can never be "any increases in air pollution" from any source. But this is hardly the point. Air quality problems are caused by the combined emissions from many different sources. What policymakers care about is improving and protecting air quality, which involves reducing the collective emissions from many different sources.

When I said that, even if the NSR program disappeared entirely, there would not be any increases in air pollution, I was referring to the fact total emissions would continue to decrease as they have since 1990, and air quality would continue to improve throughout the country. The NSR program has not played a significant role in reducing air pollution from existing sources in the past, and there is no reason to believe that it will do so in the future.

5. Please identify those programs, laws and regulations and explain your responses.

I am not aware of any federal regulatory program that “would prevent there from being any increases in air pollution from any source.” In my oral statement, I listed the major Clean Air Act programs that have reduced and will continue to reduce air pollution from power plants and other stationary sources and will continue to improve air quality even if the NSR program were to disappear entirely:

The Acid Rain Program
 NOx SIP Call
 MATS
 NSPS
 Regional Haze
 Section 126
 CSAPR
 BART
 The CSAPR update
 The SO2 NAAQS
 The NO2 NAAQS
 The Ozone NAAQS
 The PM2.5 NAAQS

This list includes only programs that apply to power plants, but many of them apply to other stationary sources as well – and there are other programs that apply to other types of stationary sources that do not apply to power plants. In terms of improving air quality in urban areas, more important are the regulatory programs that have dramatically reduced (and will continue to reduce) emissions from cars, trucks, and other mobile sources.

6. Please identify all instances you are aware of in which a facility undertook a "modification" as defined under EPA's NSPS regulations, and triggered the obligation to comply with the applicable standards of an NSPS. Please be specific concerning the facility or facilities, locations and date ranges to allow the Committee to examine those instances.

It is not uncommon for sources to make NSPS modifications and thus become subject to more stringent regulatory requirements. This usually happens when sources increase their capacity. I have heard of this happening a number of times, but there is rarely any controversy about such modifications, so I have not been personally involved. Because the

NSPS test is objective and usually clear-cut, engineers and technical experts simply take the steps necessary to meet the more stringent standards without the need to involve lawyers or government officials.

I do not believe that EPA or anyone else keeps track of facilities that make NSPS modifications, so it would be very difficult to put together such a list.

